The State of Graduate Medical Education Funding and Meeting Our Nation's Health Care Needs

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Financial Disclosures:
None reported.

Support: None reported.

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Submitted
December 30, 2014;
revision received
February 27, 2015;
accepted
April 13, 2015.

The US federal government has provided the majority of funding for postgraduate physician training. Approximately $15 billion ($9.7 billion from Medicare) was spent in 2012 to support graduate medical education (GME) funding.[1] The Balanced Budget Act of 1997 shifted more GME support to Medicare by creating indirect payments and placing a cap on the total number of positions supported through such funding.[2] Although the Balanced Budget Refinement Act of 1999 increased GME support and raised the resident cap for rural teaching hospitals to 130% of their 1996 resident counts,[3] lobbying efforts to increase this cap in nonrural teaching settings have been mostly unsuccessful, resulting in an increase of unmatched medical students.[4] Concomitantly, according to the American Association of Medical Colleges, since 2002, medical student enrollment has increased 23.4%, and 17 new medical schools have been established.[5] In 2010, the Patient Protection and Affordable Care Act (PPACA) created the Teaching Health Center Graduate Medical Education grant competition to provide direct funding to community-based health and ambulatory centers that support primary care residency programs. The PPACA also sought to shift the fee-for-service payment structure to more value- and performance-based payments.

Currently, federal GME funding has direct and indirect components. Direct GME funding provides teaching hospitals with direct costs for GME training, such as salaries and benefits of residents, faculty, and administrative staff, as well as allocated institutional overhead costs (eg, electricity, space rental, and maintenance). Each hospital receives individualized direct GME funding as a per-resident amount (PRA) that is calculated as the direct GME costs in 1984 (or 1985) divided by the number of full-time equivalent (FTE) residents per year. This amount is updated annually, with an inflation factor and adjustment for that hospital's resident count, limited by that hospital's resident cap set by the Balanced Budget Act of 1997.[6]

Direct GME funding from Medicare is calculated by a ratio of the total number of inpatient days spent by Medicare patients divided by the total number of inpatient days by all patients in a specific hospital. Residents in primary care specialties (ie, family medicine, general internal medicine, general osteopathic medicine, general pediatrics, geriatric medicine, obstetrics and gynecology, and preventive medicine) receive a slightly higher PRA because of a 6% inflation update in 1994 and 1995 that was not similarly adjusted for non–primary care residents.[7,6]

Teaching hospitals generally incur more costs because they have a sicker patient load and more nonquantifiable costs (eg, residents ordering extra tests) and therefore receive additional indirect GME funding.[8] Indirect GME payments are based on a formula of the ratio of the number of interns and residents and the number of patient beds (institutional review board [IRB] ratio) adjusted with a variable multiplier and IRB ratio caps that are set by Congress. Indirect GME payments are not weighted like direct GME funding in which the number of residents in their "initial residency period" are counted as 1.0 FTE and those beyond this period as 0.5 FTE. These funding formulas are adjusted with each new legislative action on GME.

The Institute of Medicine (IOM) released their recommendations in *Graduate Medical Education that Meets the Nation's Health Needs*[1] on July 29, 2014, pushing for a substantial overhaul of GME financing and governance over the next 10 years to increase transparency and accountability. These recommendations seek to address the geographic, subspecialty, and practice-setting discrepancies that exist vs the type of health care in demand by patients and health care facilities. Unless these recommendations become enacted into law by Congress, aggressive lobbying efforts will continue to occur to block their realization. Supporting and opposing arguments for each recommendation[1] are outlined below.

IOM Recommendation #1

Aggregate GME funding should remain at current levels and maintain Medicare support. The total support would be adjusted for inflation over the next 10 years while the recommended new GME policy is implemented. The goal would be to gradually phase out and replace the current payment system with one that is more performance based.

Supporting Argument

The current GME system is unsustainable and needs performance- and value-based reform. The proposed system would provide stable (albeit not increased) funding during this transitional period.

Opposing Argument

The rate of increase has not kept up with inflation, and the expense of medical education needs to proportionately increase to meet this demand and prevent program closing and loss of residency positions. Additionally, resident caps need to be increased to produce a larger physician workforce to care for the nation's predicted increase in health care needs caused by the aging population and an increased insured population with access to care after the PPACA. The IOM recommendations do not take into account the current and projected physician workforce shortage.

IOM Recommendation #2

A GME Policy Council should be established in the Office of the Secretary of the US Department of Health and Human Services and a GME Center in the Centers for Medicare & Medicaid Services to build a GME policy and financing infrastructure.

Supporting Argument

More transparency and accountability is needed in payment disbursement on a performance-based model to produce more efficient use and better health outcomes for patients. The proposed GME Policy Council and GME Center would address these goals.

Opposing Argument

No added benefit and more bureaucratic inefficiencies would result from the creation of new infrastructure without addressing the issues of the current system.

IOM Recommendation #3

Eliminate the direct GME and indirect GME structure and replace them with 2 subsidiary funds: a GME Operational Fund to support existing residency training positions and a GME Transformational Fund to focus on innovation and programs in needed and underserved areas.

Supporting Argument

The GME Operational Fund would provide for currently existing programs to avoid destabilizing GME funding during the proposed transition. The GME Transformational Fund would support the pilot of innovating alternative payment systems and developing performance measures. The current funding structure is inflexible regarding the funding of new programs and non–hospital-based GME sites. Additionally, GME funding currently is disproportionately appropriated between different states; New York currently receives 20% of all of Medicare's GME funding.[9,10]

Opposing Argument

Directing money toward geographic, subspecialty, or various nonhospital health care settings will not necessarily provide more health care professionals in these underserved areas or primary care specialties once trainees graduate. Student loan and educational financing structures must change to incentivize practicing in locations, specialties, or health care settings with the most need. Teaching hospitals, especially urban-based hospitals, where much GME currently takes place, also would be disproportionately affected.

IOM Recommendation #4

Funding should be based on PRA only, with geographic adjustments paid directly to GME sponsors responsible for postgraduate physician training rather than to the teaching hospital. Payments based on Medicare inpatient days, IRB ratio, and other factors currently in the funding formula should end. Graduate medical education sponsors can be teaching hospitals, educational institutions, community health centers, GME programs by children's hospitals, or GME consortia.[11]

Supporting Argument

Funding would go directly to those responsible for actual educational content who would be provided a single payment based on a national PRA with a geographic adjustment. This system would include performance-based payments and a more equitable distribution of funds. This payment structure would benefit non–hospital-based care settings where many or, in some studies,[12,13] most, patients receive care.

Opposing Argument

Teaching hospitals tend to have a sicker and larger patient load, more patient beds, and more access to expensive and technologically advanced tests and treatments than community-based and nonteaching hospitals, which are often disproportionately disadvantaged. Such teaching hospitals may need to make cuts to resident education and reduce the number of resident slots to meet operational costs. Additionally, training costs and standard of living is not equal among states. Graduate medical education funding through Medicare should be provided to sites that treat Medicare patients (eg, children's hospitals, which are typically funded through other means).

IOM Recommendation #5

Medicaid GME funding should remain at the state's discretion. Congress should mandate the same level of transparency and accountability in Medicaid GME as it will require under the proposed Medicare GME changes.

Supporting Argument

Medicaid has always been under state and not federal regulation. As with all public funds, there must be transparency in how Medicaid dollars are spent for GME and what objectives are available to assess and direct effective use. States may need to define and enforce more specific guidelines on the use of these funds by GME sites.

Opposing Argument

Currently, little information is available on Medicaid GME programs because many states defer to hospital discretion on how they use these funds. No standardization exists among states or, in many cases, criteria and safeguards are lacking to enforce that these funds are used in a manner to support specific GME goals and policies.

Conclusion

The IOM recommendations propose to support a more targeted, performance-based investment in the training of our future health care workforce. We need to commit and invest in long-term strategies at all levels, from building social infrastructure that encourages health equity, to providing universal health coverage, to decreasing the financial burden of medical education, and to continuing to support and fund GME.

I encourage you to become more informed and more involved in health policy advocacy with your organized academic medical societies to lobby for your beliefs on this issue and to ensure appropriate GME funding is supported. (doi:10.7556/jaoa.2015.101)

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Corrections

The *JAOA* and the authors regret several errors that appeared in the following article:

Yeykal JM, Stausmire JM, Ahmed MY, Pai A. Right hemicolectomy in a severely anemic Jehovah's Witness patient with an extremely low preoperative hemoglobin level and the decision to operate [case report]. *J Am Osteopath Assoc*. 2014;114(12):930-935. doi:10.7556/jaoa.2014.180.

First, on page 931, the authors correctly stated the patient agreed to accept fresh frozen plasma (FFP), which is an unacceptable blood product for a Jehovah's Witness. However, on page 933, the authors incorrectly included FFP as an acceptable treatment option in 2 separate paragraphs. The statement "If the patient is coagulopathic, then FFP, coagulation factor VIIa, and aminocaproic acid can be used in addition to oral or intravenous vitamin K" should have omitted FFP, as follows: "If the patient is coagulopathic, then coagulation factor VIIa and aminocaproic acid can be used in addition to oral or intravenous vitamin K." Likewise, the statements…

> Autotransfusion and blood subproducts such as FFP, cryoprecipitate, clotting factors, and albumin are considered by the Watch Tower Bible and Tract Society of Pennsylvania, the governing body of the Jehovah's Witnesses, to be the personal choice of each individual to receive or refuse.[19] Individuals decide for themselves whether or not these products are in accordance with their religious beliefs.

…should have appeared as follows:

> Autotransfusion and blood subproducts such as cryoprecipitate, clotting factors, and albumin are considered by the Watch Tower Bible and Tract Society of Pennsylvania, the governing body of the Jehovah's Witnesses, to be the personal choice of each individual to receive or refuse.[19] Individuals decide for themselves whether or not these products are in accordance with their religious beliefs. Fresh frozen plasma (FFP) remains a forbidden blood product.

Second, on page 932, the authors discussed their inability to locate officially recognized no-blood advance directive forms. Although these forms are not publically available to non–Jehovah's Witnesses, they are privately available to members within their own churches. Members are encouraged to complete and carry these forms in their wallets, and medical institutions are encouraged to copy them and keep them with the patient's medical record.

Finally, on page 931 the statement "The Jehovah's Witness Hospital Liaison Committee physician members supported the use of FFP in this case because the patient was already receiving plasma fraction products" was incorrect and should have been omitted.

These corrections will be made to the electronic files online.