GRADUATE MEDICAL EDUCATION

INTRODUCTION

After completing medical school, physicians enter a postgraduate phase of training known as graduate medical education (GME). GME programs prepare physicians for independent practice in a medical specialty and focus on the development of clinical skills and professional competencies and on the acquisition of detailed factual knowledge within the chosen specialty.

GME programs are based in hospitals or other health care institutions and, in most specialties, utilize both inpatient and ambulatory settings. GME programs are usually called residency programs, and the physicians being educated by them are called residents.

Due to a projected physician shortage and a growing, aging and increasingly insured population in Arizona, there has been more policy discussion concerning GME programs in the state.

PROGRAM ACCREDITATION

Federal law requires a program to meet certain criteria, including accreditation by certain specified entities, in order to receive GME funds from the Medicare or Medicaid programs. Programs may be accredited by the Accreditation Council for Graduate Medical Education (ACGME, for allopathic medical residencies), the American Osteopathic Association (AOA, for osteopathic medical residencies), the American Dental Association (for dental residencies) or the American Podiatric Medical Association (for podiatry residencies).\textsuperscript{1}\textsuperscript{2} In addition, programs that may be used by participants to gain certification in a specialty as determined by the American Medical Association or American Board of Medical Specialties are also approved to receive funding.

\textsuperscript{1} ACGME-accredited residency programs train both MDs and DOs; AOA-accredited residency programs train only DOs.

\textsuperscript{2} Federal law also provides an exception to these requirements for programs that would be accredited except for that the accrediting body includes a standard that requires the entity to perform or provide training for abortion; if the program meets all other accreditation requirements except for that particular requirement, it may receive payment even if it is not accredited.
The policy discussion about GME typically centers upon allopathic and osteopathic residencies.

The various accreditation bodies establish educational standards for, and monitor compliance of, residency programs and institutional sponsors of GME in the United States. Accrediting bodies typically consider numerous factors when deciding whether to approve a residency program or an increase in a program, including the number of available programs, the number of patients available for the residents to treat and the number of faculty available to supervise and train the residents. Because federal funding is provided only to accredited programs, the size of most residency programs is limited by whether they receive accreditation.

The Arizona Health Care Cost Containment System (AHCCCS) reported a total of 1,682 residents enrolled in allopathic and osteopathic training programs in FY 2013. Based on a sample of Arizona training hospitals that year, AHCCCS estimated the number of funded residency positions resulting in physicians locating their practices in this state was 87.

**GME FUNDING**

Another factor that limits the number of residencies is the availability of funding. GME is funded from both the Medicare and Medicaid programs, hospitals that conduct the residencies, public and private third-party payers’ payments for patient care services, the Department of Veterans Affairs, the Department of Defense, faculty revenues and philanthropic gifts.

According to the Congressional Budget Office, the largest funding sources in 2012 were Medicare ($9.7 billion), Medicaid ($3.9 billion) and the Department of Veterans Affairs ($1.4 billion).

**Medicare Funding and Position Caps**

Federal law caps the number of residents Medicare supports at 1996 levels. Rural teaching hospitals are capped at 130 percent of 1996 levels. However, there are several exceptions to these caps. According to the Centers for Medicare and Medicaid Services (CMS), urban hospitals under limited circumstances, can apply for an increase in their cap for new residency programs, and hospitals in rural areas may receive an increase to their FTE caps for any newly approved programs. Hospitals may train more residents than the caps, but they will not receive additional Medicare payments for the residents. Therefore, without CMS approval, funding to increase residencies must come from sources other than Medicare.

**Types of GME Payments**

Medicare supports GME through two types of payments: Direct Graduate Medical Education (DGME) and Indirect Medical Education (IME). DGME payments reimburse for the tangible direct costs of operating a GME program, including compensation and benefits for residents and supervising faculty, as well as the proportion of the hospital’s administrative and related costs for facility management that is attributable to the GME program.

DGME payments are calculated by determining the hospital’s: 1) per resident amount, or cost per resident based on a base year; 2) number of residents; and 3) number of Medicare inpatient days.

The IME payment mechanism is based on the premise that, through the teaching process, hospitals with residents incur additional costs beyond resident salaries and related expenditures. Teaching hospitals typically attempt to have up-to-date technology and often serve the sickest patients. In addition, teaching increases the time it takes for patient care, which increases costs. To account for these higher costs, entities may make payments to teaching hospitals to include an IME adjustment, which is a percentage increase in the hospital inpatient rates based upon the ratio of interns and residents to hospital beds. Of the $9.7 billion of Medicare funding, IME payments account for $6.8 billion and DGME payments account for $2.6 billion.
Graduate Medical Education

Medicaid and Other State Funding

GME funding in Arizona flows through AHCCCS which uses Medicaid funding to make DGME payments to residency programs established and approved by AHCCCS on or before October 1, 1999.

In FYs 2007 and 2008, state appropriations for GME were increased and modified as part of an effort to increase the number of physicians practicing in Arizona (Laws 2006, Chapter 331, and Laws 2007, Chapter 263). These appropriations were allocated for the expansion and creation of residency programs. In FY 2009, state appropriations provided funding for 458 residency positions.

Since FY 2010 however, no state General Fund monies have been appropriated for GME. Therefore, in order to fund GME programs, public universities and local, county and tribal governments draw down federal match funding at a 2 to 1 rate.

In FY 2013, local funds primarily from the University of Arizona, Maricopa Integrated Health System and Mohave County Hospital District, totaled almost $55 million and state hospitals received $161.6 million in total funds. Historically, University Medical Center in Tucson and Maricopa County Medical Center in Phoenix have been the two largest recipients of GME payments.

The table below displays the historical data on funding levels for FYs 2001, 2007 and 2015:

<table>
<thead>
<tr>
<th>Fund Source</th>
<th>FY 2001</th>
<th>FY 2007</th>
<th>FY 2015</th>
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</thead>
<tbody>
<tr>
<td>General Fund</td>
<td>$7,766,700</td>
<td>$11,519,800</td>
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<tr>
<td>Federal Funds</td>
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<td>$113,077,600</td>
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<tr>
<td>Local Funds</td>
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<td>$0</td>
<td>$52,840,900</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$18,289,800</strong></td>
<td><strong>$38,512,800</strong></td>
<td><strong>$165,918,500</strong></td>
</tr>
</tbody>
</table>

ARIZONA MEDICAL EDUCATION CONSORTIUM

The Arizona Medical Education Consortium (AzMEC) was formed in 2003 to improve graduate medical education opportunities in Arizona. Working with Arizona teaching hospitals and the University of Arizona College of Medicine, AzMEC reports that it assists organizations in competing for the most qualified students, keeps members up to date with changes in accreditation requirements and GME financing, provides a forum for discussion of GME issues and educates the community about the benefits of GME.

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3 According to the Arizona Health Futures Study (Study) the site of a physician’s residency training is a major influence on the physician’s choice of a location for his or her practice. The Study reports 75% of medical school graduates who do a residency in Arizona stay in the state to practice (rank 12th in the nation). Therefore, if the number of residencies in the state increases, the number of physicians in the state may also increase.
**ADDITIONAL RESOURCES**

- Accreditation Council for Graduate Medical Education  
  [www.acgme.org](http://www.acgme.org)


- Association of American Medical Colleges  
  [www.aamc.org](http://www.aamc.org)

- “Arizona’s Physician Shortage,” Arizona Board of Regents: Health Affairs Committee, November 2014  

- Arizona Health Care Cost Containment System  
  [https://www.azahcccs.gov/commercial/HospitalSupplements/GMEpayments.aspx](https://www.azahcccs.gov/commercial/HospitalSupplements/GMEpayments.aspx)

- “Arizona: Projecting Primary Care Physician Workforce,” Robert Graham Center, 2010  

- Arizona Medical Education Consortium  
  [http://azmec.med.arizona.edu/](http://azmec.med.arizona.edu/)

- Council on Graduate Medical Education  