Successful Implementation of New Osteopathic Graduate Medical Education Programs in a Community Hospital: Challenges and Lessons Learned

Oliver W. Hayes III, DO; Robert Miller, EdD; Peter J. Recupero, DO; and David Cashwell, MHA

Development of new osteopathic graduate medical education (OGME) programs has emerged as a priority for the osteopathic medical profession. As colleges of osteopathic medicine (COMs) expand class sizes and branch campuses, and as new COMs are launched, availability of sufficient internship, residency, and fellowship positions for future COM graduates will become a challenge. Because of constraints in graduate medical education reimbursement, growth of existing training programs is limited. For hospitals that did not sponsor internship and residency programs before January 1, 1995, the Centers for Medicare and Medicaid Services offers an exception to funding restraints on expansion of training programs. However, successful development and implementation of new OGME programs remains a formidable undertaking. Moreover, because of idiosyncrasies of medical education reimbursement, successful recruitment of COM graduates into new training positions is paramount to ensure program viability. The authors describe lessons learned from the successful implementation of new OGME programs in a community hospital, and they offer recommendations for other hospitals considering such an endeavor.


In the early 1980s, workforce analysts and public policymakers predicted that the United States would experience an excess of physicians by 1990.¹ In retrospect, this forecast was in error. Mounting analytical research and anecdotal evidence now suggest a shortage of physicians within the next decade.² As a result, osteopathic and allopathic medical schools in the United States have expanded in campus number or class size.³ Nevertheless, during the past decade, the number of graduate medical education (GME) positions in the United States has only modestly increased.⁴⁻⁵

Graduate medical education is the crucial link between the increase in medical school graduates and growth in the overall number of practicing physicians. Yet, there has been limited progress to expand the number of training programs and training positions. After more than 3 decades of GME financial support being viewed as an open-ended payment policy encouraging teaching hospitals to train more physicians, the federal government curtailed Medicare’s commitment for medical education with the passage of the Balanced Budget Act of 1997.⁶ Under that act, the number of residency positions funded by Medicare was restricted, meaning that existing programs would receive funding for only the number of residency positions then in effect.

Because Medicare is the largest funding source for GME, the Balanced Budget Act of 1997 made expansion of residency programs by teaching hospitals financially difficult. Several organizations have recommended that the restriction on funding of training positions be eliminated, allowing sponsors of residency education to respond to changes in medical school enrollment and physician workforce market dynamics.² Despite this call to action, proposed legislation before Congress to remove the Medicare cap has languished.¹¹

There is an exemption to Medicare’s restraint on funding expansion of training programs. For hospitals without existing training programs, the Centers for Medicare and Medicaid Services (CMS) established the following regulation¹²:

If a hospital did not have residents before January 1, 1995, and it establishes one or more new medical residency training programs on or after that date, the hospital’s FTE

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[full-time equivalent] cap is based on the number of first-year residents participating in its accredited graduate medical education training programs in the third year of receiving payment for direct GME. The hospital’s unweighted FTE resident cap will equal the product of the number of first-year residents in that year, and the number of years in which residents are expected to complete that program based on the minimum accredited length for the type of program, as published in the Graduate Medical Education Directory.11

This CMS exception applies to nonteaching hospitals whose administrators wish to create new training programs. Because the resident cap is determined by the program’s third year, program development must be efficient and rapid. This growth imperative challenges the ability of many hospitals to create high-quality training programs and to successfully recruit superior graduates.

In addition to establishing the resident FTE cap, the Balanced Budget Act of 1997 also introduced a new method of computing the number of interns and residents for purposes of reimbursement—a method that penalizes teaching hospitals that do not fill training positions.10 The “3-year rolling average” requires hospitals to report the average number of filled GME positions over a 3-year period, and payment is made on this average regardless of the actual position count for a particular fiscal year.10 The 3-year rolling average requirement places pressure on teaching hospitals to successfully fill all training positions.

The cap on training positions and the 3-year rolling average method for determining reimbursable intern and resident positions has particular relevance for osteopathic medicine.13 During the past decade, trends in osteopathic graduate medical education (OGME) include the following:

- a progressive increase in OGME positions, with dramatic growth of dually accredited programs14
- a relatively constant percentage of graduates of colleges of osteopathic medicine (COMs) matching into OGME positions15
- a substantial increase in COM graduates16
- an increase in COM graduates foregoing participation in the American Osteopathic Association Intern/Resident Registration Program (ie, AOA Match) and instead participating in the National Resident Matching Program (ie, the allopathic match)15
- a progressive increase in the number of osteopathic physicians in training programs approved by the AOA, but a substantial number of unfilled OGME positions remain15

In recognition of these trends, the AOA established the OGME Development Initiative in 2007 to enhance OGME.17 The initiative was expanded after AOA leaders appointed an advisory committee, and additional support was provided in 2008.18–21 The purpose of the Development Initiative is to assist nonteaching hospitals in developing OGME training programs by providing written materials about, and consultants trained in, program development and accreditation, partnerships with regional osteopathic postdoctoral training institutions (OPTIs), and other matters related to the osteopathic medical profession.

LewisGale Hospital at Montgomery (LGH-M), in cooperation with Edward Via College of Osteopathic Medicine-Virginia Campus in Blacksburg (VCOM-Virginia) and its OPTI (Osteopathic Medical Network of Excellence in Education [OMNee]), developed new OGME programs in July 2008. The development of these programs was guided by the OPTI, with the OMNee director serving as the initial director of medical education (DME). Since 2010, the LGH-M internship and residency programs have successfully been filled with qualified applicants.

Despite overall program success, we have observed several challenges in the development of OGME programs in a community hospital. Our experience has led us to identify areas of concerns, to anticipate opportunities, and to offer suggestions to those considering developing teaching programs in community hospitals. Now that the LGH-M and VCOM-Virginia OGME partnership has entered its fourth year of operation, we would like to share lessons learned, which we describe in the present article.

Outcomes
In 2008, after a planning period and application to the AOA, LGH-M in cooperation with VCOM-Virginia initiated the following OGME programs:

- traditional rotating osteopathic internship, with proposed 11 positions
- family medicine residency program, with proposed 12 positions
- internal medicine residency program, with proposed 12 positions

In October 2009, an osteopathic dermatology residency was approved as a 3-year program with a total of 6 residents.

The Table displays the AOA Match results for these OGME programs—including the number of positions that were funded, filled, and open, as well as the number of post-Match scramble positions, from 2008 to 2011. During the first year of program development, a majority of funded positions (11 of 19) remained unfilled, and most of the filled internship and residency positions (6 of 8) were filled during the post-Match scramble period. During the 2009 training year, more positions were filled (11 of 19), but again, most
### Initial Lessons Learned

**Participation in medical education is a mission-changing decision for a hospital—requiring planning, constituency support, and corporate approvals.**

While creating benefits for both the hospital and medical staff, the development of medical education programs has implications that also affect clinical service design, care delivery models, relationships with medical staff, patient perceptions, cost and revenue cycles, and institutional resource use. Therefore, before implementing OGME programs, administrative and clinical leaders should carefully consider whether medical education is in their collective best interests. In times of limited resources, it is crucial to understand these implications and to use a vigilant and informed process to make decisions. Moreover, it is important to have the board members, administrative personnel, and medical staff committed to the development and implementation of the medical education programs.

A comprehensive planning effort that defines specific programs, resident complements, faculty arrangements, academic affiliations, financial implications, and curricular needs is required. This planning is best completed through broad participation of the hospital’s relevant constituencies, as well as an academic partner. Formation of an OGME Planning Committee is an important initial part of this process. Such a planning effort clarifies understanding of specific challenges for new programs and helps to identify solutions. Other important steps in the process include the following:

1. **Strategic plan development.** Creation of a medical education strategic plan that is integrated with the hospital’s strategic plan, mission, and values.
2. **Setting objectives.** Clarification of desired outcomes to be achieved, which will direct subsequent planning and implementation and provide a reference for measuring progress.
3. **Assessing readiness for medical education.** An assessment of the educational resources that are available and required for the OGME programs.
4. **Assessing the environment.** A determination of the feasibility of implementing OGME programs, including consideration of the political structure and conditions in the medical community. It is naïve to assume that new educational programs can be implemented if the medical staff is unsupportive.
5. **Creating structure for program design.** Selection of the DME, who will be responsible for managing the educational programs. At the outset, the OGME Planning Committee should assist the DME in establishing policies and procedures for program operations, including providing recommendations regarding recruitment and hiring of residency program directors.
6. **Gathering external data.** The use of site visits, consultations, physician focus groups, and other external information. Much can be learned from established programs, and the AOA OGME Development Initiative can assist hospitals in starting new osteopathic residency programs.

#### Table.

**AOA Match Results for OGME Programs at LewisGale Hospital at Montgomery in Blacksburg, Virginia, 2008-2011**

<table>
<thead>
<tr>
<th>Program Type</th>
<th>Positions, No.</th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Filled</td>
<td>Funded</td>
<td></td>
<td>Total Filled</td>
<td>Open</td>
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<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Rotating Internship</td>
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<td>5</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Family Medicine Residency</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Internal Medicine Residency</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Rotating Internship</td>
<td>11</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Family Medicine Residency</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Internal Medicine Residency</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>8</td>
<td>11</td>
<td>8</td>
<td></td>
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<tr>
<td>2010</td>
<td></td>
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<tr>
<td>Traditional Rotating Internship</td>
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<td>4</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Family Medicine Residency</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Internal Medicine Residency</td>
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<td>0</td>
<td>6</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Dermatology Residency</td>
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<td>0</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>3</td>
<td>18</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

| 2011                                     |                |       |     |     |     |
| Traditional Rotating Internship         | 4              | 0     | 4   | 0   |     |
| Family Medicine Residency               | 6              | 1     | 6   | 0   |     |
| Internal Medicine Residency             | 6              | 2     | 6   | 0   |     |
| Dermatology Residency                   | 2              | 0     | 2   | 0   |     |
| Total                                    | 18             | 3     | 18  | 0   |     |

* Total number of positions in osteopathic graduate medical education (OGME) programs filled through the American Osteopathic Association (AOA) Match and post-Match scramble.

* Number of positions in OGME programs filled during post-Match scramble period.

* Dermatology match is separate from the AOA Match.
Becoming a community teaching hospital requires transformation.

The incorporation of teaching in community hospitals supplements university-based medical education and provides interns and residents with greater opportunities to be involved with cases frequently encountered in clinical practice. However, the process of creating educational programs in a community hospital requires considerable effort, and for this reason, we consider such a process to be transformational in nature.

Although terms such as organizational transformation and paradigm change are buzzwords in the study of organizational behavior, introduction of new education programs requires evolution of a hospital’s organizational philosophy, as well as changes in day-to-day operations. Because hospitals have cultural norms that are sometimes inflexible, adoption of such innovative ideas as establishing medical education programs may be difficult for some board members, administrators, or medical staff to embrace. Transforming a community hospital focused on service delivery into a teaching hospital requires institutional redesign and a strong commitment to enhancing the educational experience.

The development of teaching services in a community hospital also requires personal and professional adaptations by teaching physicians. This transformation involves not only implementing new teaching programs but also adopting different approaches to patient care. For example, modification from physician-centered care to a team-based approach in which some responsibility for care is delegated to interns and residents will require physicians to learn supervision skills and blend teaching with quality patient care. To function in this educational environment, physicians need to use leadership skills that facilitate learning and enhance communication with trainees.

Additionally, transformation to a teaching hospital is an incremental process that requires time for development. As the implementation of medical education progressed at our institution, we began to observe a distinction between the medical staff’s “core structure” and its “adaptive reserve.”22 Core structure includes capabilities to manage clinical and education operations during times of stability and modest change. Adaptive reserve is the ability to be resilient and to adjust during times of change. At the onset of the OGME programs, physicians varied considerably in their adaptive reserve. In the development of new internships and residencies, attention must be devoted to such variation, because differing physician capabilities can be a major determinant of program development. Many physicians and other members of the health care team may not have had prior involvement in OGME. This lack of experience can adversely affect the implementation and quality of the education process and put the programs at risk for foundering.

Even with highly motivated physicians, we found considerable variation in the need for assistance—that is, physician motivation did not always correlate with success as an educator. The DME and program directors must be skilled communicators capable of building on strengths and identifying and remedying weaknesses without offending others.

Change fatigue is a serious concern even with capable, motivated hospitals and medical staffs. The magnitude and pace of change required to transform a community hospital into a teaching hospital carries the risk of creating fatigue. In our experience, this risk began to emerge midway through the first year of project operation, after initial enthusiasm waned and recognition of the amount of work to be done set in. Transformation occurs not at a steady and predictable pace, but more often in fits and starts. After the strenuous task of implementing a particular program at LGH-M, the participants had to simultaneously manage ripple effects, maintain the change, and prepare for the next objective. Many times, individuals who were already working at their capacity were asked to do more. It is important for those promoting medical education to recognize that staff burnout, turnover, and financial distress can become serious impediments to program implementation.

In our experience, there were several instances in which arduous effort was punctuated by breakthroughs, insights, and new energy to persevere toward our goal. It is valuable to acknowledge and reward participants for their efforts, as well as to provide opportunities for medical education leaders and participants to reenergize through sharing experiences and mutual support.

Financial hurdles need to be resolved to promote the establishment of residency programs and to foster the ongoing financial viability of medical education.

There are considerable expenditures involved for both the initiation of and the ongoing support of medical education programs. These include resident and faculty wages and benefits; creation and funding of program administrative roles; facilities development; equipment purchases; training modules; and institutional and professional inefficiencies created by the new medical education programs, particularly in the early phases of program implementation. In addition, the cost of supervisory faculty can be substantial in the early stages of the program, when physicians are first becoming acquainted with residents and when less than full complements of residents are present.

As previously noted, the Balanced Budget Act of 199730 reduced financial support for training programs through caps and reductions in payments to teaching hospitals.
This act created pressure on existing teaching hospitals with long-standing GME programs, and it presented a unique set of challenges to community hospitals seeking to establish new GME programs. Existing rules specify a time-limited and financially narrow window of opportunity for new teaching hospitals to establish eligibility for reimbursement. Because community hospitals beginning new programs may have limited expertise in the nuances of GME financing, they may be unable to accurately determine the hospital-specific, base-year cost per resident or the number of reimbursable residents counted for payment. Fundamental to the financial viability of medical education programs is the hospital’s ability to establish accurate and valid accounting of the costs of GME and the number of reimbursable residents.

Successful program implementation requires recruitment of graduates to fill the residency complement. As previously noted, the hospital’s FTE cap is based on the number of first-year trainees participating in its accredited medical programs by the third year of receiving payment for direct GME. Therefore, rapid growth of GME programs that attract graduates is required. As the hospital collects reimbursement, program success is dependent on strategies that maximize resident enrollment during the first 3 years of operation while balancing the need to provide clinical and didactic education at the highest level of quality.

Finding and hiring physicians to serve as program directors is often difficult. Identifying physicians who can effectively administer residency programs is challenging. Program directors require the skills of educational leadership, faculty development, and a scholarly approach to teaching and learning. This challenge is often magnified in community hospitals, where medical staff may not include physicians with experience as administrators or faculty with experience in medical education programs. Although attempts should be made to identify physicians at the community hospital who qualify as residency program directors, it may be necessary to recruit outside physicians with academic experience to serve in this capacity. Recruitment for these roles must be performed carefully and strategically with an eye toward minimizing community physicians' concerns about competition. Understandably, community physicians—with commitments and vested interests in “their” hospital—will want to be included in the new medical education programs.

Faculty and staff development is crucial for new medical education programs. Among the various resources available to new medical education programs, the single most important is the hospital medical staff, who can provide their time and patience. Indeed, the success or failure of these programs will largely depend on the participation level of these physicians.

Gaining the support of the medical staff is important but is only the first step. It is essential that a faculty of teaching physicians be developed and rewarded. Faculty development programs to prepare physicians to become teachers are needed, and incentives for participation are necessary. Perhaps the best form of faculty development is 1-to-1 interaction among the DME, program director, and faculty members. Development of medical education staff must also be considered. Instructional areas include electronic scheduling and record keeping, development of educational facilities (eg, classrooms, call facilities), implementation of teaching clinics, knowledge of the AOA Match process, recruitment strategies, educational software, orientation and hiring processes for trainees, and video- and Web-based distance-learning modalities.

Recommendations

Form an OGME Planning Committee, and hire an experienced director of medical education dedicated to the implementation project.

A vitally important first step is development of an OGME Planning Committee that creates a medical education strategic plan, coordinates the process of program development, identifies objectives, and employs a knowledgeable DME. Because the DME has authority and responsibility for oversight and administration of the sponsoring institution’s medical education programs, it is important to secure the services of an individual who is experienced in and has a broad understanding of OGME.

The DME is responsible for providing leadership that ensures the academic quality and integrity of the internship and residency programs, as well as all programs to maintain accreditation. Therefore, he or she must be thoroughly acquainted with various areas of administration, finance, evaluation, and education. The DME should work closely with the OGME Planning Committee to define specific programs, resident complements, faculty arrangements, academic affiliations, financial implications, and curricular needs.

Important resources for OGME can be found on the AOA Web site (http://www.osteopathic.org/inside-aoa/education/postdoctoral-training) and on the Accreditation Council for Graduate Medical Education Web site, particularly the Glossary of Terms (http://www.acgme.org/acWebsite/about/ab_ACGMEglossary.pdf) and the information on dual-accreditation programs.

Ensure adequate financial resources.

Transformation of a community hospital into a teaching hospital is expensive in terms of time, effort, and resources.
However, if the transformation is well conceived and effectively established, the financial and service delivery return can be worthwhile. Currently available reimbursement rates are unlikely to be adequate for all program development costs. Accordingly, the hospital and academic partners need to be prepared to meet start-up costs of new medical education programs, as well be willing to provide ongoing support.

Properly accounted and established medical education programs can be cost-neutral to the teaching hospital—and can provide significant value in terms of enhanced excellence in patient care, improvements in patient safety, 24-hour in-house coverage for patient care, and succession planning for future physicians. However, it is important to adopt a general strategy for the size and composition of a historically nonteaching hospital’s desired residency programs, to prepare various implementation sequencing scenarios, to project potential future Medicare reimbursement for the institution as a new teaching hospital, and to identify tactical implementation strategies appropriate for optimizing Medicare’s direct and indirect medical education reimbursement.

**Assist physicians with their personal transformation.**

A substantial barrier to conversion to a community teaching hospital is the need for individual physicians to incorporate the role of teacher and mentor into their professional identity. It is important for those promoting OGME development to understand the need to assist members of the medical staff in becoming medical educators. This assistance requires new tools, workshops, and other learning and personal development formats to help physicians transform themselves and their relationships with their practice partners, patients, health care systems, and communities.

Among the new education skills that will be required are the following: working in practice teams; understanding clinical teaching methods; providing effective feedback to learners; incorporating population management; using evidence at the point of care; facilitating leadership skills; integrating change management; training interns and residents as peers (ie, adult learning); partnering with patients; and thinking outside the examination room.

**Afford sufficient time for the development initiative to become successful.**

For most community hospitals considering medical education, full transformation to an institution that sponsors OGME is likely to require 3 or more years. In our effort at LGH-M, we were fortunate to have highly motivated medical staff and capable administrators. Nevertheless, full transformation to a community teaching hospital was not achieved within the first 2 years of the project because of the multiple challenges of hiring program directors, developing faculty, modifying work flow, implementing multiple technologies, building adaptive reserve, accommodating change fatigue, adjusting for problems learning along the way, and maintaining financial integrity. For most hospitals, developing new medical education programs will likely require a similar long-term investment of resources.

**Conclusion**

Various paths exist to creating a community teaching hospital. Rather than arguing for an overly specific model or process, we believe it is more effective to build teaching hospitals from within the community context, considering the medical needs and requirements of the local health care culture. If the community context is not taken into consideration, program development can be counterproductive and frustrate physician participants, potentially exacerbating the risks for change fatigue. We recommend that program developers respect the viewpoints of hospital and medical staffs to guide their own destiny.

We believe the goals of osteopathic medical education can best be advanced by this type of approach. Moreover, such an approach will help facilitate the success of OGME programs and prevent problems that can adversely affect such programs. Although there is much more to be learned about new medical education program development and community teaching hospitals, we hope the present article will stimulate further discussion about these important topics.

**References**


(continued)
11. Medicare program; changes to the hospital inpatient prospective payment systems and fiscal year 1998 rates, 62 Federal Register 168 (1997) (codified at §413.86(g)).


