The growing appreciation of the need to adopt an evidence-based approach to teaching and assessment has led to a demand for faculty who are well versed in best practices in education. Surgeons with interest and expertise in instruction, curriculum development, educational research, and evaluation can have an important impact on the educational mission of a department of surgery. The increased fervor for accountability in education together with the challenges imposed by accreditation agencies and hospitals has made educational leadership responsibilities more time consuming and complex. In response to this, an increasing number of department chairs created Vice Chair for Education positions to support clerkship and program directors and ensure the department’s education mission statement is fulfilled. Individuals who have made surgical education their career focus are being appointed to these positions.

Unlike clerkship directors and program directors whose responsibilities clearly are established by their accreditation bodies, the VCE positions often come without job descriptions or clear career development pathways for those interested in such positions. This article describe the potential scope of VCE duties, as well as the qualifications that faculty interested in VCE positions might pursue.

Vice Chair for Education Roles and Position Descriptions

Most surgeons who occupy the VCE role also hold clinical responsibilities. Therefore, the time spent on educational activity will vary. In one study surgeons in the VCE role spent on average 29% of their time engaged in education leadership duties compared with 74% when PhD educators served in these roles. In that study position descriptions covered a broad range of administrative and educational activities as can be seen in Table 1. Most VCEs were full professors. In almost all departments the vice
chair reports directly to the chair. Program directors, clerkship directors, skills laboratory or simulation center directors, educational research staff, and nurse educators typically have a reporting relationship to the VCE in matters pertaining to surgical education.

Qualifications

A surgeon who aspires to the position of VCE needs to possess leadership skills as well as a record of excellence as an educator at an undergraduate, graduate, and faculty level. In addition, a VCE should have the knowledge necessary to develop performance and program evaluation systems, monitor educational resources, oversee faculty development, and mentor faculty or residents interested in pursuing educational research. Opportunities for achieving these skills are discussed later.

Master’s degree in education

The current need for educational leaders in the health care field has led to the development of a number of degree programs in education aimed specifically at health care professionals (Table 2). Although some programs are classroom-based, the majority use distance learning technology or distance learning plus abbreviated classroom formats. The availability of electives within the curriculum offers flexibility for candidates to select courses or independent studies that fit their needs and interests. Most master’s degree program faculty encourage the use of the home institution as a laboratory for the application of practical educational problems. This format allows participants to pursue their degrees while maintaining their full-time faculty status because most programs allow participants to complete courses on campus, online, or both. These degree programs provide their learners with a broad and rigorous foundation in the theory and practice of education.

<table>
<thead>
<tr>
<th>Continuing education courses relevant to education</th>
</tr>
</thead>
<tbody>
<tr>
<td>American College of Surgeons: Surgeons as Educators course. The Surgeons as Educators course is an intensive, full-time, 6-day course, organized annually by the Amer-</td>
</tr>
</tbody>
</table>
ican College of Surgeons, and has been offered for 14 years. The course emphasizes the techniques necessary to develop an effective learning environment for medical students, surgical residents, colleagues, and others in the health profession. The sessions are designed to equip attendees with the knowledge and skills needed to teach, develop curriculum and evaluation systems, and serve as an effective education administrator and leader. The maximum class size of 32 allows for high interactivity among learners and faculty.

The American College of Surgeons: Surgeons as Leaders course. The Surgeons as Leaders course is a 3-day course designed for surgeons who currently serve in a leadership position, or aspire to such a position, and who seek to enhance their leadership skills. The emphasis is on leadership in contrast to management and includes presentations on the attributes of leaders and principles of leadership as well as sessions on aligning values, leading change, and team building. Participants are encouraged to present the faculty with their leadership challenges to ensure the course addresses the specific learning needs of the attendees.

Association for Surgical Education: surgical education research fellowship. The surgical education research fellowship is a 1-year, home-site fellowship designed to equip surgical faculty or residents with the background and guided experiences needed to plan, implement, and report educational research studies. Each fellow is matched with an adviser who serves as a mentor on their particular project. Participants obtain a certificate upon completion and are required to attend the annual meeting of the Association for Surgical Education and the American College Annual Clinical Congress while actively enrolled in the program.

Professional organizations

Two organizations that are devoted specifically to surgical education are the Association for Surgical Education and the Association of Program Directors in Surgery. Both hold a combined annual meeting during surgical education week. This meeting provides an excellent opportunity not only for learning about advances in surgical education but also for networking with like-minded individuals and finding a mentor in surgical education. A number of workshops on instruction, curriculum development, and assessment are offered during Surgical Education Week. Advance registration is not necessary for these workshops and there is no additional charge to meeting registrants. The Association of American Medical Schools (AAMC) annual meeting has a broader focus and includes workshops on undergraduate, graduate, and continuing medical education. In addition to the annual meeting, the AAMC runs a number of career development programs during the year.

---

### Table 2: Degree programs with a focus on health professions education

<table>
<thead>
<tr>
<th>Name of program</th>
<th>Years to complete</th>
<th>Format of program</th>
<th>Web site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters in Health professions education University of Illinois at Chicago</td>
<td>2–7</td>
<td>Mixture of on-campus and online</td>
<td><a href="http://www.uic.edu/com/mcme/mhpeweb/MHPE_ProgramOverview.htm">http://www.uic.edu/com/mcme/mhpeweb/MHPE_ProgramOverview.htm</a></td>
</tr>
<tr>
<td>Masters of Science Education University of Southern California, Rossier School of Education</td>
<td>2</td>
<td>Mixture of on-campus and online</td>
<td><a href="http://rsowe2.usc.edu/helpdesk/master/edd.html">http://rsowe2.usc.edu/helpdesk/master/edd.html</a></td>
</tr>
<tr>
<td>Master of Medical Education University of Toronto, Ontario Institute of studies in education</td>
<td>2</td>
<td>On-campus only</td>
<td><a href="http://www.oise.utoronto.ca/oise/Prospective_Students/Graduate_Studies.html">http://www.oise.utoronto.ca/oise/Prospective_Students/Graduate_Studies.html</a></td>
</tr>
<tr>
<td>Masters in human resource development with an emphasis in health profession education University of Illinois at Urbana, Champaign/Springfield</td>
<td>2</td>
<td>Online only</td>
<td><a href="http://www.siumed.edu/dme/online_masters1.html">http://www.siumed.edu/dme/online_masters1.html</a></td>
</tr>
<tr>
<td>Master of Medical Education University of Iowa</td>
<td>3</td>
<td>Hybrid (mixture of on-campus and online)</td>
<td><a href="http://fog.its.uiowa.edu/admissions/graduate/programs/program-details/med-educ.html">http://fog.its.uiowa.edu/admissions/graduate/programs/program-details/med-educ.html</a></td>
</tr>
<tr>
<td>Masters in Medical Education University of Pittsburgh</td>
<td>2</td>
<td>On-campus only</td>
<td><a href="http://www.icre.pitt.edu/degrees/ms_meded.html">http://www.icre.pitt.edu/degrees/ms_meded.html</a></td>
</tr>
<tr>
<td>Masters of Education in teaching with an emphasis in the health sciences University of Houston</td>
<td>2.5</td>
<td>Hybrid (mixture of on-campus and online)</td>
<td><a href="http://www.coe.uh.edu/academic-programs/health-education/index.php">http://www.coe.uh.edu/academic-programs/health-education/index.php</a></td>
</tr>
</tbody>
</table>
Journals

As with any other area of interest, surgeons who are making surgical education their career focus should keep up to date with the research in their field. Journals that focus specifically on education include the Journal for Surgical Education, Academic Medicine, and Medical Teacher. In addition, many of the surgical specialty journals include a section on educational topics; for example, the American Journal of Surgery and Archives of Surgery.

Acquiring A National Reputation As An Educator

There are many organizations that allow surgical educators to improve their visibility at a national level (Table 3). These provide networking opportunities and serve as a resource for identifying mentors with a national and/or international reputation in education. These mentors can provide opportunities to form professional relationships, assist in developing collaborative research, or form a joint teaching curriculum. In addition, mentors could recommend workshops that will help to build skills in teaching, curriculum planning, and grant writing. Within their home institution, surgical educators should not feel restricted to working within their primary department. In fact, collaboration across departmental borders is highly regarded by promotion and tenure committees.

Educators must ensure that they build and manage a portfolio that describes and documents professional goals and activities and evidence of educational effectiveness because many educational activities are not captured by the traditional curriculum vitae. In 2006, a Consensus Conference on Educational Scholarship was convened by the AAMC Group on Education Affairs to outline a set of documentation standards for use by educators and academic promotion committees. The authors reiterate the need for evidence of quantity and quality of education activities. They defined a scholarly approach as one that shows evidence of drawing from and building on the work of others, and contributing work through public display, peer review, and dissemination; both involve engagement with the community of educators. One framework for organizing a teaching portfolio includes a personal statement, documentation of effort in teaching activity, curriculum development, mentorship, educational leadership, and learner assessment. For each educational activity it is important to quantify the activity and provide some outcome measure of educational effectiveness. These outcome measures should be included in an appendix. When including evaluations it is essential to provide a comparison with peers. Documentation of patient care–related teaching should include a description of how this teaching activity took place and the incremental time involved in teaching in a patient care setting. The extent to which scholarship in education will be considered in promotion and tenure decisions is institution-dependent, but more medical schools are creating promotion tracks for educators to support educational scholarship.

Time Management

Surgical educators are expected to teach students, residents, and faculty; design curricula; and conduct research while being clinically productive. VCEs should consider a lower clinical profit margin with increased educational responsibilities and should negotiate an increase in base salary or additional resources before accepting the position. Protected time must be negotiated with the chair for educational activity. The resources necessary for the position will vary from institution to institution, depending on what is already in place, and can always be shared across departments. As with all surgeons, surgical educators will have many demands on their time. Therefore, it is important to assess goals, opportunities, and resources frequently, and develop an appropriate timeline for each goal. It is not unusual to find that career plans are impeded by lack of funding, resources, time constraints, or other restrictions. If the problem is a lack of funds it is worthwhile to explore grant options from professional specialty organizations and industry (Table 3). Many medical schools now have an “academy” that funds educational research. If the difficulty is a lack of infrastructure, it is worth considering sharing resources and collaborating on a research or curricular innovation. If the problem is time constraints then it is necessary to readjust priorities and offload the distracting tasks that are not helpful to a career.

Finding A Position

Most VCE positions are filled from within the department but as these positions grow in popularity, department chairs are advertising for outside candidates through web sites administered by the Association of Program Directors in Surgery, the AAMC Career Connect, the Society of Directors of Research in Medical Education, or the AAMC’s regional groups on medical education. The article
Conclusions

Surgical education administration, implementation, and evaluation are growing in sophistication along with accountability. There is a movement by surgery department chairs to create vice chair for education positions to oversee program and clerkship directors’ needs and promote a culture of surgical education scholarship and research. A successful VCE needs to have a position description with clear expectations. The individual in this role requires a sound background in education principles and practice, which can be acquired through advanced degrees and/or continuing education courses and resources relevant to education. The aim would be for a VCE to grow their skill sets by networking with surgical education mentors and experts, and eventually earning a national reputation for their contributions to the field. Individuals in VCE positions need to negotiate with their chair to ensure time is available to achieve the expectations and goals set forth. The chair and VCE need to have a mutual understanding of the scope of duties and the effect on the VCE’s clinical productivity because time will be required to perform their duties effectively. Finally, chairs may recruit faculty within their department to be the VCE, but advertisements also are posted on web sites when chairs do not have qualified internal candidates. It is not uncommon for departments of surgery to designate individuals to serve as vice chairs for research to ensure the research enterprise is robust and supported. Movements are afloat to accomplish the same for education.

Acknowledgment

The authors thank Celeste Hollands, MD, at the Association of Women Surgeons’ CDR Task Force for editing.

References