Launching a New Kind of Medical School—The University of South Carolina School of Medicine Greenville

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The United States (US) population is increasing by approximately 25 million people each decade. However, between 1980 and 2002, no new medical schools were opened following the 1980 Graduate Medical Education National Advisory Committee (GMENAC) report that warned of an “impending doctor glut.” While the cautionary account was arguably justified as the number of US medical schools had doubled between 1965 and 1979, our nation failed to anticipate that the baby boom generation would require more complex care and live longer, while at the same time making up a substantial demographic of the physician population. Because 25% of actively practicing physicians are currently over the age of 65 years, approximately one-third of the nation’s physicians are anticipated to retire during the next decade, resulting in an estimated shortage of more than 90,000 physicians by 2020 and 130,000 physicians by 2025.

In response to this looming crisis, in 2006 the Association of American Medical Colleges (AAMC) called for a 30% increase in medical school enrollment. Until recently, the state of South Carolina (SC) had 2 medical schools: the University of South Carolina School of Medicine (USCSOM), located in Columbia, SC, and the Medical University of South Carolina (MUSC), located in Charleston, SC. Combined, these schools receive more than 7500 applications annually, with only 275 students matriculating.

Starting in 1991, Greenville Health System (GHS), a large, not-for-profit academic health center located approximately 90 miles northwest of Columbia, established a partnership with USCSOM to become a regional, clinical teaching site for roughly 15%–30% of the USCSOM medical students, providing the entire M3 and M4 years for those students who relocated to Greenville following their M2 year. GHS currently encompasses 7 regional medical facilities, 1660 beds, 1200 healthcare providers, over 200 residents and fellows, a Level I Trauma Center, a Level III neonatal Intensive Care Unit (ICU), and is the largest cardiovascular, obstetrical, and specialty children’s service provider in the region.

In 2009, Dr Jerry Youkey, executive vice president of Medical and Academic Affairs at GHS, named Dr Spence Taylor, chair of the Department of Surgery at that time, the new assistant dean for Academic Affairs. Aware of the AAMC’s recent plea for an increase in medical school enrollment, Dr Taylor unofficially began looking into opportunities for GHS to expand its undergraduate medical education. Following several conversations with knowledgeable advisors, Dr Taylor presented the concept of expansion of the Greenville site to a second full M1-M4 separately accredited USC medical school campus to GHS President Michael Riordan and University of South Carolina (USC) President Harris Pastides. With both parties interested, a feasibility committee was formed and over a period of 3 months it affirmed 2 things: 1) GHS had the capacity to support a 4-year medical school campus and 2) SC had a qualified medical school applicant pool large enough to support an additional campus. During that time, GHS also worked with the Greenville Chamber of Commerce to meet with local civic and business leaders to obtain support for this endeavor. Dr Taylor and Dr Andrew Sorensen, past-president of USC, subsequently chaired a planning committee and presented to the USC Board of Trustees a detailed business plan for the new medical school. In June 2010, both the GHS and USC Boards of Trustees approved expansion of the Greenville, SC campus to establish USCSOM Greenville as a health care system-based medical school complementary to the university-based USCSOM Columbia.

Following board approval, an Institutional Self-Study Task Force was formed to address the Liaison Committee on Medical Education (LCME)
application process. This committee was chaired by Dr Taylor and involved invaluable involvement from Dr Youkey, Dr Sorensen, external consultants, and more than 100 faculty and administrators from GHS and USC. For approximately 10 months, this committee labored to create USC-SOM Greenville, which was thoroughly described within the 1500-page LCME application. Although significant challenges and impediments had to be overcome along the way, in October 2011 the LCME granted preliminary accreditation and in August 2012 USCSOM Greenville matriculated its inaugural class.³

During this time, the Patient Protection and Affordable Care Act (ACA) was signed into law and called for significant health care reform, emphasizing increased access to value-based care characterized by efficiency and high quality. In contrast to the traditional practice of medicine

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**Figure 1**
Breakdown of residencies matched—for inaugural 2016 class.

**Class of 2016 Match Results (N = 49)**

- Neurological Surgery, 1
- Internal Medicine, 7
- OB/GYN, 7
- Orthopaedic Surgery, 2
- Pathology, 2
- Pediatrics, 9
- Psychiatry, 2
- Emergency Medicine, 4
- Anesthesiology, 3
- Urology, 1
- General Surgery, 3

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³ For more information, please refer to the full report on the LCME and USC-SOM Greenville’s accreditation process.
involving individual autonomy, doctor-centered illness care, and disregard of cost, the ACA has progressively required health systems to take responsibility for the overall health of their patients and the associated cost. The practice of medicine in the 21st century will be increasingly patient-centered, requiring a team-based, multidisciplinary approach. The “Do No Harm” mantra of the past has officially been replaced with “Do Good.”

Currently, the state of SC ranks 38th among our 50 states in the number of physicians per 100,000 population and 40th in the number of primary care physicians. While the University of South Carolina School of Medicine Greenville (USCSOM Greenville) was originally focused on increasing the number of physicians in SC, both partners (GHS and USC) quickly recognized the rare opportunity in front of them: educate and train physicians better prepared to practice and lead in the 21st century.

With the population health focus of value-based care and the growing physician shortage in mind, the leadership and faculty at USCSOM Greenville constructed an integrated curriculum based on a variety of modern, yet proven, medical education approaches used throughout the US and Canada. For instance, at USCSOM Greenville, each week medical students (M1-M2) are given a clinical “case of the week” that intersects with the scheduled biomedical sciences education topic. Several weeks of the M1 year are spent studying cancer, but 1 complete week is dedicated to breast cancer due to its prevalence. Subsequent to the learning modules on relevant basic science material such as molecular biology, cellular biology, and genetics, the students are asked to take what they learned and apply it to the case of the week—a patient with breast cancer. Students then meet with several breast cancer survivors from the community, during which the survivors openly share how they received their diagnosis, what happened to their self-image when they lost their hair, what happened to their libido, whether or not they got genetic counseling, as well as other social aspects of their disease. The goal and design of this highly integrated, case-based curriculum is to graduate physicians who better understand interdisciplinary, systems-based health care from the perspective of the patient.

Although other medical schools have adopted integrated curricula with a simulation center and a “flipped classroom” approach to learning—a concept in which the actual classroom time is used for discussion, question and answer (Q&A), and group learning, while the content/lecture material is delivered prior to class—there are 2 aspects that make USCSOM Greenville unique. The first involves EMT training. While some medical programs send their students on EMT calls and/or have short-term training sessions, USCSOM Greenville was the first US medical school to implement full EMT certification during the first few weeks of medical school. In addition, USCSOM Greenville students are expected to continue volunteering at least 1 shift (12 hours) each month throughout their M1 and M2 years. The purposes of this EMT training are three-fold: 1) for the students to learn that people get sick and injured where they live, work, and play—that illness and injuries don’t happen right outside the Emergency Department door, but rather within the social context of the patient’s individual living environment; 2) for the students to gain better insight into the diversity and health needs of their overall community; and 3) for the early clinical exposure to help students better understand why they need to learn what they’re being taught. This early patient exposure in real-life settings is enhanced by advanced clinical training in the simulation center, which serves as a “practice field” for clinical education until the students begin their true clinical M3-M4 years in the hospital. Through these efforts, it appears that USCSOM Greenville students are more clinically advanced and better prepared to participate in and learn from their M3-M4 clinical care teams. The second aspect that makes USCSOM Greenville different is its location directly on the GHS tertiary care Greenville Memorial Medical Campus. This results in physician faculty being able to walk back and forth from the hospital to the school, a convenient feature that has facilitated PhD/MD team teaching and resulted in remarkably high educational involvement by clinician faculty.

Acknowledgments
The authors wish to thank Kindal Dankovich, USCSOM Greenville class of 2016; Spence M. Taylor, MD, USCSOM Greenville Senior Associate Dean for Academic Affairs and Diversity; Jerry R. Youkey, MD, USCSOM Greenville Founding Dean; and Ben Haskew, President/CEO of the Greenville Chamber of Commerce for their time, stories, and support of this article.

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