

Replacing the Academic Medical Center's Teaching Hospital

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Abstract

Addressing the need for updated teaching hospital facilities is one of the most significant issues that an academic medical center faces. The authors describe the process they underwent in deciding to build a new facility at the Medical University of South Carolina (MUSC). Initial issues included whether or not the teaching hospital would continue to play a role in clinical education and whether to replace or renovate the existing facility. Once the decision to build was reached, MUSC had to choose between an on-campus or distant site for the new hospital and

determine what the function of the old hospital would be.

The authors examine these questions and discuss the factors involved in different stages of decision making, in order to provide the academic medicine community guidance in negotiating similar situations. Open communication within MUSC and with the greater community was a key component of the success of the enterprise to date. The authors argue that decisions concerning site, size, and focus of the hospital must be made by developing university-wide

and community consensus among many different constituencies. The most important elements in the success at MUSC were having unified leadership, incorporating constituent input, engaging an external consultant, remaining unfazed by unanticipated challenges, and adhering to a realistic, aggressive timetable. The authors share their strategies for identifying and successfully managing these complex and potentially divisive aspects of building a new teaching hospital.

Acad Med. 2005; 80:990–993.

Throughout the 20th century, hospitals have played an essential role in supporting the teaching, research, and patient care missions of the academic medicine community.^{1,2} In recognition of the importance of hospitals to the academic mission of their medical schools, many universities decided in the 1950s to construct their own hospitals. Over the years, those hospitals have undergone periodic renovations and almost all have been enlarged by the construction of new wings. Many of the universities that continue to own and/or operate their own hospitals now face a major challenge—because of advancing

medical technology, these hospitals must be completely renovated, or even replaced, if they are to continue to serve as modern patient care facilities in the years ahead.

In the late 1990s, the Medical University of South Carolina (MUSC) reached the conclusion that its teaching hospital had to be either completely renovated or replaced. Despite the fact that other universities had faced this situation, we were unable to find much information in the literature that could guide us as we proceeded to address this challenge. Accordingly, we thought it would be useful, having now gone through the process, to share with members of the academic medicine community the issues we faced and the lessons we learned as we proceeded.

the clinical education of medical students and residents continue to be based largely on the inpatient services of acute care hospitals? And to what degree would teaching hospitals be sites for the conduct of clinical research studies? We recognized that even if the answers to these questions led us to conclude that a hospital was no longer needed to support the medical school's academic missions, we might still go forward with hospital construction or renovation, primarily in order to support the patient care mission of the clinical faculty and the institution. This was a very weighty decision, since deciding to proceed would mean committing to the project some institutional resources that might otherwise be directed to other aspects of the university's academic mission.

We decided that we needed to retain ownership of a teaching hospital because the hospital, the Medical University Hospital Authority (MUHA), was absolutely critical to the instruction of our more than 500 residents in the departments of anesthesiology, radiology, pathology, medicine, surgery, otolaryngology, urology, neurosciences, orthopedics, pediatric, psychiatry, radiation oncology, and obstetrics and gynecology. These departments rely on hospital settings for vibrant teaching of

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Build or Renovate: What Should We Do?

In deciding whether to replace or renovate our teaching hospital, we faced a number of critical issues (see Figure 1). Most important was whether the university believed that a hospital was still needed to support the academic missions of its medical school. In making that decision, we had to address two critical questions: To what degree would

Decision to construct new clinical facility

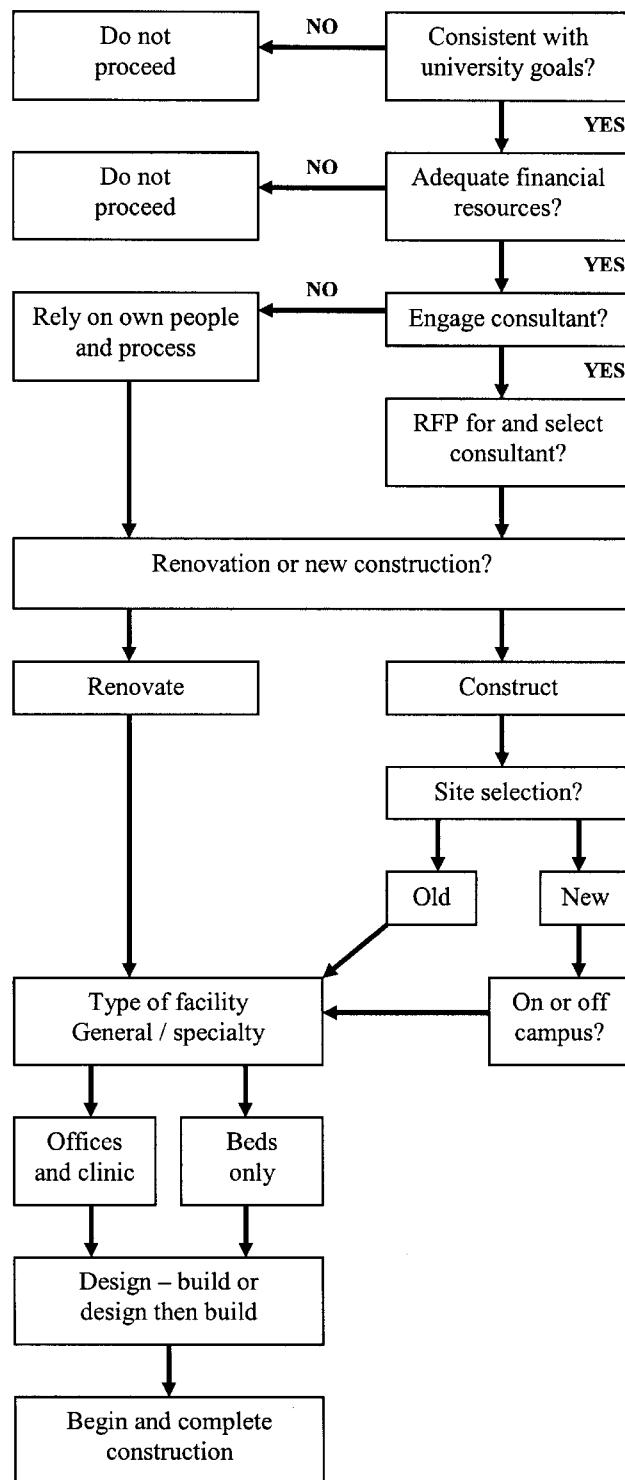


Figure 1 The algorithm used by the Medical University of South Carolina in reaching the decision to construct a new clinical facility.

resident and fellow physicians. South Carolina carefully tracks the number and type of resident physicians educated in the state, and through the Dean's Committee of Medical Education has

made it clear that the education of specialty physicians as well as primary care physicians is in the best interests of the state. Thus, it seemed untenable for the largest of the two medical schools in

the state, and the only one with its own hospital, to discontinue running and operating a facility focused on specialist care education. In the case of research, an enormous amount of clinical and translational research is conducted at MUHA facilities, and this mission was deemed essential for the continued development of the MUSC College of Medicine, its departments, and faculty. Additionally, although much of the work has been transferred to an ambulatory setting, the continuous operation since 1970 of our General Clinical Research Center still depends on access to hospitalized patients to conduct its federally funded mandate of clinical research trials and education. This could not be done without our own hospital, we feared. Finally, the MUHA transfers a considerable amount of money to the College of Medicine each year to support the educational and research functions of the College of Medicine, both the basic science and clinical science departments and faculty. It was inconceivable that this revenue could be made up elsewhere should the hospital cease to be a partner. For all of these reasons, we believed it important to maintain our hospital inpatient facilities.

Having made the decision to proceed, we then had to determine whether it was feasible to renovate the existing facility or whether a new hospital had to be built.³ Once again, this required us to address two critically important questions: if the existing facility could be used while it was being renovated, and if we had the financial resources to cover the expenses of the more costly renovation project. To put the latter issue in perspective, it is important to recognize that while new hospital construction is an extremely expensive undertaking—the average cost of constructing a teaching hospital is at least \$1,000,000 per bed—renovating an existing hospital is estimated to cost as much as 30% more, at least \$1,300,000 per bed. As we considered these issues, we realized that if the answer to both questions was "no," then we would have no alternative but to construct a new hospital. Conversely, we also realized that if we could not identify a suitable location for the construction of a new hospital, renovation of the old facility would be the only option.

The New Hospital: Where Should We Build It?

Other universities that have decided their existing facilities are inadequate, and that had space available for new construction, decided to build new facilities. A decision to build a new hospital creates another challenge of its own: where will the new facility be located? If it is not possible to locate the new hospital on the campus, the alternative is to locate the facility some distance from the existing hospital. If space is available both on campus and at a distant site, a number of factors must be considered in deciding which location to choose for the new facility.

In our case, space for new construction was available both on campus and at a remote site. So like other institutions, we also decided to build a new hospital rather than renovate. The factors that influenced our decision to build a new facility and where to locate it were philosophical and pragmatic. Renovation was ruled out for three pragmatic reasons: money, time, and space. Renovation was projected to be far more expensive (*vide supra*), and it was estimated that the many problems of renovation would take considerably more time. Finally, with the hospital running an occupancy of over 80%, and frequently higher at peak times, it was impossible to envision closing down even one section of the hospital from a patient-care point of view. With regard to the location of the new facility, the philosophical mission and culture of MUSC were the deciding factors in our site selection process. We decided that if the hospital were to leave campus, thus distancing the clinical mission from important activities related to the institution's teaching and research missions, there would, in effect, be two MUSCs, and we were uncertain that a medical university so divided would prosper. We concluded that in order for the hospital to continue playing a meaningful role in the academic missions of the university, it had to be located relatively near the research and educational resources on the academic campus. We wanted, in essence, to maintain a single MUSC that focused on the core missions of the college and university in a single geographic place. Although the decision not to move the hospital to the suburbs was not initially universally embraced by the clinical faculty and some members of

the board of trustees, in the end all approved this decision.

In addition to maintaining a visible role and active involvement for the hospital in the conduct of the institution's academic programs, we decided there were other practical advantages to locating the new facility on the MUSC campus. In our mind, one of the challenges in designing a new teaching hospital was how to achieve efficiencies that would allow hospital services to be provided at a competitive cost in the local market. We decided that efficiencies could be realized if the clinics, electronic information portals, conference rooms, and faculty offices could be aggregated in adjacent buildings. Given that, it only made sense to construct the new facility on the campus.

But in deciding where to locate the new facility, we recognized that some outside the university community would have concerns about the site selection.

Universities and their academic medical centers have complex relationships with the cities in which they are located, local neighborhood associations, and the medical community. The public generally perceives universities and their academic medical centers to be valuable community assets. However, a major construction project is generally not viewed favorably, since it is likely to produce expensive infrastructure needs that will require some public funds, such as constructing or providing parking, power, water, roads, and sewage management. Reaching a satisfactory agreement on how to share the costs involved required prolonged, intense negotiations.

We also recognized the importance of being sensitive to the concerns of the medical community at large. Deciding upon the location of a new teaching hospital is a matter of concern for local practitioners and for other hospitals in the community. We decided it was important not to be secretive, antagonistic, or aloof during the planning process. The relationships that exist in the community can either be strengthened or weakened by how the planning process is conducted. We chose to keep our colleagues in the community informed of our thinking and planning, and listened to their concerns.

The Old Hospital: What Would Become of It?

Another issue we faced was what the fate of the old hospital. Should it remain as a site for certain clinical services? If so, would the cost of maintaining the facility siphon off scarce capital that might be needed for future expansion of the new hospital? If the facility were not to continue as a site for clinical services, how would the space be allocated? This particular issue is of great interest to faculty, students, and university administration. In our case, we decided to continue to use the space for clinical functions. South Carolina is a "Certificate of Need" state, where approval must be gained prior to expanding or adding health services. Our existing certificate of need allowed the new beds within our approved number because of previous decommissioning of beds. Thus, the new hospital provides approximately 150 beds that will greatly alleviate the pressing need for adult medical/surgery beds. However, planning how the existing beds will be used requires a process that designates expanded use of clinical programs that will not move to the newly constructed hospital. This planning process gives those who "stay behind" at the existing hospital a sense of being part of the new hospital and was therefore equally important to planning programs in the new facility.

The Lessons We've Learned

Addressing the need for updated hospital facilities is a significant issue that many medical schools face. As we negotiated this process at MUSC, we learned that it is critically important to create a project governance structure that ensures that the entire leadership of the institution is involved in the decision-making process. To that end, we found it useful to engage a consultant group to guide the process. Controversial or highly visible issues, such as where to build, what services to locate in the hospital, and which education, research, and clinical care programs would be in the new facility and which would remain in the old building, were discussed in open forums. This process did not result in universal agreement among all of the stakeholders on all issues, but it was extremely valuable to provide all of them with opportunities to voice their views. We

tried to involve the many constituencies who were affected by the new construction in the decision making process. The method that worked best at MUSC was to organize and schedule meetings that were manageable in size and designed in the early stage of planning to allow the various stakeholders to express their concerns. There were no predetermined outcomes for the two primary issues that had to be decided—whether to renovate or build and site selection. We were able to reach a consensus on these two key decisions based on input from the future building users. We also believe it was helpful to engage a consultant team that had experience in health care strategy and facility planning and design.

In our view, attention must be paid continuously to two important issues throughout the entire process. First, it is important to state repeatedly at every opportunity that new construction or renovation is consistent with the university's principles and missions, and to have the physician, hospital, and university leadership all committed to a

unified vision of the future. At MUSC, the leadership of the College of Medicine (including departmental chairs), the hospital, the physician practice plan, and the university agreed in advance to support the decisions once they were made. Second, it is extremely important to establish and meet a schedule. In our case, 32 months (from February 2002 to October 2005) elapsed from the time the decision was made to build a new facility until planning and financing was completed and initial ground-breaking took place; the hospital should be constructed and ready to open in the fall of 2007. We were able to achieve this rapid pace because the chair of the board of trustees at every board meeting required an update on what progress had been made. This kept the administration focused on the many tasks required to bring a mammoth building project (the most expensive single building project in the history of the state of South Carolina) from the decision to build to opening to within five years, and slightly ahead of the most ambitious projection. So the final lesson is that when a complex and potentially divisive project is undertaken, it can move forward rapidly

if designed and managed properly. Whether the many decisions we made were correct will ultimately be judged by others long after those of us involved are gone.

The authors wish to acknowledge the major contribution of Lisa Montgomery, CPA, for her invaluable input throughout the entire process of planning the new hospital. They also are indebted to the chair of medicine, John Feussner, MD, and the chair of surgery, Fred Crawford, MD, for their leadership and support. Hospital and College of Medicine staff Chris Malanuk, MHA, and Hal Currey, BA, along with Marion Woodbury, special assistant to the president, kept the project on task and made much of the work happen on schedule. Dennis Brandon, MCRP, AICP, the principal in charge at our consultant firm, NBBJ, designed the process that worked so flawlessly.

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