Report on
University Medical Center at
Brackenridge

April 3, 2012
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Executive Summary

The University Medical Center Brackenridge (UMCB) provides compassionate, patient-centered care of high technical quality in an aging facility. Scientific and technical advances in medicine, coupled with the region’s growing population and the hospital’s increasing role in medical education, have led to the following question:

Can UMCB continue to fulfill its missions as the region’s principal safety-net hospital, and as a center of excellence in patient care and medical education, by renovating its existing buildings, or must an entirely new, replacement hospital be built?

Consultants from The Advisory Group at Huron were asked to consider that question, and this is their report. Extensive material was provided for review in advance of a packed 48-hour site visit that included both physical inspection of the hospital and extensive discussions with clinical and non-clinical staff. Consultants also met with representatives of Central Health, St. David’s Health Care System, the Waller Creek Conservancy, the University of Texas, and with State Senator Kirk Watson.

Our observations, documented within this report, lead to this conclusion:

UMCB’s existing facilities, no matter how extensively renovated, would not meet even the well-recognized needs of its current clinical and educational programs, let alone position the hospital and its remarkably dedicated staff to fulfill their missions in the future. A new UMCB hospital is necessary and fully justified on these grounds alone. Moreover, the prospect of additional medical and graduate medical education, including the potential for a new medical school at the University of Texas-Austin, offers an historic opportunity for UMCB to become the schools’ principal teaching hospital. The Austin community and the new medical school would gain substantial advantages by having a major teaching hospital. A new UMCB facility designed for this purpose, as well as for continuation of its current missions, would permit the institution to greatly expand its public benefits. Although a variety of other hospital resources are present elsewhere in Austin, none offers the opportunity to support all of the educational and clinical programs characteristic of leading academic medical centers. To seize this opportunity, a new UMCB hospital should be built as soon as possible.
Introduction

Founded in 1884, the public hospital, subsequently renamed the University Medical Center Brackenridge (UMCB), has served continually as the Austin region’s principal “safety-net” hospital. Construction of the existing main hospital building was completed in 1970, with phases added through 1984.

In 1995, the City of Austin contracted with the Seton Healthcare Family to operate UMCB with the understanding that the hospital’s traditional safety-net function be maintained, a mission fully consistent with Seton’s commitment to care of the poor. In 2004, ownership of UMCB and the contract with Seton were transferred from the City of Austin to Central Health, a public health care district that collects and disperses tax dollars to provide health care to low-income residents in Travis County. Since 1995, Seton has invested over $150 million in maintaining and improving the facilities and equipment available to the hospital’s dedicated staff.

Despite these investments, the hospital buildings, having been designed for a bygone era and showing the inevitable signs of age, are becoming increasingly obsolete. Indeed, the physical structure can no longer adequately support the institution’s mission, even as the quality of patient care remains exceptionally high through the determination and “workarounds” of its medical, nursing and other staff.

New challenges and opportunities in health care are confronting the vibrant city of Austin, Travis County and beyond. Among those challenges and opportunities are:

- The growing populations of Austin and Travis County,
- The shortage of physicians in Central Texas,
- The continuing pursuit of excellence in inpatient care, teaching, clinical research and community service at UMCB,
- The participation of the University of Texas Southwestern Medical Center (UTSW) in the growing educational programs at UMCB,
- The possibility of a new medical school being created at UT Austin, and
- The continuing expansion of medical knowledge and technology available for improving the care of patients.

UMCB’s leaders and the community of Austin must now decide whether to continue to invest in an aging facility designed for a previous era in medicine, or to build a new hospital designed to meet more fully the needs of today and prepared to meet those of the next several decades.

The Advisory Group at Huron http://www.huronconsultinggroup.com/agh.aspx was asked specifically: Could UMCB appropriately meet the needs of today and the demands and goals of the next several decades through renovation of existing buildings, or is there a need to replace all or some with new structures?
To Answer The Question

Members of The Advisory Group at Huron, Jordan J. Cohen, M.D. and Mitchell T. Rabkin, M.D.\(^1\) were engaged to examine that question.

The following reports were reviewed prior to an on-site visit:
- Site plans and schematic architectural drawings of the buildings at UMCB,
- Utilization data, and services provided,
- Citations by Residency Review Committees with respect to adequacy of working and teaching space for resident physicians, coupled with the standards set by the Liaison Committee on Medical Education for clinical teaching facilities,
- The web site of UMCB and recent media items about UMCB,
- The UMCB organization chart,
- A six page document, "Issues Affecting Delivery of Care at University Medical Center Brackenridge," prepared by staff of UMCB, and
- A ten-page document, "UMCB Infrastructure Review" relating to computer functions, wireless communication, telephones, etc.

The On-Site Visit

An on-site visit by the two consultants began Sunday evening March 18, 2012, and concluded late afternoon Tuesday, March 20, 2012. All meetings were held at UMCB, except as noted in Appendix B, and included a walk-through and inspection of the UMCB Hospital Building, the “Brack” Professional Office Building (POB), and the former Children’s Hospital, now titled the Clinical Education Center (CEC) Simulation Building and its CEC Education Building. The individuals met with are listed in Appendix B.

Observations

UMCB Hospital Building

- The patient rooms are too small for staff to provide optimal clinical care. There is insufficient room for modern equipment or for the clinical staff to access the computerized patient data required for daily care.

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\(^1\) See Appendix A for brief biographies of Drs. Cohen and Rabkin.
- The corridors are narrow, leaving little room for groups of teaching physicians, residents and medical students to discuss patients during clinical rounds.

- Storage room for equipment and supplies for patient care is very limited.

- Nursing stations are small; some have poor visual access to patient rooms, and not enough room exists for the range of clinical staff needing computer access to retrieve and input patient data.

- Operating rooms are too small to comfortably accommodate the number of personnel required to meet contemporary standards of care. Expansion of ORs is impossible without encroaching on the adjacent intensive care units, some of which have already been moved to another floor.

- Moreover, none of the existing ORs is large enough to accommodate the most advanced technology, such as radiological equipment for angiography, robotic surgery, and other interventional procedures.

- A separate area for ambulatory surgery is not available to permit patients to be treated and discharged to home on the same day. [Note: An increasing number of surgical procedures can be done on an ambulatory basis because of better anesthetics and new surgical techniques. Moreover, to mix ambulatory with inpatient cases in the same facility creates unavoidable inefficiencies because unanticipated surgical emergencies and longer than anticipated inpatient surgeries inevitably disrupt scheduled ambulatory cases.]

- Areas for procedures not requiring an operating room (such as colonoscopy and other endoscopy procedures) are not adequate either for performing the procedures themselves or for the required waiting and recovering times.

- UMCB’s role as the region’s only adult Level 1 Trauma Center, as well as its role as a referral center for complex tertiary care, necessitates the availability of modern Intensive Care Units. Although the ICUs have been renovated to provide some private rooms rather than open bays, an insufficient number of beds is available in an area contiguous to the Emergency Unit and Radiology Unit. To accommodate current needs required moving some ICU beds to another floor, making access to radiology and other support services inconvenient and overly time consuming. Furthermore, space constraints preclude aggregating patients with similar needs (e.g., cardiac, neurologic, respiratory, trauma, orthopedic) in specialized nursing units for optimal intensive care.

- The original design for the obstetrics floor required patients to labor in one room, deliver in another, and recover in a third. Contemporary practice calls for labor, delivery and recovery all to occur in the same room, one that is large enough for the father and others to be present to share in the event. UMCB has made accommodations for this standard of practice but in rooms too few and far too small for the purpose.

- The Emergency Unit has no capacity to separate patients in acute psychiatric distress from other patients requiring emergency care. Although a separate entrance may not be required, separate rooms and care arrangements are called for to meet contemporary standards. In addition, no satisfactory site is available for short-term hospitalization of psychiatric patients awaiting placement elsewhere or of those with concomitant medical problems needing hospitalization.

- Seton has recently made significant investments in clinical research at UMCB but space does not appear adequate for proper evaluation of patients or for necessary support functions (e.g., data gathering, statistics, grant-writing, staff conferences).
The hospital cafeteria is too small to accommodate current demand.

The lack of teaching and related space for residents has been cited repeatedly by the Accreditation Council for Graduate Medical Education (ACGME) at the time of its periodic accreditation visits. There are too few on-call rooms for physicians, resident and students on late night shifts, too few “break spaces,” locker areas, changing areas, and in some areas even bathrooms are in short supply or non-existent.

The advent of a growing number of medical students receiving clinical training at UMCB emphasizes further the lack of sufficient exam rooms of adequate size, workrooms and lockers for student use, office space for teaching staff, and rooms for lectures and other teacher-student interactions.

The hospital building lacks a single clearly defined entrance; having multiple entrances and exits results in potential security problems.

Outpatient Care

Ambulatory care is distributed throughout several buildings, creating inefficiencies for staff and frequent confusion for patients.

The Professional Office Building is cramped and crowded; the small examination rooms and narrow corridors preclude effective communication among staff.

There are too few rooms of adequate size for the resident physicians and students to confer with staff or to do paper work.

Waiting rooms are crowded and physically unwelcoming, in sharp contrast to the welcoming attitude of staff.

One clinic is located in a windowless basement area.

The clinical laboratory and outpatient pharmacy are located in the basement, making it difficult for ambulatory patients to access these services.

Physical Structure

The hospital roof is a patchwork of repairs; rain results in predictable leaks in many places. Indeed, when bad weather is forecast, certain equipment in the clinical laboratory is routinely moved from its functional area to avoid being damaged by water leaking through the ceiling.

Some areas below ground are prone to aromas from sewage back-up after heavy rains.

Wireless reception is impossible in certain areas of the hospital; physicians cannot get reception on cell phones in the cafeteria, for example.

The utility chases are so full of wires, plumbing and other conduits that no further wiring, or other services can be threaded through, making the lack of wireless reception impossible to
remedy. Wireless access to computers in some areas is also limited because wiring cannot be installed to support the needed antennas.

- The electrical supply for the hospital is at its upper limit, as was demonstrated when some 300 desktop computers were installed in the move to modernize electronic data handling. No additional capacity is available either for new life-safety systems or for more computers.
- During a recent regional power shortage, the cold water capability of the hospital was impaired, leading to downtime for some diagnostic equipment. There is no room for more back-up electrical generators.
- The heating, ventilation and air conditioning system is inadequate – some rooms are far too hot, others too cold, and the ability to achieve balance appears to be sharply limited.
- Much of the plumbing is old and some prone to breakage.
- Avoidable energy costs continue to mount in the absence of a system for energy saving.
- These multiple inadequacies of the building’s infrastructure not only require considerable maintenance staff effort and expense, but also entail considerable loss of productivity and reduced morale on the part of the clinical staff who must engage in continuous “workarounds” to fulfill their responsibilities.

Information Technology

- Lack of sufficient electrical supply means that further growth in capacity and sophistication of information technology is sharply limited or impossible.
- The hospital’s data center is at capacity.
- The heat generated in the “edge closets” exceeds the ability of the HVAC system to maintain reasonable temperature, which regularly rises to as high as 95 degrees.
- Additional IT-servers cannot be added because of constraints in cooling capacity.
- Only a single conduit exists for connecting the information technology systems to the outside; as a result, UMCB and two other institutions that are dependent on its data systems are at considerable risk of service interruption.

Conclusions

Despite its many limitations, UMCB has a highly qualified and motivated professional and other staff that remain deeply committed to the institution’s missions. While struggling daily to overcome the obstacles posed by an outmoded facility, they maintain an impressively high standard of clinical care and education. In our view, the existing facility could not, no matter how extensively renovated, meet the recognized near-term needs of its current clinical and educational programs, nor could it provide its patients with a physically pleasant and comforting atmosphere commensurate with the care and concern manifested by its staff.
A new hospital is needed to position UMCB:

- To maintain and strengthen its capacity to provide a high standard of compassionate, patient- and family-centered care,
- To maintain and expand its public benefits as the principal safety-net hospital for Austin, Travis County and beyond,
- To address the paucity of specialty services available to the patients of Central Health,
- To help alleviate the shortage of institutional and community-based mental health services, and
- To maintain and advance its role as a prime site for the education of future physicians and other health care professionals.

To elaborate on the last point, UMCB currently hosts approximately 100 medical students from the University of Texas Medical Branch. Moreover, UT Southwestern sponsors 14 ACGME accredited residency programs at UMCB and applications are in process for 2 additional programs. The current complement of residents in training in the institution totals about 200 and growth to at least 270 is projected over the next few years. Considering the state’s doctor shortage, as evidenced by Texas’s low ranking nationally in the number of physicians per 100,000 population, enabling UMCB to further expand its educational programs for students and residents would help eliminate the state’s physician gap; data show that students and especially residents tend to set up their practices in the state in which they were educated.

It is noteworthy that UMCB’s leaders are considering the need for a new hospital in order to continue to fulfill the institution’s historic safety net mission at the same time that Austin’s community leaders are increasingly in agreement that the University of Texas at Austin should establish a medical school. Should the decision be made to proceed with a new medical school, UMCB could, and we believe should, endeavor to become the school’s principal teaching hospital.

We are aware that the Austin area has several other hospitals that might affiliate with a new medical school and participate in some way in the clinical education of students. However, experience has shown that leading, research-intensive medical schools, such as the one envisioned for UT Austin, are best served by having a principal teaching hospital partner that can support a large array of outstanding educational and clinical research programs. UMCB has already mounted such programs and is clearly best positioned to become a new school’s principal teaching hospital.

Beyond that, however, the creation of a major teaching hospital in conjunction with a world-class university medical school in Austin has the potential to provide the region with many advantages. Such a facility would provide ready access to sophisticated cutting-edge medical care for all the region’s residents, and would serve as a creative catalyst for providing the community with greater access to care for the underserved. Moreover, a strong medical school and teaching hospital partnership would help alleviate the region’s shortage of physicians, nurse practitioners and other health professionals. Additional advantages include increasing employment opportunities, strengthening the area’s economic base, and advancing the region’s standing as a leading center of scientific and technical innovation.

Whether or not plans for a new medical school come to fruition, however, it is worth re-emphasizing that, for all the reasons noted earlier, we believe there is ample justification – and the community has
a significant need – for UMCB to proceed as soon as possible with the planning and construction of a new hospital. UMCB’s current aging facilities are simply not able to meet the demands of even modest increases, let alone the currently projected growth and needed improvements, in the hospital’s clinical services and already established educational programs for medical students and residents. Given this fact, coupled with UMCB’s unique opportunity to partner with a new medical school, it is hard to question the logic of moving forward now to maximize the benefits of investing in new construction.

Finally, we want to express our thanks to all those with whom we meet for their openness and candor. Special appreciation extends to Kate Henderson, Vice President and Chief Operating Officer of the University Medical Center Brackenridge, and to Sandy Hentges Guzman, Legislative Director to State Senator Kirk Watson for arranging an efficient and informative schedule for our 48 hours in Austin.
Appendix A: The Advisory Group at Huron Team

Jordan J. Cohen, M.D., Director, The Advisory Group at Huron

Dr. Cohen advises on strategy and management of academic medical centers. Prior to joining Huron, Dr. Cohen was president (1994-2006) of the Association of American Medical Colleges (AAMC) and served as the nation’s leading spokesperson for academic medicine. He is now the president emeritus of the AAMC. While at the AAMC, Dr. Cohen expanded and modernized services for medical students, residents, and constituents; strengthened the association’s communications, advocacy, and data gathering; and established new initiatives to improve medical education, research, and patient care.

Prior to this role, Dr. Cohen was dean of the medical school and a professor of medicine at the State University of New York at Stony Brook. He also served as professor and associate chairman of medicine at the University of Chicago-Pritzker School of Medicine, and physician-in-chief and chairman of the department of medicine at the Michael Reese Hospital and Medical Center. Additionally, he has held medical faculty positions at Harvard, Brown, and Tufts universities and was president of the medical staff at the New England Medical Center Hospital in Boston. Dr. Cohen is Professor of Medicine and Public Health at George Washington University.

Dr. Cohen has been active with The Advisory Group at Huron, and its predecessor, the Washington Advisory Group, since 2006. He has held many national leadership positions in academic medicine and is a member of the National Academy of Sciences’ Institute of Medicine. Dr. Cohen is a graduate of Yale College and Harvard Medical School and completed his postgraduate training in internal medicine on the Harvard service at the Boston City Hospital.

Mitchell T. Rabkin, M.D., Director, The Advisory Group at Huron

Dr. Rabkin advises on systems issues in health care delivery, strategy, governance, organization and management of academic medical enterprises. Prior to joining Huron, Dr. Rabkin led Boston’s Beth Israel Hospital for three decades. During that time he was directly involved in the design and construction of two inpatient units of 108 beds each and related services, a 350,000 square feet ambulatory care center and several biomedical research buildings at this major teaching hospital affiliated with Harvard Medical School. In 1996, Beth Israel and Deaconess Hospitals merged to form the nucleus of the second major delivery system in the area, CareGroup. Dr. Rabkin became chief executive officer of this parent corporation (1996-1998).

At that time, with the Dean of Harvard Medical School, he formed the Carl J. Shapiro Institute for Education and Research at Harvard Medical School and Beth Israel Deaconess Medical Center and has been associated with its leading role in medical education. The Institute addresses teaching and research in the academic medical center, forging innovative responses to the educational challenges arising out of changes in the conduct of patient care, changes resulting from evolving technology, the burgeoning of relevant information in medicine and biology, and the growing economic pressures in healthcare.

Dr. Rabkin has been active with The Advisory Group at Huron, and its predecessor, the Washington Advisory Group, since 1999. He is a member of the National Academy of Sciences’ Institute of Medicine, a Fellow of the American Academy of Arts and Sciences, and past chair of the Association of American Medical Colleges. A graduate of Harvard College and Harvard Medical School, Dr. Rabkin trained in internal medicine at the Massachusetts General Hospital. He is a Professor of Medicine at Harvard Medical School.
Appendix B: Schedule of On-Site Visits

Sunday, March 18, 2012:

State Senator Kirk Watson; Kenneth I. Shine, M.D., Executive Vice Chancellor, UT Office of Health Affairs; Susan Cox, M.D., Regional Dean – Austin, UT Southwestern Medical Center; Greg Hartman, President and Chief Executive Officer, UMCB; Kate Henderson, Vice President, Chief Operating Officer, UMCB; Thomas Caven, M.D., Vice President, Medical Affairs, UMCB; Sandy Hentges Guzman, Legislative Director to State Senator Kirk Watson

Monday, March 19, 2012:

Orientation: Thomas Caven, M.D.; Greg Hartman; Kate Henderson; Michelle Ryerson, DNP, RN, NEA-BC, Chief Nursing Officer, UMCB

Hospital Facility Tour: Peter Rieck, Vice President, Seton Network Facilities; Mark Hernandez, M.D., Hospital Medicine Medical Director, UMCB, and Assistant Professor, UTSW Medical Center; Alan Bell, Director, Design & Construction, Seton Network Facilities; Martie Huggins, Project Manager Sr., Facilities

Trauma Care Team: Carlos Brown, M.D., Medical Director, Seton Trauma Services and Program, Director, Surgical Graduate Medical Education; Ben Coopwood, M.D., Interim Vice Chair; Assistant Professor UTSW Medical Center; James Kempema, M.D., Medical Director, Austin EMS Services; Clinical Assistant Professor, UTSW Medical Center; Christopher Ziebell, M.D., Medical Director, Emergency Medicine; Clinical Assistant Professor, UTSW Medical Center; Andrew Reifsnyder, M.D., Medical Director, Radiology/Imaging, UMCB

Emergency Care Team: Christopher Ziebell, M.D.; Todd Berger, M.D., American College of Emergency Physicians Residency Program, UMCB; Andrew Reifsnyder, M.D.; Kevin Craven, RN, MSN, MBA, Nursing Director, Emergency Services, UMCB

Critical Care Team: Paul Harford, M.D., Medical Director, Critical Care; Ernest Gonzalez, M.D., Surgical Director, Critical Care; Toni Silas, RN, MSN, Nursing Director, Critical Care Services; Jonathan Hecht, RN, MSN, Clinical Nurse Specialist, Critical Care Medicine; Tony Rodriguez, Respiratory Care Charge Therapist

Surgical Care Team: Alex Valadka, M.D., CEO, Seton Brain & Spine Institute; Patrick Kelley, M.D., CEO, Seton Institute of Reconstructive and Plastic Surgery; Mark Crozier, M.D., Assistant Professor, Gynecology Oncology, UTSW Medical Center; Donna Schulze, RN, BSN, CNOR, Nursing Director, Surgical Services
Perinatal Care Team: Michael Nix, M.D., Medical Director, Perinatal Services; Assistant Professor, UTSW Medical Center; Charlie Brown, M.D., OB/GYN Program Director, Graduate Medical Education; Sikander Adeni, M.D., Medical Director, Neonatal Intensive Care Group; Elaine Henry, RNC, Nursing Director, Perinatal Services; Susan Pastor, ND, RN, Vice President, Seton Neonatal Services and Chief Nursing Officer, Dell Children’s Medical Center

Ambulatory Care Team: David Ramirez, M.D., Medical Director, Ambulatory Care at UMBC; Clinical Assistant Professor, UTSW Medical Center; Jessie Everline, Director, Ambulatory Care, UMBC; Kimberly Isturiz, RN, BSN, Nursing Manager, Ambulatory Care, UMBC; Toby Botelho, Department Assistant

Specialty Clinics: David Ramirez, M.D.; Larry Wallace, Chief Operating Officer, Central Health

Planning: Travis Froehlich, Senior Vice President, Planning, Seton Healthcare Family

Tuesday, March 20, 2012:

At St. David’s Corporate Office: David Huffstutler, Chief Executive Officer, St. David’s Healthcare; Earl Maxwell, Executive Director, St. David’s Foundation; Chuck Girard, Communications, St. David’s Healthcare; Susan Cox, M.D., Regional Dean – Austin Programs, UTSW Medical Center

Research: Steven Warach, M.D., Executive Director, UTSW/Seton Clinical Research Institute; Professor of Neurology, UTSW Medical Center; T.J. Milling, M.D., Emergency Medicine; Clinical Assistant Professor, UTSW Medical Center; Thomas Caven, M.D.; Susan Cox, M.D.

Psychiatry: Kari Wolf, M.D., Vice President for Medical Affairs, Seton Shoal Creek; Chief Executive Officer, Seton Mind Institute; Assistant Professor, UTSW Medical Center; Patricia (Trish) A. Young Brown, President and Chief Executive Officer, Central Health; Christopher Ziebell, M.D.; David Evans, Chief Executive Officer, Austin Travis County Integral Care; Iliana Gillman, Director of Communications, Austin Travis County Integral Care; Dawn Handy, Director, Behavioral Health Systems, Austin Travis County Integral Care; Thomas Coopwood, M.D., Board Member and Immediate Past Chair, Central Health Board; Ellen Richards, Director of Planning, Central Health; Suling Homsy, Senior Health Care Planner, Central Health; Kimberly McPherson, St. David’s Foundation

Downtown Vision/Waller Creek Tie-In: Melba Whatley, President, Waller Creek Conservancy; Stephanie McDonald, Executive Director, Waller Creek Conservancy; Melanie Barnes, Secretary, Waller Creek Conservancy; Tom Meredith, Chairman, Waller Creek Conservancy; Charlie Betts, Executive Director, Downtown Austin Alliance; Greg Hartman
IT Architecture: Mike Minks, Director, Operations, Ascension Health Information Systems, Seton Healthcare Family

Central Health: Patricia (Trish) A. Young Brown; Larry Wallace; John Stephens, Chief Financial Officer, Central Health; Thomas Coopwood, M.D.; Christie Garbe, Chief Communications and Planning Officer, Central Health; Clarke Heidrick, Board Member and Founding Chair of the Board

Closing Session: Thomas Caven, M.D.; Susan Cox, M.D.; Greg Hartman; Kate Henderson

Final Closing Session: Senator Kirk Watson; Kenneth Shine, M.D.