

Michael Karpf, MD, executive VP for health affairs, stands on at UK Albert B. Chandler Hospital. The facility was completed on time and on budget.

Challenges Met, New Goals Set

A Report on Fiscal Year 2011 from the **Executive Vice President for Health Affairs**

2011 was a critical turning point in the history of UK HealthCare. Ambitious goals set some time ago were accomplished, exceeding our expectations for excelling in quality, safety and service.

It was the first year for UK HealthCare's evolved strategic plan—Advancing to meet the health care needs of Kentucky and beyond: 2011-2015. This roadmap helps us build upon the success of previous planning processes as we carry out our missions of patient care, research and education and move closer to gaining a place among the nation's top academic medical centers.

Continued financial strength—even as the nation's economy faltered—and a growing network of strong partnerships helped us continue to grow both in size and scope. We expanded our capacity to accommodate a growing number of patients by opening the new pavilion at UK Albert B. Chandler Hospital—on budget and on time—and enlarging our ambulatory practice.

A vibrant research agenda brought increased

funding. Institutions that develop knowledge and translate research from the laboratory to the bedside are more likely to practice the best of care. The National Institutes of Health (NIH) invited the University of Kentucky to join its elite clinical and translational research consortium with a \$20 million, five-year grant to the UK Center for Clinical and Translational Science. This funding enables us to move discoveries to health care solutions more quickly.

In addition, Markey Cancer Center received a five-year grant totaling \$1.75 million from the National Cancer Institute to establish the UK Cancer Nanotechnology Training Center. This collaborative initiative involves 35 faculty from Markey Cancer Center; the colleges of Medicine, Pharmacy, and Engineering; and the Department of Chemistry. Grants and contracts in the College of Medicine reached \$115.9 million in fiscal year 2011, including in excess of \$70 million from the National Institutes of Health.

In June, following an extensive search, Frederick C. de Beer, MD, longtime UK faculty member and chair of internal medicine, was

On the cover, scenes from the new patient care facility at Chandler Hospital, (left) the Celebrate Kentucky wall on the first floor concourse and (right) moving a patient into the new pavilion.

named dean of the UK College of Medicine and vice president for clinical academic affairs. Former dean, Emery Wilson, MD, who served as interim dean of the college during 2011, has agreed to continue to work with alumni and friends of the College of Medicine in building support for the college's initiatives.

Hard work and the dedication of staff and faculty to reduce mortality resulted in an observed mortality rate more than 20 percent lower than would be expected. Each eligible UK HealthCare staff member received a \$50 achievement award for this outstanding improvement in quality care, which places us among the top performing academic medical centers nationwide for this metric.

Our growing reputation for clinical and research excellence is making it easier to recruit nationally recognized physicians capable of treating the most complex of patients. Our most recent recruit is transplant surgeon Charles Hoopes, MD, from the University of California San Francisco. Hoopes heads the UK Heart and Lung Transplant Program and the Ventricular Assist Device Program.

"Hard work and the dedication of staff and faculty to reduce mortality resulted in an observed mortality rate more than 20 percent lower than expected."

Michael Karpf, MD, Executive VP for Health Affairs

He was attracted to UK by the opportunity to make a difference in Kentucky's high rate of heart and lung disease and our positioning within driving distance of a large segment of the nation's population.

Hospital of the Future—Today

We knew back in 2004 that if we wanted UK HealthCare to be an academic medical center on par with the best in the country, we needed the advanced facilities to support recruitment of the people who would help us achieve this goal. That vision became a reality with the opening of the new pavilion at UK Albert B. Chandler Hospital. The first two patient care floors with 128 patient beds opened in May, along with public spaces such as the atrium, chapel, surgical waiting area and a 305-seat auditorium.

Hundreds of faculty, staff and community members joined dignitaries for the dedication and unveiling of the new 12-story patient care pavilion. More than 6,700 toured the pavilion, seeing firsthand the advanced technology afforded patients. They also experienced the hospital's healing environment that inspires a sense of calm and comfort in a place that bridges the art and science of medicine. The generosity of many donors through our UK Arts in HealthCare Program enabled us to incorporate art, music and landscaping that reflect the spirit of Kentucky.

Earlier in fiscal year 2011, we opened the UK Chandler Emergency Department (ED) on the ground floor of the new pavilion. Its innovative design allows patients to be segmented into four distinct areas—trauma, adult care, express care and pediatric care. The ED was recently named among the nation's top 20 best emergency departments by the Emergency Nursing Association for exceptional and innovative performance.

Financial Strength

The unprecedented growth of the past few years leveled off. Nevertheless, we saw a record number of hospital days in 2011—193,402. Generally, volumes of other academic medical centers have remained flat or declined while UK HealthCare continues to thrive, even though we serve a much smaller metropolitan area than many of the other centers. In fact, we are very close to being in the top 35 percent of the nation's teaching hospitals based on volume. As we face the unknowns of national health care reform, it's clear the two things we have going for us are our ability to keep growing and our strong position.

Forging Relationships

Our accomplishments have aided our ability to forge relationships with like-minded organizations throughout the region. In June came the announcement that UK HealthCare and Norton Healthcare in Louisville will work together to address some of Kentucky's most pressing health problems, including stroke, cancer and obesity. UK's clinicians, researchers and students will benefit from this relationship as will the people of the Commonwealth.

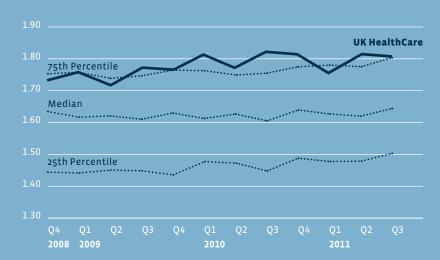
Prudent partnering with community-based physicians and regional hospitals is fundamental to our success. We remain committed to responding to their needs, whether it is to provide a much-needed specialist in the local community or to accept the transfer of a critically ill patient to UK Chandler Hospital. We want to keep patients close to home for as much of their medical care as possible, offering our specialized services and resources as needed.

New Expectations

Anticipation is already building for the completion in early 2012 of the next phase of construction in the new pavilion with the addition of eight state-of-the-art operating rooms, plus one of the country's largest hybrid operating rooms, an OR support area, new post-anesthesia care and preoperative areas on Floor 2, as well as new central sterile supply and OR equipment areas in the basement. Renovation of the original Chandler Hospital continues as we convert to more private patient rooms. We will complete the remaining floors of the new pavilion in phases over the next 10 years, eventually replacing the original UK Chandler Hospital.

While we continue to nurture and promote partnerships throughout the Commonwealth, we must also position ourselves as a regional provider by expanding our sights beyond the boundaries of Kentucky. We need to increase the numbers of patients who come to us for advanced specialty care such as kidney, heart, lung and liver transplants. With volume comes the ability to support the infrastructure necessary to be considered a primary destination for medical care of the most complex, life-threatening conditions. Recruitment continues for medical talent to fill known gaps.

Momentum is building to place Markey
Cancer Center among the nation's list of
premier National Cancer Institute-designated
cancer centers, with the application scheduled
for submission in September 2012. Markey
excels in the services provided to cancer



patients. The latest available data (1998-2007) shows our patients with brain, lung, liver and ovarian cancers have higher five-year survival rates than patients treated at other cancer centers nationwide.

Stroke patients statewide stand to benefit from the growing network of hospitals—now 12—who are part of the UK HealthCare and Norton Healthcare Affiliate Stroke Network. Through education, screening and prompt assessment in local hospital emergency rooms, stroke patients are being identified early enough to initiate potentially life- and function-saving treatments.

Our focus remains on quality; we want to be the benchmark others strive to beat. We know from experience that paying attention to the needs of patients, engaging employees in providing great service, and improving efficiency produces the best outcomes in terms of quality, safety, service, clinical outcomes and costs.

UK Chandler Hospital's case mix index
(a measure of case complexity and severity) is in the 75th percentile as benchmarked against teaching hospitals

Source: Association of American Medica Colleges-Council of Teaching Hospita

Michael Range

Michael Karpf, MD

Executive Vice President for Health Affairs UK HealthCare, University of Kentucky

2 CHALLENGES MET, NEW GOALS SET



In 2011 Barbara Young provided leadership for the UK Board of Trustees University Health Care Committee.

UNIVERSITY HEALTH CARE COMMITTEE OF THE UNIVERSITY OF KENTUCKY BOARD OF TRUSTEES

As of June 30, 2011.

Barbara Young, Chair William S. Farish, Jr. Oliver Keith Gannon Sandy Patterson Charles R. Sachatello, MD "The addition of 128 beds enables
UK Chandler Hospital to care
for the growing number of patients
coming from throughout
the Commonwealth and beyond."

Barbara Young, Chair, University Health Care Committee of the UK Board of Trustees

Pavilion Designed for Needs of Today and Future

The opening of the new patient care pavilion at UK Albert B. Chandler Hospital tops a long list of accomplishments in 2011 focused on improving the quality and safety of patient care, believes Barbara Young.

"The new pavilion shows such strong vision," said the chair of the University Health Care Committee of the University of Kentucky Board of Trustees. "The space is beautiful as well as peaceful; it's designed and equipped to take care of the needs of the patients, and the art throughout is phenomenal." The building is getting high praises from patients, staff and faculty for its advanced technology and the healing, welcoming environment that features aspects of Kentucky's unique landscape, art and music.

The addition of 128 beds enables UK
Chandler Hospital to care for a growing number
of patients coming from throughout the

Commonwealth and beyond. Six additional patient floors will open based on need and available resources.

The 12-story pavilion's flexible design also improves UK's ability to respond to the uncertainties of health care reform and the economy, Ms. Young said. "It took foresight to build capacity into a building expected to last us 100 years."

She noted that while the spotlight was on the pavilion, attention of faculty and staff never wavered from ongoing efforts to improve the quality and safety of patient care throughout the medical enterprise. "That is the number one priority for all of us."

EX OFFICIO MEMBERS

Lee T. Todd, Jr., PhD
Michael Karpf, MD
Paul DePriest, MD
Richard Lofgren, MD
Colleen H. Swartz, DNP, MBA, RN, NEA-BC
Emery Wilson, MD

COMMUNITY ADVISORY MEMBERS

Mira S. Ball Robert Clay Luther Deaton James Hardymon Pam Miller Myra Tobin



UK Board of Trustees
members and podium
guests were on hand
for the dedication,
including (from left) James
Hardymon, Mike Kennedy,
Charles Sachatello,
Myra Tobin, (at rear)

Sandy Patterson,
Penelope Brown, Mira
Ball, Michael Karpf,
UK President Lee Todd, Jr.,
Stephen Branscum,
Everett McCorvey, Frank
Shoop and Board
Chair Britt Brockman.

New Pavilion Opens to Serve the Commonwealth



cutting team included (from left) Lexington Mayor Jim Gray; Ann Smith, chief administrative officer of Chandler Hospital; UK Board of Ben Chandler; Gov. Steve Karpf, executive VP for Rep. Bob Damron; state L. Williams; UK President Lee T. Todd, Jr.; and faculty representative on the UK Board of



2. Ribbon-cutting ribbons for the official dedication on May 15.

May marked one of the most exciting times in UK HealthCare's history with the opening of the much-anticipated new patient care pavilion, on time and on budget. During open houses held May 13-16, nearly 7,000 employees, students, faculty and community members toured the new 12-story Pavilion A. Hundreds attended the May 15 dedication and ribbon-cutting ceremony at the pavilion entrance.

On May 19, the public areas on the pavilion's ground and first floors opened. At 5:30 a.m. on May 22, hospital staff began a well-orchestrated move of patients from pavilions H and HA of Chandler Hospital to the two new patient care floors in Pavilion A-Floor 6 (Neuroscience Services) and Floor 7 (Trauma and Surgical Services). Every patient at Chandler and Good Samaritan hospitals received Pavilion A information and goodie bags to celebrate the milestone.



3. Robert Baumann, MD, chief of pediatric neurology, reflects the mood of the day as

5. UK Opera students opened the dedication ceremony singing My Old Kentucky Home, led by Everett McCorvey, opera and Lexington Opera Society Endowed







4. Members of an 6. Barbara Young, a member of the UK board and chair of the University Health Care Committee, and her husband William T.

Ben Chandler (right), grandson of the Kentucky governor for whom UK Albert B. Chandler Hospital

7. Members of the are introduced at the



other faculty, staff and community members were guests at the Sunday afternoon Young, Jr. greet U.S. Rep.













- ees from throughout
- performed during the 305-seat auditorium,











- 3. Staff sign in before
 - hits the highlights of the reinforcing what they
- a.m. that morning, more than 80 patients
- 6. Melissa Begley

Improvements in Quality Patient Care Significant, Continual

At the beginning of fiscal year 2011, UK Health-Care made a commitment to reduce observed mortality. Our patients are among the nation's most critically ill, with UK in the upper 10 percent of acuity in comparison to other academic medical centers. By year's end, UK's actual mortality rate was 20 percent lower than would be expected. This means 268 people lived despite the odds because of the care they



received at UK HealthCare, placing UK in the top 20 percent of performers among academic medical centers nationwide. Each eligible UK HealthCare employee received a \$50 Achievement Award for hard work, dedication and focus on achieving this key benchmark.

UK HealthCare has significantly reduced patient safety indicators for hospital-acquired complications and infections. Central line bloodstream infections, ventilator-associated pneumonia and catheter-associated urinary tract infection rates were cut in half, based on Agency for Healthcare Research and Quality (AHRQ) measures. Also, there have been no pressure ulcers (as defined by AHRQ) for more than six months. In one year, UK HealthCare moved to being nationally competitive in eight patient safety measures.

Kentucky Children's Hospital significantly improved patient safety thanks to several staff initiatives. "No fly zones" are reducing infection rates; barriers around children's beds reduce traffic while nurses tend to dressing changes, catheter procedures and other activities. In Radiology, a simple checklist of questions for parents is identifying children who don't need to be sedated for an MRI, reducing chances for complications.

UK physician John H. Eichhorn, MD, was the recipient of the highly regarded John M. Eisenberg Patient Safety and Quality Award from the Joint Commission and the Quality Forum for his work in improving the quality of anesthesia care and patient safety through use of standardized practices.

Among the many activities contributing

Chief Medical Officer
Paul DePriest, MD,
(far right) watches
while fourth-year
anesthesia resident
Rebecca Young, MD,
coaches Curtis Koons,

a fourth-year medical student, in the Simulation Center for Advanced Clinical Skills. The center is a key tool in ensuring quality and safety.

"Evidence shows the highest quality health care systems also provide the most cost-effective care."

Paul DePriest, MD, Chief Medical Officer



to UK's quest to be among the best for patient care are the following:

- "Experts Around the Clock" ensures overnight in-house coverage by a Trauma Attending, Hospitalist Attending, Critical Care Intensivist and Clinical Nurse Specialist. Having these highly trained specialists readily available at night is considered a national standard for top medical centers.
- **Track and Trigger" is an electronic alert system that watches specific patient measures to detect subtle signs of worsening conditions. An automatic alarm triggers a rapid response by a team that has specific care and communication protocols to accelerate treatment and escalate communication as needed. Another electronic back-up to bedside care is a centralized "cockpit" that provides 24/7 monitoring by trained staff for telemetry patients, enhancing clinical redundancy in the system.
- A highly sophisticated simulation lab provides realistic training for caregivers who are learning complicated image-guided procedures. UK is among the leaders in using this emerging best practice in training.
- WK's new Pavilion A is the first in the nation to use an electronic infection control signage system developed jointly by UK HealthCare and the bed manufacturer Hill-Rom. A message board outside each patient door fed by information in the electronic medical record automatically

alerts patients and staff about needed infection control precautions.

- >> SWARMS are UK HealthCare's brand of team root-cause analysis. Caregivers quickly come together in a blameless fashion to discern the cause of a problem and take actions necessary to prevent its recurrence.
- Nurses rounding every hour on their patients, as well as managers rounding on staff and patients, are further improving patient satisfaction scores, as are efforts to keep nurses at the bedside, such as making sure each patient room is stocked with needed supplies and equipment.
- End-of-life hospice care was introduced for hospital patients through a partnership with Hospice of the Bluegrass, providing the compassionate expertise needed by patients and their families.

These and other measures are improving the quality and safety of patient care in UK HealthCare facilities while helping keep the cost of care down. "Evidence shows that the highest quality health care systems also provide the most cost-effective care," said Chief Medical Officer Paul D. DePriest, MD. "We've seen this in the past year; as our quality indicators improved, so did our efficiency indicators as measured by cost per case."

Gina Andreoli, RN, works at the bedside of her ICU patient. The design of new rooms supports quality and safety by enabling nurses to spend more time near the patient.



Richard P. Lofgren, MD, the enterprise's chief clinical officer, stands in one of four new intensive care units that opened in May 2011. Additional beds were desperately needed to answer the demand for UK's advanced specialty services.

UK Destination of Choice for Patients With Complex Medical Needs

"The focus is not just on technology, it's also on the expertise of highly specialized teams for relatively uncommon—but very treatable—conditions."

Richard P. Lofgren, MD, VP for Healthcare Operations and Chief Clinical Officer

Patients with uncommon, potentially lifethreatening medical conditions requiring a unique team of experts are finding they need only make UK HealthCare their destination for the best care available. In 2011, efforts focused on expanding patient care services to attract more patients from within as well as beyond the borders of Kentucky. UK's recruitment and retention of highly trained, experienced teams of subspecialists, nurses and other caregivers in areas such as organ failure and transplant, cancer, neurosciences, high-risk obstetrics and pediatric subspecialties has helped increase clinical activity.

Complex Quaternary Care

Destination medicine means offering quaternary care, the highest level of care for the most complicated conditions. "This level of expertise is found only in a few major academic medical centers," explained Richard P. Lofgren, MD, vice president for healthcare operations and chief clinical officer.

"It's about pulmonary specialists referring to UK's lung transplant surgeons or oncologists referring to UK's bone marrow transplant program. The focus is not just on technology, it's also on the expertise of highly specialized teams for relatively uncommon—but very treatable—conditions." Doctors across multiple disciplines work side by side with experienced nurse specialists, pharmacists who have knowledge of the newest drugs, psychiatrists who understand suffering, and many other caregivers armed with compassion and expertise.

Transplant Surgeon Takes Program to New Level

The UK Transplant Center, established in 1964, specializes in the transplantation of all major solid organs including the heart, lung, kidney, pancreas and liver, as well as pediatric kidney transplant. The addition of surgeon Charles Hoopes, MD, is helping take the UK transplant program to its next level.

Dr. Hoopes is the new director of the UK
Heart and Lung Transplant Program, as well
as director of the Ventricular Assist Device
Program. Previously director of cardiopulmonary transplantation at the University of
California San Francisco, Dr. Hoopes is a "triple
threat"—one of the few surgeons in the nation
who performs heart and lung transplants and
implants artificial heart and lung devices. "Our
goal is to be at the forefront of technology and
innovation and serve the region as a destination center for heart and lung transplantation,"
said Joseph "Jay" Zwischenberger, MD, UK

"Our goal is to be at the forefront of technology and innovation and serve the region as a destination center for heart and lung transplantation."

Joseph "Jay" Zwischenberger, MD

Surgeon-in-Chief and Director, UK Transplant Center

HealthCare surgeon-in-chief and director of the UK Transplant Center.

Former Pike County coal miner Ernie
Gillispie is alive today thanks to the transplant
team at UK. Black lung disease had robbed
Gillespie of the ability to breathe or walk.
Gillispie was treated with a new ambulatory
lung assist device. The device improved his
physical condition so that he was a candidate
for a double lung transplant, which he successfully underwent in April 2011. The new lung assist device is the combination of extracorporeal
membrane oxygenation (ECMO) and a new type
of catheter developed by Dr. Zwischenberger
and UK collaborator Dongfang Wang, MD, PhD.
ECMO was pioneered by Dr. Zwischenberger
and is now used worldwide.

"We are now one of only a very few places in the country that utilizes ambulatory ECMO as a bridge to transplant," Dr. Zwischenberger said. "And we have the best expertise in the country at coupling this new technology with lung transplant to yield improved survival."

Nursing Excellence Energized by Academic, Clinical Partnership

A relationship spanning 50-plus years between UK HealthCare nursing staff and the UK College of Nursing grew even stronger this past year, assuring that nurses are afforded the lifelong learning opportunities necessary to keep pace with increasing demands on nurses. This exciting collaboration means better care for patients, better support for nursing staff and better training for our future nursing professionals.

The UK College of Nursing views UK

HealthCare as a clinical lab, providing learning DNP, MBA, RN, NEA-BC, chief nurse executive for

opportunities for nurses in the academic medical setting of UK Albert B. Chandler Hospital and Kentucky Children's Hospital, as well as in the community hospital setting of UK Good Samaritan Hospital. In turn, the college leadership is helping UK HealthCare realize its vision to be ranked among the Top 20 medical centers in America. "The partnership between UK HealthCare and the College of Nursing brings the practice and education sides of health care together, creating a unique environment where both the patient and the nurse benefit from the experience," said Colleen Swartz, UK HealthCare.



John Abner (right) is one

experts at Good Samaritan and Chandler

hospitals who support

Wayne Johnson, RN,

has worked in the Telementry Unit at Good

of 10 clinical nurse

The development of nursing strategic goals aimed at hardwiring service excellence into every aspect of patient care involved the participation of both the college and UK HealthCare. The resulting roadmap is very much in keeping with the latest Institute of Medicine (IOM) report, The Future of Nursing: Leading Change, Advancing Health. The IOM recommended that nurses practice to the full extent of their education and training, setting a goal of 80 percent of nurses holding bachelor's degrees (BSN) by 2020; achieving higher levels of educational and training through an improved, seamless \educational system; and partnering with other health care professionals.

Seamless Education, Lifelong Learning

At UK, BSNs are given preference in hiring; those hired with two-year, associate nursing degrees (AD) are expected to earn a BSN within five years. UK HealthCare's generous tuition reimbursement program encourages lifelong learning, making it affordable for nurses to get their BSN as well as advanced practice or research-oriented doctoral degrees. Nursing leadership also works closely with nurses to manage scheduling so earning a BSN is achievable.

The collaboration of the nursing college and medical center is streamlining the integration of nursing students into the clinical setting with three innovative programs:

- >> SNAP (Summer Nurse Apprentice Program) gave 60 nursing students—75 percent from UK—the opportunity to work in clinical areas under the direction of seasoned clinical nurses the summer before their senior year.
- >> Synthesis gives senior nursing students preceptors during the last seven weeks of their training to provide the support and guidance needed as they prepare to enter the nursing profession.

>> UK's Nurse Residency Program, now in its 11th year, gives new graduate nurses ongoing support and focused training during the first 12 months on the job. This helps new nurses adapt to their new profession and remain with UK HealthCare.

Support for Advanced Practice Providers

In October 2010, UK HealthCare announced the formation of the Office for Advanced Practice. "The office is an important next step for UK HealthCare as we redesign models for care that include advanced practice registered nurses and physician assistants," said Jane Kirschling, DNS, RN, FAAN, dean of the College of Nursing. The new office works closely with the 175 advanced practice providers at UK HealthCare to support them in ongoing development of competencies and skills. They include nurse practitioners, certified registered nurse anesthetists, nurse midwives, clinical nurse specialists and physician assistants. The College of Nursing, a long-time leader in offering advanced practice programs, opened the first Doctor of Nursing Practice Program (DNP) in the nation in 2001.

Clinical Nurse Specialists, **Experts Show Value**

A pilot project to determine the value of a clinical nurse specialist working in critical care at UK Chandler Hospital demonstrated a savings of more than \$1 million through improved patient outcomes and shorter hospital stays. As a result, Chandler Hospital added eight clinical nurse specialists to work in nursing units with the most complex patients.

These nurses have at least a master's degree in nursing and specialize in areas such as oncology, pulmonology, cardiology, critical care and diabetes. They have the advanced expertise and critical thinking skills that come from experience, serving as the point person for everyone involved in the patient's care, including the patient. They also coach novice nurses. By 2015, national guidelines suggest all advance practice nurses be educated in DNP programs. UK will award its last master's degrees in nursing in 2013 in favor of the college's BSN-to-DNP clinical nurse specialist track.

And at UK Good Samaritan Hospital, four bachelor's-prepared clinical nurse experts now



work the night shift, when less-experienced nurses need their support and clinical expertise. UK Chandler Hospital also has six clinical nurse experts performing the same function.

Standardizing Nursing Practice

Efforts are ongoing to standardize nursing practice. The result will be consistent, high quality, compassionate nursing care, whether in an outpatient clinic or an inpatient hospital setting.

For example, all ambulatory oncology nurses—including those from the affiliate sites elsewhere in the Commonwealth as well as those at Markey on the UK medical campus are trained according to national guidelines for chemotherapy and biotherapy.

At Kentucky Children's Hospital, a Pediatric Sedation Team, involving inpatient and outpatient staff, is standardizing how young patients are sedated for certain procedures. The Pediatric Hematology Oncology Team is working to ensure supplies and how treatment is rendered are not noticeably different between inpatient and outpatient settings. A clinic nurse and social worker are now based on the inpatient unit, helping coordinate outpatient care for these young patients who often go back and forth between the two settings.

"Standardizing how we do things makes it easier for the patient and family," explained Suzanne Springate, BSN, RN, operations director for pediatric inpatient services, sedation and echo.

Vicki Stringfellow, APRN, one of 175 advanced practitioners working at UK, uses her expertise to improve care for critically ill children and babies

Keeping patients close to home for their medical care until they need the advanced services offered at UK, has proven to be a winning strategy for all involved.

UK Hallmark—Keeping Care Close to Home

Engaging community health partners in different ways based on their unique needs has been a hallmark of UK HealthCare's transformation. In 2011, significant progress was made in extending expertise housed on the UK campus throughout the Commonwealth. Keeping patients close to home for their medical care until they need the advanced services offered at UK has proven to be a winning strategy for all involved.

Collaboration Widespread

Seven regional and rural hospitals are now UK HealthCare affiliates: ARH Cancer Center, Hazard; Frankfort Regional Medical Center; Georgetown Community Hospital; Harrison Memorial Hospital, Cynthiana; Rockcastle Regional Hospital and Respiratory Care Center, Mt. Vernon; and St. Claire Regional Medical Center, Morehead. Increased outreach clinical initiatives since 2004 translate into 146 off-campus clinics operating in 39 Kentucky counties.

Subspecialists from the Markey Cancer Center, Kentucky Neuroscience Institute, UK Transplant Center, Gill Heart Institute and Kentucky Children's Hospital are among the doctors traveling throughout the Commonwealth and beyond to offer services not otherwise available in rural communities. Their goal is to make sure patients receive the most appropriate care in the most appropriate place.

Dennie Jones, MD, was recruited in 2011 to lead Markey Cancer Center's growing affiliate

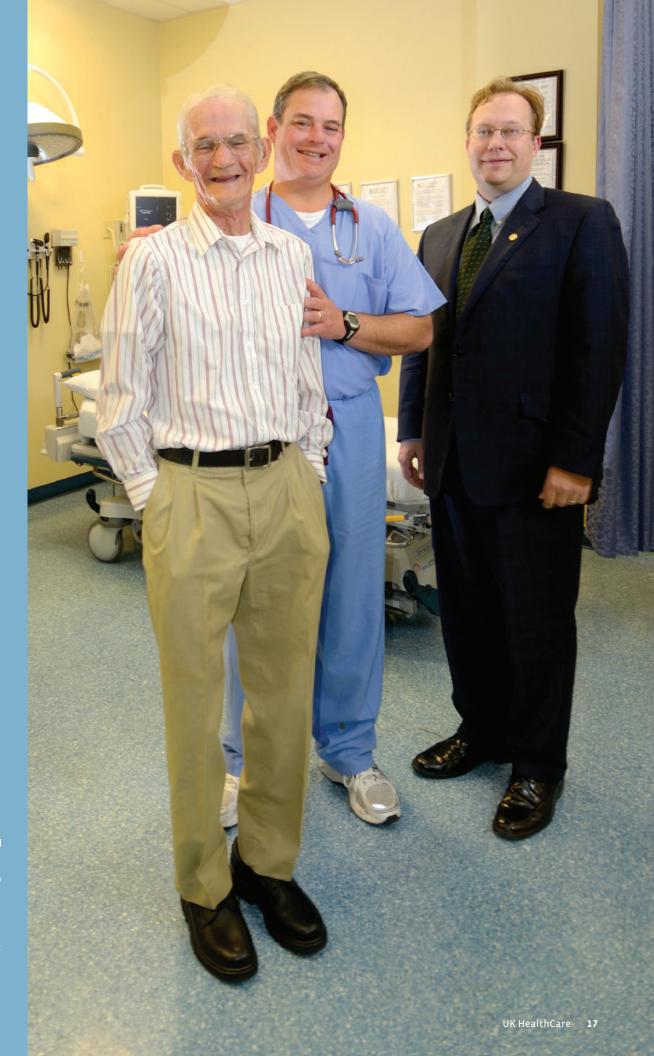
network. Markey serves as a central resource for six of the seven UK affiliated hospitals, in addition to cancer patients and their families, local physicians and community members statewide, helping to coordinate care both during and after treatment.

Outreach Relationships Vary

UK's outreach relationships differ, depending upon the needs and characteristics of each community. The following are very different examples of collaboration:

>> Georgetown Community Hospital and UK HealthCare are making sure that Georgetown area residents don't have to travel to Lexington to get the care provided by six UK specialists in obstetrics and gynecology, cardiology, gastroenterology, and family and community medicine. Those services are now offered in one convenient location, UK HealthCare-Georgetown. The new 9,000-square-foot facility includes 17 exam rooms, three procedure rooms, an ultrasound room and a lab for diagnostic testing. Georgetown Hospital is in the Markey Cancer Affiliate Network. The Radiation Medicine Center on the hospital campus is headed by UK's Ronald McGarry, MD, and Marcus Randall, MD.

Duane King benefitted from the UK stroke when treated by the **Rockcastle Emergency** Department, part of the UK Stroke Affiliate Hamilton, MD, (center) administered tPA within the three-hour window and sent him on to UK Chandler Hospital and the new stroke care unit directed by Michael Dobbs, MD (far right).





UK HealthCare outreach locations are expanding (shaded), supporting rural providers and patients with appropriate specialty services.

Nockcastle Regional Hospital and Respiratory Care Center began its relationship with UK more than five years ago. Now 17 subspecialists go to the Mount Vernon hospital on a regular basis, bringing a wide range of physician expertise from areas such as Markey Cancer Center, Gill Heart Institute, Kentucky Children's Hospital and Kentucky Neuroscience Institute. UK physicians are close by when the community physicians need them to see their patients.

Norton, UK Extend Reach Statewide

Norton Healthcare, Louisville's leading hospital and health care system, and UK HealthCare announced in November 2010 a formal collaboration to address Kentucky's most-pressing health needs including stroke, cancer, obesity and organ transplantation. A new transplant clinic staffed by UK HealthCare transplant specialists in kidney, liver, heart and lung diseases opened in June at Norton Audubon Hospital in Louisville. The Advanced Heart Failure clinic is coupled with a pulmonary hypertension clinic. Patients from western Kentucky and beyond who need a transplant will come to UK's Transplant Center for surgery, returning to Louisville for convenient follow-up care.

Norton Healthcare and UK also combined forces to cut deaths caused by stroke or related

diseases. Kentucky ranks 15th nationwide in stroke-related deaths per 100,000. With the new arrangement, UK's affiliate stroke network is going statewide. UK neurologist Michael Dobbs, MD, director of UK's Comprehensive Stroke Program, is director of the UK Health-Care and Norton Healthcare Affiliate Stroke Network. The collaboration includes partnering with community hospitals—12 are now part of the network—to provide preventive patient education and stroke screenings, as well as training for emergency departments in care of the stroke patient. In addition, the collaboration will create Kentucky's first statewide stroke registry to track the improvement of care provided by community and regional hospitals in the partnership.

Norton Healthcare is opening its hospitals to UK's residents in obstetrics and gynecology to address physician shortages and to create a more diverse training program. More than half of Kentucky's counties are without an obstetrician. Norton Healthcare will expand its medical weight management services and educational programs to Lexington, offering community education programs on exercise and healthy eating, and access to pre- and post-surgical obesity management services.



UK HealthCare opened a new facility in Georgetown with primary care, OB-GYN and cardiology services. Norton Healthcare and UK HealthCare announced a formal collaboration to address Kentucky's most-pressing health needs.

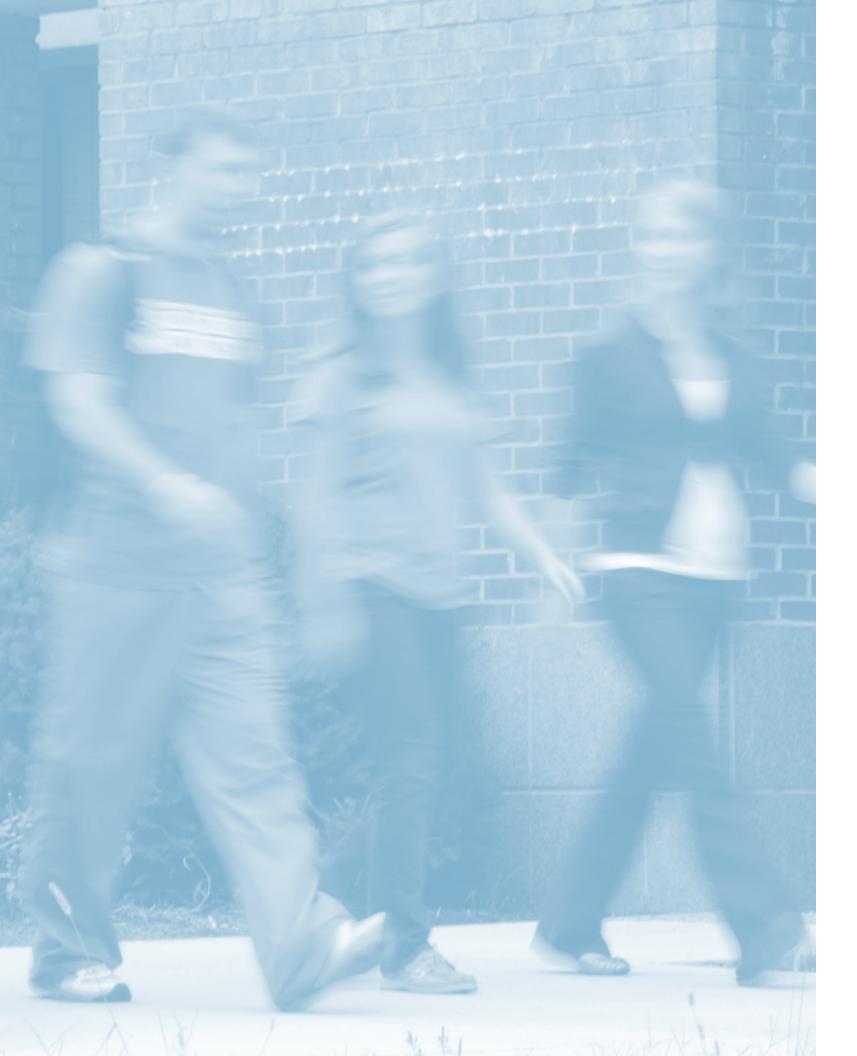
Solidifying, Building Relationships

Efforts in 2012 will continue to solidify existing clinical and research relationships while building new ones within the Commonwealth and beyond. One such research initiative is the new formal partnership with Marshall University in Huntington, W.Va.

Marshall's strength in cancer and gene sequencing research fits well with Markey Cancer Center's research agenda; the collaboration will speed translation of scientific discoveries to health improvements for people in the Commonwealth, the Appalachian region and beyond. This initiative is part of UK's Center for Clinical and Translational Science, which was awarded a \$20 million NIH grant in 2011 to move research discoveries to health care solutions more quickly.

Newly recruited cancer specialist Dennie Jones, MD, (left) meets regularly with Quaiser Naiz, MD, at Harrison Memorial Hospital in Cynthiana, Ky., in his role as the medical director of the Markey Cancer Affiliate Network.





University of Kentucky College of Medicine

Delivering the Best Medical Education for a Lifetime

The accomplishments of 2011 are a firm foundation for the University of Kentucky College of Medicine's future aspirations and goals. Our students are a consistent point of pride, and we make every effort to ensure these future physicians receive the best medical education in preparation for a lifetime of commitment and service to those in need.

50 Years of Progressive Education

Two major achievements of the 2010–2011 year were the college's successful reaccreditation by the Liaison Committee on Medical Education (LCME) and its 50th anniversary.

After an extensive review during the reaccreditation process, the LCME found many institutional strengths. These strengths ranged from our numerous research opportunities for medical students to our wide array of pipeline programs to promote diversity. The LCME reaccreditation is for an eight-year term after which another full-site survey will be conducted in the 2018–2019 academic year.

Our yearlong 50th anniversary celebration gave us a clearer understanding of our roots as a college as well as a chance to honor those who played a role in making this institution great. The yearlong events that surrounded this milestone were a true celebration of where we have been and where we are going in the future. Additionally, thanks to the generous support of 844 individual contributors, our 50th anniversary giving campaign garnered \$3.25 million in donations.

Meeting the Need for Physicians in Rural Areas

The Commonwealth has unique health care needs, especially in rural areas where the physician-to-population ratio is alarmingly low. In response to the need, the college instituted the Rural Physician Leadership Program (RPLP), which trains students in rural areas, during the last two years of medical school. The concept is quite simple: Take stu-

dents who have an expressed interest in rural practice, train them in rural areas and, hopefully, they will move back to a rural area to practice.

The college's inaugural group of four thirdyear students in the RPLP began clinical rotations at Morehead, Ky., in fall 2010, with clinical training at St. Claire Regional Medical Center. Physicians in northeast Kentucky served as faculty and preceptors.

Research Productivity Reinforces Our Clinical Ventures

Research—specifically translational, collaborative research—is my passion. Quality research reinforces our advanced clinical ventures.

The productivity of the college's faculty has led to impressive gains in research funding.

Grants and contracts in the College of Medicine reached \$115.9 million in fiscal year 2011, including in excess of \$70 million in National Institutes of Health (NIH) funding. Almost 39 percent of the total grants and contracts awarded to the university are located in the College of Medicine.

In June 2011, the NIH awarded UK's Center for Clinical and Translational Science \$20 million to move research discoveries to health care solutions more quickly. This all-important designation makes UK's CCTS part of a select national biomedical research consortium. Accomplishments such as this, along with others, mean more opportunities for students and faculty to participate in valuable, collaborative research endeavors. It also confirms that we are well on our way to becoming a top 20 research institution.

Social Mission Propels Us Into Top 20

Education, research and service missions are enriched by a community of people of diverse backgrounds and cultures. In 2010, UK College of Medicine was ranked among the top 20 medical schools in the United States based upon our "social mission score" representing

Fred de Beer, MD, a member of the internal medicine faculty for 22 years and more recently chair of the department, was named dean of the College of Medicine in June 2011.



the percentage of graduates who practice primary care, work in underserved areas or are underrepresented minorities. The national study, conducted by researchers at George Washington University, ranked UK College of Medicine 14th, and was published in the Annals of Internal Medicine.

The University of Kentucky Medical Education Development (UKMED) annual recruitment program instituted in 2010 also fosters college diversity. Sixteen minority and underrepresented students from universities across Kentucky and the region participated in this two-day event allowing participants to experience life as a UK medical student. We hope programs such as UKMED will encourage these students to consider applying to our college and further our goals of instituting diversity, acceptance and tolerance.

Moving From Very Good to Great

My involvement with UK HealthCare dates from its very inception. I view the intimate interface between its health care operations and the college's academic ventures as inseparable. In today's economic climate, with state support dwindling, the one reliable financial resource to drive the college forward in both research and teaching is the support of UK HealthCare. With our academic and clinical operations working together synergistically, we are on the verge of pushing the College of Medicine from very good to great.

Transition to the Dean's Office

On a personal note, 2011 marked a significant and meaningful transition for me. In June, I was honored to be named dean of UK College of Medicine. On behalf of the faculty and staff of the college, I would like to thank former dean Emery Wilson, MD, for his return as the college's interim dean much of the 2010-2011 year.

I have spent the last 22 years of my academic life at this institution in several capacities including, most recently, chair of internal medicine. As I look to the college's future, I consider serving as the dean of this college more than an honor, it is a responsibility.

The position is not about power. I care about this college and my greatest responsibility is to serve the faculty, staff and students, so they can maximize their potential and enrich the college's academic ambiance. After serving in this position for numerous months now, I am confident we are boldly moving into the future with the expectation we will propel our college to even greater heights.

Luspa

Frederick C. de Beer, MD

Dean, College of Medicine

Vice President for Clinical Academic Affairs

Professor of Internal Medicine, University of Kentucky

UK HealthCare 23

UK College of Medicine Celebrates 50 Years

The University of Kentucky College of Medicine celebrated its 50th anniversary during a yearlong series of special events that recognized the shared accomplishments of faculty, staff and students, both past and present.

Among the events, the 50th Anniversary White Coat Ceremony mixed the past, present and future as alumni representatives from the past five decades coated the incoming class.

As the college reflected on its last 50 years, it also looked ahead during its academic convocation. During the convocation, the college also marked the anniversary of the original medical center and College of Medicine dedica-

Alumni were again in the spotlight during the 50th Anniversary Signature Event, which capped off the golden anniversary celebration in October 2010.













1. White Coat Ceremony: August 6, 2010

A representative of every one of the college's preceding classes was on hand to help "jacket" the incoming class of medical students.



















2. Academic Convocation: September 23, 2010 Speaker Lois Nora, MD, JD, MBA, a former associate dean of academic affairs at the college, suggested "A Few Lessons for the Next 50 Years" to faculty, staff and students.

3. 50th Anniversary Signature Event: October 15, 2010 Faculty, staff and alumni celebrated the college's rich history with a unique evening

at the Keeneland sales pavilion that included presentations commemorating the college's past, present and future.



Medical students benefit from the expertise of faculty members like pathologist Paul Murphy, MD, who along with Paul Kearney, MD, was selected by students to receive a Golden Apple award for teaching excellence in 2011. Here, Murphy introduces second-year students to MD823, Mechanisms of Disease and Treatment.

Rigorous Accreditation Surveys Confirm Educational Quality

Basic, graduate and continuing medical education at the University of Kentucky College of Medicine underwent rigorous reaccreditation processes last year, and in all three areas, accrediting agencies found strong programs.

A Program Built on Multiple Strengths

The Liaison Committee on Medical Education (LCME), after a thorough review process, in February 2011 reaccredited the UK College of Medicine for a full eight years.

"The LCME noted multiple strengths of the school," said Darrell Jennings, MD, senior associate dean for education. "We are very pleased with the accreditation visit and very proud of the fact the UK College of Medicine received the maximum length for accreditation."

Among the strengths the LCME noted: the array of research opportunities available to medical students; pipeline programs aimed at increasing diversity; a strong administrative team with faculty support; extensive curriculum evaluation and strategic planning processes used to monitor and improve student

learning; course directors and administration responsive to student feedback and concerns; a financial aid office held in high regard by medical students; and basic science and clinical faculty dedicated to teaching excellence.

The college's space limitations were also noted and this finding may be useful in seeking support for additional facilities.

The LCME process involved a self-study that lasted more than a year and a half, included more than 1,000 pages of documents, and involved more than 100 faculty members, students and staff.

While already strong, the college remains on the cutting-edge of educational improvements. It is moving from a departmental-based curriculum to one organized along body systems. That means students will study, for example, all topics around the heart, including the diseases that affect the heart and drugs used to treat those diseases, rather than generally studying pathology and pharmacology without a specific system focus.

Jennings said the new approach should

produce a more effective integration of basic and clinical science. The change, he said, "dovetails nicely with the changes in health care. We are trying to get education at the undergraduate level to mirror and reflect the way care delivery is changing."

Graduate medical education at UK is also undergoing change, according to assistant dean Susan McDowell, MD. "Through continuous quality improvement efforts, graduate medical education at UK provides its learners with an optimal training environment," said McDowell. "We are optimistic that those efforts will be reflected in an excellent outcome from our most recent institutional site visit by the Accreditation Council for Graduate Medical Education."

The accreditation process took months to gather information and record all of the quality improvement efforts completed over the past five years since ACGME's last visit.

The Accreditation Council for Continuing Medical Education reaccredited UK's continuing medical education program with only one area of noncompliance.

"It is something we are confident we can address and, in fact, already have done so," said James Norton, PhD, director of UK HealthCare CECentral, which is responsible for continuing education for health professionals. "In addition, we were one criterion away from being accredited with commendation, and we will fulfill that criterion the next go around."

Crafting a Diverse, Accomplished Student Body

The success of these programs, however, all start with getting the right students in the door. As LCME noted, UK has built several pipelines aimed at attracting a diverse student body. Students take the lead in some of those efforts, said Carol Elam, EdD, associate dean for admissions. "Our medical students are grateful for the medical education they are receiving here at the University of Kentucky. And they recognize that as future physicians, they will make all the difference in the lives of their patients. So as the next generation of medical

professionals, they really are reaching back and trying to pay it forward in recruiting excellent students to our College of Medicine," she said.

First- and second-year students lead the UK College of Medicine Ambassadors program, targeting minority students and students from underserved areas. They visit high schools to encourage more high school students to consider a career in medicine. Students also lead UK MED, which targets college students in minority and underserved communities, said Carlos Marin, UK AHEC



program director and chair of the college's Diversity Advisory Committee.

UK attracts a large number of students from Kentucky, as well as other states, all competitive nationally. "Our students' performance on national standardized exams meets or exceeds the national average," said Jennings. "Our students' match rate in the national resident matching program exceeds the national average."

The 2011 entering class includes 85 Kentuckians from 34 counties; it also includes students from 16 other states, Puerto Rico and Canada.

Research Funding Puts UK in Elite Group of Research Institutes



Phillip Kern, MD, in a Barnstable Brown Kentucky Diabetes and Obesity Center lab, leads a collaborative of researchers from 12 UK colleges who will benefit from the \$20 million five-year federal CTSA grant.

The University of Kentucky has received several major grants that place the UK College of Medicine within an elite group of the nation's research institutions.

In June 2011, UK received one of the largest single research grants in its history—a \$20 million Clinical and Translational Science Award (CTSA)—from the National Institutes of Health. With this five-year grant, UK joins a select national biomedical research consortium.

In addition, UK Markey Cancer Center received a five-year \$1.75 million grant to establish the UK Cancer Nanotechnology Training Center; that grant is part of a \$4.8 million boost in research funding over the past year, bringing the Markey Cancer Center's research total to \$36.3 million. With the funding, UK becomes one of six institutions nationwide to perform leading-edge nanotechnology research.

In total, these awards bring the College of Medicine research funding to \$115.9 million.

CTSA Grant is One of 60 Across the Country

The CTSA grant will support research at UK's Center for Clinical and Translational Science (CCTS), led by Philip Kern, MD, associate provost for clinical and translational science and director of the Barnstable Brown Kentucky Diabetes and Obesity Center. UK is one of 60 CTSA recipients across the country.

The CTSA program encourages collaboration across scientific disciplines and aims to spur innovative approaches in tackling research challenges. Kern said the grant is an infrastructure grant, not a disease-oriented grant. It's intended to assist other researchers at UK in a collaborative effort aimed at improving the nation's health. In fact, Kern said, 12 of UK's 15 colleges participate in the CCTS in some way.

"One example of our work at UK is the integration of our research strengths in cancer, heart disease and diabetes with our strengths in pharmaceutical sciences and biomedical engineering to develop novel drugs and medical

devices," said Kern, when the funding was announced.

Investigators in the Markey Cancer Center, for example, are partnering with the CCTS to leverage support for infrastructure that will directly benefit research efforts in the Appalachian eastern Kentucky region, according to Mark Evers, MD, professor of surgery and director of the Markey Cancer Center.

In addition to working with UK's 12 colleges, the CCTS has led the formation of the Appalachian Translational Research Network with CTSAs at the University of Cincinnati and The Ohio State University; it also works with Marshall and West Virginia universities. Kern said the goal of the network is to create an environment for sharing resources, mentoring and conducting collaborative studies.

"Overall, our goal is to promote and encourage interdisciplinary research that leads to creative new ideas and speeds the translation of scientific discoveries to health improvements for people in the Commonwealth of Kentucky, the Appalachian region and throughout the nation," Kern said.

Markey Cancer Center Moves Closer to NCI Designation

The Markey Cancer Center also is keenly focused on Kentucky and the Appalachian region. Evers said a significant number of cancer center investigators have funded projects specifically focused on problems in Eastern Kentucky where the incidence rate of many cancers, including lung and colorectal, is the highest in the country.

"Markey Cancer Center investigators have spearheaded a number of prevention trials in lung and colorectal cancer that has led to a decrease in the incidence and mortality from these diseases," Evers said.

The success of those investigators, Evers said, is one reason the Markey Cancer Center has seen an increase in research funding in the wake of shrinking budgets and research funding. "This is a testament to the quality of investigators in the center and also to significant and new collaborations forged over the past two years," said Evers.

The Cancer Nanotechnology Training Center, for example, is the result of collaboration between investigators in the colleges "Overall, our goal is to promote and encourage interdisciplinary research that leads to creative new ideas . . . "

Philip Kern, MD

Associate Provost, Clinical and Translational Science

of Medicine, Pharmacy, Engineering and the Markey Cancer Center.

The additional funding will help the Markey Cancer Center as it applies for Cancer Center Support Grant designation. Application requires a threshold of cancer-related funding, and UK far exceeds those expectations, Evers said.

Research Growth Highlights Facility Needs

The growth in research dollars further highlights the need for additional research space.
The College of Medicine currently has about 250,000 square feet of research space, said Alan Daugherty, PhD, DSc, College of Medicine senior associate dean for research. "Our space continues to age," Daugherty noted, saying that could be a hindrance in recruiting topnotch scientists to the college. "It's going to be extremely expensive to renovate."

Mike Reid, PhD, director of translational technologies and resources, noted increased research funding from not only the CTSA project and Markey Cancer Center, but also research by other investigators at the college. "Our space is completely filled and the ability to continue to grow is root-bound by the lack of research space," he said.

A top priority for both the College of Medicine and the university administration is a second Biomedical/Biological Sciences Research Building that would provide the college an additional 60,000 square feet of research space.

College of Medicine Reaches Out to Address Needs of Community

"The university has long had a commitment to addressing the needs of Kentucky," said James Norton, PhD, associate dean for educational engagement, in reflecting on the attention the UK College of Medicine has given to issues of projected physician shortages, physical inactivity and healthy lifestyles.

Shortage of Physicians, Especially in Rural Areas

A UK College of Medicine study published in the Journal of Public Health Management and Practice estimates the state will need between 1,527 and 1,888 additional primary care physicians by 2020. The college is striving to address that need and has extended its educational offerings through the Rural Physician Leadership Program (RPLP).



UK College of Medicine alum Tom Fritz, MD, ('91) with wife Molly from West Chester, Ohio, checks the simulation patient's pulse while touring the mobile van on display at a UK

football game. Brendan
McCarthy (left), and
Chris Johnson (right),
work with the Area
Health Education
Centers (AHEC) and
coordinate the program.

Four third-year medical students in the RPLP took their clinical studies in Morehead during the 2010–2011 academic year. The RPLP is unique to UK and is designed to produce physicians in all specialties who can provide health care leadership.

The mission is simple: Create physicians who will address shortages in rural areas, said Anthony Weaver, MD, assistant dean for the Morehead regional site. "Frankly we can do a lot of good things, but if we don't address rural health care shortages, it won't be meeting the goals for the program," Weaver said.

RPLP students complete their first two years of medical school at the Lexington campus, then move their studies to Morehead State University's Center for Health, Education and Research, where they train primarily at St. Claire Regional Medical Center.

Developing Interest in Health Careers

The RPLP involves another program reaching out to all parts of Kentucky-Area Health Education Centers, a collaborative effort with the University of Louisville. Physicians in the Northeast AHEC serve as preceptors for the RPLP students.

Throughout Kentucky, physicians participating in the AHEC Community Faculty Program provide community-based learning experiences for health profession students. The program utilizes the services of community faculty throughout the state for fourth-year electives in a specific rotation.

The AHEC program also has expanded to include a health career pipeline, exposing middle school and older students to health careers. Medical school students serve as role models in visits to area schools "to encourage more people in rural Kentucky to pursue a career in health care," said Weaver.

UK brings 50 of those students onto its campus each summer for rigorous residential camps involving all of the health profession colleges for students interested in health careers.

First- and second-year medical students work with William Wells Brown Elementary students in the Jumpin' Jaguars program promoting physical activity and healthy behaviors.



The college also has a new tool to spark student interest in health professions.

The AHEC program received a \$292,000 grant to purchase three vans to develop a patient simulator program. One van will be housed in Lexington, one in western Kentucky and the other in eastern Kentucky.

"The simulator was designed to contextualize for students what they're learning in a classroom," said Carlos Marin, assistant dean for community and cultural engagement and the UK AHEC Program Coordinator.

Lifelong Learning

The learning doesn't stop once a student graduates and completes a residency program. UK continues the education process through CECentral, which counts about 60,000 practitioners in its database who look to the professional development provider for some of their educational needs.

"It's really the lifelong learning piece that we're talking about beginning in middle school and ending with continuing education," said Norton, who directs UK HealthCare CECentral.

Encouraging Healthy Lifestyles

Medical students are involved in medicine well beyond the classroom. In 2011, 45 first- and second-year students volunteered their time twice a week in the UK Jumpin' Jaguars program leading elementary students in fun physical activities like hip-hop dancing, Zumba and swimming.

"The College of Medicine remains committed to making a difference in the lives of these elementary students through this coalition and community partnership," said Todd R. Cheever, MD, assistant dean for student affairs and UK Jumpin' Jaguars program director.

Jumpin' Jaguars is expanding to two additional schools to reach more elementary students. Medical students have found other ways to touch the lives of Kentuckians. They organize and participate in an annual one-day Hispanic Health Fair in Lexington, providing health information and basic medical screenings to more than 200 people. They also volunteer at Lexington's Salvation Army Clinic, gaining valuable interviewing, organizational and clinical experience through this service-learning project. More than 700 patients are seen annually.

"One of the goals of the university is to increase community engagement," said Norton. "The College of Medicine offers many avenues for its students to take their talents and skills out into the community for service-learning opportunities."



Former dean Emery
Wilson, MD, has turned
his attention to the college's alumni and how
to better involve them
in the life of the college.
Here, he talks to Jeff
Hord, MD ('89), director
of the cancer program at
Akron (Ohio) Children's
Hospital, during an
alumni tailgate party.

Wilson Improves Connection Between College and Its Alumni

Dr. Emery Wilson touched the lives of many University of Kentucky College of Medicine students as a student and resident from 1964 to 1972, a faculty member starting in 1976, and dean of the college from 1987 to 2004.

So it seems only natural for Wilson, after completing a year as interim dean, to head up a renewed effort in alumni affairs. He'd like to see alumni more involved with current students, either through career chats with first-and second-year medical students or by helping fourth-year students as they travel around the country for residency interviews.

"We will be putting together a strategic planning process for the alumni affairs program with the idea of making it more service oriented," Wilson said. "We want them to feel a part of the alumni organization and a part of the College of Medicine."

By the Numbers

Education

Class of 2014 Mean Scores As of Aug. 2, 2010.

College Grade Point Average

Science 3.69
Non-science 3.82
Total GPA 3.74

MCAT Sections

Verbal Reasoning 9.85 (1-15 scale)
Physical Science 10.45 (1-15 scale)
Writing Samples P (J-T scores)
Biological Science 10.72 (1-15 scale)
Total 31.02

Approximately 92 percent of all medical students receive some form of financial aid and 46 percent benefit from scholarship awards.

In 2011, UK medical students matched into 21 different specialties for residency. 24 percent elected to stay within the UK HealthCare system, and an additional 6 percent elected to stay in Kentucky for residency.

The college has one of 10 triple-board residency programs in the nation where residents can train in Adult Psychiatry, Child and Adolescent Psychiatry and Pediatrics.

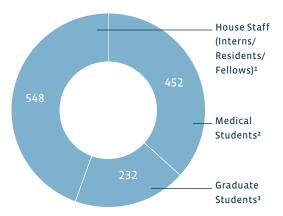
The College of Medicine is accredited by the Liaison Committee on Medical Education of the Association of American Medical Colleges and the American Medical Association.

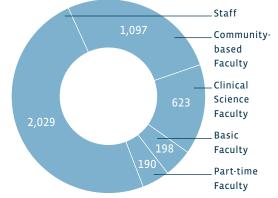
Outreach

Community Faculty Program

1,133 total community faculty members 87 new appointments in the 2011 fiscal year 183 medical student rotations 732 weeks of student rotations

Learners





¹As of June 30, 2011.

²As of start of 2010–2011 academic year.

³As of 2011 spring semester. Includes students pursuing MS and PhD degrees.

Research

Grants and contracts in the College of Medicine reached \$115.9 million in fiscal year 2011, (July 1, 2010 to June 30, 2011) including in excess of \$70 million in National Institutes of Health (NIH) funding.

In federal fiscal year 2010, (October 1, 2009 to September 30, 2010) UK received 63 percent of the **NIH research funding** granted to Kentucky medical schools.

UK has 250,000 square feet of research space. Research expenditures per net assignable square foot is \$314.90, near the targeted average nationally.

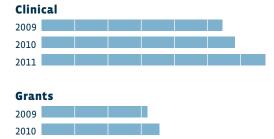
Markey Cancer Center in FY11 received an increase of \$4.8 million in research funding for a total of \$36.3 million. The increase includes a five-year, \$1.75 million grant to establish the UK Nanotechnology Training Center.

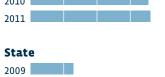
College of Medicine awarded sponsored projects as a % of UK total awards

FY10	39.9%
FY11	38.7%

Revenue Sources

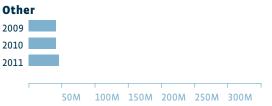
Faculty and Staff 1











138 Leader Avenue Lexington, Kentucky 40506-9983 859-323-6582

mc.uky.edu/medicine



Statistics and Trends

Hospital Operating Statistics for Year Ending June 30

	2011	2010	2009
Discharges			
Medicare	10,065	9,478	9,370
Medicaid	9,277	9,146	9,032
Commercial/Blue Cross	9,453	9,955	9,868
Patient/Charity	3,762	3,776	3,498
Total Discharges	32,557	32,355	31,768
Licensed Beds	791	791	791
Available Beds	650	643	636
Average Daily Census	530	508	495
Average Length of Stay	5.94	5.74	5.69
Case Mix Index	1.75	1.73	1.72
Surgery			
Operative Cases	26,245	25,512	24,638
Hospital-based Outpatient			
Hospital Clinic Visits	339,839	319,297	312,208
Emergency Visits	77,205	69,671	68,299
Total Hospital Outpatient Visits	417,044	388,968	380,507

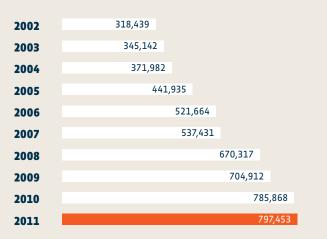
Other Operating Indicators for Year Ending June 30

	2011	2010	2009
Ambulatory Services			
Ambulatory Physician Visits	586,013	569,598	585,957
Professional Net Revenue*	\$ 207,026	\$ 196,754	\$ 195,385
Other Service Relationships			
Referring Physicians	4,697	4,630	4,316
UK•MDs Physician Calls	163,181	157,276	152,381
Health Connection Consumer Calls	156,604	145,363	139,700
Website Users (Avg./Mo.)	94,797	93,436	72,995

Hospital Discharges



Hospital Operating Revenue (\$ in the thousands)*



*Historical operating revenue is net of bad debt expense.

Grants and Contracts Awarded (\$ in the millions)



**2006-2009 College of Medicine only; 2010 and 2011 includes colleges of Dentistry, Health Sciences, Medicine, Nursing, Pharmacy and Public Health.

Office of the Executive Vice President for Health Affairs*

Michael Karpf, MD

Executive VP for Health Affairs

Richard P. Lofgren, MD

VP for Healthcare Operations Chief Clinical Officer

Sergio Melgar

Senior VP for Health Affairs Chief Financial Officer

Emery Wilson, MD

Interim VP for Clinical Affairs Interim Dean, College of Medicine

Executive Leadership Team⁺

Mark Armstrong
Frank Beirne
Mark D. Birdwhistell
Frank Blair
Justin Campbell
Teresa Centers
Sandra Chambers
Joseph D. Claypool
Murray Clark
Jonathan W. Curtright
Paul D. DePriest, MD

Ed Erway Bill Gombeski

David Gosky

Kathleen Kopser, MSN, RN

Lorra Miracle, RN Ajay Sial

Ann Smith

Darlene Spalding, RN

Colleen H. Swartz, DNP, MBA, RN Tim Tarnowski

Jim Zembrodt

+As of June 30, 2011.

36 CHALLENGES MET, NEW GOALS SET

Financial Statements

For year ending June 30.

Hospital Condensed Statements of Operating Revenues, Expenses and Changes in Net Assets

(\$ in the thousands)

	2011	2010	2009
	\$ 776,388	\$ 766,437	\$ 686,604
Sales and Services	21,065	19,431	18,308
Total Operating Revenues	\$ 797,453	\$ 785,868	\$ 704,912
Operating Expenses	765,081	742,456	698,179
Operating Income	\$ 32,372	\$ 43,412	\$ 6,733
Nonoperating Revenue (Expenses)	31,313	19,339	(36,556)
Income Before Transfers to UK	63,685	62,751	(29,823)
Transfers to UK/Other	(22,378)	(23,303)	(17,907)
Net Income (Loss) From			
Discontinued Operations	(17)	(14)	(17)
Total Increase in Net Assets	\$ 41,290	\$ 39,434	\$ (47,747)
Operating Margin	4.06%	5.52%	0.96%
Total Margin	5.18%	5.02%	(6.77%)

Note: The method for reporting operating revenues and expenses changed in fiscal year 2008 to comply with GASB statements; in the audited statements operating revenue is net of bad debt, which was previously reported as an operating expense.

Statement of net assets and related statements of revenues, expenses and changes in net assets for the year ending June 30, 2011, were audited by BKD, LLP, of Louisville, Kentucky.

Hospital Net Patient Revenue by Funding Source*

(\$ in the thousands)

	2011	2010	2009
Payor			
Medicare	\$ 215,078	\$ 198,549	\$ 199,207
Medicaid	204,991	192,892	162,711
Commercial/Blue Cross	362,792	325,078	325,585
Patient/Charity	80,829	77,143	49,858
Total	\$ 863,690	\$ 820,662	\$ 737,361
Bad Debt	(87,302)	(54,225)	(50,757)
Total Net Patient Revenue*	\$ 776,388	\$ 766,437	\$ 686,604

^{*}Including bad debt.

Hospital Condensed Statements of Net Assets

(\$ in the thousands)

		2011		2010	2009
Assets					
Current Assets	\$	152,641	\$	253,039	\$ 286,800
Capital Asset, Net of Depreciation		772,163		667,580	488,596
Other Noncurrent Assets		258,176		242,283	222,790
Total Assets		1,182,980	\$ 1	1,162,902	\$ 998,186
Liabilities					
Current Liabilities	\$	119,686	\$	114,689	\$ 89,091
Noncurrent Liabilities		438,184		464,393	364,709
Total Liabilities	\$	557,870	\$	579,082	\$ 453,800
Net Assets					
Invested in Capital Assets,					
Net of Related Debit	\$	324,438	\$	208,407	\$ 124,643
Nonexpendable Other		118		116	115
Restricted Expendable		13,086		15,218	25,801
Unrestricted		287,468		360,079	393,827
Total Net Assets	\$	625,110	\$	583,820	\$ 544,386

Oversight

As of June 30, 2011.

COLLEGE OF DENTISTRY

Administration

Sharon P. Turner, DDS, JD Dean

Jeffrey L. Ebersole, PhD

Associate Dean of Research

Randall J. Gonzalez, MA

Associate Dean for Administrative and Finance

Cynthia Beeman, DDS, PhD

Associate Dean for Academic Affairs

Fonda Robinson, DMD

Associate Dean for Clinical Affairs

Christine Harper, MS

Assistant Dean for Admissions and Student Affairs

Keith Shelton, MPA

Assistant Dean for Clinical Business Operations

Chairs

Jeffrey P. Okeson, DMD Oral Health Science

Mark V. Thomas, DMD

Oral Health Practice

COLLEGE OF HEALTH SCIENCES

Administration

Lori S. Gonzalez, PhD

Dean

Sharon Stewart, EdD

Associate Dean for Academic Affairs

Charlotte Peterson, PhD

Associate Dean for Research

Chairs

Karen Skaff, PhD

Clinical Sciences

Janice Kuperstein, PhD

Rehabilitation Sciences

COLLEGE OF MEDICINE

Administration

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Donor Gifts Touching All Areas

The Rosenthal Family
Plaza at the new
entrance to UK Chandler
Hospital is an example
of the positive impact
philanthropy has had on
our facilities.

Generosity inspired by a shared vision is helping UK HealthCare deliver on its commitment to improve the health and well-being of Kentuckians through patient care, education and research. Philanthropy is touching the institution in many meaningful ways. Strong evidence of such support was unveiled in May with the opening of the new patient care pavilion at UK Albert B. Chandler Hospital.

The park-like setting and natural stone water feature of the Rosenthal Family Plaza showcases the circular driveway and lobby entrance to the new Pavilion A. Warren Rosenthal's gift in honor of his wife, Betty, helped create the tranquil surroundings with stacked stone walls and trees, grasses and other plants native to Kentucky.

Many of the features in public areas on the ground and first floor of the lobby were made possible by donors. Richard M. Scaife's gift through the Sarah Scaife Foundation helped make a much-needed 305-seat auditorium a reality. This state-of-the-art venue is now

home to high-tech educational programs for students, staff and the public, as well as the Lucille Caudill Little Performing Arts in Health-Care Program.

The significant works of art showcased as part of UK's Arts in HealthCare Program were made possible by philanthropists who understand the proven connection between art and healing. Among the most notable contributions is Gingko, the focal point of the lobby atrium, which was donated by the James F. Hardymon Family Foundation. This brightly colored stainless steel and mesh fabric sculpture is suspended beneath the three-story skylight, delighting all passers-by.

More than 40 gifts were received from a variety of supporters, including UK HealthCare staff and UK faculty members, culminating in more than \$1 million in contributions, kicking off the "Room to Heal" campaign to name patient rooms and other areas of the patient care floors. One example is a gift from original trauma team leaders, Colleen Swartz,



DNP, chief nurse executive, and Paul A. Kearney, MD, surgeon and Paul A. Kearney, MD, Endowed Chair in Trauma Surgery. Swartz and Kearney named the trauma team station in the Floor 7 Trauma Intensive Care Unit.

The new Don and Cathy Jacobs Health Education Center serves as a central resource to help patients and families research their medical questions as well as offer education and training to nurses, physicians and other caregivers with a goal of improved health care outcomes. The gift from Lexington business leader Jacobs and his wife enabled the center to be relocated from the original lobby of UK Chandler Hospital to its new home on the first floor concourse of Pavilion A and provide expanded services.

Gifts Support Research, Patient Care

A conversation between friends, Joseph H. Clark and Tom Dupree, Sr., spurred a significant gift to the university helping advance Parkinson's disease research. Clark, who established the Braden-Clark Fellowship in Parkinson's Disease Research, continued to share details about the incredible work being done at the Kentucky Neuroscience Institute at UK. The words of his friend really piqued Dupree's interest. He met with nationally recognized Parkinson's investigator Greg Gerhardt. Following the brief exchange, Dupree felt compelled to support Gerhardt's work and, in turn, established a fund the researcher uses at his discretion for ongoing, preclinical investigations aimed at developing new therapies for Parkinson's disease.

Gerhardt, a professor of anatomy and

neurobiology as well as director of UK's Morris K. Udall Parkinson's Disease Research Center of Excellence, and his team of researchers are currently investigating the use of growth factors, such as GDNF, to restore function to damaged dopamine neurons. These new therapies may have great impact on repairing and restoring functionality, which is paramount to combating the disease.

Although Parkinson's disease currently cannot be definitively diagnosed until after death—current treatment focuses on symptoms of the disease—Gerhardt hopes to shift that paradigm through a new modality that would more effectively treat the disease as well as diagnose it. This would open the door to a new era of research in Parkinson's disease.

Individuals, businesses and foundations have worked with Kentucky Children's Hospital to elevate the level of care provided to Kentucky children. Private support has made it possible for the hospital to recruit top pediatric specialists, gain access to the best medical equipment available, conduct research to find cures for childhood diseases and provide a comfortable, family-centered environment that promotes healing.

The plaza honors

Betty Rosenthal,
shown here with her
husband Warren.

"The generous gifts of these individuals and organizations make it possible to bring together art, science and healing in this world-class facility for the people of Kentucky and beyond . . ."

As inscribed on a plaque in the new patient care pavilion

Many corporations and foundations have recently made significant contributions to pediatric health care. Coach Rich and Karen Brooks, supporters of the Rich Brooks Foundation and organizers of the Rolex Kentucky Three-Day Event, came together to make the Kentucky Children's Hospital Congenital Heart Clinic possible. Speedway and Crusade for Children made gifts toward the purchase of a new pediatric transport vehicle. The Walmart Foundation



A gift from Don and
Cathy Jacobs of Lexington
(left) funded the new
Health Education Center
that bears their names.
The center (shown below)
is open to all and provides
resources to help
patients better understand health conditions
and treatment options.



supports the Healthy Kids Clinic where children learn habits of a healthy lifestyle. Kohl's provides multiyear support for the Kohl's UK Asthma Program, a multi-media statewide education campaign. The Keeneland Concours d'Elegance continued funding research to help babies born prematurely. The generosity of so many has made it possible for Kentucky Children's Hospital to fulfill its mission of providing the highest level of care to Kentucky children.

Anniversary Giving Campaign to Benefit Medical Education

A giving campaign that was part of UK's celebration of the 50th anniversary of the College of Medicine garnered \$3.25 million in donations from 844 individual contributors. One of those gifts was a bequest from the late Gary Browning, MD. Dr. Browning struggled financially while attending UK College of Medicine, and when he graduated in 1984, he owed \$100,000. The Gary M. Browning Endowed Scholarship and Student Support Fund will help UK students having difficulty with tuition and living expenses. The Gary M. Browning Challenge Grant matches new and increased contributions to the college's annual giving campaign.

Culture of Philanthropy

These and many other notable gifts are helping to fuel UK HealthCare's programs, solidifying the foundation of a true culture of philanthropy. The generosity of many individuals and organizations is now at the core of our effort to become a world-class health care system that's uniquely Kentucky.



James and Gay Hardymon (right) represented the James F. Hardymon Family Foundation at the dedication of Gingko (above), a giant mesh fabric and stainless steel sculpture suspended from the atrium lobby skylight of the new UK Chandler Hospital pavilion. The foundation's gift funded the sculpture.



Music as Therapy Helps Patients Recover

Lori Gooding and staff therapy to patients at UK hospitals.



A new clinical service—music therapy—is harnessing the healing power of music to help patients achieve their health-related goals. UK HealthCare and UK School of Music partnered to create the program, launched October 2010 under the direction of Lori Gooding, PhD, MT-BC, NICU-MT, assistant professor of music.

"Music influences a patient's mental and physical well-being."

Lori Gooding, PhD, MT-BC, NICU-MT, Director, Music Therapy

The program accepted its first music therapy intern, Florida State University senior Shane Swezey, and submitted five grants to fund music therapy research. Also, the American Music Therapy Association gave its needed approval for the introduction in 2012 of Kentucky's only music therapy graduate degree program

"Music influences a patient's mental and physical well-being," said Gooding. Research shows that music in all its forms helps children and adults better manage pain and anxiety, and improve coping and communication skills. It promotes recovery by increasing the body's endorphins, which makes a person feel better, while lowering an abnormally high heart rate or blood pressure. It also facilitates physical rehabilitation, enhances memory and helps patients express feelings.

Music therapy services are offered at no charge to inpatients at UK Chandler Hospital, Kentucky Children's Hospital and UK Good Samaritan Hospital, as well as to some outpatients at Kentucky Clinic. The W. Paul and Lucille Caudill Little Foundation established an endowment to launch the program. The gift was matched by state Research Challenge Trust Fund dollars and proceeds from UK's 2010 Overture to Healing Gala.

On the back cover, (left) the Gingko sculpture as seen from below and (right) Darlene Felty, a medical technologist in the Chandler Hospital core lab, prepares a slide. Felty and her colleagues perform on average 9,000 tests per day to support diagnosis and treatment.

