

A woman in a dark blue shirt with 'Child Special' printed on it is blowing bubbles into a yellow ring. A young girl with curly hair, wearing pink and white striped pajamas, is sitting up in a hospital bed, smiling and watching the bubbles. The room is dimly lit with warm, purple-toned lighting.

# BUILDING QUALITY AND VALUE

## 2018 ANNUAL REPORT

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A new coordinated structure for improvement supports the UK HealthCare enterprise goals. These priorities are important to patients and essential to UK HealthCare's mission.

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## BUILDING QUALITY AND VALUE

### LIVING DIREcT

Commitment to our academic, research and clinical mission has helped UK HealthCare serve the people of Kentucky. Yet, our greatest challenges lie ahead. To guide us moving forward, faculty and staff from throughout UK HealthCare helped us articulate five key values.

- Diversity
- Innovation
- Respect
- Compassion
- Teamwork

### Performance Pillars

A new coordinated structure for improvement supports UK HealthCare enterprise goals. These priorities are important to patients and essential to UK HealthCare's mission.

- Exceptional Clinical Care
- Safe, Effective Care
- Extraordinary Care Experience
- Efficient, Affordable Care
- Healthy Financial Performance

### On the Cover

Major new state-of-the-art facilities and services opened at Kentucky Children's Hospital in 2018.



## UK BOARD OF TRUSTEES

# MEETING OUR COMMITMENT TO THE PEOPLE OF KENTUCKY



The University of Kentucky Board of Trustees selects several from its number to serve on the University Health Care Committee. Each of us is committed to overseeing the university's health system – UK HealthCare – to achieve the maximum good for the people of Kentucky.

We began working with Dr. Mark F. Newman, the university's new executive vice president for health affairs, in September 2017. Although the health system has been remarkably successful, we are particularly attuned to the fact that our nation's health care is undergoing a sea change. Additionally, many Kentuckians have health and social factors that place them at high-risk for the most serious medical conditions.

In light of these concerns, the committee was pleased UK HealthCare was again ranked the No. 1 hospital in Kentucky by U.S. News & World Report, and four UK specialties ranked among the nation's top 50 providers: cancer, neurology and neurosurgery, geriatrics, and diabetes and endocrinology. Five other adult specialties were considered high-performing, as well as eight common adult procedures and conditions.

To benchmark its quality efforts, UK HealthCare participates in the Vizient Quality & Accountability Study that involves more than 100 of the nation's academic medical centers – centers with a similar

complexity in terms of mission (clinical care, research and education). Like UK HealthCare, they treat some of the nation's most challenging, complex patients. UK HealthCare stands out even among this group, accepting more patient transfers from other providers than any other center. Based on fiscal year 2018 performance, UK HealthCare received the Vizient Rising Star Award for its climb in the ranking to 24th in overall quality among the centers.

Thanks to the hard work of UK HealthCare leaders and teams, by year's end the committee was presented with a refined strategic plan that reaffirms UK HealthCare's commitment to serving the health care needs of Kentuckians with quality, safety and value as guiding principles. This plan also directs more focus on meeting the needs of both the UK community and the Bluegrass region through an expansion of UK HealthCare's outpatient services.

Moreover, UK HealthCare has committed to an aggressive plan to advance quality that includes concrete changes to its infrastructure supporting ongoing quality improvement.

Fortunately, we are pleased all of this has been accomplished while finding efficiencies and adding value to ensure that Kentuckians can continue to access specialized medical care close to home at a reasonable cost.

**Robert D. Vance**

*Chair*

University Health Care Committee of the  
University of Kentucky Board of Trustees

### University Health Care Committee University of Kentucky Board of Trustees

*As of Dec. 31, 2018*

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## WORKING AT OUR BEST

# PROUD BUT NOT SATISFIED

2018 was a good year for the patients we serve. For a third year, UK HealthCare ranked the No. 1 hospital in Kentucky in the U.S. News & World Report survey. Four of our specialties ranked nationally.

We also served a record number of patients in both hospital and ambulatory settings.

FY 2018 was the year we launched a set of five key values across the health system. Together, the values form the acronym – DIRect – and LIVING DIRect is guiding us as we aspire, grow, reorganize and expand. Listening sessions and my introductory visits throughout UK HealthCare and the College of Medicine helped shape a refined strategic vision for UK HealthCare, one that includes strategies supporting clinicians and staff with a positive work environment.

During 2018 we launched “Working @ our BEST” to emphasize quality and value within academic, clinical and supply chain areas. More than an initiative, BEST (Building Efficiencies through Strategic Transformation) is giving us experience in working together to increase the value, sustainability and impact of our work.

Reliable high-quality care is part of our mission, important to our patients, and now integral to our strategy and goals. Our ambitions for quality and continuous improvement are increasing. We are developing infrastructure, data at the point of care, and a training platform to sustain our gains and embrace a culture of continuous quality improvement.

I am proud of our performance. It displays the hard work of our clinicians and staff. Proud but not satisfied. We must challenge ourselves to look always for ways to improve the care we deliver.

During 2018, an oversight group of clinicians and staff (see page 33) was created to crystalize our focus on quality. Efforts

to improve quality, safety, efficiency and service continue as we work ever harder to serve the Bluegrass through all our missions.

This year in reporting UK HealthCare’s performance, we introduce five pillars designed to help us manage every critical dimension of performance. We have been devoted to doing good in the Commonwealth of Kentucky, and we are poised to become even better.



**Mark F. Newman, MD**  
*Executive Vice President for Health Affairs*  
UK HealthCare® / University of Kentucky

## KENTUCKY CHILDREN'S HOSPITAL

# THE POWER OF ADVANCED MEDICINE

Over the last decade, UK HealthCare has dramatically updated its facilities, including significant upgrades at Kentucky Children's Hospital in spring 2018. Upgrades include the new 70-bed Betti Ruth Robinson Taylor Neonatal Intensive Care Unit, which features a central infant nutrition room, home amenities for families, and private patient rooms, each with a daybed, kangaroo chair, breast pump and circadian-rhythm lighting.

At the new entrance to Kentucky Children's Hospital, families are greeted at the Makenna Foundation Welcome Center and may spend a few moments in the UK Football Coaching Staff Waiting Area. Close by is an education center with pediatric-centric health information and resources. The Kids' Corner Gift Shop offers child-focused, family-friendly items, and the child-scale Simpson Family Theater hosts events and programs coordinated by the Child Life Department.

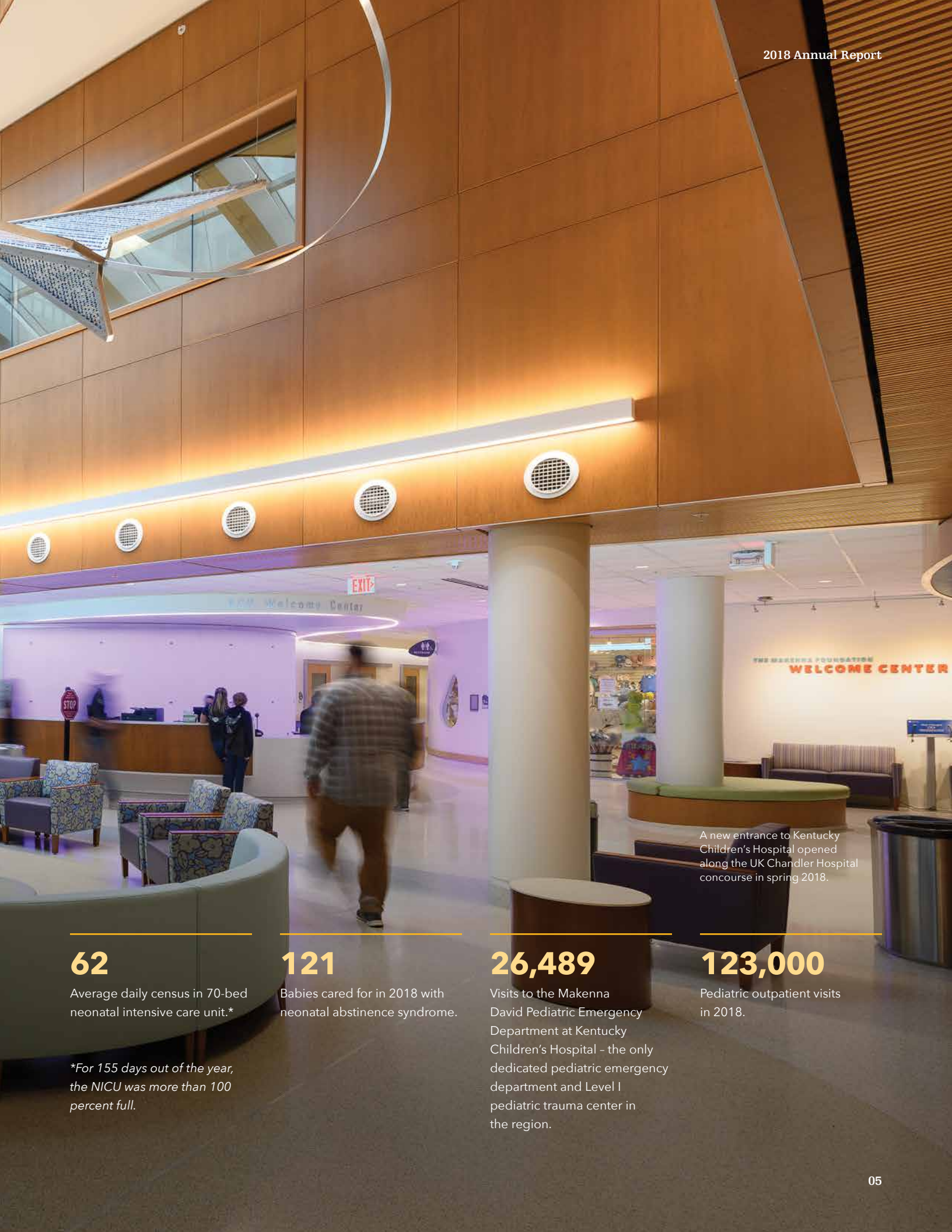
### **The Power of Advanced Medicine defies odds**

At 2 weeks old, Kase Chaney became inexplicably distressed, his face turning blue. An emergency department visit yielded nothing. He was a healthy newborn.

During a subsequent visit to the Makenna David Pediatric Emergency Center at Kentucky Children's Hospital, medical professionals witnessed Kase's mysterious cyanosis firsthand. Three months later, UK HealthCare pediatric specialists diagnosed him with laryngotracheobronchomalacia – underdeveloped, collapsible airways – generally given a prognosis of six months of life.

Thanks to surgically reconstructed airways supported by a tracheal tube, Kase is 3 years old and awaiting tube removal eight years ahead of schedule. Advanced medical treatments help children and adults alike defy the odds.





A new entrance to Kentucky Children's Hospital opened along the UK Chandler Hospital concourse in spring 2018.

**62**

Average daily census in 70-bed neonatal intensive care unit.\*

*\*For 155 days out of the year, the NICU was more than 100 percent full.*

**121**

Babies cared for in 2018 with neonatal abstinence syndrome.

**26,489**

Visits to the Makenna David Pediatric Emergency Department at Kentucky Children's Hospital - the only dedicated pediatric emergency department and Level I pediatric trauma center in the region.

**123,000**

Pediatric outpatient visits in 2018.

PERFORMANCE DOMAIN

# EXCEPTIONAL CLINICAL CARE

Our commitment to Kentucky begins with exceptional clinical care. Each of us wants to do the right thing for patients. The emphasis in fiscal year 2018 was on setting up the necessary structures to ensure that the best patient-centered, high quality, most affordable care can grow and thrive.

Significant gains were made in 2018 in several clinical areas – growing our behavioral health continuum of care, smoothing patient flow within and through our emergency departments, leveraging the expertise of pharmacists on our care teams, ensuring voices of patients and family members inform our decisions about care, and expanding the advanced medical care and services UK is uniquely equipped to provide.

The only center in Kentucky offering adult extracorporeal membrane oxygenation (ECMO) transport, UK HealthCare can support smaller hospitals by providing emergency mechanical support that mimics the natural function of the heart and lungs during transport of desperately ill patients. A tight collaboration between emergency medicine, cardiovascular surgery, nursing and perfusion is necessary for such a service to exist.

Collaboration and integration of efforts is key to the adult ECMO transport service and the growth of exceptional clinical care.

## 83% decrease

“Left without being seen” decreased 83 percent in 2018 thanks to an innovative Physician in Triage initiative. Only 0.2 percent of patients left the emergency department before being seen by a physician, making the Chandler ED the No. 1 performer among primary academic centers (2016 AACEM Benchmark Survey). Another impact: the first year of Physician in Triage created **more than 1,000 days** of bed space from length of stay gains – meaning nearly **3,400** additional patients could be accommodated.

## 60

Patients and family members recruited to advise within six councils: Obstetrics-Maternal-Neonatal-Infant Follow up Advisor Council; Patient and Family Advisor Council; Kentucky Children’s Hospital Parent Advisor Council; Cardiovascular Services Advisor Council; Employee Patient and Family Advisor Council; Markey Cancer Center Advisor Council.





UK HealthCare is the only system in Kentucky equipped to provide medical transport for critically ill patients who require extracorporeal membrane oxygenation (ECMO) support for heart and lungs during transfer. Here, the ECMO transport team trains using simulation.

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## Top 25

Rank among more than 100 academic medical centers across the nation. Received 2018 Vizient Rising Star Award for improvement in the ranking based on five domains of performance.

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## 9 of 10

UK HealthCare clinics performed at the 90th percentile in screening patients for tobacco use and counseling on tobacco cessation.

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## 40% decrease

Fewer patients readmitted to the hospital within 30 days thanks to a new Meds to Beds service (patients leave the hospital with their prescribed medications, thereby improving compliance with the doctor's orders) and greater pharmacist involvement in patient education.

## PERFORMANCE DOMAIN

# SAFE, EFFECTIVE CARE

A key refinement to come from a review this year of UK HealthCare's strategic plan was a decision by Executive Vice President for Health Affairs Mark F. Newman, MD, to place quality, safety and value as the ultimate goal for all strategic decisions.

This is not a new thought at UK HealthCare, but it does reflect a new, higher level of integration and collaboration to drive improvement, consistency and efficacy across the entire continuum of care.

UK HealthCare leaders have long set goals in patient safety – a term that embraces taking action to prevent a multitude of adverse events. Yet having a target for performance is not enough. Plans for reaching the target and going beyond must include training, educational tools, processes for finding problems and structures for implementing change.

During fiscal year 2018 a significant portion of the executive team's attention was given to developing the structures and leadership necessary to drive ongoing quality improvement and consistency systemwide – a major part of that being patient safety and effective care.

Today, the chief medical officer, chief nurse executive, and a new chief quality and transformation officer work as a team and as part of an Executive Quality Committee to leverage the system's expertise and standardize high-quality, advanced care – including safety and efficacy – across all care locations.

### Reducing hospital-acquired infections

Focused attention reduced three common hospital-acquired infections (HAIs) to half of what might be expected. A standardized infection ratio below 1.00 indicates fewer infections than predicted. Our aim is **zero** hospital-acquired infections.

- 0.43** catheter-associated urinary tract infections (CAUTI)
- 0.57** central line-associated blood stream infections (CLABSI)
- 0.34** Clostridium difficile (C. diff)

*\*FY 2018 4th quarter measures*

**146**

First-year residents completed SWARM training in 2018. UK HealthCare uses a "swarming" approach to evaluate an adverse event and develop possible solutions to prevent future occurrences.

**196 swarms** were conducted in 2018.

**23%**  
beat the odds

In fiscal year 2018, **23 of every 100** hospitalized patients who were likely to die because of complications and the severity of their illnesses in fact survived.

In a swarm – a key tool in use at UK HealthCare for quality improvement – everyone involved with an adverse event is invited to contribute to the root cause analysis. Armed with this information and the presence of all key parties, the group can quickly turn to possible solutions.

## 90.8%

Falls are a serious threat to the health and well-being of patients, particularly older patients. During fiscal year 2018, nine out of 10 patients were screened for fall risk in hospital-based clinics as part of the ambulatory safety plan.

## 11,500

Flu vaccines administered to anyone who serves patients. Vaccination protects both employee and patient. This is 91 percent of the population targeted.

## 250,000 fewer opioids

Thanks to revised protocols and a concerted effort begun in 2017, **24 percent** fewer patients were placed on high-risk opioid regimens, which means **3,500** patients were not given an opioid prescription who would have been given one in fiscal year 2017. All in all, 250,000 fewer opioid pills were dispensed in the year (1 pill = 5 mg oxycodone equivalent).

## PERFORMANCE DOMAIN

# EXTRAORDINARY CARE EXPERIENCE

To continue as Kentucky's destination academic medical center, UK HealthCare must deliver a connected and personalized experience at key moments in the patient journey where value can be driven to patients, families and the community.

Strategic efforts to align UK HealthCare's culture for this purpose are equipping staff and leadership to be ambassadors of the patient- and family-centered culture and the UK HealthCare brand. In 2018, refinements to the strategy elevated and extended this commitment to patient- and family-centered care across and into every corner of the enterprise.

Key to delivering an extraordinary care experience is an engaged workforce. Provider and staff engagement, diversity and inclusion, employee wellness and well-being, and other efforts are pursued as part of improving experience and engagement for all.

During fiscal year 2018, we extended the involvement of patient advisory councils, reimagined our approach to recognizing career achievement, and entered an arrangement with the UK College of Nursing to reward the college for meeting certain milestones to improve the diversity of students entering nursing school.

Organizational values were launched and discussed in work teams across UK HealthCare. Now our **Living DIRECT** values – Diversity, Innovation, Respect, Compassion and Teamwork – serve as touchstones that guide behavior and help us hold each other accountable.

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**26,000**

Patients added to texting system in fiscal year 2018 for the convenience of receiving clinic appointment reminders via text.

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**338** nurses

Nominated for a DAISY Award in 2018 by their patients and/or the patient's family. The DAISY Award is an international program that celebrates and rewards nurses who exhibit extraordinary care exemplified by compassion and excellent clinical skills.

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**8** out of **10**

Hospitalized patients rated communication with their doctor a "9 or 10" (10-point scale) in 2018. This is the highest rating ever achieved in patient experience survey responses and reflects a great deal of effort on the part of UK providers.

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About **500**

Number trained during the year in the AIDET® framework to improve communication with patients, families and each other. The acronym stands for Acknowledge, Introduce, Duration, Explanation and Thank You. It ensures that all of the fundamental patient communication elements are part of every interaction.



Marcus Randall, MD, chair of radiation medicine, greets a patient in the Radiation Medicine treatment area.

**72.6%**

Percent of patients who rated their *inpatient* experience in the top box (9 or 10 on a 10-point scale) in 2018.

**85.6%**

Percent of patients who rated their *outpatient* experience in the top box (9 or 10 on a 10-point scale) in 2018.

**58,601**

Total number of e-cards sent between employees as part of the STAR (Special Thanks and Recognition) program. In addition, 1,001 gold, 779 silver and 1,944 bronze awards were given to staff in 2018 for exceptional performance.

## PERFORMANCE DOMAIN

# EFFICIENT AFFORDABLE CARE

As fiscal year 2018 began, UK HealthCare was engaged in a structured effort called Working @ our BEST (Building Efficiencies through Strategic Transformation).

By increasing efficiencies and affordability, we are transforming how we work. The benefits make it possible to reinvest in our mission and meet the demands of payers reimbursing for care based on value.

Our hospital length of stay has been trending downward over the past few years, indicating better efficiency in treating patients and discharging them when they are ready.

In our ambulatory (outpatient) services, we piloted successful approaches in 2018 to improve access and clinic workflow. These processes are now being deployed across all of our ambulatory operations.

One of our proudest achievements is the progress made in case management and transitions of care. Thanks to a newly established post-acute care office, we have developed partnerships among skilled nursing facilities, rehabilitation hospitals, and others to form a preferred provider network. The overall care continuum has been enhanced and transitions of care are improved. When we can transition patients easily and efficiently to lower-acuity facilities, we improve outcomes and reduce readmissions.

As our quality, safety and efficiency increase, the value of care provided by UK HealthCare increases.

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**\$25.8 million**

The amount of sustainable financial improvements UK HealthCare achieved via BEST in FY 2018.

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**140,599**

New, additional patient clinic visits served in FY 2018.

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**19**

Number of preferred post-acute care partnerships developed to improve transitions of care out of the hospital.

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**Top 30**

Looking at patients discharged from UK HealthCare hospitals, the rate of readmission to any hospital within 30 days puts us among the nation's best performers.



Sara S. Salles, DO, specialist in physical medicine and rehabilitation and spinal cord injury medicine as well as medical director of post-acute care services for UK HealthCare, works with a patient who was discharged to Cardinal Hill Rehabilitation Hospital for further rehabilitation and strengthening before going home.

## PERFORMANCE DOMAIN

# HEALTHY FINANCIAL PERFORMANCE

While UK HealthCare finds its purpose in clinical care, education and research, it cannot continue to reinvest in its mission and pursue its vision without healthy financial performance.

For more than a decade, UK HealthCare has experienced extraordinary growth in volumes – growth coming from a commitment to meeting the needs of the commonwealth for advanced subspecialty care. Fiscal year 2018 continued that growth trajectory, hitting historical highs in both hospital and ambulatory (outpatient) volumes.

Despite a declining national trend in hospital cash-flow operating margins, UK HealthCare was able to generate a healthy total margin greater than 5 percent due in part to a sharpened focus on finding efficiencies and reducing waste.

UK HealthCare's strategic plan was refined in 2018 to put extra emphasis on our ambulatory strategy. We are creating a stronger, more appropriately sized ambulatory footprint.

Thanks to the hard work of our teams to manage and maintain healthy financial performance, in 2018 we opened new or renovated spaces in Kentucky Children's Hospital, Chandler Hospital Floor 11 (Markey Cancer Center), Barnstable Brown Diabetes Center, Team Blue Clinic (UK health plan members), Orthopaedic Surgery Clinic, Medicine Specialties Clinic and ENT Clinic.

Floor 11 in Pavilion A of Chandler Hospital opened in December 2017 for inpatients of the Markey Cancer Center. The cost of fitting-out the floor was \$35 million, funded by UK HealthCare operations and philanthropic support. This is the floor's family lounge.

**\$166 million**

Funds invested in building, renovation, expansion, equipment and other capital improvements in FY18.





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**40,909**

Number of hospital discharges in FY18 – an average of almost 113 patients every day – a 6 percent increase over FY17.

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**1.7 million**

Total outpatient (ambulatory) visits served in FY 18 - 6,677 visits to UK HealthCare clinics on average every working day.

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**5.27%**

Percent of all income in excess of expenses, or the total margin, used to reinvest in the health care, education and research mission.

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**8,875**

Full-time equivalent positions paid at UK HealthCare by year's end, June 30, 2018. The medical center is a major employer in the region.



# UNIVERSITY OF KENTUCKY COLLEGE OF MEDICINE 2018 ANNUAL REPORT

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## MISSION

The College of Medicine promotes a diverse and inclusive environment that provides excellence in education, equitable health care, and transformative research to improve the health and wellness of Kentuckians and beyond.

## VISION

The University of Kentucky College of Medicine is a national leader in solving the challenges in health care through transdisciplinary and transformational research, education, and advanced clinical care.





Robert S. DiPaola, MD, dean of the UK College of Medicine and vice president for clinical academic affairs at UK HealthCare, prepares for the 2018 Match Day hosted at Kroger Field with Christopher Feddock, MD, senior associate dean for medical student education. Match Day is the annual event when fourth year medical students learn where they will complete their residency programs.

**\$137,967,102**

Total amount in grants and contracts awarded to the UK College of Medicine in fiscal year 2018.

**575**

Number of medical students at the beginning of the 2018 academic year at the Lexington, Morehead and Bowling Green (a new four-year program) campuses.

## COLLEGE OF MEDICINE

# 2018 REPORT FROM THE DEAN

Each year, the College of Medicine makes great strides toward changing the standards of care through education, research and advanced clinical care for our commonwealth and beyond, and 2018 was no exception.

Last year, we began implementation of COMMITTS – the College of Medicine Map to Impact through a Transdisciplinary Strategy. Hundreds of individuals across our organization have contributed to the strategy’s implementation through their dedication to excellence in education, groundbreaking research, advanced clinical care, diversity and inclusion, and community engagement. As a result, we have seen exceptional growth in our total research awards, updated our educational facilities (including student study spaces), established a new campus in Bowling Green, and launched the Clinical Research Support Office in order to increase clinical trials available to our community, to name a few examples.

Additionally, we are transforming medical education for the state through partnerships with Med Center Health, Western Kentucky University, St. Elizabeth Healthcare, Northern Kentucky University, St. Claire Regional Medical Center, Morehead State University, and 17 other colleges and universities across Kentucky that have early assurance programs.

Although we still have much to do in order to best serve our patients, students, faculty, staff and community, I think you will agree that, through the efforts and success of our new strategic plan, we are off to a great start in directly impacting the future of medicine.



**Robert S. DiPaola, MD**  
*Dean, College of Medicine*  
*Vice President, Clinical Academic Affairs*

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## 826

Number of residents and fellows who are furthering their training at the College of Medicine.

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## 231

Graduate students pursuing their education across our nationally recognized basic science departments.

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## 4,247

Faculty and staff members committed to the educational, research and clinical care missions of the College of Medicine.

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## 225

Total number of goals, metrics and tactics in the strategic plan, COMMITTS.

## MEDICAL EDUCATION

# EDUCATING PHYSICIANS TO IMPROVE THE HEALTH AND WELLNESS OF THE COMMONWEALTH AND BEYOND

The College of Medicine is focused on creating a culture of collaboration, and has a deep understanding of the importance of educating successful physicians, residents and fellows who will change the standards of health care.

Across the nation, the shortage of physicians serving in community settings is a critical barrier to improved health and wellness, especially in the commonwealth. To strategically address that need and continue the mission of educating physicians in Kentucky for Kentucky, the college pursued efforts in campus expansion. In 2017, 30 students were recruited to attend the regional campus in Bowling Green, and work began on student recruitment for the four-year regional medical school program in Northern Kentucky. When these campuses are fully operational, the UK College of Medicine will be the largest medical school in the state, with more than 800 students.

Additional opportunities are available to students following their undergraduate medical education. This year, the UK Office of Graduate Medical Education expanded residency programs across the state, including in Bowling Green, to ensure access to further training.

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**1 of 9**

Pathway Leaders selected by the Accreditation Council for Graduate Medical Education to serve as inaugural members of the Patient Safety Collaborative to help residents and fellows engage with their learning environments while promoting a culture of safety.

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**62**

Number of ACGME-accredited residency and fellowship programs offered by the College of Medicine that are available in Lexington, Bowling Green, Hazard and Morehead.

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**49%**

Percent of residents and fellows trained at UK HealthCare who stay in Kentucky to practice.



Wendy Jackson, MD, assistant dean for admissions and associate professor of obstetrics and gynecology, leads a discussion regarding patient care in Labor & Delivery with a group of medical students.

**22**

Number of specialties into which the class of 2018 matched.

**\$2.5 million**

*Wendy L. Jackson,  
and Gynecology*

The scholarship amount committed by St. Elizabeth Healthcare to support the inaugural class at the UK College of Medicine-Northern Kentucky Campus.

## BIOMEDICAL EDUCATION

# CONNECTING THE BENCH TO THE BEDSIDE

Training at the College of Medicine extends beyond medical students. Graduate and postdoctoral scientists continue to receive outstanding education through a variety of programs, including multiple master and doctorate degree options.

Trainee placement in a range of scientific careers has been excellent thanks to the college's culture of collaboration and increased focus on career development activities, spearheaded by the recently established Office of Biomedical Education.

Finally, the College of Medicine is dedicated to extending its efforts in biomedical research to students currently pursuing an undergraduate degree at the University of Kentucky. Because of this emphasis, faculty are instrumental in educating undergraduate students across the entire campus, providing research-intensive laboratory experiences to numerous students and teaching approximately 50 separate courses or sections each semester to nearly 2,000 students.

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**1st**

The first minor in pharmacology was launched in 2018 in the UK College of Medicine, creating additional paths to a complete education in biomedical sciences.

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**29%**

Percent of the 2018 Integrated Biomedical Sciences class who are underrepresented minorities.

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**231**

Faculty members in basic science departments who ensure students are well-prepared for a career in medicine or research.

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**23**

Students graduated with a Master of Science in Medical Sciences, 16 of these graduates have been accepted into a professional school or PhD program.





Adam Ghoweri, third-year doctoral student in the department of pharmacology and nutritional sciences, is changing the standards of care by using electrophysiological and calcium imaging techniques to understand the role of neuronal calcium dysregulation in Alzheimer's disease.

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## 8th

Ranking of the department of molecular and cellular biochemistry among public medical schools according to Blue Ridge Institute for Medical Research.

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## \$16.1 million

Total research funding in the department of pharmacology and nutritional sciences, which places it seventh among public medical schools for funding from the National Institutes of Health.

## RESEARCH

# TRANSDISCIPLINARY STRATEGY TO GROW RESEARCH AND IMPACT CLINICAL CARE

The UK College of Medicine is a recognized leader in biomedical research, with a focus on innovative and transformative ways of collaborating on the most vital projects in order to bring effective discoveries to the bedside.

With the goal of making the greatest impact by enhancing scientific discoveries, the College of Medicine focuses on solving the most pressing challenges with a transdisciplinary strategy by asking and addressing the critical questions. This overarching strategy brings together several investigators and clinicians with varying perspectives in order to leverage the greatest strengths and skills in addressing the state's health challenges, including cancer, diabetes, obesity, substance use disorder, stroke, neurological disorders and heart disease.

In 2018, the Alliances program was launched as part of this transdisciplinary strategy. The program builds partnerships across the College of Medicine that aim to identify best-in-class research teams to support the strategic plan. The result is new clinical trials with cutting-edge therapies and competitive federal grant funding.

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**\$87,347,688**

Total funding awarded to the College of Medicine in fiscal year 2018 by the National Institutes of Health.

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**65.7%**

Percent of National Institutes of Health funding granted to Kentucky medical schools that was awarded to the UK College of Medicine in federal fiscal year 2018.

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**41.5%**

Percent of the University of Kentucky's total grants and contracts that can be attributed to the College of Medicine.



In October 2017, Jessica Blackburn, PhD, assistant professor in the department of molecular and cellular biochemistry, received a prestigious National Institutes of Health New Innovator Award to further her work in pediatric cancer research using zebra fish models.

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**289**

Number of principal investigators across the College of Medicine.

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**\$477,395**

Average amount of external funding per principal investigator.

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**716**

Number of active grants and contracts in the College of Medicine.

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**33%**

Amount of increase in the College of Medicine's National Institutes of Health funding during fiscal year 2018 over the previous year.

## DIVERSITY AND INCLUSION

# OUR COMMITMENT TO DIVERSITY AND INCLUSION

In August 2017, Renay Scales, PhD, joined the College of Medicine team as the associate dean for diversity and inclusion. This was a vital and strategic step to ensure that our college is an environment of diversity, inclusion, openness and acceptance as a right for all students, faculty and staff. Such an environment fosters education and discovery and will have the greatest impact in care for an increasingly diverse local and global community.

During her tenure, Dr. Scales has implemented a number of specific initiatives, programs and services that promote the inclusion and retention of underrepresented students and employees. She has trained the college's leadership on equity, diversity and unconscious bias and launched the Diversity Champion Awards to recognize individuals with a demonstrated commitment to diversity and inclusion. Additionally, the College of Medicine is developing a faculty exchange program with Meharry Medical College in Nashville, Tennessee, a historically black institution, thanks to Dr. Scales' leadership and expertise.

These efforts, along with 15 other dedicated programs and services, will assist in the development of more culturally competent learners and employees, inclusive and innovative andragogy, support for research and service relative to health equity for our patients, and welcoming spaces for our employees.

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**230**

College of Medicine faculty and staff who have completed unconscious bias training to maintain a culture that is truly welcoming and inclusive, where every individual is respected and valued.

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**42%**

Percent of full-time faculty across the College of Medicine who are women.

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**2.5%**

Percent of full-time faculty across the College of Medicine who are African American/Black.

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**2.4%**

Percent of full-time faculty across the College of Medicine who are Hispanic/Latino(a).



**45%**

Percent of the medical school class of 2022 who are women.

**8%**

Percent of the medical school class of 2022 who are African American/Black or Hispanic/Latino(a).

Yvonne N. Fondufe-Mittendorf, PhD, (right) associate professor of molecular and cellular biochemistry, and Hira Arshad, medical student in the class of 2023, review and discuss a sample in order to understand how specific chromatin components interrelate and integrate to regulate transcriptional activity and maintain cellular memory.



# OPERATIONAL STATISTICS & TRENDS



## OPERATIONAL STATISTICS & TRENDS

### Hospital Operating Statistics

For year ending June 30

Discharges	2018	2017	2016
Medicare	14,566	13,463	12,700
Medicaid	15,023	14,789	14,756
Commercial/Blue Cross	10,574	9,791	9,655
Patient/Charity	746	663	678
<b>Total Discharges</b>	<b>40,909</b>	<b>38,706</b>	<b>37,789</b>
Licensed Beds	945	945	945
Available Beds	913	883	860
Average Daily Census	752	722	709
Average Length of Stay	6.73	6.81	6.87
Case Mix Index	2.00	2.01	2.00
<b>Surgery</b>			
Operative Cases	33,320	32,679	31,318
<b>Hospital-based Outpatient</b>			
Charged Hospital Clinic Visits	565,903	538,256	501,943
Emergency Visits	112,093	111,920	108,417
<b>Total Hospital Outpatient Visits</b>	<b>677,996</b>	<b>650,176</b>	<b>610,360</b>

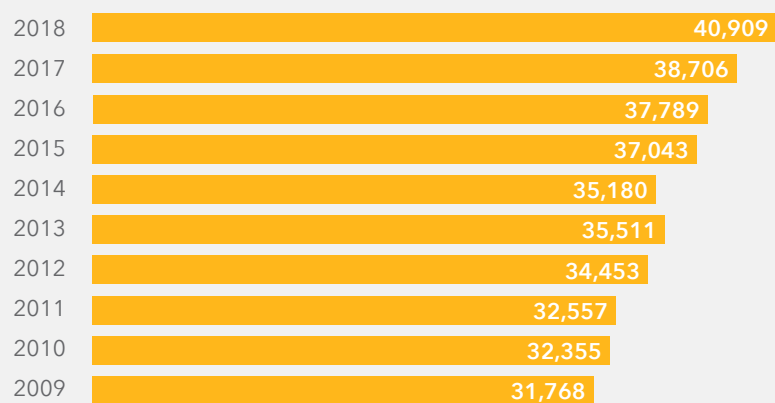
### Other Operating Indicators

For year ending June 30

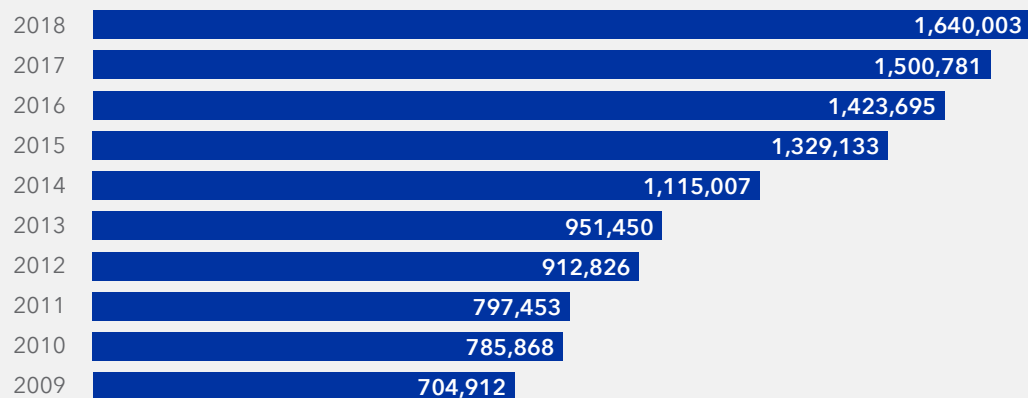
Ambulatory Services	2018	2017**	2016
Ambulatory Physician Visits	837,243	795,557	761,069
Professional Net Revenue*	\$ 286,391	\$ 277,118	\$ 257,167
<i>*Accrual-based and does not include bad debt; \$ in thousands. **Year 2017 has been restated.</i>			
<b>Other Service Relationships</b>			
UK*MDs Physician Calls	146,916	165,734	181,868
Health Connection Consumer Calls	264,172	299,322	310,545
Website Users (Avg./Mo.)	203,838	157,049	92,154



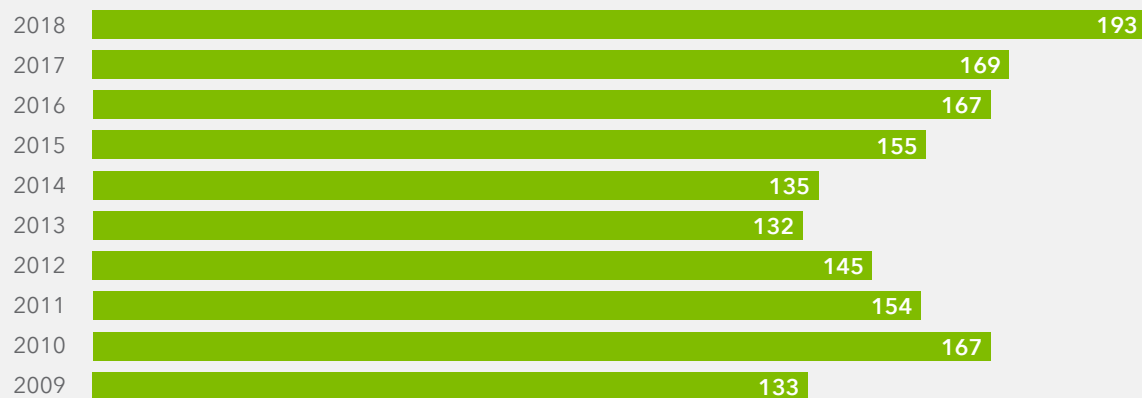
### Hospital Discharges



### Hospital Operating Revenue (\$ in the thousands)\*



### Grant and Contracts Awarded (\$ in the millions)



## COMMUNITY SUPPORT

# MAKING A DIFFERENCE

The impact of philanthropy is evident throughout UK HealthCare. From updated facilities and the latest high-tech equipment to groundbreaking research and essential patient resources, philanthropy has had a hand in transforming UK HealthCare and raising the standard of care.

Thousands of generous donors and volunteers in the community who are passionate about providing the best care to Kentuckians have given more than \$160 million over the past decade.

Philanthropy enables providers, nurses and other health care professionals to do what they do even better. The partnership between the community and UK HealthCare continues to prove that *The Power of Advanced Medicine* is making a difference in the health and care of not only Kentuckians but also in individuals around the world.

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### **\$1 million**

Philanthropy helped establish the new UK Integrative Medicine & Health Clinic located in the Whitney-Hendrickson Building.

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### **\$1 million+**

More than \$1 million given for diabetes education, research and enhanced patient care at the UK Barnstable Brown Diabetes Center at UK HealthCare's Turfland location.

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### **\$5 million**

Gifts helped create the new Kentucky Children's Hospital entry and new UK Betti Ruth Robinson Taylor Neonatal Intensive Care Unit.

---

### **\$16.2 million\***

Annual average of support raised for UK HealthCare hospitals, clinics, Kentucky Children's Hospital and UK College of Medicine over the past decade.

*\*represents gifts to UK HealthCare hospitals/clinics, College of Medicine and Kentucky Children's Hospital.*



With community support, UK HealthCare opened a new Integrative Medicine & Health Clinic in 2018. All appropriate complementary therapies, as well as health care expertise and traditional disciplines, are used to help both patients and healthy individuals achieve optimal health and healing.

## UK HEALTHCARE LEADERSHIP

From his arrival in August 2017, new Executive Vice President for Health Affairs Mark F. Newman, MD, shepherded discussions among UK HealthCare leaders to refine the health system's strategic plan. **Quality, Safety & Value** have become the system's guiding principles, supported by a commitment to be a clinician-led and professionally managed organization.

Patient- and family-centered care was elevated to extend across all of the strategic pillars, and UK HealthCare's ambulatory strategy has been given new emphasis. In 2018, all UK HealthCare employees were introduced to the new LIVING DIRECT values – Diversity, Innovation, Respect, Compassion, Teamwork – as part of our ongoing strategic cultural alignment around patient-centered care.

### HARDWIRING CLINICIAN & ADMINISTRATIVE INPUT INTO DECISIONS

Four executive groups serve as a forum for our clinicians and our managers to advise the executive team on the future direction for UK HealthCare in meeting our mission and achieving our vision to be among the top-ranked academic medical centers. Through them, transparency and communication is promoted up, down and across the enterprise.

### EXECUTIVE MANAGEMENT COMMITTEE (EMC) +

Oversee key financial, operational, administrative, and academic goals and outcomes of the system and advise the executive vice president for health affairs on strategic clinical and academic affairs. The purpose of the committee is to promote transparency, communication, and a clear definition for decision making within the enterprise. Reporting alignments defined as needed to promote effective operations.

#### MEMBERS

Phillip Chang, MD	Mark F. Newman, MD
Craig Collins	Cecilia Page, DNP
Robert DiPaola, MD	John Phillips
Sonja Feist-Price, PhD, CRC	Marc Randall, MD
Jay Grider, DO, PhD	Brett Short
Darrell Jennings, MD	Colleen H. Swartz, DNP
Susan McDowell, MD	Kim Wilson
David Moliterno, MD	Joseph Zwischenberger, MD
Eric Monday, PhD	

### OFFICE OF THE EXECUTIVE VICE PRESIDENT FOR HEALTH AFFAIRS+

**Mark F. Newman, MD**  
Executive VP for Health Affairs

**Mark D. Birdwhistell**  
VP for Administration & Health Affairs

**Craig Collins**  
VP & Chief Financial Officer

**Robert S. DiPaola, MD**  
VP & Dean, College of Medicine

**Brett Short**  
Chief Compliance Officer

**Colleen H. Swartz, DNP**  
VP for Hospital Operations (Interim)

+As of December 31, 2018

**EXECUTIVE FINANCE COMMITTEE (EFC) +**

Provide financial oversight for the University of Kentucky health care enterprise – UK HealthCare. Responsibilities include annual budgeting, revenue cycle oversight, short- and long-term financial planning, financial reporting and analysis, along with monitoring of internal controls.

**EXECUTIVE SPONSORS**

Craig Collins

Robert Gaiser, MD

**MEMBERS**

Mark Newman, MD

Phillip Tibbs, MD

Stephen Strup, MD

Roger Humphries, MD

Larry Goldstein, MD

Andrew Pearson, MD

Rick McClure, MD

Christopher Desimone, MD

Philip Chang, MD

Colleen Swartz, DNP

John Philips

Teresa Centers

Cecilia Page, DNP

Gary Johnson

James Wray

**EX OFFICIO**

Mark Birdwhistell

Bob DiPaola, MD

Byron Gabbard

Jerrold Carrico

Lorra Miracle

Roxie Allison

Julie Floyd

Frank Blair

Elaine Younce

**AMBULATORY OVERSIGHT COMMITTEE (AOC) +**

Provide combined guidance and oversight of the evolving ambulatory enterprise of UK HealthCare. Primary focus is to work with ambulatory leadership to create the support for improved ambulatory operations and efficiency resulting in enhanced patient access, patient satisfaction and value. A clear focus on enhancing communication to empower clinicians and allow decision-making and accountability at the local level.

**MEMBERS**

Mark Newman, MD

John Phillips (Co-Chair)

Raleigh Jones, MD (Co-Chair)

Frank Blair

Roberto Cardarelli, MD

Phil Chang, MD

Scottie Day, MD

Rob Edwards, DrPH

Mark Evers, MD

Byron Gabbard

Jay Grider, DO, PhD

Wendy Hansen, MD

Seth Himelhoch, MD

Patty Hughes, DNP

Rick McClure, MD

David Moliterno, MD

Liz Oates, MD

Andy Pearson, MD

John Phillips

Marc Randall, MD

Sheila Sanders, MD

Jay Zwischenberger, MD

**EXECUTIVE QUALITY COMMITTEE (EQC) +**

Senior oversight committee responsible for providing guidance and direction on the enterprise quality strategy for UK HealthCare and for coordinating all quality improvement, quality measurement, data reporting, patient safety, patient experience, value-based care and value-based payment efforts, including the College of Medicine. The membership is comprised of UK HealthCare senior leadership, physician and nursing leaders, chairs, program directors and quality, safety, value and patient experience experts.

**MEMBERS**

Mark Newman, MD

Mark Birdwhistell

Craig Collins

Mark Williams, MD

Colleen Swartz, DNP

Phillip Chang, MD

Scottie Day, MD

Wendy Hansen, MD

David Moliterno, MD

Susan Smyth, MD

Chester Jennings, MD

Eleftherios Xenos, MD

Jay Grider, DO, PhD

John Phillips

Cecilia Page, DNP

Elaine Younce

Amanda Green

Angela Lang

Trudi Matthews

Teresa Waters

Sandra Beck, MD

Vincent Sorrell, MD



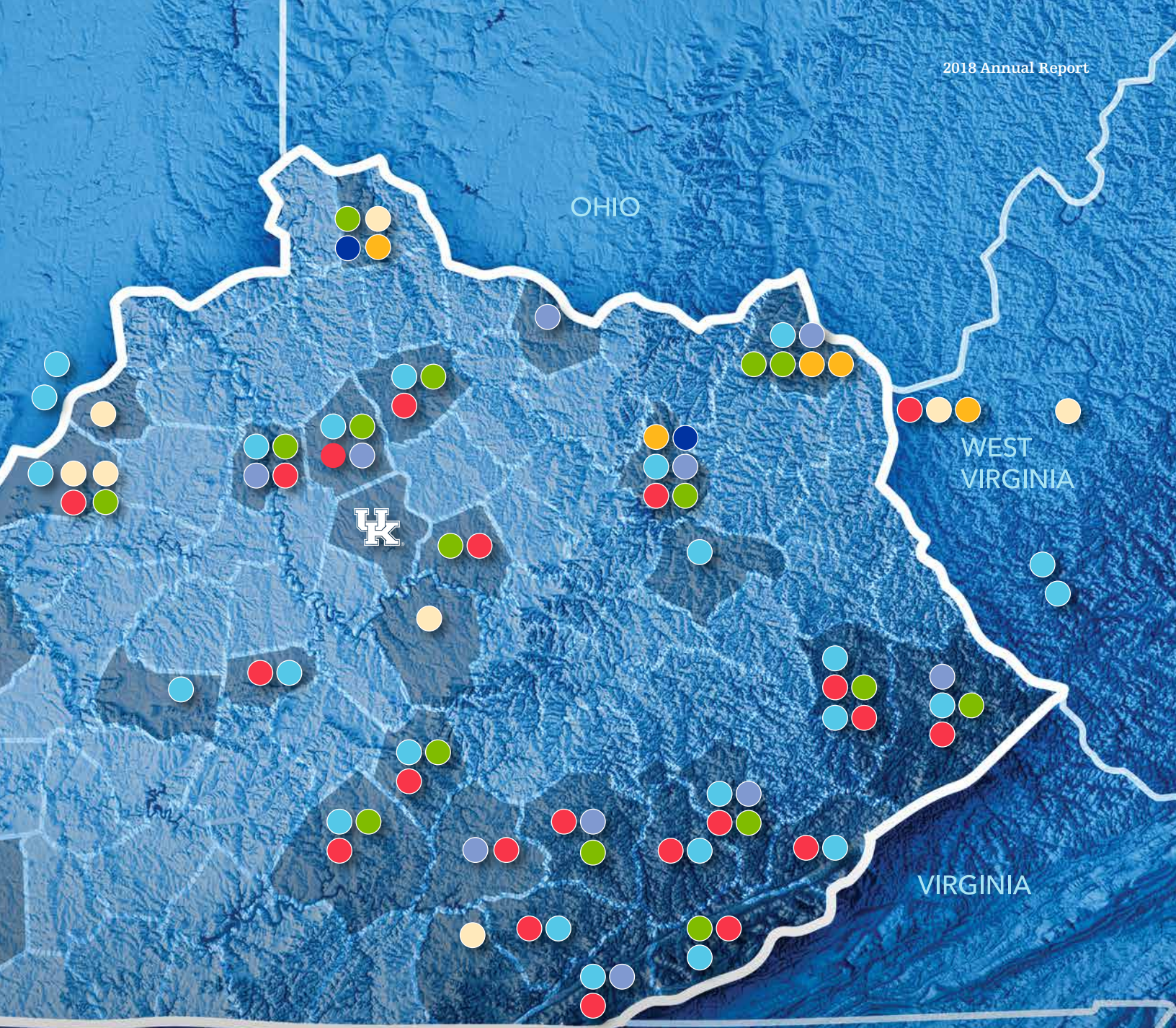
ILLINOIS

INDIANA

TENNESSEE

STATEWIDE IMPACT

UK HEALTHCARE REACHES  
ACROSS KENTUCKY  
**WITH CARE MEETING  
COMMUNITY NEEDS**



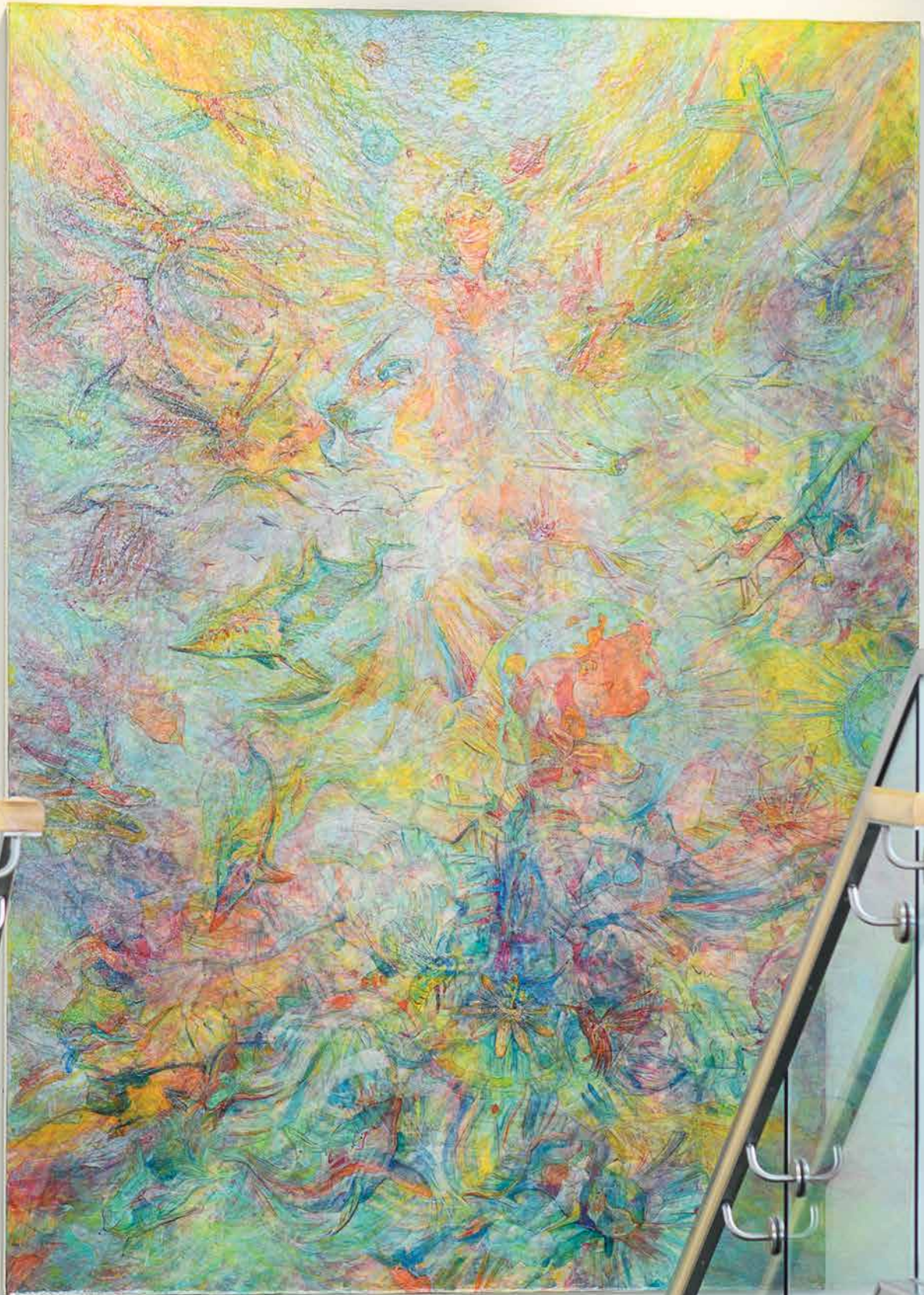
UK HealthCare is committed to serving the needs of Kentuckians and those from beyond the commonwealth. Our team is proud that we have built the breadth and depth of clinical programs that make it possible for Kentuckians to remain in state, closer to home, for complex, subspecialty care.

For the first time, UK HealthCare's annual inpatient discharges exceeded 40,000 patients, our solid-organ transplants exceeded 200 patients across all organs and our ambulatory clinic visits topped 1.7 million.

In order to sustain the volumes necessary to support programs like these, our efforts to build a statewide network have continued as we have added new clinical affiliates across the state to support our traditional mission to provide highly specialized, complex care.

- Norton Healthcare / UK HealthCare Stroke Care Network
- Markey Cancer Center Affiliate Network and Outreach Relationships
- Markey Cancer Center Research Network
- Organ Failure and Transplant Network or Outreach Relationships
- Gill Heart and Vascular Institute Affiliate Network and Outreach Relationships
- Obstetrics and Gynecology Community Divisions and High Risk Obstetrics Telemedicine Program
- Medical School Regional Campus  
*Edgewood campus opens fall 2019*

\*Current as of Dec. 31, 2018





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**Direct comments or questions to:**

Office of the EVPHA  
900 South Limestone  
317 Wethington Building  
Lexington, Kentucky 40536  
859-323-5126  
ukhealthcare.uky.edu



UK HealthCare



@UK\_HealthCare



UKHealthCare



UK HealthCare



UKHealthCare.net

**Arts in Health Care**

A growing body of research endorses how art enhances medicine. Art in all of its forms is featured at UK Chandler Hospital and other UK HealthCare locations. The UK Arts in HealthCare Program is primarily funded with private monies.

*Unique and Her Paths to Fortune, 2013*  
Lennon Michalski  
Lexington, Kentucky

Water based medium and pigment on canvas.



