



COMMITTS

College of Medicine Map to Impact through a
Transdisciplinary Strategy

**2018-2024
STRATEGIC PLAN**

“A goal without a plan is just a wish.”

– Antoine de Saint-Exupéry, French writer and pioneering aviator

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A WELCOME FROM THE DEAN

Welcome to our future. Or, a glimpse into where the University of Kentucky College of Medicine is headed in the next five years and beyond. We're calling it **COMMITTS: College of Medicine Map to Impact through a Transdisciplinary Strategy**. It's an ambitious journey – one we are tackling as an academic medical center and as part of the overall UK HealthCare and University of Kentucky strategic plans. As a journey that will transform the health and wellness of Kentuckians and position us as a national academic medical center, COMMITTS focuses on leveraging our research, clinical, and educational strengths creating our distinct niche in the Commonwealth of Kentucky.

Why do we need COMMITTS to show us the way? Because hope and intuition are not enough to get us to the best-of-class goals that are built upon our foundational pillars of education, research, advanced clinical care, diversity and inclusivity, and community engagement. In the words of John F. Kennedy, “Efforts and courage are not enough without purpose and direction.” Yes, the scope of our vision is large, but the rewards will be tremendous.

In the strategic planning process, through the collection of data and profound discussion with faculty, staff, learners, UK HealthCare colleagues, and several groups across UK, such as other health professions colleges and the Office for Institutional Diversity, we received a wealth of innovative ideas on how to better serve our mission and pursue our vision. We better clarified our unique needs and identified key strategies that will propel us forward.

Fortunately, we are not working in a silo. By taking a transdisciplinary approach to working together, we will build diverse groups of collaborators who can improve the quality and translation of the medical discoveries from bench to bedside, address the state's physician shortage, and energize the

professional development, continuing education, and wellness of everyone from our youngest learners to our most experienced physicians, researchers, educators, and staff.

We must focus most specifically on our talented people, growth of our infrastructure to enhance their ability to succeed, and efforts to bring different skills to the table to solve the right questions for the greatest influence through a transdisciplinary approach. The concept of transdisciplinary integration depicts an approach to bring many disciplines together to tackle and solve a common problem early in the planning process, making it even more interactive and synergistic than concepts of multidisciplinary, interdisciplinary, or unidisciplinary. More detail about this approach can be found on page 18.

As noted, this strategic plan aligns with the University of Kentucky and UK HealthCare strategic plans, ensuring our focus is on shared themes that, together, we can impact. The 2018-2024 strategic plan, COMMITTS, is built with our mission, vision, and values in mind, and keeps us moving in a planned and thoughtful direction. While it does not hold all of the answers, it will act as a roadmap—one that is fluid and able to change as needs fluctuate. I'm proud that so many of you contributed your thoughts with such purpose and passion. And, with perseverance, we will achieve our goals.

I hope you'll take some time to explore the strategic plan. Thank you for your interest.

A handwritten signature in dark ink, appearing to read "R. DiPaola".

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

COMMITTS:

COLLEGE OF MEDICINE MAP TO IMPACT THROUGH A TRANSDISCIPLINARY STRATEGY



The University of Kentucky and our College of Medicine are at the forefront of innovation. Whether providing advanced clinical care to the most critically ill patients, making a breakthrough discovery in the laboratory, or educating the next generation of physicians and scientists, the College of Medicine is creating lasting and positive impact in health care. This strategic plan, College of Medicine Map to Impact through a Transdisciplinary Strategy, is just that, a plan and a map.

The college has ambitious objectives, but together with partners at UK and UK HealthCare, Dr. DiPaola and his team will transform the future of health care for the Commonwealth. On behalf of the University, I am pleased to have played a role in the development of this plan and look forward to the countless successes of the College of Medicine.

A handwritten signature in black ink, appearing to read "T. Tracy".

Timothy Tracy, PhD, RPh
Provost, University of Kentucky



For more than 50 years the University of Kentucky's clinical enterprise, known as UK HealthCare®, and the UK College of Medicine have worked hand in hand to address Kentucky's substantial medical needs. In 2015, UK HealthCare launched a new strategic plan, "Rationalizing Health Care in Kentucky," which laid out strategies for continued, measured growth to meet the state's needs for advanced, high-acuity care. Now with the college's new strategic plan, College of Medicine Map to Impact through a Transdisciplinary Strategy (COMMITTS), our strategies are aligned to enable us to work closer than ever to tackle persistent issues that call for a well-integrated, transdisciplinary approach. Together, we will be leveraging our best efforts through education, research, and clinical care.

A handwritten signature in black ink, appearing to read "Mark F. Newman".

Mark F. Newman, MD
Executive Vice President for Health Affairs

EXECUTIVE SUMMARY

The overall themes and direction of COMMITS can be best represented in four key themes:

1. **Develop talent.**
2. **Infrastructure**, including technology, in addition to physical buildings.
3. **Transdisciplinary integration** approach to leverage multiple strengths.
4. **Impact** by transforming education, research, and standards of health care that will “move the needle” on a local, state, and national level.

With well-planned strategic goals and creative tactics to achieve those goals, the University of Kentucky College of Medicine is now positioned to blaze a path to a new level of impact for the people of Kentucky and beyond by shaping the future of medicine, even at a time when a challenging health care environment and significant medical concerns threaten our population.

Starting as a small school in Lexington, our college is growing into a program with a campus in Bowling Green and anticipated campuses or expanded programs in Northern Kentucky and Morehead. The college embraces its responsibilities and takes the lead in innovation, education, research, and collaboration to drive change that is required to improve health and wellness across the state.

With faculty among the best in the nation – in the classroom, in the clinical setting, and in labs and research facilities – we attract hundreds of students and secure millions of dollars of National Institutes of Health (NIH) grants each year.

Faculty discoveries have helped advance medicine to improve patient outcomes and provided our next generation of physicians with outstanding learning opportunities.

GRANTS & CONTRACTS AWARDED TO COLLEGE OF MEDICINE FACULTY & STAFF

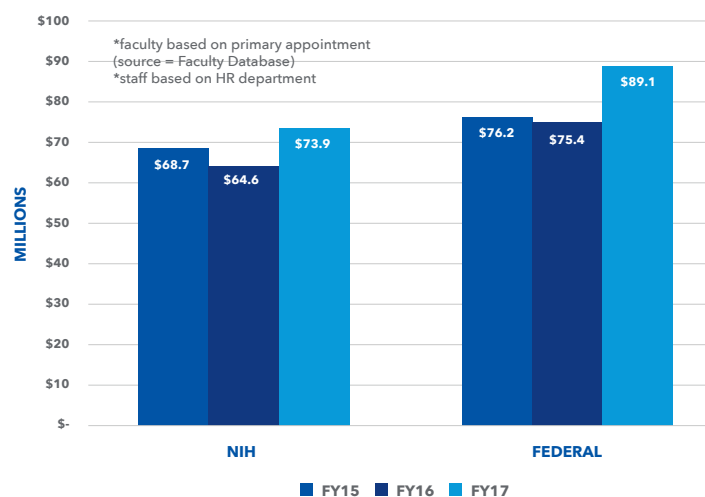


Figure 01: UK College of Medicine secured more than \$89 million in federal grants, nearly \$73 million from the National Institutes of Health. Annual funding calculated for faculty with a primary appointment in the College of Medicine.

Our learners often move on to residencies in top programs around the country. Drawn by a love to help those in our rural communities or a desire to continue the research they have participated in as medical students, nearly a third stay in Kentucky each year to continue their learning journey, and nearly half return to practice in Kentucky after their residency and fellowship training.



Figure 02: When asked to describe the college during surveys, health care, research, and education surfaced as primary strengths and themes.

The College of Medicine vision states, “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.” Moving forward in a time of such great evolution so that we improve the health of Kentuckians and position the College of Medicine as a national academic medical center requires a focused plan.

When we sat down to review the paths that would lead us to our goals, we knew we needed the involvement of many members of the College of Medicine family. In addition, we wanted to ensure that our plan aligned with the University of Kentucky and UK HealthCare and that it addressed concerns beyond our campus walls.

As we worked, we also kept our mission, vision, and values at the forefront of every conversation. We focused on our foundational pillars – education, research, advanced clinical care, diversity and inclusivity, and community engagement. Throughout the work,

four strategic enablers emerged including workforce well-being, facilities, information technology, and accountability and fiscal responsibility. As a result, we created a strategic plan that will work to solve our many challenges.

The result is **COMMITTS**, the College of Medicine Map to Impact through a Transdisciplinary Strategy, a strategic plan developed with the input of hundreds of team members including chairs, faculty, staff, and learners. The process was extremely collaborative as these groups answered anonymous surveys and participated in focus groups. We engaged the leadership of more than 30 areas, including basic science departments, clinical departments, clinical divisions, and centers.



“Strategy without tactics is the slowest route to victory, tactics without strategy is the noise before defeat.”

– Sun Tsu

COMMITTS

College of Medicine Map to Impact through a Transdisciplinary Strategy



EDUCATION

OBJECTIVE:

Strengthen the quality and distinction of our educational programs to develop our learners into accomplished professionals who contribute through their clinical and community service, research and discovery, creative endeavors, and teaching.



RESEARCH

OBJECTIVE:

Advance transformative research through collaboration and innovation – leading to scientific impact and improved health for the people of Kentucky and beyond.



CLINICAL CARE

OBJECTIVE:

Advance expert clinical care through highly engaged physicians, scientists, and health care teams using evidence-based practices, while embracing a patient- and family-centered culture.



DIVERSITY & INCLUSIVITY

OBJECTIVE:

Enhance all forms of diversity through education, recruitment, hiring, retention, promotion, and initiatives to provide experiences that ensure inclusive excellence.



COMMUNITY ENGAGEMENT

OBJECTIVE:

Establish bidirectional partnerships and employ leading-edge communication and technology, education, and research in innovative ways to advance the health of the people in Kentucky and beyond.



VALUES

Diversity: We welcome and embrace diversity as a quality improvement strategy that will positively impact all functional areas of the college.

Innovation: We will use creative initiatives to produce tangible outcomes in college processes and actions resulting in a critical mass of students, faculty, and executives.

Respect: We will encourage personal and group differences and use them to provide optimal solutions to health care disparities and to foster social justice in the educational and work environments.

Compassion: We will practice self-reflection and be empathetic to the thoughts, needs, and feelings of others.

Teamwork: We will foster a climate of partnership and collaboration to create positive outcomes for all those engaged in teaching and learning.

STRATEGIC ENABLERS

Workforce well-being, facilities, information technology, and accountability and fiscal responsibility

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.

A College of Medicine Leadership Committee oversaw those who served on steering committees and workgroups that took survey data and identified emerging themes to formulate goals, the tactics to reach those goals, and the metrics to measure them within each of our foundational pillars.

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.

	STEERING COMMITTEE	RESEARCH
CHAIR	Robert DiPaola, MD	Linda Van Eldik, PhD
DEAN'S OFFICE LIAISON	Alyssa Huddleston	Alyssa Huddleston Alan Daugherty, PhD, DSc
STRATEGY SUPPORT	Jim Zembrodt	Jim Zembrodt
	Emery Wilson, MD Beth Garvy, PhD Katie McKinney, MD Chris Feddock, MD Lisa Cassis, PhD Susan Smyth, MD, PhD Darren Johnson, MD Larry Goldstein, MD Bo Cofield, DrPH Roxanne Allison, CPA	Sharon Walsh, PhD Peter Giannone, MD Daret St. Clair, PhD Philip Kern, PhD Mark Williams, MD GQ Zhang, PhD S. Wally Whiteheart, PhD Roberto Gedaly, MD Lisa Cassis, PhD Patricia Howard, PhD, RN Kathy Isaacs, PhD, RN
	COM Business Partner Support	

Figure 03: Representatives from all areas of the college collaborated on COMMITTS, including physician and research faculty and staff, and members of the UK HealthCare leadership and strategy teams.

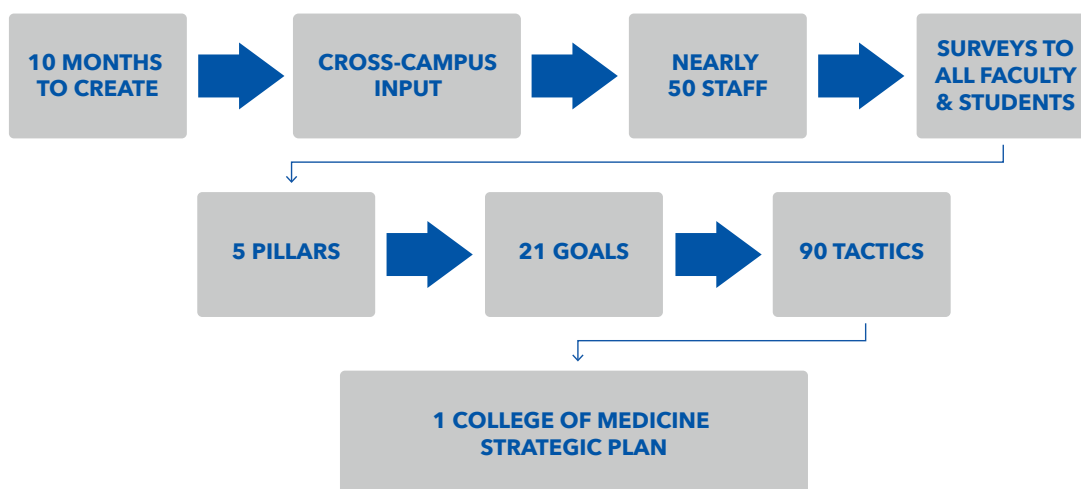


Figure 04: Over the course of 10 months, hundreds of individuals were consulted in the development of COMMITTS.

EDUCATION	CLINICAL CARE	DIVERSITY & INCLUSION	COMMUNITY ENGAGEMENT
Emery Wilson, MD	Wendy Hansen, MD	Anita Fernander, PhD	Tim Mullett, MD
Charles Griffith, MD	Ann Smith, MPA	Alyssa Huddleston	Alyssa Huddleston
Paula Chipko	Paula Chipko	Dorian Herceg	Dorian Herceg
Andrew Hoellein, MD Peter Nelson, MD Carol Elam, EdD Chris Feddock, MD Susan Smyth, MD, PhD Katie McKinney, MD Rebecca Dutch, PhD Brett Spear, PhD	Michelle Lofwall, MD Raleigh Jones, MD Marc Randall, MD Andrew Bernard, MD George Fuchs, MD Larry Goldstein, MD Colleen Swartz, DNP John Phillips James Lee, MD Michael Dobbs, MD	Wanda Gonsalves, MD Cliff Iler Michael Rowland, PhD Theodore Wright, MD Ashlee Hamilton MaryAnn Porter Ese Ighodaro, PhD Tukea Talbert, DrNP	Kevin Pearce, MD Carlos Marin Joe Claypool, MD Roberto Cardarelli, MD Rick McClure, MD Michael Dobbs, MD Rob Edwards, DrPH
COM Business Partner Support			

COMMITTS recognizes our strengths, areas where we must continue to stand out, and our weaknesses, which must be fortified. It sets priorities and expectations across our campuses and in our involvement with outside organizations.

Some of the dominant themes that emerged as the process unfolded include:

- Emphasize a transdisciplinary vision. In fact, this is our sweet spot as we have strengths in research, education, and clinical care all under one roof as an academic medical center with an opportunity to hit a higher level of impact by bridging the strengths of each in a more team-like, or transdisciplinary way. As a team, we can do more for our patients, we can compete better for federal research funds, and we can train our students for a more team-like approach to medicine in the future.
- Focus on patient-centered care and outcomes, along with the disparities within our state, to address the specific needs of our population.
- Expand statewide relationships to support community needs.
- Increase research funding, particularly in areas that impact Kentucky's most critical health concerns, while also increasing national exposure and improving rankings.
- Develop talent, recognize faculty and staff for achievements, and provide incentives that support best-of-class efforts.
- Increase cultural competencies, diversity and inclusivity, and recruit a more diverse leadership, faculty, and student body.
- Train more physicians to help address the physician shortage, particularly in rural areas, and retain students to practice in Kentucky.
- Provide new facilities and technology to support education and research.
- Update curriculum and add scholarly concentrations in emerging areas, such as academic medicine, precision medicine, leadership, the business of medicine, and team-based approaches to medicine.
- Focus on improving faculty, staff, and learner well-being.

In the pages ahead, you'll read more about these themes, and others that emerged through the planning process. Yes, COMMITTS is an ambitious plan. Yet, it is exactly what is needed to address many challenges. Our commitment to the Commonwealth of Kentucky, the University of Kentucky, and UK HealthCare requires change and growth on the part of UK College of Medicine. We are prepared to make an impact through a transdisciplinary strategy.



To complete the Executive Summary, the following tables outline the goals and established metrics of each pillar. The remaining chapters highlight each goal and detail the tactics planned to advance each and the mission of the College of Medicine.

I: EXCELLENCE IN EDUCATION	
PILLAR OBJECTIVE	Strengthen the quality and distinction of our education programs to transform our learners into accomplished professionals and scholars who contribute through their clinical and community service, research and discovery, creative endeavors, and teaching.
STRATEGIC GOALS	<ol style="list-style-type: none"> 1. Become the indispensable institution for training physicians in Kentucky for Kentucky. 2. Grow innovative and distinctive educational programs that ensure all graduates possess the skills to discover, apply, and integrate knowledge for the future. 3. Provide state-of-the-art facilities and technology to support educational programs. 4. Value faculty educational efforts and activities. 5. Enhance the academic, professional, and personal development of current and future learners.
METRICS	<ul style="list-style-type: none"> • Launch the Bowling Green Campus in 2018, develop plans to launch the Northern Kentucky Campus in 2019, and continue the growth of the Morehead Rural Physician Leadership Program and potential four-year campus. • Increase the percentage of residents staying in Kentucky to practice medicine by 10 percent. • Add three or more graduate medical education (GME) programs by the end of fiscal year 2020. • Promote and further develop an electronic continuing medical education program (CECentral) for residents and community faculty to educate about “How to Teach and Evaluate Students” by end of fiscal year 2018. • Add five or more incremental scholarly concentrations by the end of fiscal year 2019. • Add three or more incremental interdisciplinary undergraduate and graduate programs by the end of fiscal year 2022 (e.g. professional master’s and/or e-course). • Identify funding and plans for a new College of Medicine building by the end of fiscal year 2019. • Complete short-term facility renovations by the end of fiscal year 2018. • Identify dedicated system for full-time equivalent and incentives for instruction time. • Increase number of training and/or education grants (T32, etc.) that have a principal investigator in the College of Medicine. • Increase educational-related publications by 25 percent each year. • Double philanthropy dollars for student scholarships. • Improve learner satisfaction surveys related to counseling and wellness.

II: GROUNDBREAKING RESEARCH

PILLAR OBJECTIVE	Advance transformative research through collaboration and innovation leading to scientific impact and improved health of the people of Kentucky and beyond.
STRATEGIC GOALS	<ol style="list-style-type: none"> 1. Develop and invest in defined signature and emerging research areas leading to scientific impact and improved health of the people of Kentucky and beyond. 2. Create an optimal research community to increase the overall research impact of the College of Medicine. 3. Improve the quality and access to infrastructure supporting research efforts. 4. Create more collaborative and transdisciplinary research opportunities to advance groundbreaking discoveries.
METRICS	<ul style="list-style-type: none"> • Increase NIH grant funding across the college. • Evaluate and secure extramural funding opportunities. • Increase the percentage of salary recovery via extramural funding. • Identify, pursue, and secure additional publications. • Increase the number of grant submissions. • Develop trainees in labs and establish productivity measures and metrics for success for trainee grants. • Increase interdisciplinary collaboration on grants and publications. • Increase the number of clinical trial accruals based on University of Kentucky science. • Increase number of patent applications and disclosures. • Establish national and professional recognition process to include and highlight: <ul style="list-style-type: none"> » Editorial board memberships » Scientific society leadership positions » Scientific review panels » Invited presentations at conferences or other institutions » Awards

III: ADVANCED CLINICAL CARE

PILLAR OBJECTIVE	Advance expert clinical care through highly engaged physicians, scientists, and health care teams using evidence-based practices while embracing a patient- and family-centered culture.
STRATEGIC GOALS	<ol style="list-style-type: none"> 1. Lead, teach, and embrace the patient- and family-centered model of care consistent with the delivery of high-value services. 2. Foster an engaged community of academically expert physician educators who embrace a culture of excellence and innovation in patient care. 3. Demonstrate continual advancement of excellence through enhanced integration and collaboration of health care teams. 4. Leverage clinical innovation and discovery to create transformational change to improve health and wellness.
METRICS	<ul style="list-style-type: none"> • Customize the College of Medicine scorecard to monitor Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) and Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CGCAHPS) surveys. • Establish customized College of Medicine scorecard to provide transparency to physician connectivity and specifically address: <ul style="list-style-type: none"> » Physician engagement survey » Retention rates » Exit surveys » Number of mentorship programs » Recognition program » Professional development allowance • Continue and further establish quality improvement projects that will eliminate harm (e.g. number of SWARMs) and improve outcomes (e.g. OptimalCare, team-based simulations, etc.). • Use academic medical center quality and accountability performance scorecard (overall, mortality, efficiency, safety, effectiveness, patient-centeredness, equity, diversity, etc.). • Create academic service line scorecard. • Increase number of collaborative care models developed and improve access (e.g. Multidisciplinary Markey Cancer Center Clinic, uterine fibroid program (interventional radiology/GYN)). • Increase number of academic clinicians receiving NIH funding through basic science partnerships. • Increase number of clinical departments and programs to receive <i>US News & World Report</i> ranking or be recognized as distinguished programs. • Continue efforts to remain No. 1 overall hospital in Kentucky in <i>US News & World Report</i> ranking.

IV: DIVERSITY AND INCLUSION

PILLAR OBJECTIVE	Enhance all forms of diversity through education, recruitment, hiring, retention, promotion, and initiatives that provide experiences to ensure inclusive excellence.
STRATEGIC GOALS	<ol style="list-style-type: none"> 1. Ensure social accountability by promoting inclusivity, cultural humility, and health equity. 2. Increase and promote racial, ethnic, and gender diversity. 3. Promote a culture where diversity and inclusion are respected and valued. 4. Expand and enhance opportunities for diverse and inclusive worldviews and perspectives.
METRICS	<ul style="list-style-type: none"> • Increase number of research grants in disparate populations (e.g. gender, racial, ethnic, rural, etc.). • Evaluate types of diversity and inclusion training programs and increase the number of programs available (e.g. unconscious bias, cultural humility, health disparities, etc.). • Increase the number and type of trainings provided in the recruitment and retention of underrepresented faculty and students (e.g. recruitment trainings, workforce gaps, etc.). • Grow number and type of awards and recognition to individuals for diversity and inclusion work (e.g. research programs, mentoring programs, community engagement, etc.). • Cultivate amount of philanthropic funding sourced for recruitment and hiring of underrepresented students and faculty. • Increase number of underrepresented faculty, staff, and students interviewed, offered positions, hired, and retained. • Review number of and reason for faculty, students, and staff lost. • Evaluate and improve courses in graduate and medical curriculum to address health disparities, health inequities/inequalities, and the social determinants of health. • Increase number and type of pipeline programs offered, participants, and tracking of participants (e.g. summer research programs). • Increase number and type of social service learning activities offered and number of participants (e.g. Salvation Army Clinic). • Assess networked community partners (e.g. Lexington Fayette County Health Department, Lexington Fayette County Health Disparities Coalition). • Increase number and type of special interest group mentoring and engagement programs (e.g. black faculty mentoring program, LGBTQ* student and faculty mentoring program).

V: COMMUNITY ENGAGEMENT

PILLAR OBJECTIVE	Establish bidirectional partnerships and employ leading-edge communication and technology, education, and research in innovative ways to advance the health of Kentuckians and beyond.
STRATEGIC GOALS	<ol style="list-style-type: none"> 1. Develop an effective and comprehensive communication plan to better understand community health priorities and preferred methods to address them. 2. Develop an effective and comprehensive communication plan to educate communities and better promote the providers and health expertise of the College of Medicine. 3. Engage communities to better align and coordinate ongoing and developing synergies at the University of Kentucky addressing health priorities in the Commonwealth. 4. Support Kentucky's communities and health care providers through collaborations and partnerships that broaden access to advanced subspecialty care, innovative care models, research, and educational opportunities.
METRICS	<ul style="list-style-type: none"> • Develop comprehensive data-sharing plan. • Increase number of programs and studies focused on the top five health priority programmatic areas across the state. • Increase number of training programs and number of quaternary services by type offered by UK HealthCare. • Add educational programs and increase number of individuals reached for University of Kentucky College of Medicine services and expertise. • Increase number of individuals reached by geographic location. • Evaluate service requests received by the Office of Community Engagement and programs or studies initiated with community stakeholders. • Increase number of education and/or research collaborations with outside partners. • Increase number of voluntary faculty, adjunct faculty, and community led and developed programs. • Evaluate and increase number of programmatic activities and collaborations that involve one or more UK college or community stakeholder. • Increase number of extramural grants submitted involving the Office of Community Engagement. • Improve percentage of state covered through affiliate networks. • Engage more learners and increase number of pipeline programs and events. • Increase number of UK HealthCare providers delivering care in partner institutions and organizations by mode of care. • Evaluate availability of health and health care literacy programs by geographic location.

A NOTE ABOUT TRANSDISCIPLINARY INTEGRATION

A Fuller Way of Collaborating, a Broader Approach to Problem-Solving



Figure 05: Researchers from different disciplines work jointly to develop and use a shared conceptual framework that synthesizes theories, concepts, and methods **to create new approaches to address a common problem.**

If you can imagine a place where a researcher, an educator, an engineer, a scientist, a physician, a data analyst, a manufacturer, and a student learner work side by side to develop a new technology – or a new use for an existing technology – that saves a human life, you have just put yourself at the center of the action at the UK College of Medicine. It could be any combination of professions and students that is right for the particular situation.

No one would argue that bringing different viewpoints to the table strengthens decision-making. In fact, a recent study demonstrated that decisions are best made by bringing people with different cognitive approaches together to solve a problem (*Harvard Business Review*, 2017⁹). The college is taking that thought one step further by approaching problems through transdisciplinary integration. It reaches beyond working in silos – or even in interdisciplinary and multidisciplinary groups – to collect and integrate insight

and solutions from highly diverse areas of expertise at the earliest opportunity

As shown in the illustration on page 19, transdisciplinary is the most interactive and the most synergistic. For instance, a basic scientist who discovers a new drug for cancer could meet with a physician researcher to create a clinical trial with that drug. Although a good multidisciplinary approach, imagine the impact if they got together earlier to solve the problem. The physician researcher and basic scientist might develop a study of a different drug in those basic science models that can be more easily used in patients making it more impactful once a clinical trial is developed. Possible outcomes of this collaboration may be to create a lower-cost treatment, make a treatment more accessible to a larger population, or develop a new standard to administer a lower toxicity drug.

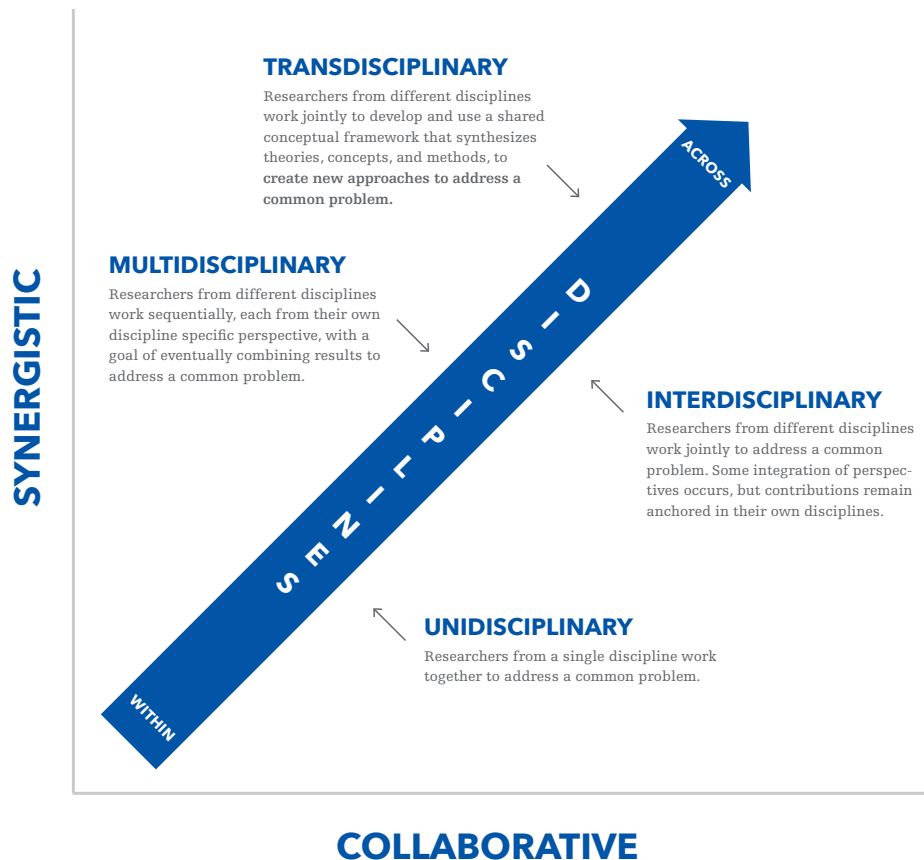


Figure 06: The transdisciplinary integration model used at the College of Medicine is the most collaborative and synergistic.

As we seek to have greater impact to improve our community, asking the right questions becomes even more important than a simple answer. Once a health care worker identifies the problem, a team could work together to combine skillsets to solve the most pressing problems. A team that creates a plan together is greater than the sum of what each individual could achieve. This is true synergy – the final outcome is greater than the sum of each part – harnessing the experience, knowledge, and creative thinking abilities of those from different disciplines at the outset to create new approaches to address a common problem.

Until recently, many might have considered these work groups that cross all boundaries unconventional. Some people still do. But transdisciplinary integration sparks innovation. Jointly, through a shared framework that synthesizes theories, concepts, and methods, the college will address common problems and

discover solutions more quickly. A move to a transdisciplinary strategy does not happen overnight. While transitioning from an individual approach to one that encourages these connections and convergences, there is a move to a new level of understanding. Once understood as an overall vision, the tactics to bring these teams together and metrics of impact, such as more improved therapies, larger programmatic grant funding, and center development, will easily follow.

Together, we will create the knowledge and outcomes that are necessary to improve not only our medical school but our society as a whole.

¹ Reynolds, A. and Lewis, D. (2017). Teams solve problems faster when they're more cognitively diverse. *Harvard Business Review*. <https://hbr.org/2017/03/teams-solve-problems-faster-when-theyre-more-cognitively-diverse>



PILLAR I: EXCELLENCE IN EDUCATION

OBJECTIVE

Strengthen the quality and distinction of educational programs to transform learners into accomplished professionals and scholars who contribute through their clinical and community service, research and discovery, creative endeavors, and teaching.



Figure 07: In July 2017, the UK College of Medicine welcomed the class of 2021.

A note about our objective: Medicine's pioneers and innovators are lifelong learners. They are curious. They question. They experiment and take risks. These are the types of developing talents that are encouraged at the UK College of Medicine. And it is why the wording in the objective now highlights learners rather than students. It is the college's responsibility to educate undergraduate and medical school students; those in post-doctorate, graduate, and PhD programs; residents; fellows; faculty and the state's physicians as they continue to build their careers. Medicine and science are evolving at a startling speed, and only lifelong learners will find themselves keeping pace and staying at the forefront of evidence-based practice.

OVERVIEW

In 1964, history was made as the first class at the University of Kentucky College of Medicine graduated. The state's population was about 3.1 million. In 2017, Kentucky's population hovered just under 5 million, and the college's graduating class had 132

members. In spite of the tremendous growth, a physician shortage – nationwide as well as in Kentucky – is impacting access to care. The Association of American Medical Colleges predicts a shortage of physicians nationally¹. The Commonwealth, which ranks among the least healthy in the nation in a number of categories and where much of the population resides in rural areas, has significant issues related to access to care.

One of the ways to meet the critical needs of Kentucky's citizens is by training more doctors. Last year, the College of Medicine announced the development of a four-year medical school program in Bowling Green, plans to establish a four-year program in Northern Kentucky, and potential expansion of the Rural Physician Leadership Program in Morehead. The anticipated class size for the Bowling Green Campus will be 30 students each year. The Lexington Campus now greets an incoming class of about 140 each fall. When all of the regional campuses are fully operational, each incoming class will have over 200 students enrolled in their first year of medical education.



Figure 08: After receiving more than 400 applications, the UK College of Medicine admits its first class of 40 students. The group includes 39 men and one woman, 33 were Kentuckians.

KENTUCKY INTEGRATED CURRICULUM

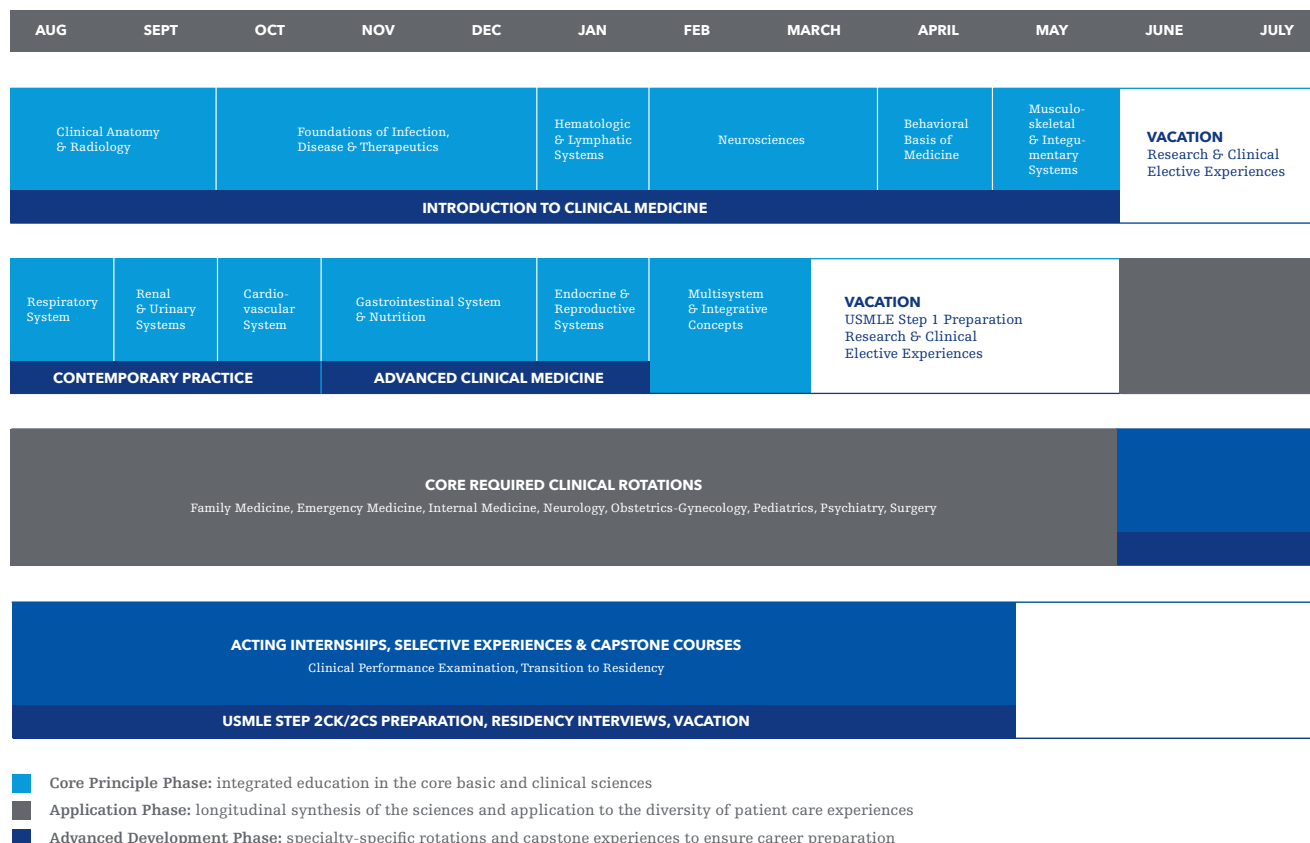


Figure 09: The Kentucky Medical Curriculum emphasizes early longitudinal clinical experiences, integration of the basic sciences, teaching in ambulatory clinic settings, and primary care.

Educating more physicians will not solve the health problems in Kentucky. It's also about how and what is being taught. In 2012, the curriculum was redesigned for medical students, including an emphasis on evidence-based medicine, as well as more education about health care disparities and public health. By embracing the transdisciplinary approach, the curriculum at the College of Medicine features a deep integration of the foundational and clinical sciences across all four years.

The transformation in education is also about considering the needs of learners throughout the continuum of their careers. In the fast-paced world where health care delivery systems and the health care environment change as rapidly as advances in medicine appear, it is imperative to provide the knowledge, skills, mentorships, research opportunities, continuing medical education, funding, and other resources to be at the center of advances in medicine.

Among the educational strengths noted by participants in the strategic planning interviews and surveys was that medical school graduates match to strong programs for residencies and fellowships. In 2017, 26 percent of graduates opted to stay in Kentucky for their next phase in training in residency programs, another important step in addressing the physician shortage and improving access to care. Overall, approximately half of all medical class graduates from the Lexington Campus return to practice in Kentucky. It is anticipated that students from regional campuses may have even a higher likelihood of returning to practice in Kentucky.

The medical school continues to attract top talent into the MD, MD/PhD, MD/MPH, and MD/MBA programs. In fact, for the past five years, MCAT score averages for each class have been above the national average. Also, the pass rates on the United States Medical Licensing Exam (USMLE) Step 2 continue to exceed the national average. These strengths contribute to the steady increase of applicants from 2,100 in 2007 to nearly 3,500 for the 2016-2017 academic year.

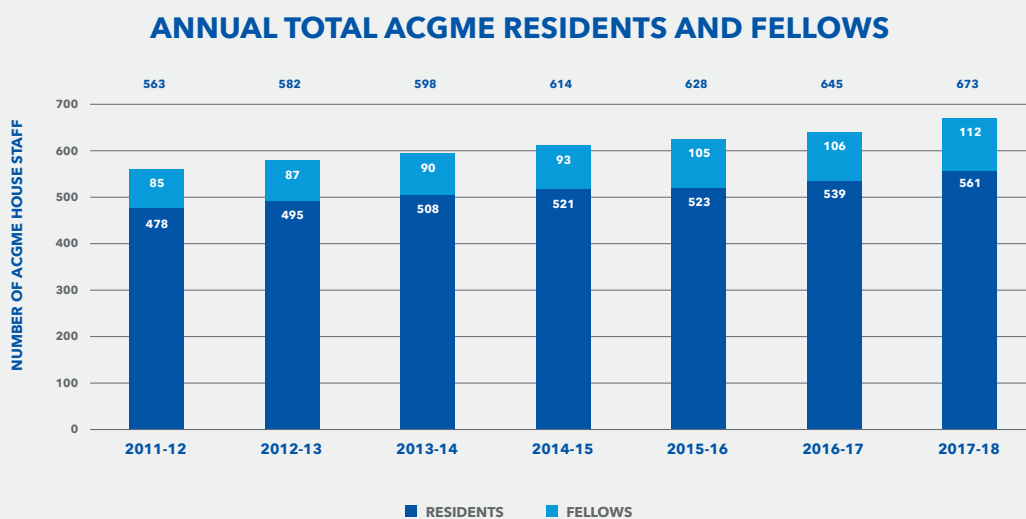


Figure 10: Since 2011, the number of residents and fellows in the college has steadily increased.

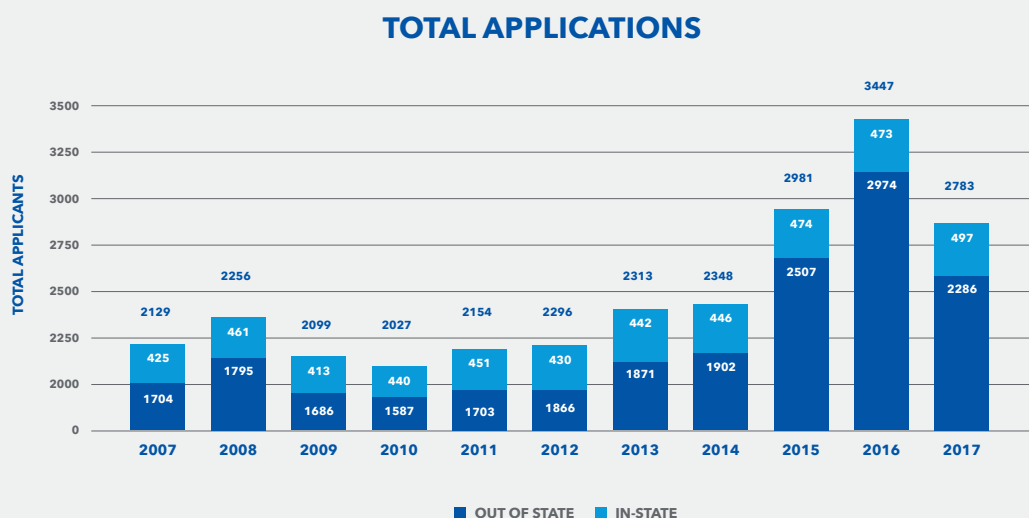


Figure 11: Total applications for the UK College of Medicine continue to increase steadily creating an extremely competitive pool of applicants.

Conversely, participants noted opportunities to improve, such as: growing degree programs, campuses, and state-of-the-art facilities; enhancing professional development and wellness; recognizing teaching effort outside of the College of Medicine; and helping professors achieve a better balance between teaching and clinical responsibilities.

Training at the College of Medicine extends beyond only medical students. Graduate and postdoctoral scientists continue to receive outstanding training through a variety of programs. Multiple master's degree programs are housed in the college, including the Master of Science in Medical Sciences program, which has grown substantially over the last decade and currently has 52 students.

CURRENT MS STUDENTS

MS in Medical Sciences - 52

MS in Nutritional Sciences - 20

MS in Radiological Medical Physics - 15

MS in Toxicology - 1

Figure 12: In 2017, 88 students were enrolled in UK College of Medicine Master of Science programs.

Additionally, PhD programs are offered in a variety of disciplines with more than 140 students enrolled in nine programs, including the recent addition of Radiation and Radiological Sciences.

The college has focused on creating a culture of collaboration and has a deep understanding of the importance of training the large number of successful postdoctoral scholars and fellows. Aided by an increased focus on career development activities spearheaded by the recently created Office of Biomedical Education, trainee placement in a range of scientific careers has been excellent.

Finally, the College of Medicine is dedicated to extending its efforts in Biomedical Research to students currently pursuing undergraduate degrees at the University of Kentucky. Because of this emphasis, faculty are instrumental in educating undergraduate students across the entire campus. Each semester College of Medicine faculty teach approximately 50 separate courses or sections to approximately 2,000 students. Refining the undergraduate mission in an era of tightened resources remains a major challenge, but it is clear that the College of Medicine has a significant impact on all levels of learning here at the University of Kentucky. As examples of the many successes, in 2017, the recently established Neuroscience major, co-led by the Department of Neuroscience with the Departments of Psychology and Biology, had over 300 students enrolled, and the Microbiology minor co-led by the Department of Microbiology is growing.

CURRENT PHD PROGRAMS

- Clinical and Translational Science
- Microbiology, Immunology and Molecular Genetics
- Molecular and Cellular Biochemistry
- Neuroscience
- Nutritional Sciences
- Pharmacology
- Physiology
- Radiation and Radiological Sciences
- Toxicology and Cancer Biology

Figure 13: Nine PhD programs are available at the College of Medicine, including the new Radiation and Radiological Sciences program.

GOALS

With information gathered from interviews and surveys, an 11-member Education Workgroup listened to concerns and suggestions to identify common themes that helped drill down to the most crucial issues. Five goals and numerous tactics were outlined to help achieve the objective.

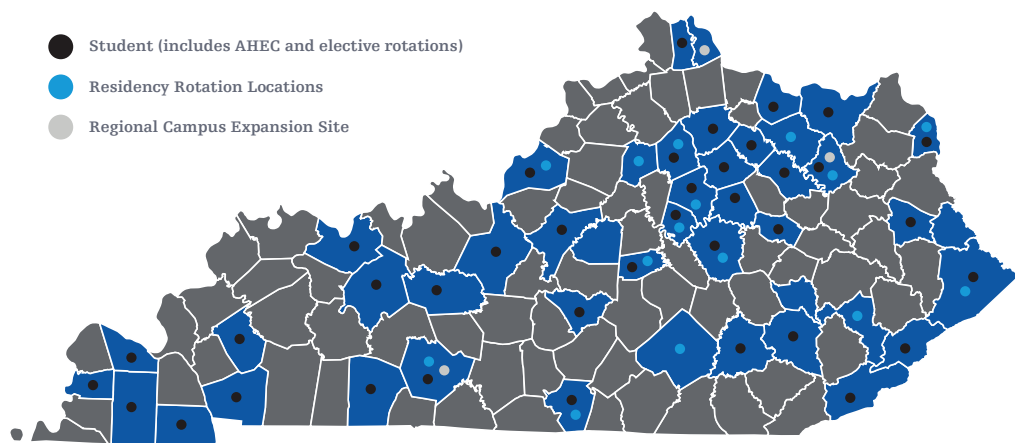
GOAL 1: Become the indispensable institution for training physicians in Kentucky for Kentucky.

A recent *JAMA-Internal Medicine* report on health care inequalities showed that life expectancy has decreased in 13 U.S. counties since 1980. Eight of those counties are in Kentucky². The state has a high percentage of medically underserved citizens and leads the nation in rates of cancer and chronic lower respiratory disease. Kentucky is eighth in the U.S. in deaths caused by heart disease, fourteenth in deaths related to diabetes, and eleventh in stroke. Additionally, citizens have higher rates of obesity and drug addiction.

To improve the health of those in the Commonwealth, the College of Medicine will educate more physicians and increase the percentage of trained residents and fellows for Kentucky. In fact, a *New England Journal of Medicine* article discussed this as one of the greatest needs in U.S. health care to improve care access and evidence-based practices, which can be best fueled by enhancing the primary care physician workforce in rural regions of Kentucky³.

STATEWIDE EDUCATION EFFORTS

Figure 14: The College of Medicine continues to expand statewide education efforts with the addition of regional campuses, residency rotation locations and student outreach.



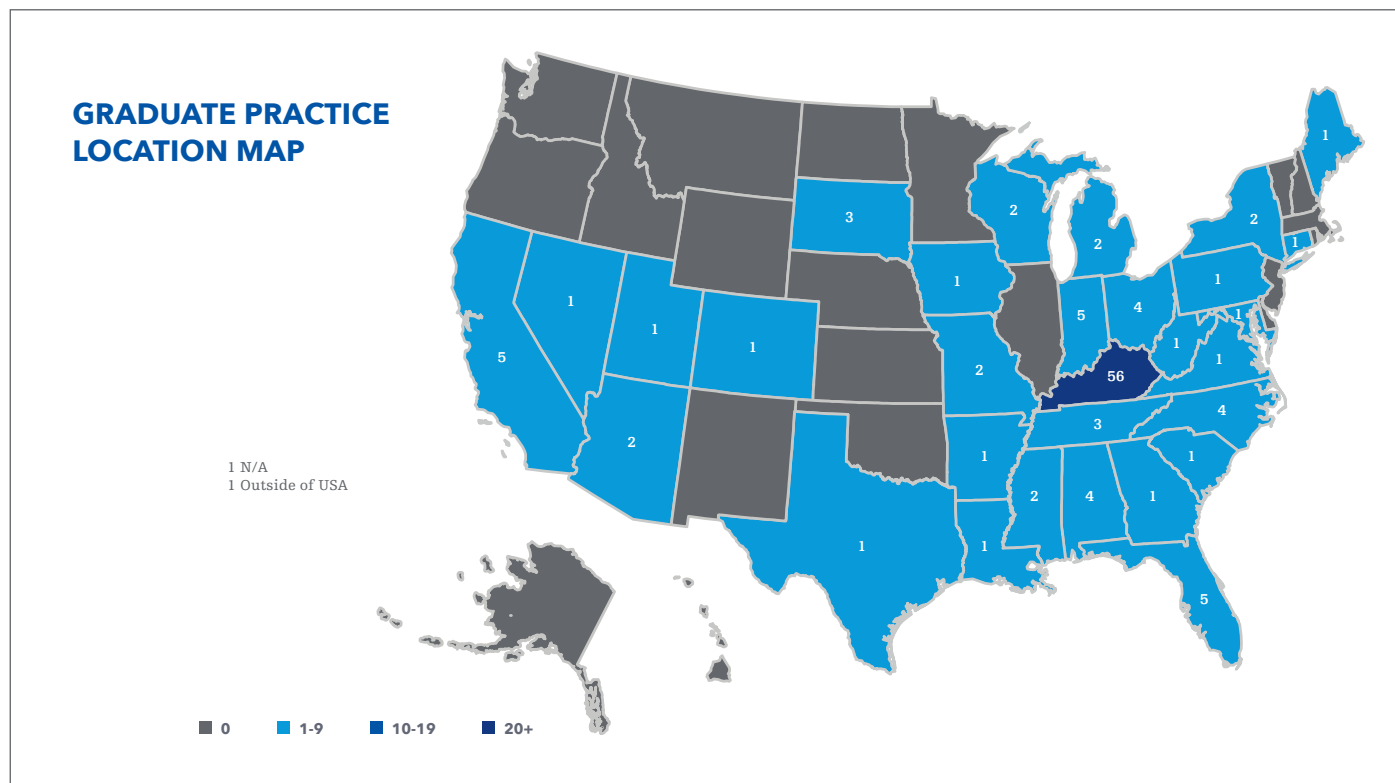


Figure 15: In 2017, graduates of the UK College of Medicine GME programs began practice in 30 states across the country. Nearly half of the graduates remained in Kentucky to continue their practice.

With the Lexington campus at capacity, it is vital to add or expand regional campuses, a task that requires preparation, diligence, funding, and commitment. The program in Bowling Green – operated in collaboration with The Medical Center at Bowling Green and Western Kentucky University – is planned to open for the 2018 academic year.

Classes at the Northern Kentucky Campus, that will be operated in collaboration with St. Elizabeth Healthcare and Northern Kentucky University, are planned to begin in the 2019-20 academic year. Additional plans have also been made to expand the Morehead Campus, which currently sponsors the Rural Physician Leadership Program in collaboration with St. Claire Regional Medical Center, a program designed to identify and train physicians passionate about serving populations in rural communities.

Over the next five years, the College of Medicine would like to increase the number of graduates who stay in Kentucky for residency training as well as the number of residents who stay to practice medicine.

Finally, it is the desire to deepen diversity in the medical school applicant pool as well as that of the residency and fellowship programs to foster an environment of acceptance of people of all ethnicities, identities, and backgrounds. The plans include increasing minority representation in the faculty, executive, and professional positions.

GOAL 2: Grow innovative and distinctive education programs that ensure all graduates possess skills to discover, apply, and integrate knowledge for the future.

The future of medicine. Where is it headed? From new technology and devices to new skills and medications, graduates must be prepared for and able to adapt to change. With the curiosity only a life-long learner can possess, physicians and scientists must obtain the knowledge to be on the leading edge of medicine and medical research and to provide safe, effective, and compassionate care.

In a recent *New England Journal of Medicine* article, it was pointed out that future physicians will need to be greater critical thinkers to assess and embrace all the technologies and knowledge to best benefit patients⁴. The UK College of Medicine is focusing on key innovative ways to improve on training for the future of medicine and biomedical research. The strategies and tactics in the strategic plan are designed to drive forward to achieve this goal.

This begins with the expansion of curriculum across disciplines and all levels. As the curriculum in medical training is refined, focus will be on a competency-based program that is grounded in Entrustable Professional Activity (EPA) skills. These tasks are able to be performed unsupervised by trainees once they have attained sufficient specific competence. The tasks are observable and measurable and prepare students with a core set of skills needed for residency programs.

In addition, a new simulation laboratory is vital for continued quality improvement. Simulation training, which began years ago in the aviation and military sectors, uses advanced patient models and standardized patient scenarios, allowing learners at

all levels – from medical students to residents and fellows – to practice technical skills in a safe but realistic environment and improve communication among a clinical team and between caregiver and patient. Scenarios also test crisis management, team communication skills, and even ethical decision-making. Feedback is immediate.

Scholarly concentrations in emerging areas, such as academic medicine, precision medicine, leadership, the business of medicine, and quality improvement will be developed. These concentrations will follow a transdisciplinary approach and bring together medical students, scientists and researchers, informatics and data analysts, and physicians in a variety of specialties. Creating a Medical Scientist Training Program will also lead to opportunities of NIH grant funding and support research efforts for students who are pursuing both a medical degree and a PhD. Students conduct research in a wide range of areas, including all basic science departments, as well as social and behavioral science, economics, epidemiology, bioengineering, public health, and more. A focus on cutting-edge approaches, transdisciplinary science, and translational research, along with further expansion of career development activities, will be key elements of enhancements to training in biomedical research.

Taken together, these endeavors will prepare learners for a wide variety of careers in research, bedside medicine, rural health care, and specialty areas.

GOAL 3: Provide state-of-the-art facilities and technology to support education programs.

While the college is nearing completion of a new interdisciplinary research building, where principal investigators, scientists, and other researchers will spearhead studies that combat the Commonwealth's most prevalent diseases, a College of Medicine education building on the UK campus is crucial to transformation and future excellence. In the meantime, short-term facility renovations are underway that will enhance learning, work, and wellness.

This includes renovation of the library and study areas that are both conducive to group learning and individual study time, development of a new simulation learning space, and developing space at the regional campuses to support collaborative learning experiences. Investments have been made in emerging technologies that maximize learning in a variety of ways, from interactive classroom activities to online educational enhancements.

LIBRARY RENOVATIONS

In the fall of 2017, the College of Medicine began renovations on the current library space in order to provide more quiet study areas for students, additional lounge space, and a state-of-the-art anatomy learning center with an Anatomage table.

Figure 16: In need of upgrades, improvements were made to the College of Medicine library in 2017.



SIMULATION LAB

Scheduled to open in summer 2018, the simulation lab space will be modeled after the current spaces in UK Chandler Hospital including an operating room, ICU, and multipurpose spaces. With approximately 7,500 square feet, the space will have task training and high-fidelity simulation spaces.

Figure 17: Simulation centers, like this state-of-the-art facility, to be completed in 2018, are a vital infrastructure in medical education and training.

REGIONAL CAMPUS FACILITIES

As part of the campus expansion effort in Bowling Green and potential campus in Northern Kentucky, new spaces are planned to accommodate additional students.

Figure 18: This building will be the site of the UK College of Medicine – Bowling Green Campus and will feature a comprehensive simulation space for students.



GOAL 4: Value faculty education efforts and activities.

Whether the faculty is in the lab studying new treatments for acute spinal cord injury, or developing a new pharmaceutical agent to cure cancer, or teaching first-year medical students or undergraduates, they are at the very core of the college's mission. Great educators take intellectual risks and inspire their students. They are transforming learners into accomplished professionals and scholars. While faculty are recognized experts in their field, the college is fortunate they also receive gratification by seeing a student, resident, or fellow master a difficult skill or concept, question the rationale for decisions, take on leadership roles, and mature emotionally and academically.

To attract and retain outstanding educators, the college must ensure that teaching is a priority and as valued as clinical work and research. The college is committed to improving the support and resources for faculty education efforts. For many faculty

members, finding a balance between clinical and/or research work and teaching can be difficult, particularly in the high-volume, highly complex clinical environment in which they work. Those who serve as mentors will be publicly recognized as a special group. They need protected time with adjustments and/or compensation for productivity drops in the clinical setting. The survey and interview results also showed a desire for increased faculty recognition through enhanced performance evaluations, promotion pathways, tenure, and incentives.

In addition, educators want the opportunity to continue to develop and grow. A coordinated faculty development program and training grants would enable faculty to learn the latest teaching methods and be rewarded for their efforts. Success must be celebrated for faculty members as much as they trumpet the achievements of their students.



GOAL 5: Enhance the academic, professional, and personal development of current and future learners.

In an environment like a college of medicine, learners must adapt to change, handle a demanding and difficult work load, deal with financial responsibilities, stay healthy, and maintain balance in their lives – whether they are transitioning to graduate-level work or are a seasoned professional. It is desired to create an environment of health and well-being that leads to optimal levels of functioning. Specifically, the college will address intellectual and emotional health and physical, spiritual, and occupational well-being. Each person's needs are different. More information will be gathered through learner satisfaction surveys related to counseling and wellness, and resources will be invested to prioritize and advance these areas.

On the financial side, the College of Medicine is one of the few medical schools in the nation with a tuition guarantee program that fixes tuition for the four-year program. In spite of that, many learners experience significant debt following graduation. For the 2016-17 academic year, 69 percent received federal student loan assistance and 38 percent received scholarship awards. Scholarship programs offer a variety of awards, some based on academic excellence, others on demonstrated financial need, and some on specific criteria such as Kentucky county of origin or planned medical specialty. Moving forward, efforts will be focused locally and nationally to increase student scholarship dollars through direct philanthropy.

In addition to providing career counseling for learners, the College of Medicine helps prepare undergraduate students for the possibility of graduate study and medical school through the UK Professional Education Preparation Program (PEPP).

PEPP specifically targets Kentucky's underserved counties, providing students interested in a medical or dental career with a four-week summer program that includes course work, clinical and rotational rounds, and MCAT overview. Year-round support is offered as the student begins the application process for medical school. The program is funded by the Dean.

To provide the best care for the Commonwealth, the UK College of Medicine must inspire and support students, faculty, and staff. These strategies call for the development of programs that improve competence, encourage innovation and scholarly concentrations, add new facilities and regional campuses, and recognize people for their efforts.

¹. Association of American Medical Colleges, (2017). The Complexities of Physician Supply and Demand: Projections from 2015 to 2030. Washington, DC. https://aamc-black.global.ssl.fastly.net/production/media/filer_public/c9/db/c9dbe9de-aabf-457f-ae7-1d3d554ff281/aamc_projections_update_2017_final_-_june_12.pdf

². Dwyer-Lindgren, L., Bertozzo-Villa, A., and Stubbs, R., (2017). Inequalities in Life Expectancy Among US Counties, 1980 to 2014. *JAMA Internal Medicine*, 177(7), 1003-1011. <https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2626194>

³. Schneider, E. C., MD, and Squires, D., MA, (2017). From Last to First – Could the U.S. Health Care System Become the Best in the World? *New England Journal of Medicine*, 377(10), 901-904. <http://www.nejm.org/toc/nejm/377/10>

⁴. Wenzel, R. P., MD, (2017). Medical Education in the Era of Alternative Facts. *New England Journal of Medicine*, 377(7), 607-609. <http://www.nejm.org/doi/full/10.1056/NEJMp1706528>



TACTICS

As a long-term strategic plan, the tactics are how to achieve the goals. Throughout implementation, this plan must remain fluid to accommodate changes or external forces. There may be modifications or additions and there may be multiple steps within each tactic as a checklist. The following table represents the outlined goals and tactics to move each forward in the efforts of achieving the pillar objective.

**“Strategy without tactics is the slowest route to victory,
tactics without strategy is the noise before defeat.”**

– Sun Tsu

I: EXCELLENCE IN EDUCATION	
EDUCATION PILLAR OBJECTIVE	Strengthen the quality and distinction of educational programs to transform learners into accomplished professionals and scholars who contribute through their clinical and community service, research and discovery, creative endeavors, and teaching.
STRATEGIC GOALS	TACTICS
1. IMPACT: Become the indispensable institution for training physicians in Kentucky for Kentucky.	<ul style="list-style-type: none"> • Establish regional medical school campuses in Bowling Green, Northern Kentucky and Morehead. • Develop a regional network of graduate medical education programs. • Build a faculty continuing medical education (CME) program to provide educational development for physicians across the Commonwealth leveraging the college’s distinct academic expertise. • Develop mechanisms for greater involvement of alumni in education programs.
2. IMPACT: Grow innovative and distinctive educational programs that ensure all graduates possess the skills to discover, apply, and integrate knowledge for the future.	<ul style="list-style-type: none"> • Continue to develop and refine the competency-based medical educational program grounded in Entrustable Professional Activities. • Implement a prospective continuous quality improvement approach to advance our educational programs and learning environment. • Integrate simulation into medical student and resident development of advanced clinical and communication skills. • Create scholarly concentrations to promote in-depth learning and prepare graduates for the future of medicine (e.g. academic medicine, precision medicine, leadership, business of medicine, interprofessional, and interdisciplinary team-based approaches). • Prepare graduate-level trainees (master’s, PhD, etc.) for a variety of careers. • Develop and implement interdisciplinary undergraduate and graduate programs to utilize the University of Kentucky’s scientific strengths (e.g. cancer, neuroscience, cardiovascular). • Obtain Medical Student Training Program funding.

(CONTINUED)

(CONTINUED)

<p>3. INFRASTRUCTURE: Provide state-of-the-art facilities and technology to support educational programs.</p>	<ul style="list-style-type: none">• Develop plans and secure funding for a new College of Medicine education building on the University of Kentucky campus.• Implement short-term facility improvement plans to enhance current learning, work, and wellness.• Plan and develop space at regional campuses to support education programs.• Invest in emerging educational technology.
<p>4. DEVELOP TALENT: Value faculty educational efforts and activities.</p>	<ul style="list-style-type: none">• Improve the support and resources for faculty educational efforts.• Enhance the recognition of faculty instruction through performance evaluations, promotions, and incentives.• Train and support faculty to submit applications for training grants.• Develop a coordinated, educational faculty development program.• Communicate University of Kentucky College of Medicine and faculty national recognition in educational endeavors (e.g. opioid curriculum, publications for new programmatic initiatives, presentations, poster sessions).
<p>5. IMPACT: Enhance the academic, professional, and personal development of current and future learners.</p>	<ul style="list-style-type: none">• Improve health services and personal, academic, and career counseling.• Invest in resources to prioritize learner wellness.• Promote cultural competence within a diverse and inclusive student body.• Direct philanthropy efforts locally and regionally to student scholarships.



METRICS

A true strategic plan can only be successful when measured throughout implementation. Although this is not an exhaustive list, below are a few of the metrics to be used during execution of the plan in order to demonstrate positive impact and movement toward achieving the overall objective.

I: EXCELLENCE IN EDUCATION

METRICS

- Launch the Bowling Green Campus in 2018, develop plans to launch the Northern Kentucky Campus in 2019, and continue the growth of the Morehead Rural Physician Leadership Program and potential four-year campus.
- Increase the percentage of residents staying in Kentucky to practice medicine by 10 percent.
- Add three or more graduate medical education (GME) programs by the end of fiscal year 2020.
- Promote and further develop an electronic educational continuing medical education program (CECentral) for residents and community faculty to educate about “How to Teach and Evaluate Students” by the end of fiscal year 2018.
- Add five or more incremental scholarly concentrations by the end of fiscal year 2019.
- Add three or more incremental interdisciplinary undergraduate and graduate programs by the end of fiscal year 2022 (e.g. professional master’s and/or e-course).
- Identify funding and plans for a new College of Medicine building by the end of fiscal year 2019.
- Complete short-term facility renovations by the end of fiscal year 2018.
- Identify dedicated system for full-time equivalent and incentives for instruction time.
- Increase number of training and/or education grants (T32, etc.) that have a principal investigator in the College of Medicine.
- Increase educational-related publications by 25 percent each year.
- Double philanthropy dollars for student scholarships.
- Improve learner satisfaction surveys related to counseling and wellness.



PILLAR II: GROUNDBREAKING RESEARCH

OBJECTIVE

Advance transformative research through collaboration and innovation leading to scientific impact and improved health of the people of Kentucky and beyond.

OVERVIEW

The UK College of Medicine is a recognized leader in biomedical research. Yet in order to directly and significantly improve the health and wellness of those in the Commonwealth and beyond, there is a need to focus on innovative and transformative ways to collaborate on the most vital projects to increase research and bring effective discoveries to the bedside.

In contrast to routine efforts and solutions for health care challenges, the right questions must be asked. With a goal to enhance scientific discoveries to have the greatest impact, 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 individuals with varying perspectives to leverage the greatest strengths and skills in order to address the challenges facing the state.

These challenges include health care issues in Kentucky, the need nationally to translate discoveries into standards of care more efficiently, and the need to address issues related to access in rural populations. Already, more than 300 research projects are underway at the college to target the most concerning health problems of the people of Kentucky, such as cancer, diabetes, obesity, substance use disorder, stroke, neurological disorders, and heart disease.

One of the keys to developing leading-edge technologies, promising therapies, unique treatments, and new devices and medications is the college's transdisciplinary teams. These teams grow areas of scientific strength and move discoveries faster and more efficiently for greater patient impact. They are vital to the success of research in order to identify scientific discoveries, effectively disseminate information and expertise to patients, and improve implementation and access to care in some of the most rural areas of the state.

2015 NUMBER OF DRUG OVERDOSES

Estimated age-adjusted death rate per 100,000

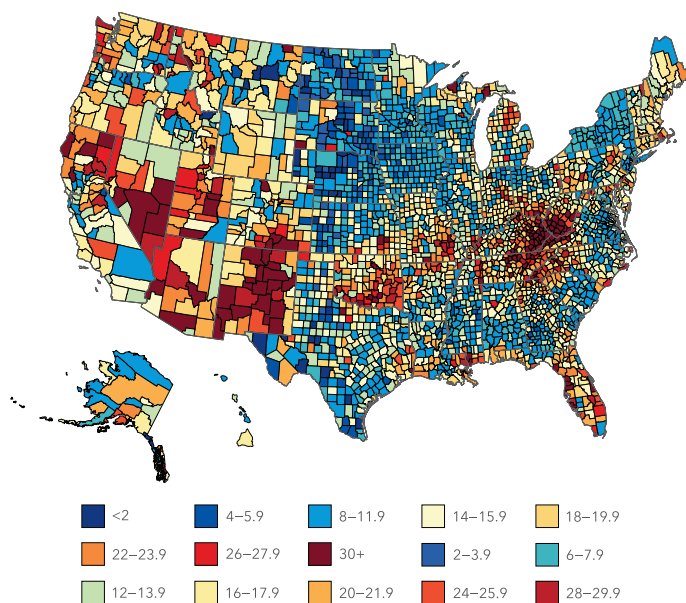


Figure 19: According to the Center for Disease Control, in 2015, Kentucky ranked third in the nation for overall deaths caused by drug overdose.

2014 U.S. RATES OF NEW CANCER CASES

All types of cancer; all races/ethnicities, ages, both sexes

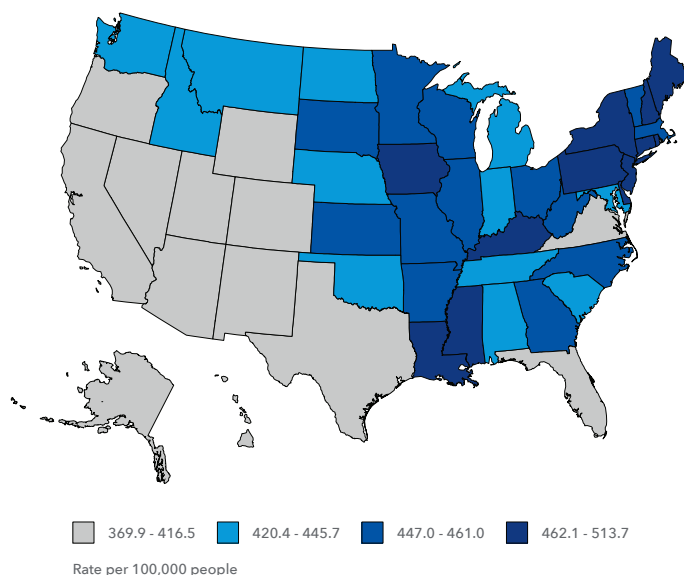


Figure 20: In Kentucky, in 2014, the age-adjusted rate of new cancer cases was 513.7 per 100,000 people. More than 26,500 cancer cases were reported according to CDC research.

Figure 19 Sources: Rossen LM, Bastian B, Warner M, Khan D, and Chong Y. Drug poisoning mortality: United States, 1999 - 2015. National Center for Health Statistics. 2016.

Figure 20 Notes: Alaska, DC, Hawaii and Puerto Rico are not drawn to scale. State Cancer Registries may provide more current or more local data. Data presented on the State Cancer Profiles Web Site may differ from the statistics reported by the State Cancer Registries. Source: Death data provided by the National Vital Statistics System public use data file. Death rates calculated by the National Cancer Institute, SEER*Stat. Death rates (deaths per 100,000 population per year) are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ..., 80-84, 85+). The Healthy People 2020 goals are based on rates adjusted using different methods, but the differences should be minimal. Population counts for the denominators are based on the Census 1969-2015 US population Data File as modified by NCI. Healthy People 2020 Goal C-1: Reduce the overall cancer death rate to 161.4. Healthy People 2020. Objectives provided by the Centers for Disease Control and Prevention. Data for the United States does not include data from Puerto Rico.

While NIH grant funding has declined nationally over the last decade, the college has been able to grow its NIH funding, especially more recently as strategic tactics have been implemented, including recruitment of key faculty who bring in additional grant funding and investment to develop existing talent by forming teams to leverage strengths, such as the **Multidisciplinary Value Program (MVP)** initiative.

As the strategic plan is implemented over the next five years and beyond, it will be important to focus on key metrics of success. For example, the competitive approach from the College of Medicine as shown in figure 21 will be a measure of the college's ability to compete for NIH and federal research grants and is a representation of scientific strength.

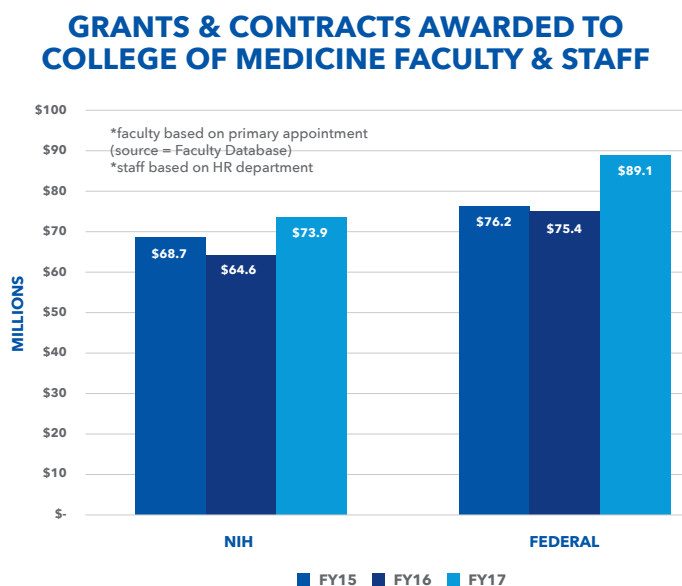


Figure 21: UK College of Medicine NIH and overall federal funding awards have increased from fiscal year 2015 to fiscal year 2017.

University of Kentucky physicians and scientists were asked what strengths the college's research has as an academic medical center that create a distinct niche and a facet of differentiation from other health systems in Kentucky. NIH funding represents one of the strongest measures of expertise and the college's faculty are strong competitors for research grants in key areas in Kentucky.

ACTIVE NIH AWARDS AS OF FEDERAL FISCAL YEAR 2017

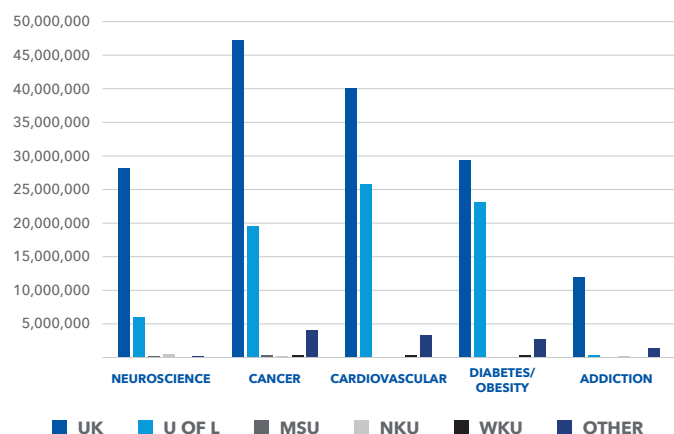


Figure 22: The UK College of Medicine leads the state in grant funding for the key programmatic areas – cancer, neuroscience, diabetes and obesity, cardiovascular science, and addiction.¹

Source: NIH reporter

Figure 22 shows NIH funding levels in the college's key programmatic areas demonstrating the strength and expertise of various institutions in Kentucky in cancer, neuroscience, diabetes and obesity, cardiovascular science, and addiction.

Fortunately, the structure as a research and teaching university with a comprehensive health care system positions the college well to seize opportunities to have the greatest impact and move the needle on standards of care for the state and nation.

The survey also indicated specific areas of research as potential future opportunities and strengths that should be capitalized on as emerging areas having some foundational strength and a critical need in Kentucky and nationally. As in this strategic plan, flexibility to grow new areas will be important.

The college's research is broad, covering a full spectrum of disease and illness. An important advantage in addressing Kentucky's major health challenges with a transdisciplinary strategy is that the University of Kentucky has major federally funded awards or designations that foster interaction and collaboration for programmatic area of focus.

FUTURE RESEARCH STRENGTH?

"Take advantage of the unique demographic and health status challenges of the large majority of our patients to create unique research efforts."

"So much of the future of medicine is related to imaging and statistics, we have a need for those areas to be very strong."

– Sample faculty/staff survey responses

Research programs and centers across the College of Medicine include, but are not limited to, the following:

- **Center for Clinical and Translational Science** – With a focus on health disparities in rural and underserved populations, the center connects experts across disciplines and multiple academic and medical centers to improve health and well-being throughout the Central Appalachian region. The center accelerates the translation of basic science discoveries to tangible improvements in health across the Commonwealth.
- **Sanders-Brown Center on Aging (SBCoA)** – Focused on Alzheimer's disease and related dementias, Sanders-Brown has been conducting research on stroke and other age-related brain diseases for more than 35 years. In 1985, SBCoA was recognized as one of the first 10 National Institute on Aging-funded Alzheimer's Disease Centers (ADCs) and is part of a prestigious group of only 31 designated ADCs in the United States today. SBCoA is internationally recognized for its translational and clinical research on identifying underlying mechanisms and developing and testing new potential intervention strategies for Alzheimer's and related dementias.
- **Markey Cancer Center** – As Kentucky leads the nation in cancer deaths, the Markey Cancer Center, an National Cancer Institute-designated facility, has accelerated its cancer research programs. Its Multidisciplinary Lung Cancer Program is working with promising new drug regimens, while treating small cell lung cancer and non-small cell lung cancer, mesothelioma, thymoma, esophageal cancer, bronchial carcinoid, and other thoracic cancers. And its clinical research organization facilitates the movement of advanced treatments into the mainstream of cancer management.
- **Center on Drug and Alcohol Research (CDAR)** – Seeking to understand substance use and related behavior, CDAR focuses on research into the biological, psychological, sociopolitical, and clinical aspects of addiction. The center has a long history of collaboration with a variety of agencies at the local, state, national, and federal level to deliver research services and information across the Commonwealth and to develop innovative approaches to combat the growing problem of addiction across the nation.
- **Spinal Cord and Brain Injury Research Center** – Established in 1999, the center promotes both individual and collaborative studies on injuries to the spinal cord and brain. Focusing on injuries that include paralysis and loss of neurological function, the goal of the center is to find treatments that are more effective and may ultimately lead to functional repair.
- **Center for Health Services Research** – The mission of the center is to apply research in order to optimize care. By working directly with UK HealthCare physicians and teams, the center can leverage expertise and provide leadership in the science of health care delivery in order to improve patient care.
- **Saha Cardiovascular Research Center** – After a generous gift in 2010, the center was officially named the Dr. Sibbald and Becky Saha Cardiovascular Research Center. Its purpose is to facilitate the development of collaborative research efforts across the University of Kentucky campus in order to directly impact the health care treatment to patients across the Commonwealth.
- **Center for Cancer and Metabolism** – Dedicated to defining the role of metabolism in the development and treatment of cancer, the center was established in 2017 after the receipt of an \$11 million Phase I COBRE (Centers of Biomedical Research Excellence) grant award. With Kentucky's high incidence of cancer and metabolic disorders, more research about the link between obesity and cancer is vital.
- **Center for Appalachian Research in Environmental Sciences** – By fostering research across all spectrums – basic, clinical, epidemiological, and translational – the center is working to identify environmental factors and underlying mechanisms responsible for the disproportionately high incidence of chronic diseases such as colorectal cancer, lung cancer, cardiovascular disease, obesity, and diabetes in Appalachian Kentucky.

In addition to the transdisciplinary approach, programmatic areas of focus, and various impactful centers and programs across the campus, the college is building – literally and figuratively – on its foundational strengths.

Construction on a \$265 million, 300,000 square-foot research building is well underway, with the facility set to open in 2018. The building will feature wet and dry labs where scientists, learners, and clinicians across many disciplines will collaborate on a wide variety of research studies focused on health disparities in Kentucky.



Figure 23: Construction is scheduled to be complete in 2018 on a new research building that will add 300,000 square feet of research space.

A MAP TO IMPACT IN A NATIONAL LANDSCAPE

The strategic plan identified key strengths and opportunities in Kentucky. Most important, it created a plan for leveraging strengths together to address the most pressing challenges in a transdisciplinary strategy. As part of this effort, the college also assessed the greatest national needs in health care.

In 2013, the Institute of Medicine published “Best Care at Lower Cost: The Path to Continuously Learning Health Care in America.” In this report, the authors note one of the biggest

problem in health care with the largest cost to society is related to inefficiencies and lack of implementation of rapidly developing evidenced-based approaches. They wrote, “Each action that could improve quality – developing knowledge, translating new information into medical evidence, applying the new evidence to patient care – is marred by significant shortcomings and inefficiencies that result in missed opportunities, waste, and harm to patients.” (Institute of Medicine, 2013³). While discovery leads to new evidence, there is great inefficiency in driving that evidence from the lab into accessible efficient clinical care, especially across a state with great disparities.

As the Institute of Medicine report suggests, addressing this requires “continuously learning” and a highly integrated system of expertise along the path from discovery, to evidence, to dissemination and implementation. Given the strengths in these areas as an academic medical center with programmatic focuses, the UK College of Medicine serves as a model of impact to society by leveraging discoveries in science and expertise in evidence in team-like approaches.

As a map then, figure 25 shows key areas, defined by the strategic plan, which can enhance impact. This impact will be created by enhancing research discovery through leveraging and growing key signature areas in a transdisciplinary approach. As a tactic to enhance translation of the discoveries, the college developed the MVP initiative as well as a tactic to improve implementation in the clinic and community setting with the **Value for Innovation and Implementation (VI²P)**.

These endeavors push the college toward the advances necessary to improve the health of the people in Kentucky and beyond. However, to fully transform, it must better identify signature research areas, further develop faculty, recruit best-in-class researchers, and enhance the infrastructure to support outstanding research.

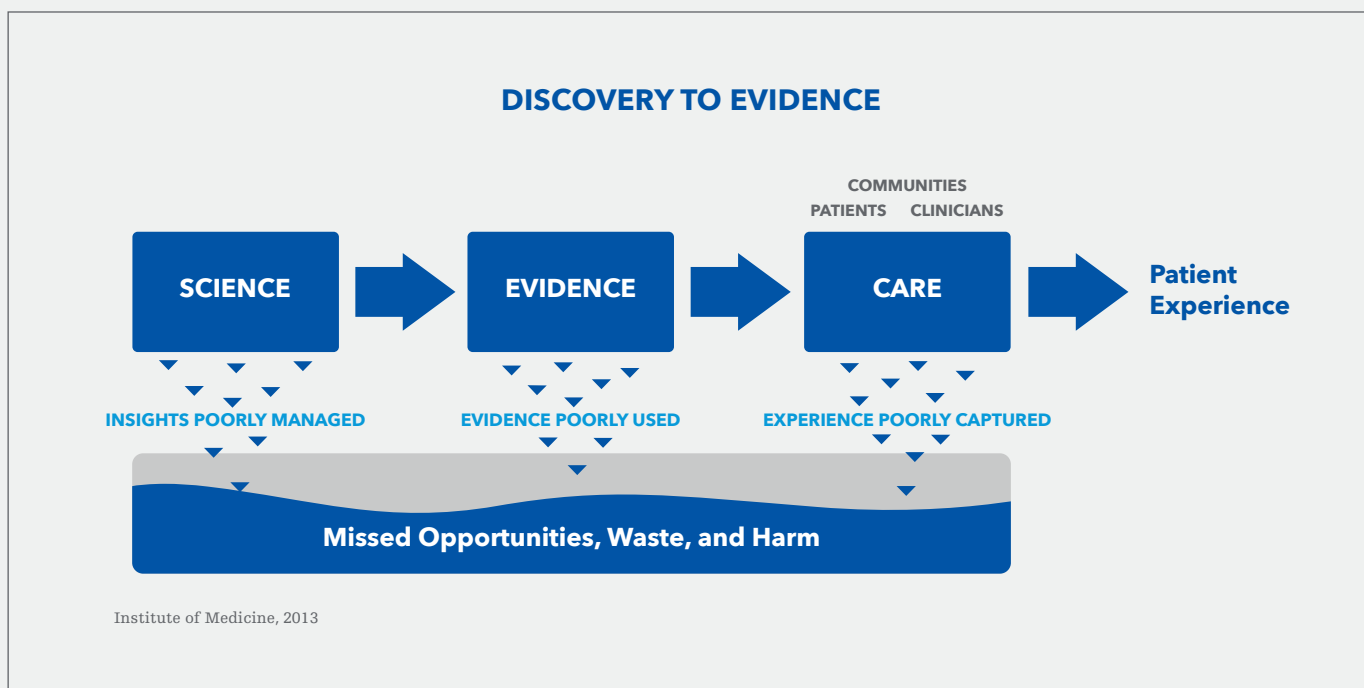


Figure 24: The transition from discovery to implementation is one of the largest opportunities to improve quality of care and patient experience.

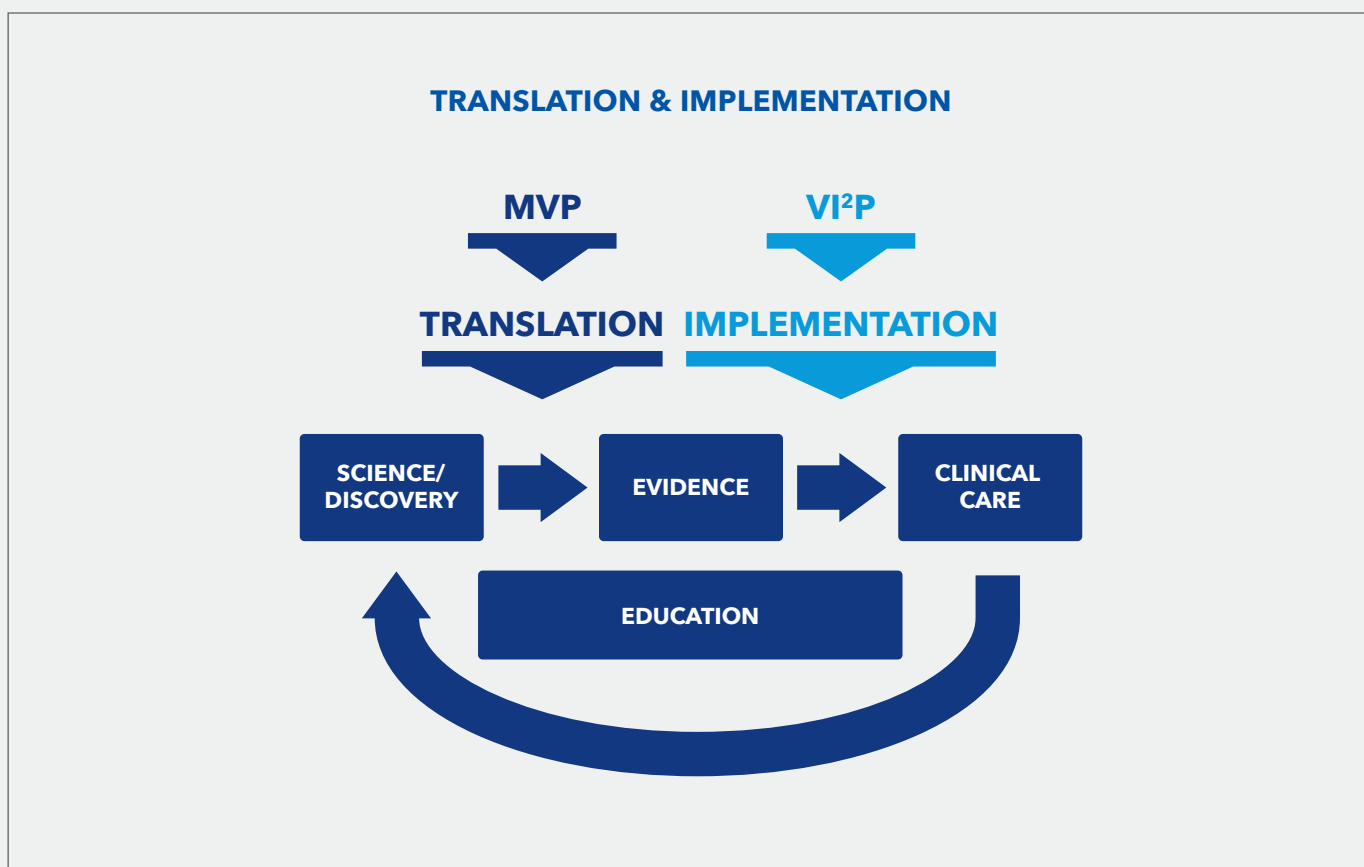


Figure 25: To strategically achieve the fourth goal, the College of Medicine has implemented tactics including the Multidisciplinary Value Program (MVP) initiative and the Value for Innovation and Implementation Program (VI²P).

GOALS

The Research Pillar work group identified several goals to guide the work of the college moving into the next decade. Each of these goals will ultimately help define a path to greater statewide and national impact, and clearly move the needle because what can be modeled in Kentucky successfully can be used nationally to improve health care.

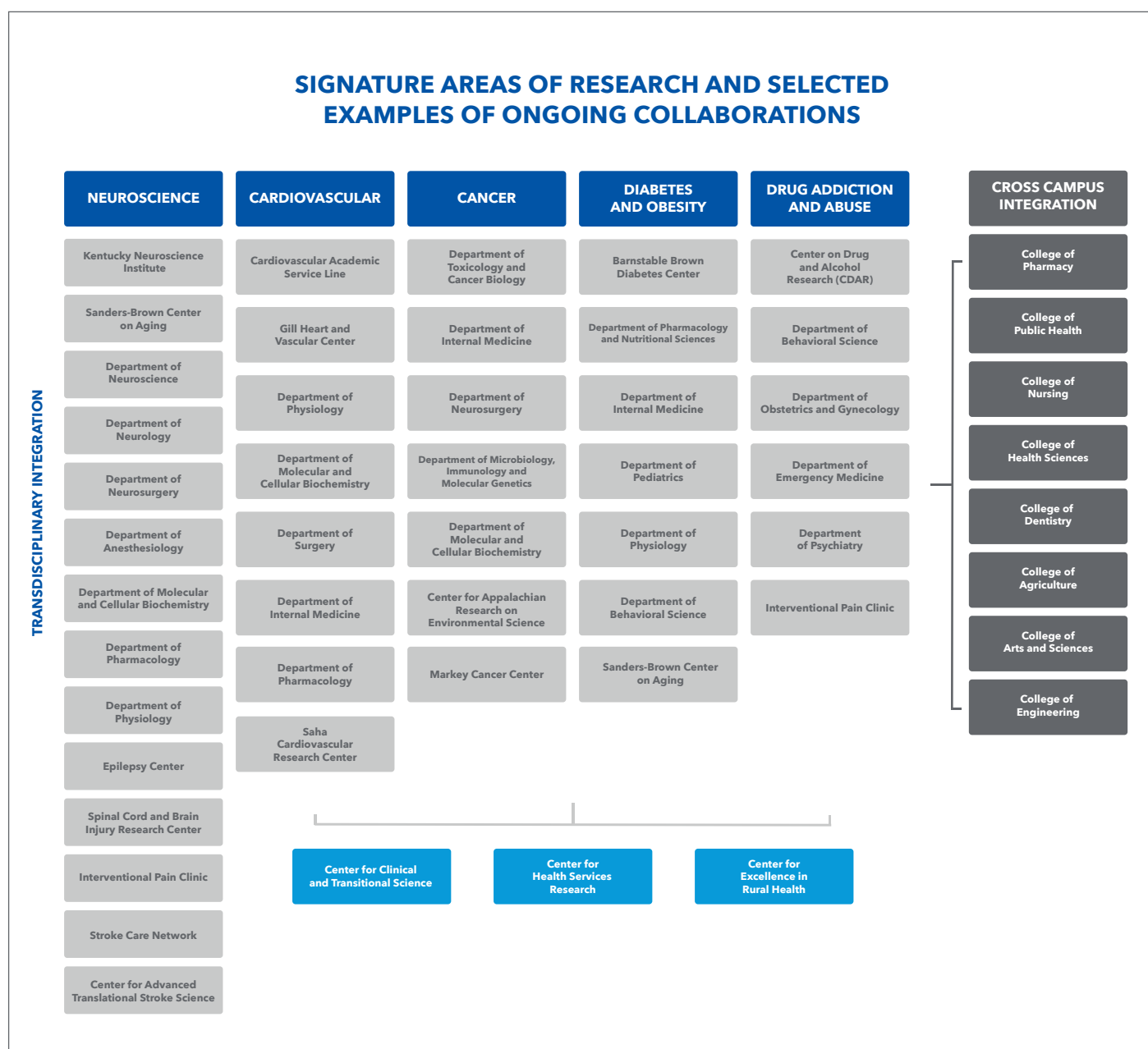


Figure 26: Collaboration exists across the entire College of Medicine. This chart shows examples of transdisciplinary integration within the five signature areas of research.

GOAL 1: Develop and invest in defined signature and emerging research areas leading to scientific impact and improved health of Kentucky and beyond.

For the most significant impact, the UK College of Medicine must ensure best-in-class research areas coincide with the health needs of the Commonwealth. To this end, signature areas have been identified, including cardiovascular care, neuroscience, substance use and addiction, oncology, and diabetes and obesity to guide recruitment, retention, and programmatic team development. These areas were identified based on the college's strengths as well as efforts to align with the greatest statewide needs.

Some of these signature programs have defined targets unique to them, but across all the College of Medicine will: launch steering committees specific to each programmatic area to create more alignment; recruit additional faculty and leaders as needed; increase NIH funding; and expand the number of high-impact and interactive publications. Signature research areas already demonstrate transdisciplinary integration. Collaborative research will be encouraged to take the work to higher levels of impact to improve therapy standards, access, and community health.

It is imperative to consider emerging research areas, as well. As part of the strategy, there is a focus overall on a transdisciplinary approach building on strengths which will have great impact. Although key areas have been identified to start, this is a living strategic plan and emerging signature areas will be considered moving forward as needed. This evolution will begin with the creation of a steering committee to plan a five-year development strategy along with the recruitment of faculty for new areas that can be grown to have impact.

With a focus on these programs, strategies can be established to organize financial resources, identify and nurture the leadership and development of faculty and learners in these areas, and strengthen communication about metrics that raise awareness.

GOAL 2: Create an optimal research community to increase the overall research impact of the College of Medicine.

To be at the research forefront and to obtain the necessary funding for studies, it is essential to recruit and retain outstanding faculty, as well as rising stars.

In the interview and survey process, faculty addressed the need for more training opportunities and collaborative work for junior faculty.

Programs such as the new **Research Enhancement and Coordination Hub (REACH)** were created to nurture the development of junior faculty through education and mentorships. This new program will identify distinguished REACH advisors to work with junior faculty, assess their research history, look at the innovative direction of research, and determine whether additional research members or collaborators from other departments could

be of assistance. Advisors also review the faculty member's draft manuscripts, assist with developing a schedule for extramural grant applications, encourage participation in national and international meetings, and provide feedback regarding their teaching abilities.

To support researchers who are awaiting additional funding or who are between funding sources, the college will further develop bridge-funding efforts. Junior researchers with a record of productivity and promising projects may receive funding to move their studies to the point where they may apply for a sustaining grant. The optimal research community also recognizes and encourages achievements such as editorial board memberships, scientific society leadership positions, scientific review panels, awards, and invited presentations at conferences or institutions.

GOAL 3: Improve the quality and access to infrastructure supporting research efforts.

Key to a robust research program is staying current with innovations in technology – from improvements in gathering and analyzing information using the newest computer software to facilities equipped with sophisticated lab and diagnostic equipment. These factors play a significant role in moving a researcher closer to solutions. That is why capital investments in research infrastructure are a priority.

Offering the latest technology has become crucial, not only in the area of research, but across all of the college's pillars. Today's scientists, physicians, engineers, informatics professionals, and others are working in a rapidly evolving era when it comes to managing information. Massive databases are at their fingertips. To move ahead quickly with research, it is vital that researchers are supported with the people, software, and hardware that allow them to design experiments, investigate research literature, and collect and analyze data. The college will strive to find the best ways to provide researchers with the support they need.

Many needs have been identified such as boosting programs to assist researchers with grant management, including pre- and post-award support. The existing **Sponsored Research Administrative Services (SRAS)** offers pre-award assistance in terms of reviewing sponsor guidelines, budget development, verifying co-investigators and their disclosures, and help with financial and administrative information. SRAS also helps on the post-award end, reconciling grant documentation; monitoring expenditures with a focus on regulations, university policy, and grant-specific guidelines; facilitating budget revisions; monitoring payroll; and more. The College of Medicine will be looking at ways to expand and improve these services.

Other necessities, such as increasing and optimizing research space will be improved with the 2018 opening of the new interdisciplinary research building where principal investigators, scientists, and other researchers will spearhead studies to combat Kentucky's most devastating diseases.

Extremely Important or Important for College of Medicine to Improve in the Future to Support Research/Scholarly Mission



Figure 27: Faculty and staff survey responses regarding research infrastructure needs.

GOAL 4: Create more collaborative and transdisciplinary research opportunities to advance groundbreaking discoveries.

Numerous studies have shown that collaborative research has many benefits. It improves efficiencies; allows for the integration of data and information; can accommodate a larger scope and, often, a larger study group; adds credibility to projects; can draw more funding; and brings creative minds from diverse backgrounds together, resulting in groundbreaking ideas and strategies that lead to solutions faster than an individual working alone.

In the strategic plan survey, faculty were asked to rank the items that would best enhance their research. Coming in second, after pilot awards for preliminary data collection, was an increase in collaborators.

In an effort to spark growth in research as part of the strategic plan, the MVP initiative was launched in 2016 to encourage the translation of science to have impact for patients in need with new investigator-initiated clinical trials, offering patients options of potentially new therapies even beyond typical standards of care. These multidisciplinary teams are collaborating across colleges and centers at the University of Kentucky. MVP is intended to address a second of the key challenges: the translation of scientific discoveries into clinical evidence that can guide medical practice.

A recent MVP team collaborated to form a transdisciplinary effort to drive discovery to clinical care in an efficient and rapid manner by focusing on each individual's strengths – an expert in basic science and an expert in clinical research. Their groundbreaking research has identified potential treatment options for patients with stroke that may reduce the damage to cells. In 2017, the program was moved to clinical trial and has seen success.

To complement this program, a new initiative in development is the VI²P to address the overwhelming need to improve access and implementation of evidence-based practices as highlighted above. This effort involves the College of Medicine, Center for Health Services Research, Vice President for Research, and UK HealthCare. Transdisciplinary collaboration among scientists and practitioners is fostered to develop, test, evaluate, and/or refine evidence-based practice methods and implementation. Open to all faculty across the university, investigators at all stages of career development may apply.

The college must capitalize on emerging research opportunities, particularly those that connect basic, clinical, and translational research with community as well as population research.

Through such programs as those mentioned above and many others, the UK College of Medicine will achieve the objective of advancing transformational research that impacts and improves the health of Kentuckians.

¹. National Institutes of Health active awards as of FY17, search terms: neurology or neuroscience or stroke or neuro; cancer; cardiovascular or cardiac; diabetes or obesity; addiction.

². Institute of Medicine, (2013). Best care at lower cost: the path to continuously learning health care in America. Washington, DC.



TACTICS

As a long-term strategic plan, the tactics are how to achieve the goals. Throughout implementation, this plan must remain fluid to accommodate changes or external forces. There may be modifications or additions and there may be multiple steps within each tactic as a checklist. The following table represents the outlined goals and tactics to move each forward in the efforts of achieving the pillar objective.

“Strategy without tactics is the slowest route to victory, tactics without strategy is the noise before defeat.”

– Sun Tzu

II: GROUNDBREAKING RESEARCH	
RESEARCH PILLAR OBJECTIVE	Advance transformative research through collaboration and innovation leading to scientific impact and improved health of the people of Kentucky and beyond.
STRATEGIC GOALS	TACTICS
1. IMPACT: Develop and invest in defined signature and emerging research areas leading to scientific impact and improved health of the people of Kentucky and beyond.	<ol style="list-style-type: none">1. Identify key signature research and emerging areas based on existing strengths and unique opportunities given the needs in Kentucky.2. Establish strategies and mechanisms to develop and organize financial resources.3. Identify and nurture leadership and members for each signature area in order to identify and facilitate the development of best-in-class research programs.4. Develop ongoing research communication plans to inform, connect, and empower stakeholders.
2. DEVELOP TALENT: Create an optimal research community to increase the overall research impact of the College of Medicine.	<ul style="list-style-type: none">• Recruit outstanding faculty to enhance the research community.• Develop and retain outstanding faculty (e.g. REACH and Academic Clinician Track (ACT) initiatives).• Develop transparent metrics to appropriately measure research productivity.• Establish and further develop bridge funding efforts and pilot project programs.• Prioritize investments to incentivize research productivity.• Optimize mechanisms for recruitment and retention of high-quality staff and trainees.

(CONTINUED)

3. INFRASTRUCTURE: Improve the quality and access to infrastructure supporting research efforts.	<ul style="list-style-type: none"> • Enhance grant proposal development support. • Enhance pre- and post-award management services. • Identify core resources and adopt best practices to optimize utilization. • Increase amount and enhance use of current research space. • Prioritize capital investments in research infrastructure (i.e. technology, facilities, etc.). • Improve business and administrative support to be more effective in meeting faculty and staff needs. • Improve informatics and information technology resources and support services.
4. TRANSDISCIPLINARY INTEGRATION: Create more collaborative and transdisciplinary research opportunities to advance groundbreaking discoveries.	<ul style="list-style-type: none"> • Launch new collaborative research opportunities to promote synergy among multiple areas (e.g. VI²P, MVP, and Translational Research Initiative (TRI)). • Create infrastructure to promote collaboration and team science. • Capitalize on emerging research opportunities, especially those that connect basic, clinical and translational, and community and population research (e.g. Moonshot, Precision Medicine, 21ST Century Cures Act, etc.).

METRICS

A true strategic plan can only be successful when measured throughout implementation. Although this is not an exhaustive list, below are a few of the metrics to be used during execution of the plan in order to demonstrate positive impact and movement toward achieving the overall objective.

II: GROUNDBREAKING RESEARCH	
METRICS	<ul style="list-style-type: none"> • Increase NIH grant funding across the college. • Evaluate and secure extramural funding opportunities. • Increase the percentage of salary recovery via extramural funding. • Identify, pursue, and secure additional publications. • Increase the number of grant submissions. • Develop trainees in labs and establish productivity measures and metrics for success for trainee grants. • Increase interdisciplinary collaboration on grants and publications. • Increase the number of clinical trial accruals based on University of Kentucky science. • Increase number of patent applications and disclosures. • Establish national and professional recognition process to include and highlight: <ul style="list-style-type: none"> » Editorial board memberships » Scientific society leadership positions » Scientific review panels » Invited presentations at conferences or other institutions » Awards



PILLAR III: ADVANCED CLINICAL CARE

OBJECTIVE

Advance expert clinical care through highly engaged physicians, scientists, and health care teams using evidence-based practices while embracing a patient- and family-centered culture.

OVERVIEW

With revolutionary changes occurring in every area of health care – from population health management to value-based reimbursement to technology to scientific discoveries and more – the college must take advantage of this changing environment in order to continue to provide the highest quality patient- and family-centered care. Together, the College of Medicine and UK HealthCare form the state's largest resource for academic medicine with national leaders in various fields across the hospitals and clinics.

With a clear focus on delivering value to patients, the challenge is to effectively use all of the tools available – expertise, innovation, discovery, education, and community engagement – to ensure that delivery of care aligns with evidence-based practice and to encourage the same for others practicing throughout the state.

It is well recognized that the health of Kentuckians and their communities is among the worst in the nation. In addition to these challenges, poverty, unemployment, and lack of access to care are all too familiar to many communities. High rates of cancer, diabetes, heart disease, stroke, chronic lower respiratory disease, obesity, and substance use disorders head the list of health problems affecting Kentuckians.

Therefore, through this strategic plan process, the college has identified five signature areas to address these health disparities given analysis of strengths aligned with the state's needs – cancer, neuroscience, cardiovascular, diabetes and obesity, and drug use and addiction.

These five areas influence the clinical outreach, research, and educational opportunities available. Some programs are considered best-in-class and have made a statewide and even a national impact, and other programs are continually evolving to meet the Commonwealth's needs.

In 2017, the UK Chandler Hospital was ranked No. 1 in Kentucky for the second consecutive year in the *U.S. News & World Report's* Best Hospitals rankings. Additionally, four adult specialties, including three signature areas, were also ranked nationally, including Diabetes and Endocrinology, Geriatrics, Neurology and Neurosurgery, and Cancer.



Figure 28: For the second consecutive year, the UK Chandler Hospital was ranked No. 1 Hospital in Kentucky.

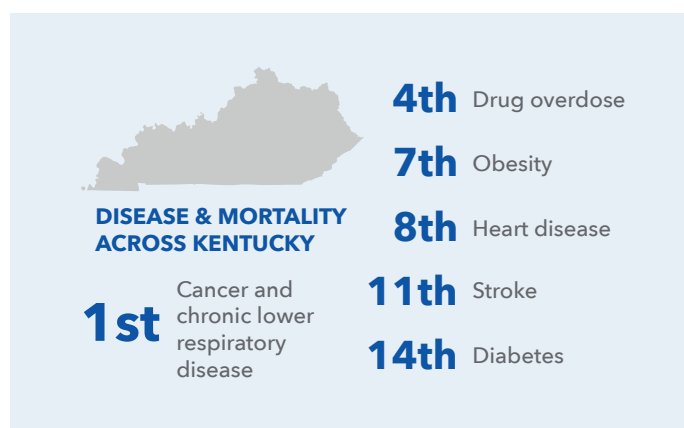


Figure 29: In 2014, Kentucky had the highest mortality rates as a result of cancer and chronic lower respiratory disease in the nation; and ranked fourth in deaths caused by drug overdose, eighth in heart disease mortality rates, eleventh in stroke and fourteenth in deaths related to diabetes, according to the Center for Disease and Prevention. Additionally, The State of Obesity, a collaborative project of the Trust for America's Health and the Robert Wood Johnson Foundation, documented that the Commonwealth also had the seventh highest rate of obesity in 2016.

The College of Medicine and UK HealthCare have experienced unprecedented clinical growth in the last 10 years. During this time, College of Medicine faculty has grown to approximately 1,000 faculty members, with nearly 800 of those in a clinical department.

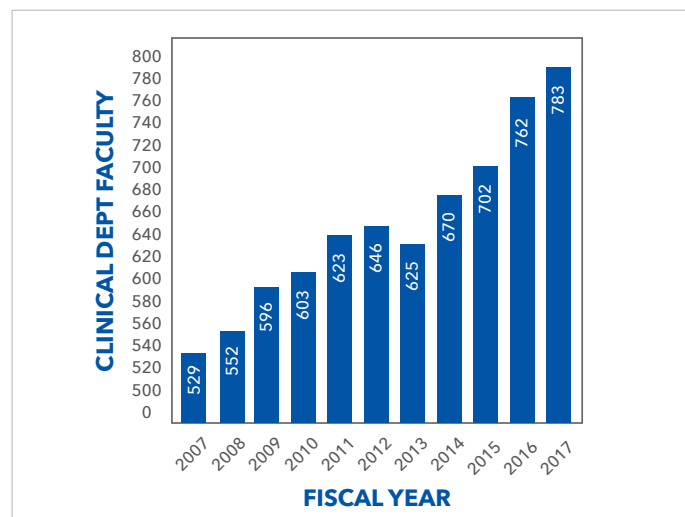


Figure 30: The number of clinical department faculty members has risen from 529 in 2007 to nearly 800 in 2017.

By the end of fiscal year 2017, patient discharges from UK HealthCare had increased by 103 percent since fiscal year 2003 and the complexity of care these patients required increased considerably. The case mix index – a measure of the complexity of care required – increased from 1.69 in 2004 to approximately 2.00 at the end of fiscal year 2016.

Consistent with the clinical mission, faculty make every effort to “never say NO” to a patient transfer from an outlying community physician. In comparison with other academic medical centers nationwide, UK Chandler Hospital is often among the top five in terms of the complexity of its patients transferred from other hospitals.

To work together to transform the health of the citizens of Kentucky and beyond, the college’s strategic plan aligns with UK HealthCare’s. The college’s move to transdisciplinary integration ensures that health care teams comprised of experts from vastly different areas will collaborate to address common problems from the outset. This means solutions to Kentucky’s health care challenges are discovered and implemented more quickly. Additionally, the strategy bridges the key missions, including research and education, to increase the value of expert clinical care.

The college’s history of reaching out to the underserved and rural areas of Eastern Kentucky (and now beyond) showcases collaboration with numerous groups, such as the **Kentucky Telecare Network** and the **Center for Excellence in Rural Health**. Partnerships with organizations like these have provided better access and serve as a bridge between clinical care and community engagement.

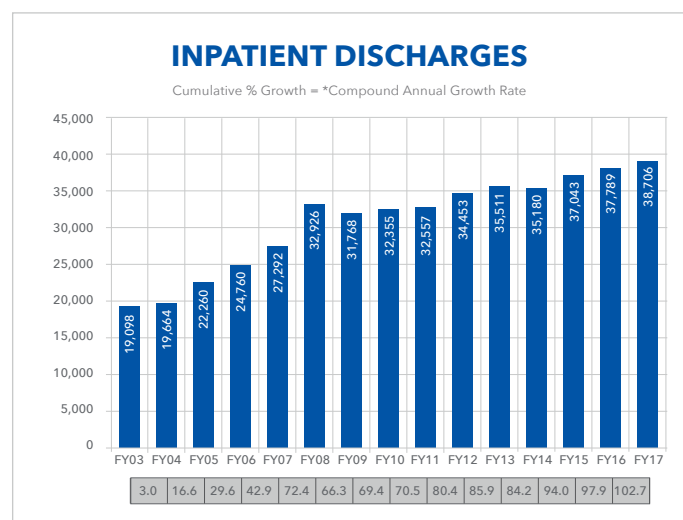


Figure 31: Annual discharges at UK HealthCare have grown at a compound annual growth rate of 5.6 percent from fiscal year 2003 to fiscal year 2017, leading to a total growth of 103 percent.

As an assessment of strengths through the strategic planning process, programs provided by the **Kentucky Telecare Network** include care in some of the following departments:

- **Emergency Medicine** – Across rural Kentucky, the College of Medicine has telehealth technology in 13 rural emergency rooms. The goal is to reduce unnecessary transfers to UK HealthCare, to keep more patients in their home community, to organize “direct admission” of patients to the inpatient facility, and to eliminate another evaluation at UK Chandler Hospital.
- **Ophthalmology** – The deployment of automated retinal imaging cameras in rural primary care centers has helped uncover a potential vision-threatening eye disease called diabetic retinopathy. Over the last four years, the program has screened more than 6,000 patients.
- **Psychiatry** – Many patients in rural Kentucky in need of mental and behavioral services, especially child psychiatry, are unable to access those services in their community. Because of this barrier, College of Medicine faculty and UK HealthCare developed weekly child psychiatry telehealth clinics in 1996 to reach those who cannot, or will not, travel to Lexington for care.

The **Center for Excellence in Rural Health** provides the opportunity to learn in a rural setting and improves access to care for patients, as well as the ability to take part in clinical trials and research studies. By working collectively, the College of Medicine will impact the quality of care in the Commonwealth.

When surveyed, physicians and staff were asked to help develop this guiding document. They ranked the current state of the core elements of the college’s strategic plan. These core elements are identified as clinical care, instruction and teaching, research, community engagement, and diversity and inclusivity. Clinical care was ranked the highest, with 80 percent ranking it as very good or good. Yet when asked what their immediate goal was in their primary area of work, 50 percent ranked “Increase Quality of Care” as number one or two – further proof of the focus on improving outcomes and the patient- and family-centered experience.

These same physicians are also educating the next generation of physicians – medical students, residents, and fellows – as all clinicians in the College of Medicine are educators. Clinical care and education are two core elements always practiced together for the ultimate benefit of the patient and family. When surveyed, the majority of physicians thought instruction was good or very good, but much like their clinical work said they needed more assistance in order to balance their teaching and clinical duties.



GOALS

The 13-member Clinical Workgroup, covering a wide variety of specialties, explored the very broad landscape of health care issues facing clinicians and narrowed them down to the most important. Armed with information gathered from interviews and surveys, four goals were developed. The following clearly highlights the strategy to define and coordinate the work moving toward a greater impact within the Clinical Care pillar.

GOAL 1: Lead, teach, and embrace the patient- and family-centered model of care consistent with the delivery of high-value services.

The College of Medicine and UK HealthCare prioritize and emphasize patient and family care in all situations. This is a bold goal as the work across the college and health care system is very broad. The physicians care for the tiniest neonate beginning life to those needing end of life care; diagnose heart disease, cancer, and stroke then implement state-of-the-art clinical care; fight addiction, diabetes, obesity, and other diseases that plague the Commonwealth while conducting research to develop innovative programs and treatments. These examples represent only a small part of the daily work on this large complex campus.

Through the implementation of this strategic plan, physicians and staff will continue to look at care through the lens of the patient and their family while advocating for them. Listening and acting upon the patient and family perspective, as well as operating with a message of inclusion and diversity, not only recognizes and respects the patient and family but results in better information sharing and patient compliance.

In order to put the patient and family at the center, the group must provide patient- and family-centered learning, and practice and mentoring opportunities for physicians and trainees through innovative educational programs and curriculum that cuts across the College of Medicine. Guided by the Institute for Patient- and

Family-Centered Care, UK HealthCare has embarked on the journey to make patients and families allies in care.

Together the College of Medicine and UK HealthCare are leading change by closely studying patient experience feedback and giving opportunities for patients and families to tell their stories and offer suggestions from their experiences. Transformational change will not happen overnight, but with physicians engaged as advocates for the patient and prioritizing tactics based on patient and family input, programs can be tailored to create impact, and change will occur.

In addition, the college will prioritize system infrastructure and resources to optimize the patient- and family-centered model of care. This might include improving scheduling, access, and retrieving results through methods convenient for the patient, rounding while family is present, using scripted patient greetings, performing shift change reports at the bedside, and increasing the use of patient navigators. This might also include expanding on-demand food options and effective patient education offerings. Physician and staff engagement is key in this initiative.

GOAL 2: Foster an engaged community of academically expert physician educators who embrace a culture of excellence and innovation in patient care.

Providing excellent patient- and family-centered care employing evidence-based medicine is achievable only if outstanding physicians committed to excellence and innovation in both clinical care and education are recruited. Recognizing that most physicians provide clinical care and are educators, support must include resources and programs that provide for their professional development. In turn, the ability of physicians and scientists to be outstanding educators is dependent on more than their natural talent to teach. Ongoing opportunities to learn the newest methods

of instruction are as important as opportunities to advance their skills in new medical and surgical techniques or with new devices and equipment.

To improve the retention of expert clinicians and educators, the College of Medicine must ensure compensation is just and fair, health and wellness programs are broad, and develop a mechanism to better evaluate the reasons faculty are leaving the college for another opportunity.

GOAL 3: Demonstrate continual advancement of excellence through enhanced integration and collaboration of our health care teams.

The quest for excellence means never accepting the status quo. It is one of the reasons to approach problems through transdisciplinary integration. It reaches beyond working in silos or even in interdisciplinary and multidisciplinary groups. Instead, it brings together people from highly diverse areas with expertise in different subjects to create new ways to address a common problem – from the very beginning of a project.

Consumers and payers hold health care professionals accountable to provide value-based care. While there may not be a universally accepted definition of value in the health care system, its components include quality, patient experience, access, and cost. By decreasing illogical variation in care and adopting evidence-based care, predictability of outcomes can be improved, often reducing length of hospital stay. By avoiding duplication of testing, costs are reduced. By including the patient and family in decision-making, understanding and compliance are increased. And in order for consumers to play an active role in their care, data on clinical quality and outcomes must be available and transparent.

The college is doing its part to address multiple elements of the value equation through programs such as the **Value for Innovation and Implementation Project (VI²P)** as a tactic to leverage and grow implementation of science to improve value and patient care. This effort involves the College of Medicine, Center for Health Services Research, Vice President for Research, and UK HealthCare. It is an opportunity that fosters transdisciplinary collaboration among scientists and practitioners to develop, test, evaluate and/or refine evidence-based practice methods and implementation.

A key strategy in advancing excellence is the development of academic service lines that integrate and align clinical, research, and educational initiatives. Academic service lines unite the various medical teams that may be involved in a patient's care, eliminating communication problems common in many settings. By sharing information and tracking metrics together, these groups improve outcomes and patient satisfaction.

GOAL 4: Leverage clinical innovation and discovery to create transformational change to improve health and wellness.

To create an environment that nurtures innovation and facilitates the deployment of cutting-edge technology and care delivery models, some structure must be added that allows the testing and evaluation of new ideas. A nimble environment results in new discoveries, transformative care, and improvements in health while supporting a culture of change.

Additionally, the college must continue to support the strategic development of a comprehensive continuum of care by leveraging technology and partnerships that improve access to inpatient, ambulatory, and community care. Great strides have been made in this area over the years through outreach programs. Yet opportunities exist beyond Lexington to collaborate and expand impact statewide. In coordination with the Community Engagement team, statewide outreach programs include UK

HealthCare's affiliate and research networks, telemedicine, and the college's Center for Excellence in Rural Health, to name a few.

The establishment of complex chronic care models is also essential for managing the patient population, improving health outcomes while lowering cost. Primary care in collaboration with several specialties is working to integrate best clinical practices, incorporating new workflows to better engage patients and families and reduce unnecessary emergency department visits and hospital readmissions. The continued development and optimization of academic service lines and informatics needed to evaluate and improve patient outcomes can also support the development of new models for managing complex chronic care and ultimately optimize UK HealthCare for value-based care and population health.



TACTICS

As a long-term strategic plan, the tactics are how to achieve the goals. Throughout implementation, this plan must remain fluid to accommodate changes or external forces. There may be modifications or additions and there may be multiple steps within each tactic as a checklist. The following table represents the outlined goals and tactics to move each forward in the efforts of achieving the pillar objective.

“Strategy without tactics is the slowest route to victory, tactics without strategy is the noise before defeat.”

– Sun Tsu

III: ADVANCED CLINICAL CARE	
CLINICAL CARE PILLAR OBJECTIVE	Advance expert clinical care through highly engaged physicians, scientists, and health care teams using evidence-based practices while embracing a patient- and family-centered culture.
STRATEGIC GOALS	TACTICS
1. INFRASTRUCTURE: Lead, teach, and embrace the patient- and family-centered model of care consistent with the delivery of high-value health services.	<ul style="list-style-type: none">• Provide learning, practice, and mentoring opportunities for physicians and trainees surrounding patient- and family-centered care through innovative educational programs and curriculum that cut across the College of Medicine.• Partner with patients and families to identify challenges.• Prioritize system infrastructure and resources to optimize the patient- and family-centered model of care (e.g. access, scheduling, navigation, results, on-demand food options, patient education, environment, etc.).
2. DEVELOP TALENT: Foster an engaged community of academically expert physician educators who embrace a culture of excellence and innovation in patient care.	<ul style="list-style-type: none">• Attract, recruit, and develop outstanding physicians committed to excellence and innovation in clinical care and education.• Develop a mechanism for evaluating loss of faculty to improve the retention of expert clinicians.• Provide resources and programs that support the professional development of physicians and scientists (e.g. clinical conferences and scholarship, mentoring programs).• Embrace a culture of diversity, inclusiveness, and respect across the college.

(CONTINUED)

<p>3. TRANSDISCIPLINARY INTEGRATION: Demonstrate continual advancement of excellence through enhanced integration and collaboration of our health care teams.</p>	<ul style="list-style-type: none"> • Drive quality and safety in clinical care by decreasing illogical variation in care and process in order to improve predictability of outcomes and cost while adopting evidence-based leading practices and sustaining health equity (VALUE = Quality/Cost). • Develop effective mechanism(s) to implement best practices such as VI²P. • Continue the implementation and maturation of academic service lines that integrate and align clinical, research, and educational initiatives. • Create integrated, comprehensive, and collaborative care models to address health care challenges disproportionately affecting the citizens of the Commonwealth (e.g. obesity and diabetes, substance use, cardiovascular, stroke, cancer) and develop outreach and advocacy approaches to help address. • Invest in data and information systems to improve patient outcomes.
<p>4. IMPACT: Leverage clinical innovation and discovery to create transformational change to improve health and wellness.</p>	<ul style="list-style-type: none"> • Create an environment that nurtures innovation and facilitates the deployment of cutting-edge technology and innovative care delivery models (e.g. office of innovation and transformation, precision medicine). • Support the strategic development of a comprehensive continuum: <ul style="list-style-type: none"> » Build a complex chronic care model to actively manage the care for this patient population and improve their health outcomes. » Leverage technology and partnerships to improve access to inpatient, ambulatory, and community care. » Optimize organization for value-based care and population health. • Participate in collaborative opportunities to integrate research into practice to advance clinical care and develop academic expert careers (e.g. Multidisciplinary Value Program (MVP) initiative and Translational Research Initiative (TRI)). • Develop and optimize informatics to improve patient outcomes.

METRICS

A true strategic plan can only be successful when measured throughout implementation. Although this is not an exhaustive list, below are a few of the metrics to be used during execution of the plan in order to demonstrate positive impact and movement toward achieving the overall objective.

III: ADVANCED CLINICAL CARE	
METRICS	<ul style="list-style-type: none">• Customize the College of Medicine scorecard to monitor Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) and Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CGCAHPS) surveys.• Establish customized College of Medicine scorecard to provide transparency to physician connectivity and specifically address:<ul style="list-style-type: none">» Physician engagement survey» Retention rates» Exit surveys» Number of mentorship programs» Recognition program» Professional development allowance• Continue and further establish quality improvement projects that will eliminate harm (e.g. number of SWARMs) and improve outcomes (e.g. OptimalCare, team-based simulations, etc.).• Use academic medical center quality and accountability performance scorecard (overall, mortality, efficiency, safety, effectiveness, patient-centeredness, equity, diversity, etc.).• Create academic service line scorecard.• Increase number of collaborative care models developed and improve access (e.g. Multidisciplinary Markey Cancer Center Clinic, uterine fibroid program (interventional radiology/GYN)).• Increase number of academic clinicians receiving NIH funding through basic science partnerships.• Increase number of clinical departments and programs to receive <i>US News & World Report</i> ranking or be recognized as distinguished programs.• Continue efforts to remain No. 1 overall hospital in Kentucky in <i>US News & World Report</i> ranking.





PILLAR IV: DIVERSITY AND INCLUSION

OBJECTIVE

Enhance all forms of diversity through education, recruitment, hiring, retention, promotion, and initiatives that provide experiences to ensure inclusive excellence.

OVERVIEW

The College of Medicine has long held a commitment to diversity and inclusivity as a central component to the quality of the environment, preparation of students, and to the ability to provide excellence through community collaborations and patient outcomes.

From the Student Diversity Roundtable to Women in Medicine and Science, a group that provides mentorship and development of the careers of women in medicine and science, there are many opportunities across campus. These programs are only two of those identified outcomes of the efforts related to diversity and inclusivity across the College of Medicine.

Additionally, the college works in support of the university-wide Unconscious Bias Initiative. The mission of the Unconscious Bias Initiative is to empower members of the UK community, including faculty, administrators, staff, and students, to be aware of and manage the impact of unconscious biases and to maintain a culture that is truly welcoming and inclusive, where every individual is respected and valued. The initiative serves as a catalyst for effective decision making to generate an increase in UK's ability to leverage its diversity, to decrease incidents of bias and adverse outcomes, and to serve as a way to broaden collaborations among all members of the organization and the larger community.

With an intent to emphasize greater participation of underrepresented social identity groups in the workforce and student body, the college recently hired an associate dean for diversity and inclusion. The associate dean will partner with other university-wide, state, and national organizations to improve



Figure 32: Faculty and learners collaborate to uncover new discoveries that will impact health care options for the diverse population of the Commonwealth.

academic quality and to create an environment in which all groups want to belong.

The college's mission states: 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. Consistent with the mission, core values for the college as well as UK HealthCare include the following:

- **Diversity** – We welcome and embrace diversity as a quality improvement strategy that will positively impact all functional areas of the college.
- **Innovation** – We will use creative initiatives to produce tangible outcomes in college processes and actions resulting in a critical mass of students, faculty, and executives.
- **Respect** – We will encourage personal and group differences and use them to provide optimal solutions to health care disparities and to foster social justice in the educational and work environments.
- **Compassion** – We will practice self-reflection and be empathetic to thoughts, needs, and feelings of others.
- **Teamwork** – We will foster a climate of partnership and collaboration to create positive outcomes for all those engaged in teaching and learning.

IMPORTANCE OF DIVERSITY AND INCLUSION TO THE SUCCESS OF THE COLLEGE OF MEDICINE

TEACHING AND LEARNING:

In the same way that the world is constantly changing, medicine has evolved into an even more complex, multifaceted, and overall dynamic profession. The population of Kentucky continues to become more diverse and the health of the community depends, in part, on an ability to understand cultural differences and embrace cross-cultural conversations. Society has looked to higher education institutions and community leaders, including health care providers, to create and establish a level of responsibility and accountability.

At the UK College of Medicine, teaching and learning has moved from direct instruction on a single subject matter to a systems approach where an integrated curriculum is taught using active learning and application-based strategies. At the same time, the college has learned more about the different ways students must be engaged to be successful. This requires focus on multimedia and interventions that offer diverse ways for students to learn. An understanding about how belief systems and culture impact personal and professional growth is important for organizational leaders, faculty, staff, and other stakeholders in medical education to successfully determine student support.

A study led by the UCLA Higher Education Research Institute reported in the *Journal of the American Medical Association* that a link can be made between diversity in medical students and educational benefits¹. Over a two-year period, researchers studied more than 20,000 graduating medical students from 118 schools. White students “who attended racially diverse medical schools said they felt better prepared than students at less diverse schools to care for patients from racial and ethnic groups other than their own,” the UCLA newsroom reported. The study also found they were more likely to ascribe to the belief that health care is a “right” rather than a “privilege,” which many public health practitioners support. The U.S. Supreme Court has supported this notion in much of the case law established to support diversity in education.

PATIENTS AND FAMILIES:

Kentucky residents are a microcosm of society. There are rural towns and sizable cities where patients reflect the gender identity spectrum and most radicalized groups are present. Cultural competence is a needed quality to meet the mental, physical, and socioemotional needs of patients and their families.

Managed care ushered in a new atmosphere for physician-patient communication. More dialogue and interaction is required for the best care outcomes. Alluded to before, the early scholars in social justice and those today agree that problems and challenges yield more productive and effective outcomes when diverse people are part of the decision-making process.

MARKET ISSUES:

As a growing, national contender in the medical school arena, the UK College of Medicine wants to position itself as attractive to all

potential medical students, as well as to clinicians and scientists who bring much needed information, skills, and experiences to the organization. The concept of market share has been one driving the critical thinking of admissions professionals for decades. Therefore, the college’s programs and services are not only national, but global – adding another dimension of need for diversity intelligence. Among them are the following:

- **Center for Graduate and Professional Diversity Initiatives (CGD)** – The Center for Graduate and Professional Diversity Initiatives is deeply committed to the retention and success of students of color in the University of Kentucky’s graduate and professional programs as well as the cultural education of all members of the campus community. By connecting students to essential tools and resources, CGD assists the university in promoting academic excellence, building inclusive communities, and supporting the professional development of graduate and professional students of color, with the ultimate goal of developing leaders in academy, industry, and society. Specific programs include, mentoring moments designed to connect students to faculty and alumni for academic support, encouragement, and lifelong professional development; diversity dialogues to encourage students to engage in positive interaction, meaningful conversation, and learning with other students, faculty, and staff; and professional development and workshops where students engage with experts to strengthen their professional development, identity, and academic preparation.
- **Student National Medical Association (SNMA)** – The Student National Medical Association is committed to supporting current and future underrepresented minority medical students, addressing the needs of underserved communities, and increasing the number of clinically excellent, culturally competent, and socially conscious physicians. SNMA



Figure 33: Undergraduates at the university gather to learn more about a career in medicine at the annual Student National Medical Association event.



Figure 34: Members of the 2017 Women in Medicine and Science group gathered prior to the year's visiting professor lecture.

programs are designed to serve the health needs of underserved communities and communities of color.

- **Women in Medicine and Science (WIMS)** – Led by female faculty, trainees, and students across the College of Medicine, WIMS is grounded in networking and mentorship with the primary goal of facilitating opportunities for career advancement for women, whether they be faculty members, fellows, residents, or medical or graduate students. Each November, the group hosts a day-long program featuring a nationally renowned, visiting professor who delivers lectures and participates in innovative workshops. Throughout the year WIMS sponsors various events to foster networking

and promote mentorship. Its Executive Committee includes representatives from each department and targeted constituencies (faculty, fellows, residents, or medical and graduate students); its subcommittees and task forces focus on issues specific to women in medicine and science. Men are welcome to participate. WIMS has a cross-campus relationship with the Women's Executive Leadership Development (WELD) program.

- **The University of Kentucky Minority Education Development for Prospective Medical Students (UKMED)** – This annual program is designed to recruit self-identified underrepresented minority junior and senior undergraduate

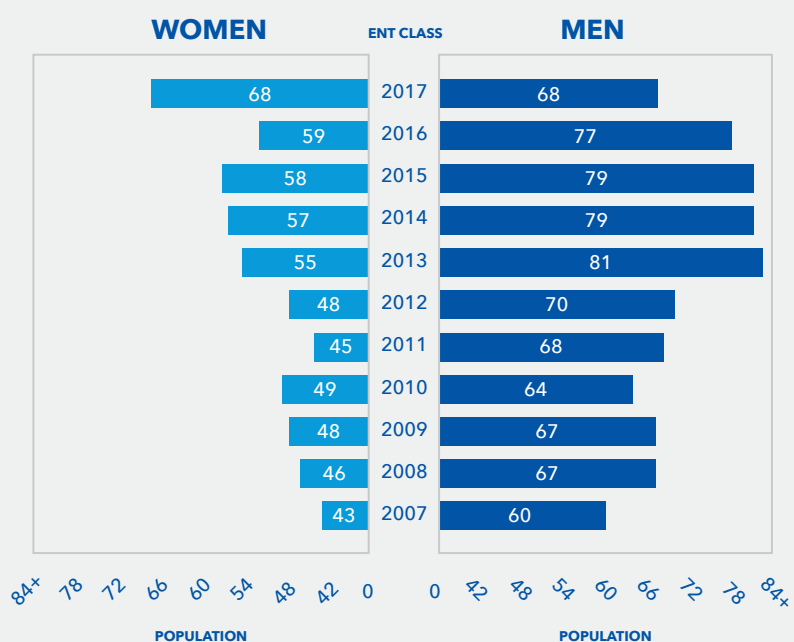


Figure 35: The entering medical school class of 2017 marked an important milestone. For the first year, the male and female populations were equal for the first time in the college's history.

COMMITMENT TO DIVERSITY

"Having a presence at student interest groups promoting diversity."

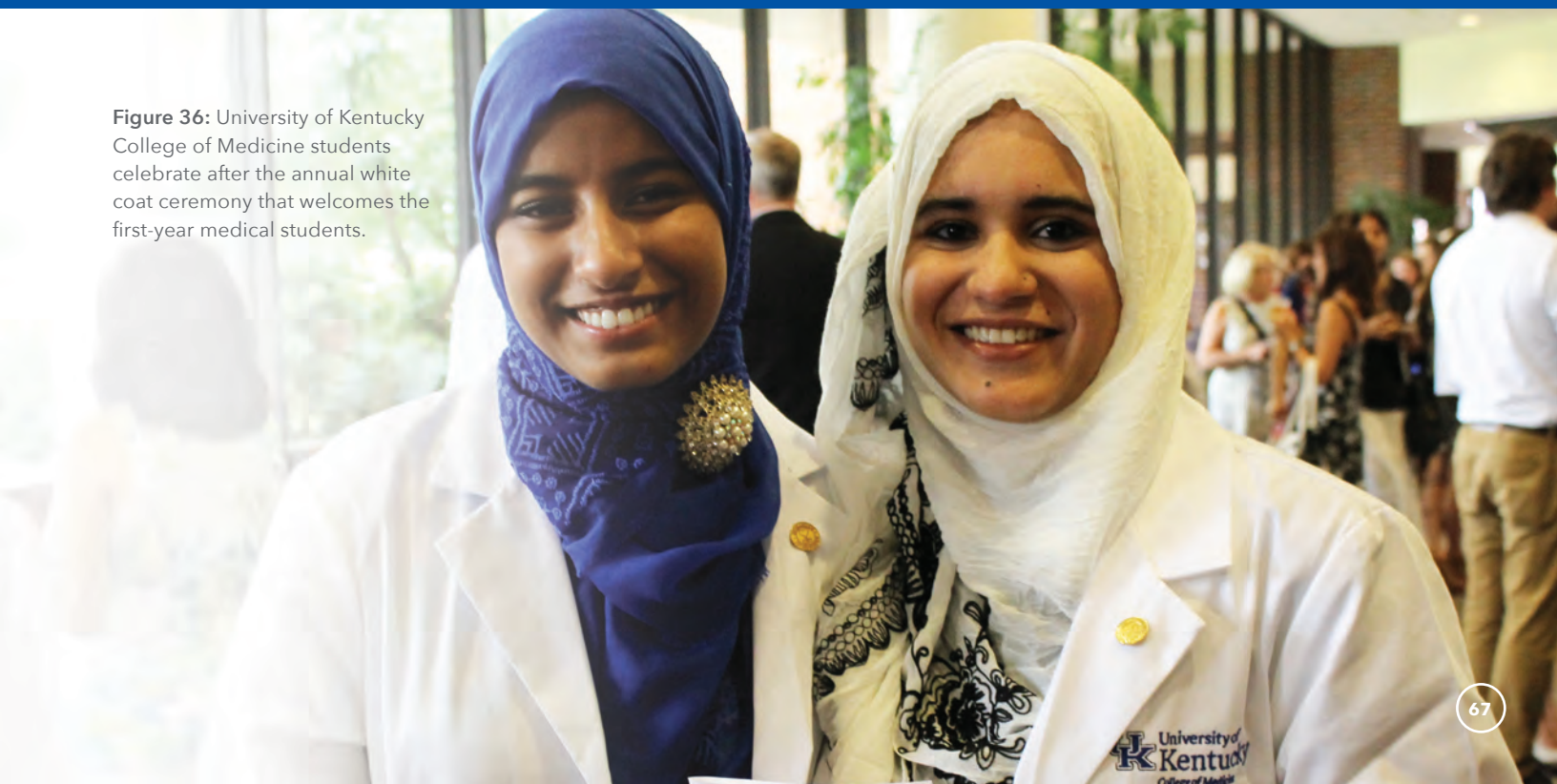
"Actively mentoring and recruiting underserved populations before, during, and after medical school matriculation."

"Demonstrating respect and empathy to all."

"Hiring, recruiting, and admitting a diverse faculty, staff, and student body."

"Integrate training into curriculum."

Figure 36: University of Kentucky College of Medicine students celebrate after the annual white coat ceremony that welcomes the first-year medical students.



students who have a strong interest in attending medical school. The goals are to increase the number of minority student applications and their matriculation to the UK College of Medicine.

- **Global Health Initiative** – The organization is a network of students in health care professions who are interested in global health issues and passionate about advocating for improved health care access. They work to develop future clinicians who are culturally sensitive and knowledgeable about health care systems around the world. They work with groups like Shoulder to Shoulder, a UK organization devoted to improving the health and well-being of impoverished and underserved communities globally.
- **College of Medicine Ambassadors** – Targeting rural areas from the western and eastern portions of the state, this program uses a select group of medical students to promote the study of medicine. They educate prospective students and their families about health careers and medical education opportunities, serve as advocates for the college, and provide a student perspective to staff and faculty on student-oriented issues at the institution. Ambassadors partner with other organizations interested in promoting and improving the health and medical education of the citizens of the Commonwealth, such as the Area Health Education Center, University of Kentucky Alumni Association and Kentucky Medical Association.
- **UK Health Occupation Professionals for Equality (UK HOPE)** – Founded in 2008, the goal of UK HOPE is to foster a more inclusive, equitable, and diverse working and learning environment within the health care colleges for LGBTQ* students. To this end, the group promotes empowerment through mentorship and networking opportunities, advance curricular innovation to cultivate a better understanding of LGBTQ* health issues, and advocate for the rights of LGBTQ* health care students, faculty, and staff.
- **The Professional Education Preparation Program (PEPP)** – The College of Medicine offers summer programs to high school graduates and college students who are interested in becoming rural physicians or dentists. Students take courses in chemistry and biology, participate in hospital rotations and clinical activities, and explore ethical issues and health



Figure 37: Brigades of students, faculty, and staff travel to locations such as Ecuador to provide health services to local communities.

care careers. Students from medically underserved Kentucky counties are invited to apply, no matter where they are planning to attend college.

In the strategic plan survey of students, residents, faculty, and staff, respondents were asked how the leadership of the College of Medicine can demonstrate a commitment to diversity.

In addition, 62 percent of those who replied to the survey agreed or strongly agreed with the following statement: “I believe education about diversity and inclusion will make the College of Medicine a more successful enterprise.”

Challenges exist across the college including significant competition in recruitment, a need for improved infrastructure, and the variability in the levels of diversity and inclusivity across departments. With these issues in mind, the COMMITS plan was developed to strengthen efforts in this vital area.

Diversity and inclusion, in summary, examines ways to address the different needs individuals of diverse underrepresented groups through access and opportunity. Monolithic and myopic strategies have to be deconstructed to make possible the entrance and persistence of those at the margins into the center where majority communities have existed throughout the history of education, the workplace, and beyond.



GOALS

The Diversity and Inclusivity Workgroup, with valuable input of campus leaders, faculty, and staff, created four strategic goals.

GOAL 1: Ensure social accountability by promoting inclusivity, cultural humility, and health equity.

Access to care is not equal throughout the Commonwealth of Kentucky. Many Kentucky counties are medically underserved or partially underserved, leading in part to the state's poor health and wellness statistics. In fact, as noted earlier in this strategic plan, a recent perspective from the *New England Journal of Medicine* highlights that access to care is one of the key concerns in health care nationally².

The addition and expansion of the University of Kentucky medical campuses will help, to some degree, with the state's physician shortage, making it possible to reach more rural areas, minority groups and economically disadvantaged people.

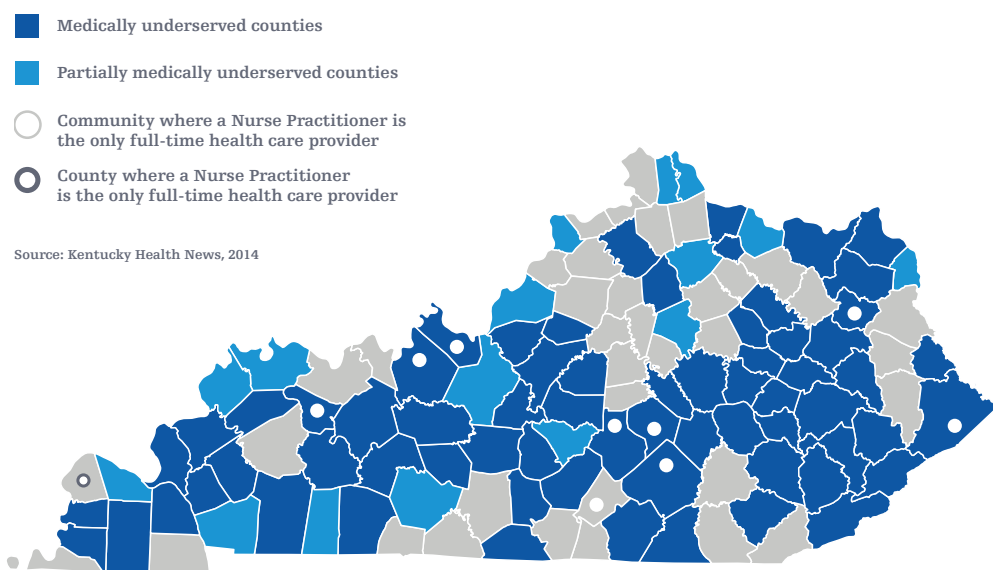
The 2015 Kentucky Minority Health Status Report, issued by the state Department for Public Health, stated that in order to improve the health status of rural, low-income, and ethnic minorities

there must be greater awareness, stronger partnerships among government and business leaders, and more education on cultural differences.

There is a plethora of alarming statistics related to the health and well-being of Kentuckians. For example, a 2014 national study of well-being ranked the Appalachian region of Eastern and Southern Kentucky as the lowest in the nation with the highest rate of diabetes in the state. Income and education levels also affect the population's health. In the 2015 Kentucky Diabetes Report, those who earned \$15,000 or less per year had a 15 percent rate of diabetes, while among those who earned \$50,000 or more just 7 percent had diabetes. The rates were nearly identical when comparing those who had not finished high school to those with a college degree³.

MEDICALLY UNDERSERVED COUNTIES IN KENTUCKY

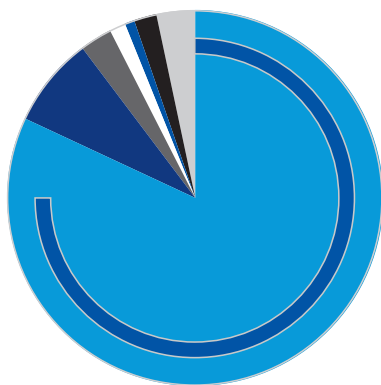
Figure 38: According to Kentucky Health News, more than half of the state is considered medically underserved with limited access to adequate health care.



To address these disparities, more courses in the graduate and medical curriculum that address health disparities, health inequities, and the social determinants of health must be offered, and Culturally and Linguistically Appropriate Services standards should be incorporated throughout the College of Medicine. In partnership with the Community Engagement Workgroup, social

service learning opportunities, such as the Salvation Army Clinic serving the underserved and/or uninsured and acting as a training ground for learners, should be enhanced. Community partnerships will also be explored so that medical students, residents and fellows, and educators have increased interaction with minorities and people in rural areas.

2016 CENSUS DATA GRAPH



RACE AND HISPANIC ORIGIN	PERCENT
White alone	88.0%
Black or African American	8.3%
American Indian and Alaska Native alone	0.3%
Asian alone, percent	1.5%
Native Hawaiian and Other Pacific Islander alone	0.1%
Two or More Races	1.9%
Hispanic or Latino	3.5%
White alone, not Hispanic or Latino	85.0%

Figure 39: Census data taken July 1, 2016 (V2016).

GOAL 2: Increase and promote racial, ethnic, and gender diversity.

A study published in the *Journal of the American Medical Association* reported the differences in quality of care related to physician race and gender: “This study adds to a growing body of research indicating that ethnic differences between physicians and patients are often barriers to partnership and effective communication,” researchers wrote. When physicians and their patients were of the same race, they had commonalities that included cultural beliefs, values, and experiences in society. In addition, minority physicians more often work in populations with higher levels of poor and minority patients.

To ensure that all patients receive care in accordance with individual need, it is not only important to educate professors, staff, and future physicians about cultural differences. It is also vital that the numbers of minority physicians and educators who represent a diverse population in other ways, as well, be increased. Among the necessary steps to achieve this goal is to establish funding streams to provide competitive incentives for the deliberate and intentional recruitment and retention of underrepresented groups. A process must be developed to review and share knowledge about applicants throughout the hiring process.

In the strategic planning survey of faculty and staff, a number of questions about the ways in which diversity and inclusivity could be improved were asked. Among the top suggestions were to increase diversity in leadership positions; actively recruit, hire, and retain minority faculty and administration; provide mentorship and advancement for minorities; increase training that promotes inclusion; and recruit diverse undergraduates. Students replied in much the same way to similar questions, suggesting that the recruitment of diverse leadership; having more cross-cultural conversations, recognitions, and activities starting from the top down; providing more diverse patient interviews and education in the curriculum; and actively mentoring and recruiting underserved populations and international students would improve the College of Medicine.

In collaboration with the Education Workgroup, there must be additional diversity and inclusivity introduced into the classroom; ongoing training for students, residents and fellows, faculty, and staff; and the topic must also be addressed at student and employee orientation.

GOAL 3: Promote a culture where diversity and inclusion are respected and valued.

To bring about change in an organization as large as UK and the College of Medicine, numerous programs need to be put into place. As mentioned earlier, education about diversity and inclusion needs to be provided at many levels – at orientation, in the classroom through the curriculum, outside the classroom at special events and courses, and more. Continuing education and interventions in unconscious bias and cultural humility to improve patient care and professional interactions is key. The College of Medicine community also must have education in social determinants of health and health inequities.

A workplace culture where individuals feel respected and valued regardless of their gender, age, race, sexual orientation, socioeconomic status, and other demographics is one where all feel as if their opinions are heard and regarded seriously, where there are opportunities for communication and feedback, where differences are acknowledged and appreciated because they bring a global mindset with them. A system to recognize and

reward faculty, learners, and staff for engagement in diversity and inclusivity activities needs to be developed.

In addition, the college must continue to encourage the involvement of organizations that foster inclusion, both within the school and with the community. And, in collaboration with the Research Workgroup, there must be more research in health disparities as well as research inclusive of more diverse populations.



Figure 40: Students across the College of Medicine represent a diverse spectrum of the population.

GOAL 4: Expand and enhance opportunities for diverse and inclusive worldviews and perspectives.

Programs such as the **Professional Education Preparation Program (PEPP)** and the **University of Kentucky Minority Education Development for Prospective Medical Students (UKMED)** are examples of existing efforts to create a pipeline for underrepresented groups along the educational continuum. A structure must exist to increase the availability and visibility of new and existing programs that will help grow diversity and bring the global mindset that spurs innovation and creativity. And by tracking participants, it will be possible to see how many of these young students decide to continue their education with UK and the College of Medicine.

The transdisciplinary integration approach is significant in regard to diversity and inclusivity because it shows that by bringing together people from all different cultures and backgrounds, great achievements can be attained.

The institution must also develop special interest support systems and more mentoring programs and funding for career advancement and leadership training at all levels for underrepresented minority groups. The diversity make-up of the College of Medicine committees will be reviewed to insure they are representative and offer decision-making opportunities for all.

¹. Schmidt, E., (2008). Diversity at medical schools makes stronger doctors, study shows. UCLA Newsroom. Los Angeles, California. <http://newsroom.ucla.edu/releases/ucla-study-finds-medical-student-62578>

². Schneider, E. C., MD, and Squires, D., MA, (2017). From Last to First – Could the U.S. Health Care System Become the Best in the World? *New England Journal of Medicine*, 377(10), 901-904. <http://www.nejm.org/toc/nejm/377/10>

³. Cabinet for Health and Family Sciences, (2015). 2015 Kentucky Diabetes Report. Frankfort, Ky. <http://chfs.ky.gov/NR/rdonlyres/7D367886-671C-435E-BCF4-B2A740438699/0/2015DiabetesReportFinal.pdf>

TACTICS

As a long-term strategic plan, the tactics are how to achieve the goals. Throughout implementation, this plan must remain fluid to accommodate changes or external forces. There may be modifications or additions and there may be multiple steps within each tactic as a checklist. The following table represents the outlined goals and tactics to move each forward in the efforts of achieving the pillar objective.

**“Strategy without tactics is the slowest route to victory,
tactics without strategy is the noise before defeat.”**

– Sun Tzu

IV: DIVERSITY AND INCLUSION	
DIVERSITY AND INCLUSIVITY PILLAR OBJECTIVE	Enhance all forms of diversity through education, recruitment, hiring, retention, promotion, and initiatives that provide experiences to ensure inclusive excellence.
STRATEGIC GOALS	TACTICS
1. IMPACT: Ensure social accountability by promoting inclusivity, cultural humility, and health equity.	<ul style="list-style-type: none"> • Enhance social service learning opportunities within the College of Medicine community in conjunction with the Community Engagement Pillar. • Provide education and incorporate Culturally and Linguistically Appropriate Services (CLAS) standards throughout the College of Medicine. • Work with and leverage resources of the College of Medicine Community Engagement workgroup to better educate learners about the social determinants of health, health inequities, and regional workforce gaps. • Work with local and regional communities to enhance culturally diverse training opportunities for learners at all levels (e.g. student programs).
2. DEVELOP TALENT: Increase and promote racial, ethnic, and gender diversity.	<ul style="list-style-type: none"> • Establish funding streams to provide competitive incentives to further deliberate and intentional recruitment and retention of underrepresented groups. • Educate, train, and assist recruitment committees, department chairs, division chiefs, and residency program directors in deliberate and intentional recruitment and retention of underrepresented groups. • Develop a process to review and share knowledge from the College of Medicine about recruitment, hiring, and retention cycle. • Collaborate with the Education Workgroup to continue and further develop integration of diversity and inclusivity into the educational curriculum, orientation, and ongoing training activities for all students including Office of Medical Education, Office of Biomedical Education, and Graduate Medical Education.

(CONTINUED)

(CONTINUED)

<p>3. INFRASTRUCTURE: Promote a culture where diversity and inclusion are respected and valued.</p>	<ul style="list-style-type: none">• Identify and leverage research in health disparities in collaboration with the Research workgroup.• Educate the College of Medicine community in social determinants of health and health inequities.• Continue to educate and provide interventions to the college community in bias and cultural humility to improve patient care and professional interactions.• Recognize and reward faculty, learners, and staff for engagement in diversity and inclusivity activities.
<p>4. TRANSDISCIPLINARY INTEGRATION: Expand and enhance opportunities for diverse and inclusive worldviews and perspectives.</p>	<ul style="list-style-type: none">• Create a structure to increase the availability and visibility of new and existing pipeline programs for underrepresented groups along the educational continuum.• Develop special interest support systems and mentoring and engagement opportunities for underrepresented groups.• Identify and provide funding for career advancement and leadership training at all levels for underrepresented minority groups.• Ensure the College of Medicine committees are composed of diverse representation.



METRICS

A true strategic plan can only be successful when measured throughout implementation. Although this is not an exhaustive list, below are a few of the metrics to be used during execution of the plan in order to demonstrate positive impact and movement toward achieving the overall objective.

IV: DIVERSITY AND INCLUSION

METRICS

- Increase number of research grants in disparate populations (e.g. gender, racial, ethnic, rural, etc.).
- Evaluate types of diversity and inclusion training programs and increase the number of programs available (e.g. unconscious bias, cultural humility, health disparities, etc.).
- Increase the number and type of trainings provided in the recruitment and retention of underrepresented faculty and students (e.g. recruitment trainings, workforce gaps, etc.).
- Grow number and type of awards and recognition to individuals for diversity and inclusion work (e.g. research programs, mentoring programs, community engagement, etc.).
- Cultivate amount of philanthropic funding sourced for recruitment and hiring of underrepresented students and faculty.
- Increase number of underrepresented faculty, staff, and students interviewed, offered positions, hired, and retained.
- Review number of and reason for faculty, students, and staff lost.
- Evaluate and improve courses in graduate and medical curriculum to address health disparities, health inequities/inequalities, and the social determinants of health.
- Increase number and type of pipeline programs offered, participants, and tracking of participants (e.g. summer research programs).
- Increase number and type of social service learning activities offered and number of participants (e.g. Salvation Army Clinic).
- Assess networked community partners (e.g. Lexington Fayette County Health Department, Lexington Fayette County Health Disparities Coalition).
- Increase number and type of special interest group mentoring and engagement programs (e.g. black faculty mentoring program, LGBTQ* student and faculty mentoring program).



PILLAR V: COMMUNITY ENGAGEMENT

OBJECTIVE

Establish bidirectional partnerships and employ leading-edge communication and technology, education, and research in innovative ways to advance the health of the people in Kentucky and beyond.

OVERVIEW

Community engagement can mean something different to everyone. To one person, it is joining a volunteer effort to build a playground at a local park. To another, community engagement is taking part in an opportunity to bring awareness and raise funds to cure a disease. Yet another might enjoy attending a training day with local physicians, where they have a snack, talk over concerns with each other and learn about diabetes. Whatever the view, community engagement typically involves building relationships and partnerships so that common goals can be achieved – a payoff that involves bettering the community.

At the University of Kentucky College of Medicine, the mission extends beyond the clinical campus setting. Community engagement and social responsibility are increasingly essential. Therefore, efforts in community engagement include a broad collection of endeavors. Some programs bring young Kentuckians to campus to take part in free summer enrichment promoting medical careers. Others take place in rural health clinics that provide care for the underserved. Additional initiatives address the growth of partnerships with outside organizations. Together, these efforts directly and indirectly help tackle the concerning rates of disease in the Commonwealth. The following examples are only a few representations of community engagement across the College of Medicine.

The college's **Area Health Education Center (AHEC)** offers opportunities for minority and underserved students to participate in variety of programs that provide them with an educational and community engagement experience. The **AHEC Health Careers Pipeline Program** is a highly competitive platform that recruits students from rural, underserved and minority communities to participate in a summer enrichment camp focused on enhancing participants' awareness of the various health professions and establish a foundation for becoming a competitive candidate. Students participate in courses that emphasize science and math and engage in hands-on clinical care experiences.

AHEC hosts the **Voluntary Faculty Program** which consists of community health professionals who dedicate their time to serve as mentors and teachers to medical school students and graduates. The off-campus experience helps further develop skills for working with patients in a community setting. In collaboration with the eight regional AHEC centers, rotations are arranged with voluntary faculty to help shape students' attitudes toward the practice of their profession, enabling students to gain real-life perspective of rural and underserved clinical practice.

The mission of the **Center for Excellence in Rural Health (CERH)** is to improve the health and well-being of rural Kentuckians. Located in Hazard, the center accomplishes this through assisting rural health providers to improve services and the health status of those they serve; providing health professional education

Figure 41: The UK Center for Excellence in Rural Health assists rural providers in an effort to improve the health and wellness of rural Kentuckians.



in a rural setting; and developing community-based research projects designed to enrich the body of knowledge about rural health and to improve health policy research, health care service, and community engagement. The center serves as the federally designated **Kentucky Office of Rural Health (KORH)** – a program that provides a framework for linking small rural communities with local, state, and federal resources while working toward long-term solutions to rural health issues. The UK North Fork Valley Community Health Center is the home of the CERH and is a joint venture between the UK College of Medicine and the North Fork Valley Community Health Center Board. It is the first community health center in Kentucky to be affiliated with a university and family medicine residency training program and serves as the primary clinical training site for the East Kentucky Family Medicine Residency Program.

Since 2006, the **Markey Cancer Center Affiliate Network** has provided programs and services to community hospitals with the goal of enhancing access to high-quality cancer care. Physicians at 20 Markey affiliate sites across the Commonwealth benefit by keeping their patients close to home as much as possible, and referring patients to the Markey Cancer Center for specialty care not available locally. The Markey Cancer Center Affiliate Network also provides CME opportunities and physician support for American College of Surgeons Commission on Cancer accreditation. As a complement to the Markey Affiliate Network, the **Markey Cancer Center Research Network** was established to increase access to cancer clinical trials across the state and further develop research studies to include the underserved populations. A high priority for the state of Kentucky, UK College of Medicine physicians and researchers have launched an initiative that creates an alliance of doctors to conduct clinical research studies in the treatment, prevention, early detection, health services, and psychosocial research of cancers.

Achieving improvements in cardiovascular health represents a critically important goal for Kentucky. The state's age-adjusted death rate due to heart disease is the sixth highest among the 50 states and it is more than 18 percent higher than the U.S. average. Since being created in 1997, the Gill Heart & Vascular Institute has partnered with community health care providers and institutions across the Commonwealth to develop and establish the **Gill Heart Affiliate Network** in order to better serve and treat the residents of Kentucky.

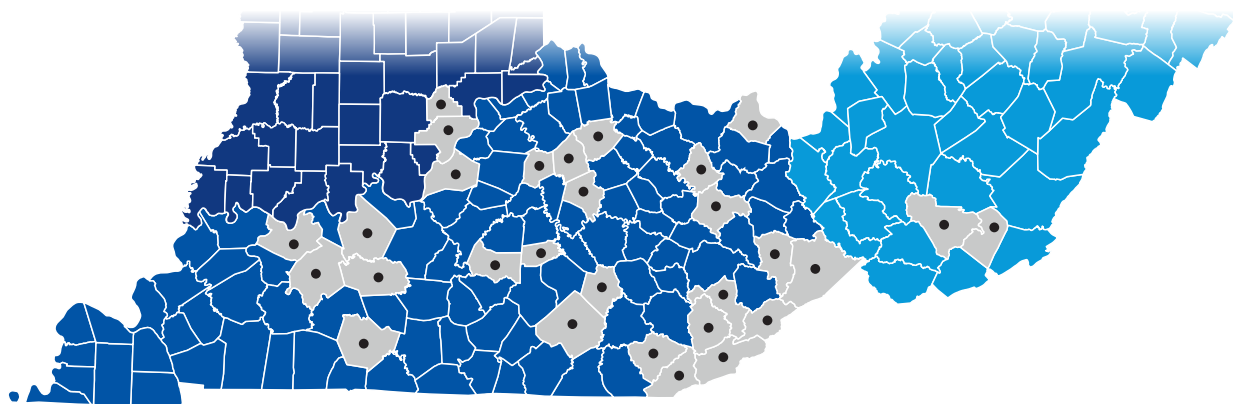
With a specialty in the study and care of patients with advanced, end-stage organ disease, the **UK Transplant Center** has provided solid organ transplantation services to more than 4,300 patients throughout the region since 1964. In fiscal year 2017, the center performed 189 transplants across all organ types, the most performed by any transplant center in the state to date. This includes kidney, lung, liver, heart, pancreas, and kidney and lung transplants for children. It also includes combined transplants for double-lung, liver-lung, kidney-pancreas, heart-lung, and heart-kidney. In order to help address health concerns across the Commonwealth and region, the UK Transplant Center has developed collaborative relationships with partners in Louisville, Northern Kentucky, and Western Kentucky. By creating stronger partnerships with these community providers, the center aims to improve organ failure treatment in a patient-centered and efficient manner that optimizes care in the local setting.



Figure 42: The UK Transplant Center has a rapidly expanding living kidney donor program. In fact, UK HealthCare performed the largest kidney donor chain in the state's history.

"More than half of those who participated in the strategic plan survey, said that their area had high participation in the community engagement functions of clinical services and education programs."

UK STROKE CARE NETWORK



INDIANA

SCOTTSBURG Scott Memorial Hospital
JEFFERSONVILLE Clark Memorial Hospital

KENTUCKY

LEXINGTON UK HealthCare, Good Samaritan Hospital
GEORGETOWN Georgetown Community Hospital
CYNTHIANA Harrison Memorial Hospital
LOUISVILLE Norton Women's & Children's Hospital, Norton Downtown, Norton Audobon, Norton Brownsboro
FRANKFORT Frankfort Regional Medical Center
HARDINSBURG Breckinridge Memorial Hospital
OWENSBORO Owensboro Health Regional Hospital

BOWLING GREEN The Medical Center at Bowling Green

HARTFORD Ohio County Hospital
LEITCHFIELD Twin Lakes Regional Medical Center
LEBANON Spring View Hospital
DANVILLE Ephraim McDowell Regional Medical
MT VERNON Rockcastle Regional Hospital
SOMERSET Lake Cumberland Regional Hospital
BARBOURVILLE Barbourville ARH Hospital
MIDDLESBORO Middlesboro ARH Hospital
HARLAN Harlan ARH Hospital
HYDEN Mary Breckinridge ARH Hospital
HAZARD Hazard ARH Hospital

WHITESBURG Whitesburg ARH Hospital

MCDOWELL McDowell ARH Hospital
PRESTONBURG Highlands Regional Medical Center
SOUTH WILLIAMSON Tug Valley ARH Regional Medical Center
WEST LIBERTY Morgan County ARH Hospital
MOREHEAD St. Claire Regional Medical Center
ASHLAND Our Lady of Bellefonte Hospital
WEST VIRGINIA
BECKLEY Beckley ARH Hospital
HINTON Summers County ARH Hospital

Figure 43: The UK Stroke Care Network includes 34 affiliates covering a tristate region and together the network has accumulated more than 10,000 stroke discharges.

In 2008, the University of Kentucky Stroke Program began to join with area hospitals to found the first community-based stroke program in the region, also known as the University of Kentucky **Stroke Care Network**. Today the network, now co-sponsored by Norton Healthcare, comprises of 34 hospitals responsible for the care of thousands of stroke patients annually; facilitates novel stroke translational research through the MVP program; has deliberately and demonstrably improved quality of care for stroke patients throughout the network; has offered hundreds of unique hours of continuing education; and College of Medicine physicians across several disciplines participate in the network's activities, including authoring more than a dozen publications and abstracts.

Dedicated to strengthening local health services in the Commonwealth, UK HealthCare partners with health care providers across the region. By working collaboratively to develop innovative models of care, UK HealthCare and providers deliver access to a range of services more locally for patients. For example, UK HealthCare partners with Frankfort Regional Medical Center to provide stroke care. Access to UK neurologists enables patients to receive high quality care close to home. Additionally, UK HealthCare and LifePoint Health partner to deliver heart care to the Bluegrass and surrounding communities. Through development of an innovative model, UK cardiologists provide full-time clinical care at Georgetown Community Hospital, Lake Cumberland Regional Medical Center, and Clark Regional Medical Center.



Figure 44: High-tech equipment allows physicians to consult patients remotely.

Using state-of-the-art video teleconferencing technology, the **Blue Angels** program is a partnership with rural medical providers where ultrasound technicians travel to remote locations throughout Kentucky with a portable device seeing patients whose hometown obstetricians have identified as high-risk. The system allows College of Medicine physicians in Lexington to read the ultrasound as it is being performed and consult in real time as if they were in the same room. This program improves access to care and promotes equity in the health care system.

The College of Medicine also continues to help the uninsured and underserved receive free or discounted medical services through outreach programs such as the **University of Kentucky Salvation Army Clinic** in Lexington. The student-run clinic offers medical students a wide range of jobs while supervised by volunteer physicians. Students are responsible for procuring supplies, organizing work shifts, readying patient charts, handling triage, conducting patient interviews, and providing necessary referrals. After meeting one-on-one with a patient, the student presents the patient to the physician and, together, student and physician develop a patient assessment and plan. Before discharge, the student and physician see the patient together.



Figure 45: UK College of Medicine students work alongside faculty to provide health care to the underserved population in Lexington.



Figure 46: College of Medicine students partake in the annual Career Chats with Alumni event.

While there is continued focus on current faculty, staff, students, and the communities served, the college has extensive outreach plans for alumni across the state and the nation. For example, the active **UK Medical Alumni Association** fosters a partnership with and a service for current medical students in an effort to provide mentorship in the early stages of their careers. During the activation of the strategic plan, efforts to involve alumni will increase through communication and engagement opportunities.

One of the best examples of a collaborative effort to address the state's health problems is training more physicians. The UK College of Medicine-Bowling Green Campus, to open in 2018, is a partnership between The Medical Center at Bowling Green, the University of Kentucky, and Western Kentucky University. The Northern Kentucky campus will be a collaboration with Northern Kentucky University and St. Elizabeth Healthcare. The plan is to open a regional medical school campus to serve the needs of the Commonwealth in Northern Kentucky. The Morehead Rural Physician Leadership Program pulls together the UK College of Medicine, Morehead State University, and St. Claire Regional Medical Center to provide on-site clinical rotations for selected third and fourth-year medical students.

GOALS

The following goals clearly highlight the strategy to define and bring together the team's work to achieve the Community Engagement Objective.

GOAL 1: Develop an effective and comprehensive communication plan to better understand community health priorities and preferred methods to address them.

Because an engaged health care community is one that pays more attention to wellness measures, better manages its chronic health issues, and understands how lifestyle and behavioral modifications can impact long-term health, it is important that hospitals and health care organizations listen and learn from those they serve. Community health needs assessments, already performed by most hospitals and health departments, provide a general sense

of how the public perceives its health and wellness priorities. But further information-gathering needs to be completed to ensure the College of Medicine's emphasis on health needs align with the communities served. In addition, the development of continuous public data-sharing for health care quality information must occur in conjunction with state and other agencies.

Figure 47: College of Medicine students collaborate with seasoned faculty to provide care to an underserved population in Lexington at the Salvation Army Clinic.



GOAL 2: Develop an effective and comprehensive communication plan to educate communities and better promote the providers and health expertise of the College of Medicine.

Patients often have difficulty navigating the health care system. Many do not know who they should turn to when they need an expert and do not know where to go to receive the most advanced care. The College of Medicine's comprehensive communications plan will address ways to better disseminate information about the services provided and the expertise that exists within programs. By improving the alignment of Kentucky's health priorities and

educating community providers about the College of Medicine's services that tackle these health issues, access to care, and the health knowledge base of the citizens are improved. Leveraging existing relationships – liaisons, networks, clinical departments, and outreach – is one way to spread the word about providers and health expertise.

GOAL 3: Engage communities to better align and coordinate ongoing and developing synergies at UK addressing health priorities in the Commonwealth.

Collaboration with community stakeholders and providers, and the enhancement of community leadership capacity, is a critical component of advancing health. First, a formalized structure, such as an Office of Community Engagement, must be developed so that the College of Medicine may foster the necessary bidirectional communication that increases the involvement of the community.

In addition, the College of Medicine must look for ways to foster collaboration in education and research with outside partners, the other UK colleges, and directly with the community. There are opportunities, as well, to use the best-of-class signature programs and research areas, including cardiovascular care, neuroscience, substance use and addiction, oncology, and diabetes and obesity, to focus on the health priorities of the community, identified more precisely through increased feedback and data sharing.

Twenty-three percent of those who responded to the faculty and staff strategic plan survey felt that their work area had a high level of participation in civic engagement.

GOAL 4: Support Kentucky's communities and health care providers through collaborations and partnerships that broaden access to advanced subspecialty care, innovative care models, research, and educational opportunities.

As new collaborations and partnerships are formed, as best practices are identified, as educational programs are created and additional access to care points are established, Kentucky's communities must be made aware of the support that exists. Part of the College of Medicine's community engagement efforts will include identifying federal agencies and foundations that also advocate and sustain programs that assist the public in becoming active participants in their health and well-being.

The impact on the health of Kentuckians will be stronger when the College of Medicine establishes a process to identify clinical resource needs in the community and acts upon those needs. The encouragement and support of the scientific community to use a

transdisciplinary integration approach is vital in order to develop new treatments and promising therapies, as well as leading-edge technologies, devices, and medications. By including different disciplines at the table at the start of a project to address a common problem, the innovations and discoveries will occur at a faster rate, making it possible to bring the latest advances from the lab to the bedside more quickly than in the past. New, regional medical campuses also offer a better chance to build a strong physician workforce in the more rural areas of the state. The better the community and its needs are understood, and the greater the relationships between the College of Medicine and the state's citizens, the better the health improvements across the state.

In the strategic plan survey of faculty, residents, students, and staff, 86 percent of those who participated said that community engagement, in the College of Medicine's future, was **"extremely important or important."**

TACTICS

As a long-term strategic plan, the tactics are how to achieve the goals. Throughout implementation, this plan must remain fluid to accommodate changes or external forces. There may be modifications or additions and there may be multiple steps within each tactic as a checklist. The following table represents the outlined goals and tactics to move each forward in the efforts of achieving the pillar objective.

**“Strategy without tactics is the slowest route to victory,
tactics without strategy is the noise before defeat.”**

– Sun Tsu

V: COMMUNITY ENGAGEMENT	
COMMUNITY ENGAGEMENT PILLAR OBJECTIVE	Establish bidirectional partnerships and employ leading-edge communication and technology, education, and research in innovative ways to advance the health of Kentuckians and beyond.
STRATEGIC GOALS	TACTICS
1. INFRASTRUCTURE: Develop an effective and comprehensive communication plan to better understand community health priorities and preferred methods to address them.	<ul style="list-style-type: none"> • Gain feedback from communities and providers to understand health needs and align high-quality services. • Align with the priorities of citizens and health care providers within the communities. • Assess and leverage existing relationships to collect information. • Facilitate the development of a continuous public data-sharing initiative for health care quality information in conjunction with state and other local agencies.
2. INFRASTRUCTURE: Develop an effective and comprehensive communication plan to educate communities and better promote the providers and health expertise of the College of Medicine.	<ul style="list-style-type: none"> • Ensure appropriate training, alignment, and provision of high-quality services. • Align health priorities and educate community providers about the services and expertise at the College of Medicine that respond to the health needs of Kentucky. • Leverage existing relationships (liaisons, networks, departments, outreach) to disseminate information out into the communities.

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(CONTINUED)

<p>3. DEVELOP TALENT: Engage communities to better align and coordinate ongoing and developing synergies at the University of Kentucky addressing health priorities in the Commonwealth.</p>	<ul style="list-style-type: none"> • Develop an Office of Community Engagement for the College of Medicine to foster bidirectional communication and engagement. • Build short- and long-term collaborations with community stakeholders and providers, and foster community leadership capacity. • Align with and leverage expertise within the signature and emerging areas of the clinical and research groups in the College of Medicine with a focus on implementation science.
<p>4. TRANSDISCIPLINARY INTEGRATION AND IMPACT: Support Kentucky's communities and health care providers through collaborations and partnerships that broaden access to advanced subspecialty care, innovative care models, research, and educational opportunities.</p>	<ul style="list-style-type: none"> • Identify federal agencies and foundations to support community needs. • Leverage existing affiliate and research networks to engage providers to bring forth ideas and conduct care and research driven by community health needs. • Create a strategy for and facilitate learner engagement and education in the high-need areas of Kentucky through AHEC and regional campuses. • Establish a process which identifies clinical resource needs in the communities and allows the College of Medicine to respond. • Engage the College of Medicine scientific community in community engagement and education efforts



METRICS

A true strategic plan can only be successful when measured throughout implementation. Although this is not an exhaustive list, below are a few of the metrics to be used during execution of the plan in order to demonstrate positive impact and movement toward achieving the overall objective.

V: COMMUNITY ENGAGEMENT	
METRICS	<ul style="list-style-type: none"> • Develop comprehensive data-sharing plan. • Increase number of programs and studies focused on the top five health priority programmatic areas across the state. • Increase number of training programs and number of quaternary services by type offered by UK HealthCare. • Add educational programs and increase number of individuals reached for the College of Medicine services and expertise. • Increase number of individuals reached by geographic location. • Evaluate service requests received by the Office of Community Engagement and programs or studies initiated with community stakeholders. • Increase number of education and/or research collaborations with outside partners. • Increase number of voluntary faculty, adjunct faculty, and community-led and developed programs • Evaluate and increase number of programmatic activities and collaborations that involve one or more UK college or community stakeholder. • Increase number of extramural grants submitted involving the Office of Community Engagement. • Improve percentage of state covered through affiliate networks. • Engage more learners and increase number of pipeline programs and events. • Increase number of UK HealthCare providers delivering care in partner institutions and organizations by mode of care. • Evaluate availability of health and health care literacy programs by geographic location.

STRATEGIC ENABLERS: COLLEGE COMMUNITY WELL-BEING

FACULTY, TRAINEES, & STAFF ENGAGEMENT

- Professional and staff development
- Leadership development
- Evaluation, recognition, and rewards
- Communication

RESILIENCE

- Faculty
- Trainees
- Staff
- Workflow and support structure

STRATEGIC ENABLERS: INFORMATION TECHNOLOGY

INFORMATICS

- Enterprise data warehouse
- Electronic health record
- Quality improvement

LEARNING MANAGEMENT SYSTEMS

- University of Kentucky and regional campuses
- Simulation lab technology

RESEARCH

- Clinical trials management system

CLINICAL

- Telehealth
- Mobile technology

ADMINISTRATIVE

- Faculty performance tracking
- Recruitment
- Hiring cycle tracking
- Project management tool for strategic plan implementation
- Searchable databases

STRATEGIC ENABLERS: FACILITIES

REGIONAL CAMPUS EXPANSION

RESEARCH AND CLINICAL FACILITIES OPTIMIZATION, UPGRADES,
AND NEW INFRASTRUCTURE

NEW COLLEGE OF MEDICINE EDUCATIONAL BUILDING

SIMULATION LAB

SHORT-TERM FACILITY IMPROVEMENT PLANS

- Classrooms
- Sleep rooms
- Study spaces

OFFICE AND SUPPORT SPACE

SPACES TO ENCOURAGE TRANSDISCIPLINARY INTEGRATION

SPACE PLANNING AND FACILITIES MANAGEMENT

STRATEGIC ENABLERS: ACCOUNTABILITY AND FISCAL RESPONSIBILITY

COMMUNICATION AND TRANSPARENCY

- Funds flow
- Monthly reporting
- Updates on progress

ONGOING COMMUNICATION

FUNDING ALIGNMENT

CAPITAL PLANNING PROCESS

COST ACCOUNTING

RESEARCH FINANCIAL RESOURCES

PHILANTHROPY

EVALUATIONS

- Promotions
- Incentives
- Awards

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