

UK HealthCare Strategic Plan 2020

Mid-Year Update

1/27/2016

Draft Document for Discussion Purposes Only

Strategy 2020: Mid-Year Update

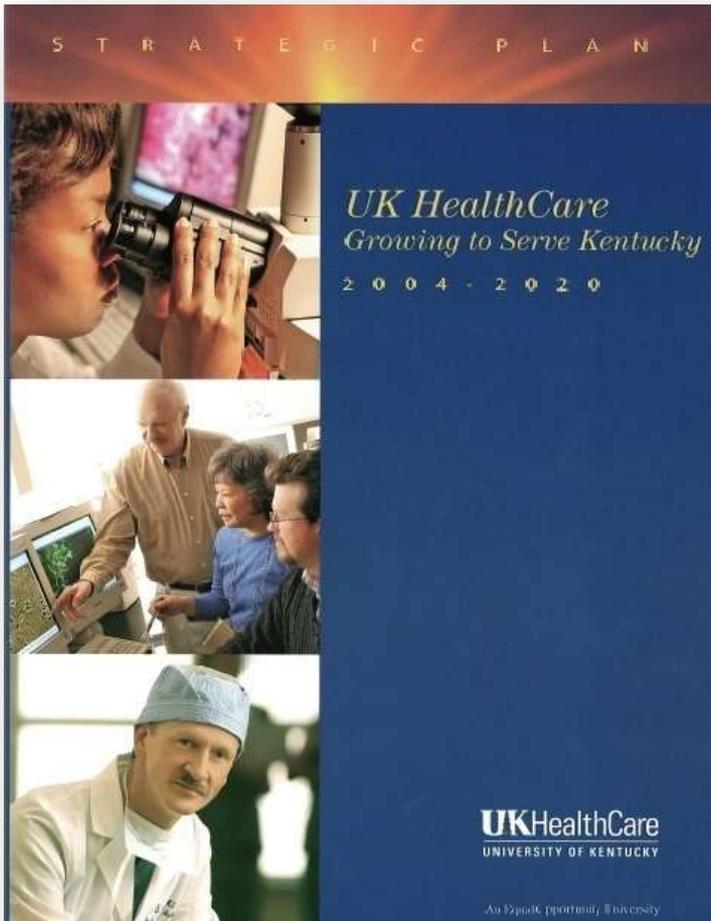
1. Opening Remarks (10 min) Michael Karpf, MD
2. Patient Centered Care (10 min) Bo Cofield, DrPH
3. Growth in Complex Care (10 min) Bo Cofield, DrPH
4. Strengthen Partnership Networks(45 min)
 - a) Acute Care Rob Edwards, DrPH
 - b) Cincinnati Children's Bernie Boulanger, MD
 - c) Post-Acute Care Colleen Swartz, DNP
 - d) Primary Care & Community Care / Telehealth Bo Cofield, DrPH
5. Value-Based Care & Payments (10 min)
 - a) Overview Bo Cofield, DrPH
 - b) OptimalCare Bernie Boulanger, MD
6. Strategic Enablers (10 min)
 - a) Implementation & Marketing Mark D. Birdwhistell
 - b) Technology Bo Cofield, DrPH
7. Facility Planning (20 min) Ann Smith & Murray Clark
8. Financial Position Update (30 min) Craig Collins & Murray Clark
9. Closing Remarks (10 min) Michael Karpf, MD

We Undertook a Marathon, not a Sprint



When we committed to be an outstanding referral / research intensive Academic Medical Center

FY 2004 Strategic Plan - Growing to Serve Kentucky



Advanced Subspecialty Care

- Level 1 Trauma Center; Kentucky Children's Hospital, Solid-Organ Transplantation, Markey Cancer Center, Advanced Neurosciences, Advanced Surgery, Cardiovascular Services

Regional Care – Preserving Rural Providers

- Leverage community health care providers by augmenting specialty services and allowing patients to remain close to home and utilize local services

Efficiency, Quality and Patient Safety

- Center for Enterprise Quality and Safety has been established to focus on the development of efficient processes aimed at optimizing clinical outcomes and the safety of patients

Realization – We Must Expand the Footprint

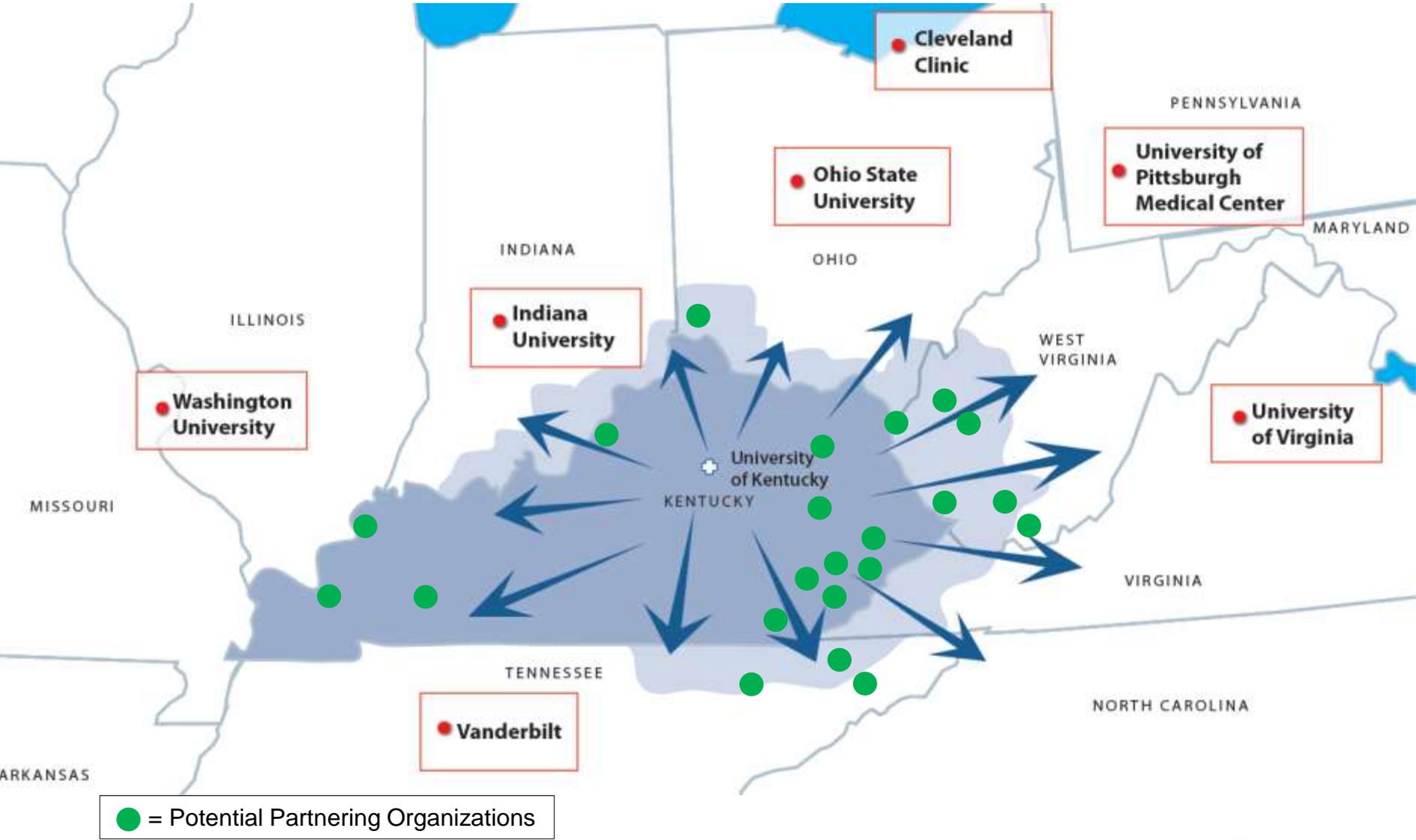
Market Definition

- Primary - 0.3M population
- Secondary - 0.5M population
- Tertiary - 1.0M population
- Other - 2.5M population



Procedure	Estimated Incidence per One Million KY Residents	Aspirational Volume	Population Required to Achieve Aspirational Volume	Population Required to have 50% Market Share
Kidney & Kidney / Pancreas Transplants	34.34	110	3,204,000	6,408,000
Liver Transplant	16.82	60	3,567,000	7,134,000
Heart Transplant	5.30	25	4,717,000	9,434,000
Lung Transplant	8.07	25	3,100,000	6,200,000
Adult Bone Marrow Transplant	28.13	150	5,332,000	10,664,000
Brain Cancer Admissions	68.30	250	3,660,000	7,320,000

Defining Market Space



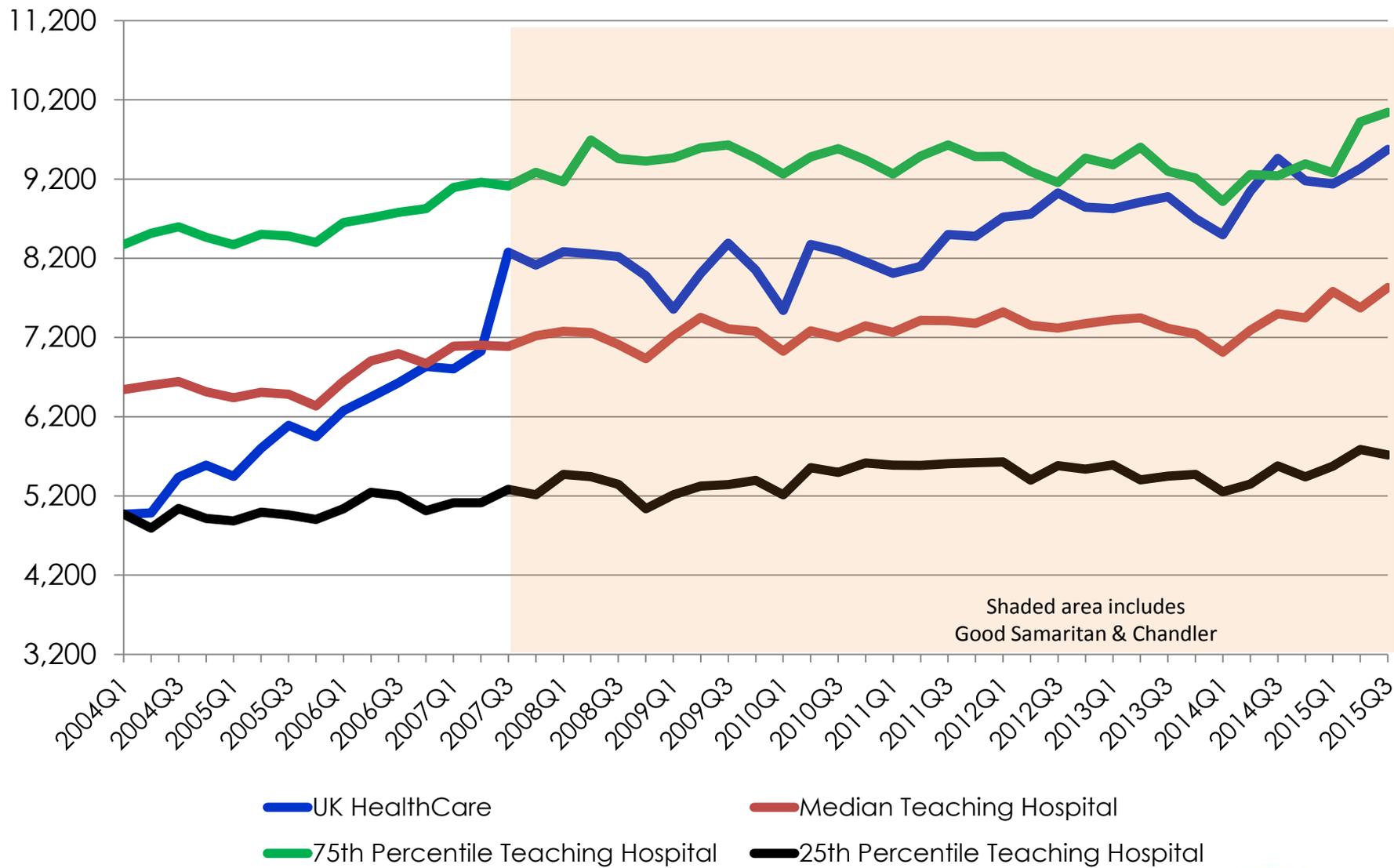
FY 2010 Strategic Plan - Moving Forward



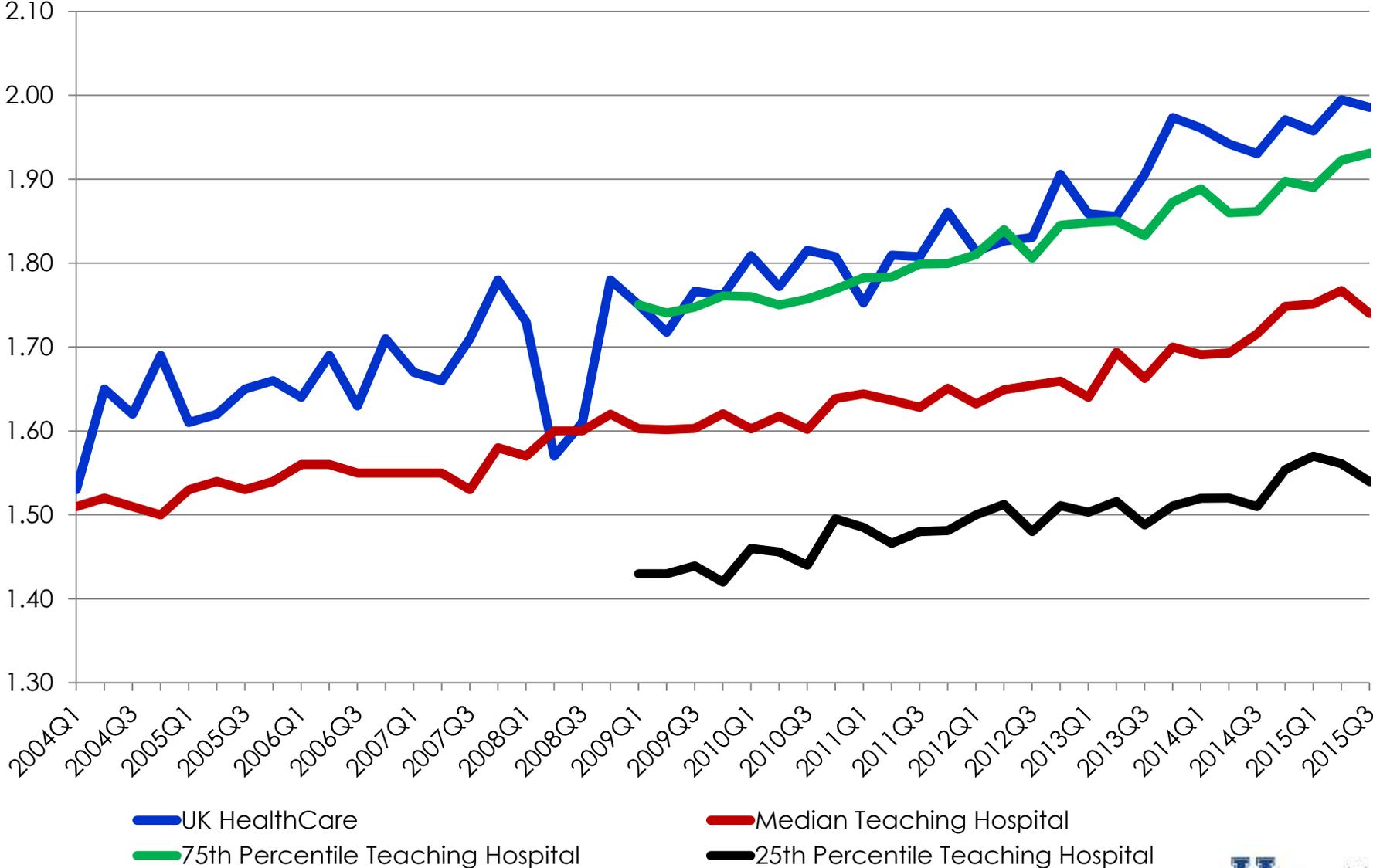
Advancing to serve the health care needs of Kentucky and beyond

- Continue to refine approach to subspecialty care
- Continue to mature relationships with regional providers
- Reemphasize efficiency, quality, safety, and patient satisfaction

Total Discharges - COTH Benchmark



Case Mix Index - COTH Benchmark

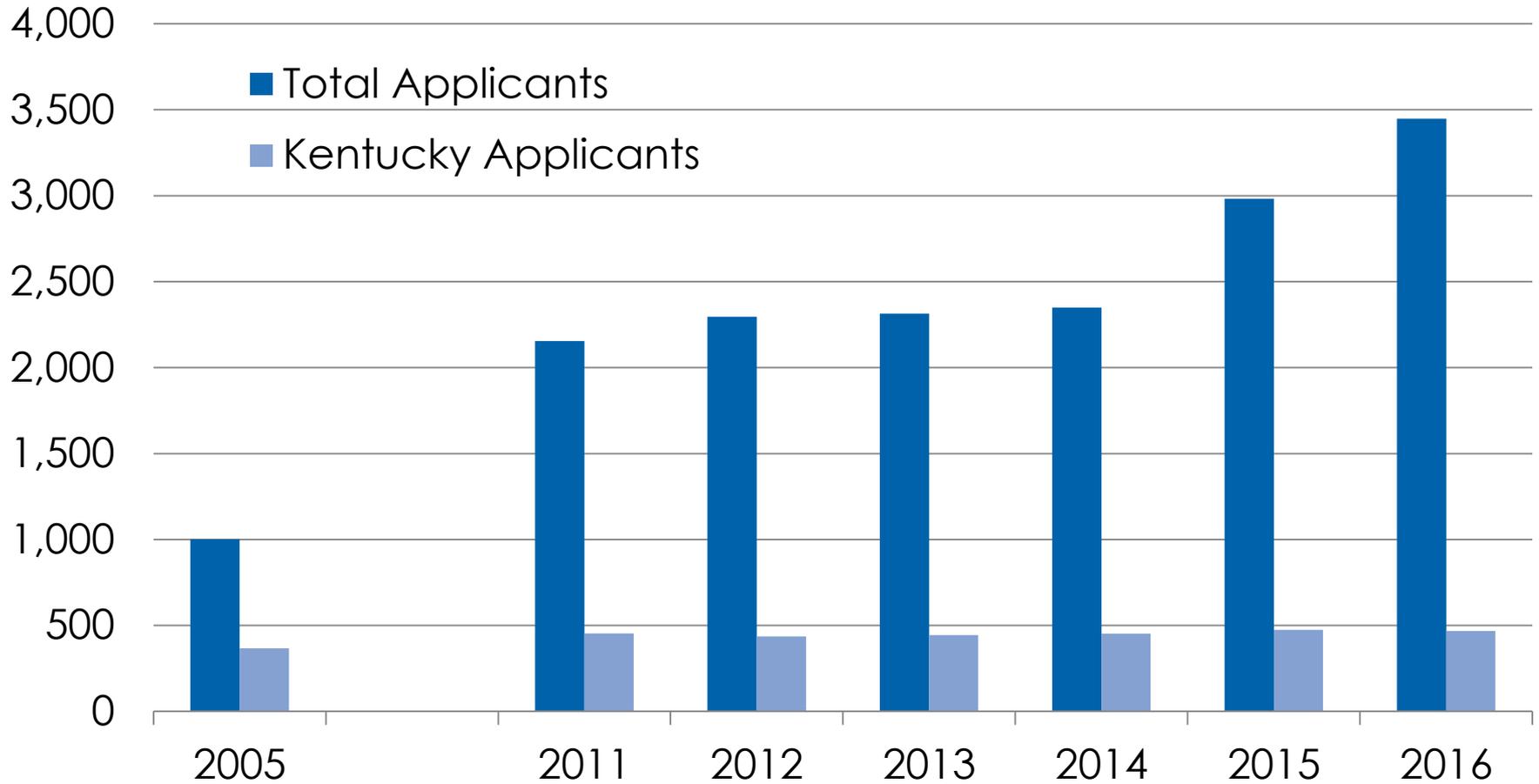


Delivering on Our Mission

To be a successful referral / research intensive Academic Medical Center, we must excel in both our clinical and academic programs

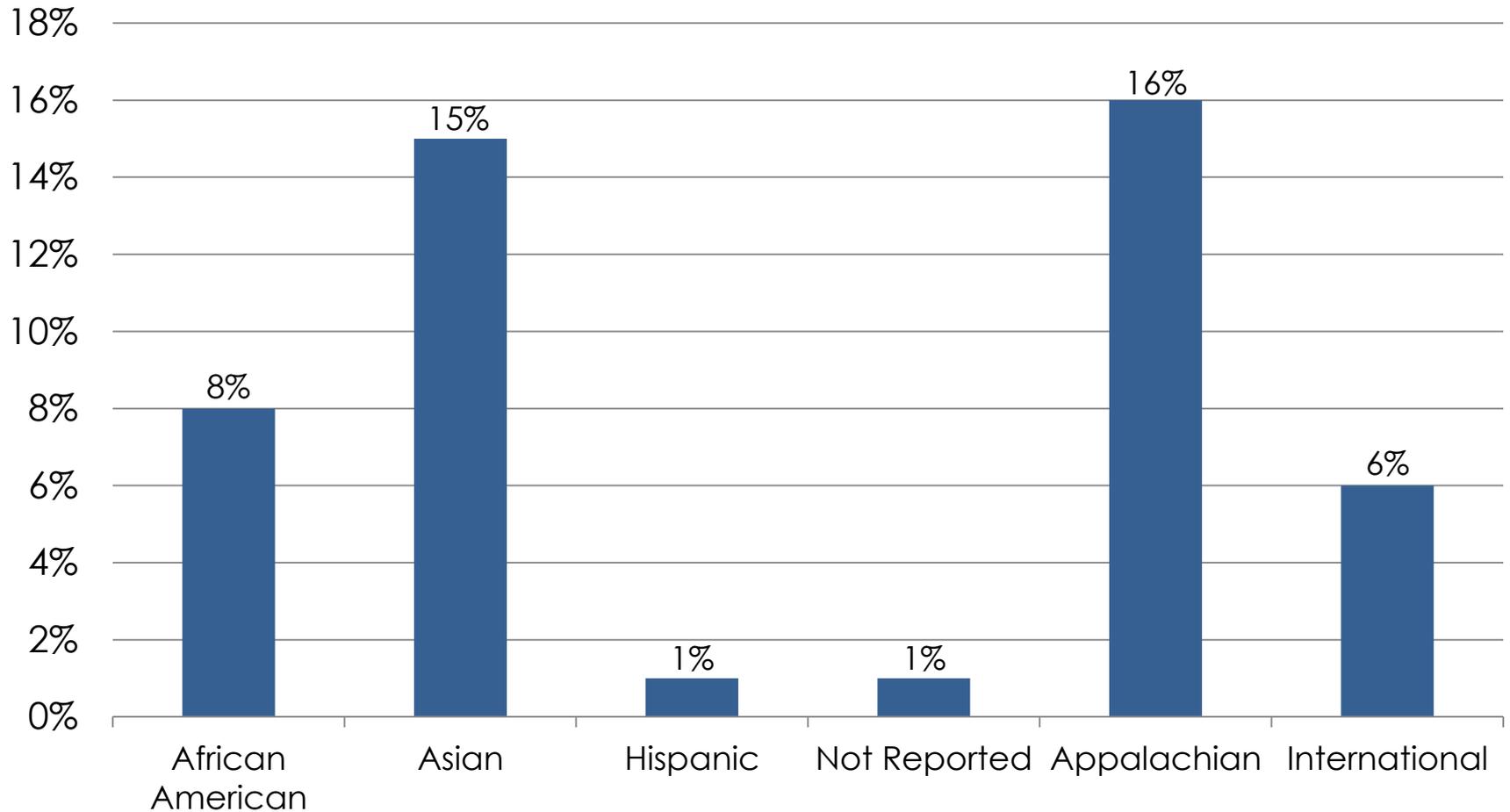
College of Medicine – MD Applicant Pool

Increased National Interest



College of Medicine – Student Diversity

2015 Incoming M1 Class

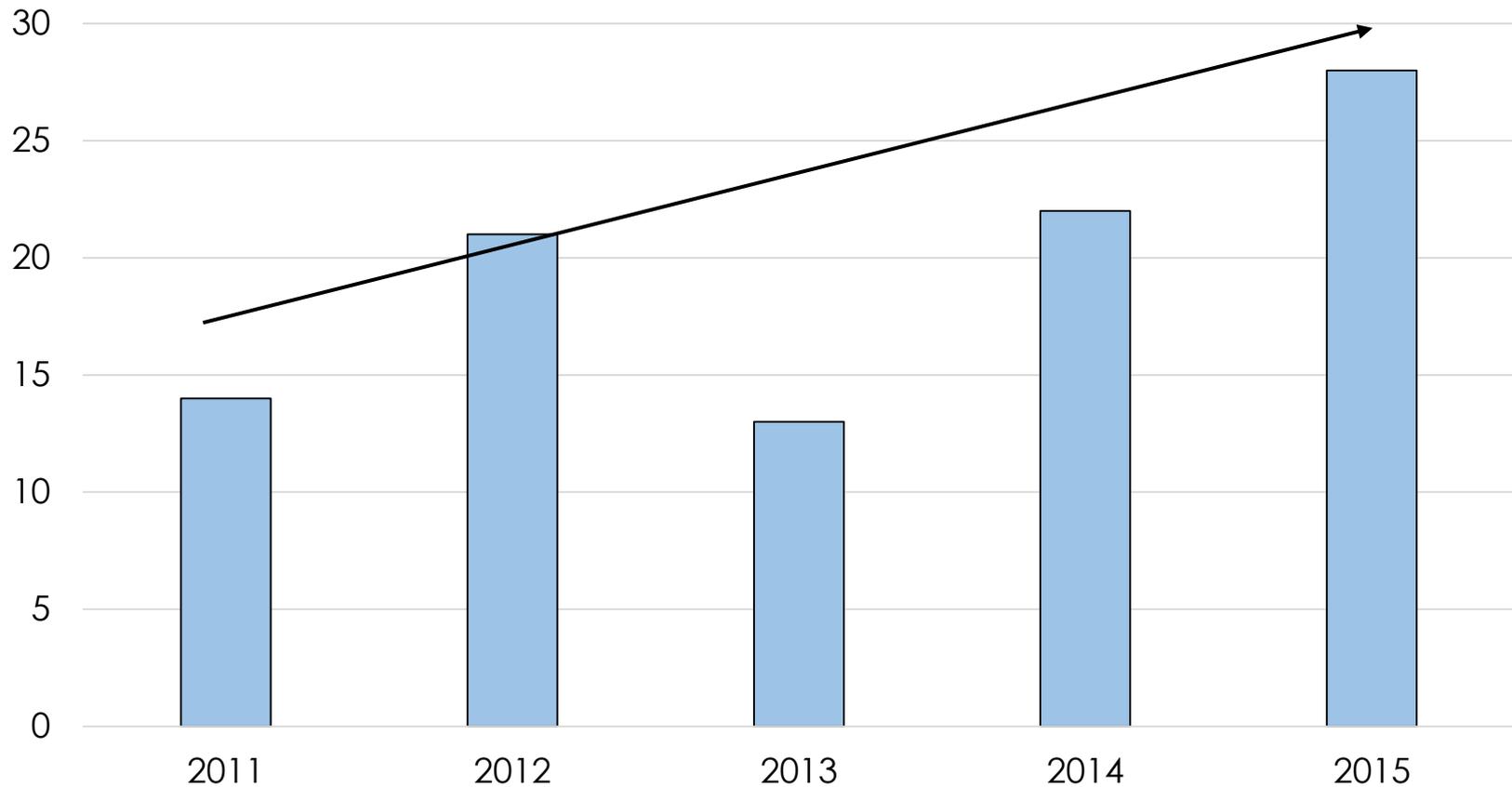


College of Medicine – Recruiting Activities

- UK See Blue Preview Nights (undergraduate recruiting)
- UK Come See For Yourself (undergraduate minority recruiting)
- Student National Medical Association Conference
- Bridges to Medicine
- College Visits
- UK Premedical group presentations
- Class presentations, e.g. UK101 sections, HSP 101
- RPLP Open Houses
- UKMED
- Boot Camp
- One on one advising
- Personal phone calls

College of Medicine – Kentucky Applicant Pool

Number of African-American / Black Applicants 2010-2015



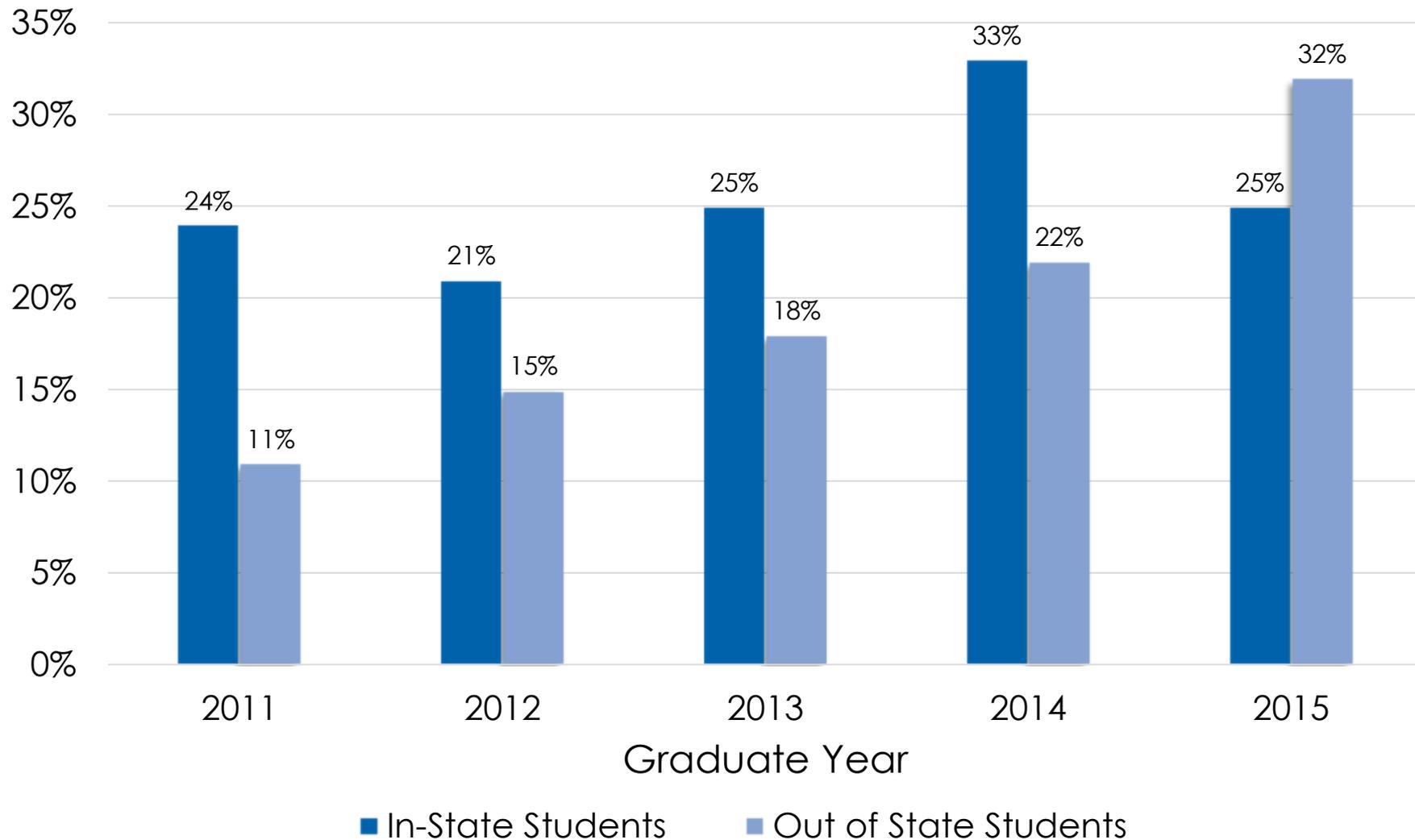
College of Medicine – Student Success

African-American/Black Graduates from UK CoM

- Graduation rates for all medical students remains ~95%.
- Graduation rates for all demographics (gender, race, in-state status, etc.) are equivalent.
- Examples of residency placement:
 - Harvard-Anesthesia
 - Colorado-ENT Surgery
 - Miami-Neurology
 - Emory-Family Medicine
 - UCSF-Internal Medicine
 - Pittsburgh-Internal Medicine, Psychiatry
 - George Washington-Internal Medicine

College of Medicine – Residency Placement

Graduates Staying for UK Residency Training (2011-2015)



Program Accreditation Status

- Total of 54 medical training programs
 - 29 Residency Programs
 - 25 Fellowship Programs
 - Three newly ACGME-accredited fellowships for 2014-2015
 - Neuroradiology
 - Advanced Heart Failure / Transplant Cardiology
 - Critical Care Medicine
- All with Continued Accreditation from ACGME
- No programs on probation

NIH Funding – 2015 Federal Fiscal Year

ORGANIZATION	FUNDING	Rank
JOHNS HOPKINS UNIVERSITY	\$603,829,678	1
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	\$563,320,692	2
UNIVERSITY OF PENNSYLVANIA	\$457,976,530	3
UNIVERSITY OF MICHIGAN	\$456,901,579	4
UNIVERSITY OF WASHINGTON	\$446,734,120	5
UNIVERSITY OF PITTSBURGH AT PITTSBURGH	\$436,124,690	6
STANFORD UNIVERSITY	\$422,753,698	7
DUKE UNIVERSITY	\$391,851,308	8
UNIVERSITY OF CALIFORNIA SAN DIEGO	\$389,747,641	9
UNIV OF NORTH CAROLINA CHAPEL HILL	\$383,140,640	10
WASHINGTON UNIVERSITY	\$378,070,895	11
UNIVERSITY OF CALIFORNIA LOS ANGELES	\$371,356,405	12
YALE UNIVERSITY	\$352,493,886	13
EMORY UNIVERSITY	\$334,644,691	14
COLUMBIA UNIVERSITY HEALTH SCIENCES	\$331,756,258	15
VANDERBILT UNIVERSITY	\$307,397,159	16
ICAHN SCHOOL OF MEDICINE AT MT SINAI	\$274,412,913	17
UNIVERSITY OF WISCONSIN-MADISON	\$272,694,613	18
BAYLOR COLLEGE OF MEDICINE	\$253,444,086	19
UNIVERSITY OF MINNESOTA	\$245,447,037	20
UNIVERSITY OF ALABAMA AT BIRMINGHAM	\$243,263,382	21
NORTHWESTERN UNIVERSITY AT CHICAGO	\$234,486,159	22
OREGON HEALTH & SCIENCE UNIVERSITY	\$197,474,824	23
UNIVERSITY OF SOUTHERN CALIFORNIA	\$197,207,432	24
UNIVERSITY OF COLORADO DENVER	\$195,295,612	25
UNIVERSITY OF CALIFORNIA AT DAVIS	\$195,183,640	26
HARVARD MEDICAL SCHOOL	\$182,301,098	27
NEW YORK UNIVERSITY SCHOOL OF MED	\$178,407,775	28
UNIVERSITY OF CHICAGO	\$170,968,052	29
UT SOUTHWESTERN MEDICAL CENTER	\$160,637,824	30
CASE WESTERN RESERVE UNIVERSITY	\$160,015,936	31
UNIVERSITY OF ROCHESTER	\$158,692,235	32
UNIVERSITY OF IOWA	\$151,245,651	33

ORGANIZATION	FUNDING	Rank
UNIVERSITY OF MARYLAND BALTIMORE	\$149,391,068	34
UNIVERSITY OF UTAH	\$143,158,661	35
ALBERT EINSTEIN COLLEGE OF MEDICINE	\$142,470,750	36
OHIO STATE UNIVERSITY	\$136,128,917	37
UNIV OF MASS MED SCH WORCESTER	\$134,092,373	38
UNIVERSITY OF FLORIDA	\$132,248,361	39
BOSTON UNIVERSITY MEDICAL CAMPUS	\$127,936,216	40
WEILL MEDICAL COLL OF CORNELL UNIV	\$120,766,304	41
INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	\$118,606,932	42
UNIVERSITY OF VIRGINIA	\$113,546,470	43
UNIVERSITY OF CALIFORNIA-IRVINE	\$107,899,797	44
UNIVERSITY OF ILLINOIS AT CHICAGO	\$101,774,014	45
UNIVERSITY OF MIAMI SCHOOL OF MEDICINE	\$99,364,986	46
UNIVERSITY OF KENTUCKY	\$97,384,185	47
MEDICAL UNIVERSITY OF SOUTH CAROLINA	\$96,759,015	48
UNIVERSITY OF SOUTH FLORIDA	\$95,693,475	49
CLEVELAND CLINIC LERNER COM-CWRU	\$95,453,745	50
VIRGINIA COMMONWEALTH UNIVERSITY	\$90,007,269	51
DARTMOUTH COLLEGE	\$89,670,917	52
WAKE FOREST UNIVERSITY	\$88,523,477	53
MEDICAL COLLEGE OF WISCONSIN	\$87,016,918	54
GEORGE WASHINGTON UNIVERSITY	\$79,878,664	55
UNIVERSITY OF TEXAS MEDICAL BR GALVESTON	\$78,680,933	56
UNIVERSITY OF TEXAS HLTH SCI CTR HOUSTON	\$76,428,842	57
UNIVERSITY OF ARIZONA	\$75,717,196	58
WAYNE STATE UNIVERSITY	\$64,684,356	59
TEMPLE UNIV OF THE COMMONWEALTH	\$64,275,757	60
CORNELL UNIVERSITY	\$63,967,065	61
BROWN UNIVERSITY	\$62,024,463	62
ROCKEFELLER UNIVERSITY	\$61,608,717	63
UNIVERSITY OF TEXAS HLTH SCIENCE CENTER	\$61,508,907	64
UNIVERSITY OF TEXAS, AUSTIN	\$61,110,295	65
UNIVERSITY OF CINCINNATI	\$60,040,912	66
UNIVERSITY OF LOUISVILLE	\$51,858,895	78

17TH
Public
Ranking

20TH
Public
Ranking

25TH
Public
Ranking

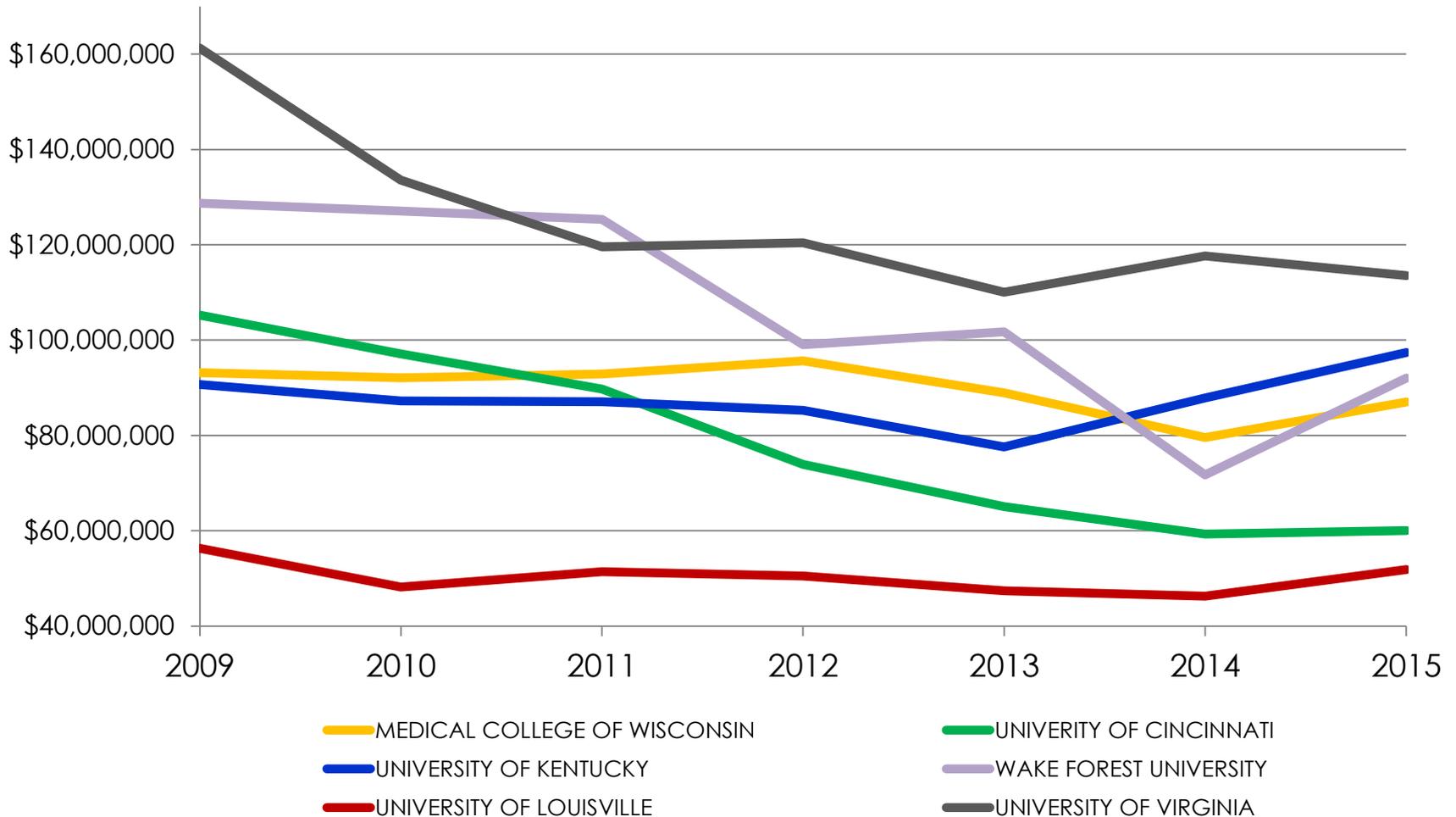
Note: Blue shading highlights public organizations ranked above the University of Kentucky

Data Source: NIH Reporter, the federal database of grants awarded by NIH to Domestic Institutes of Higher Education

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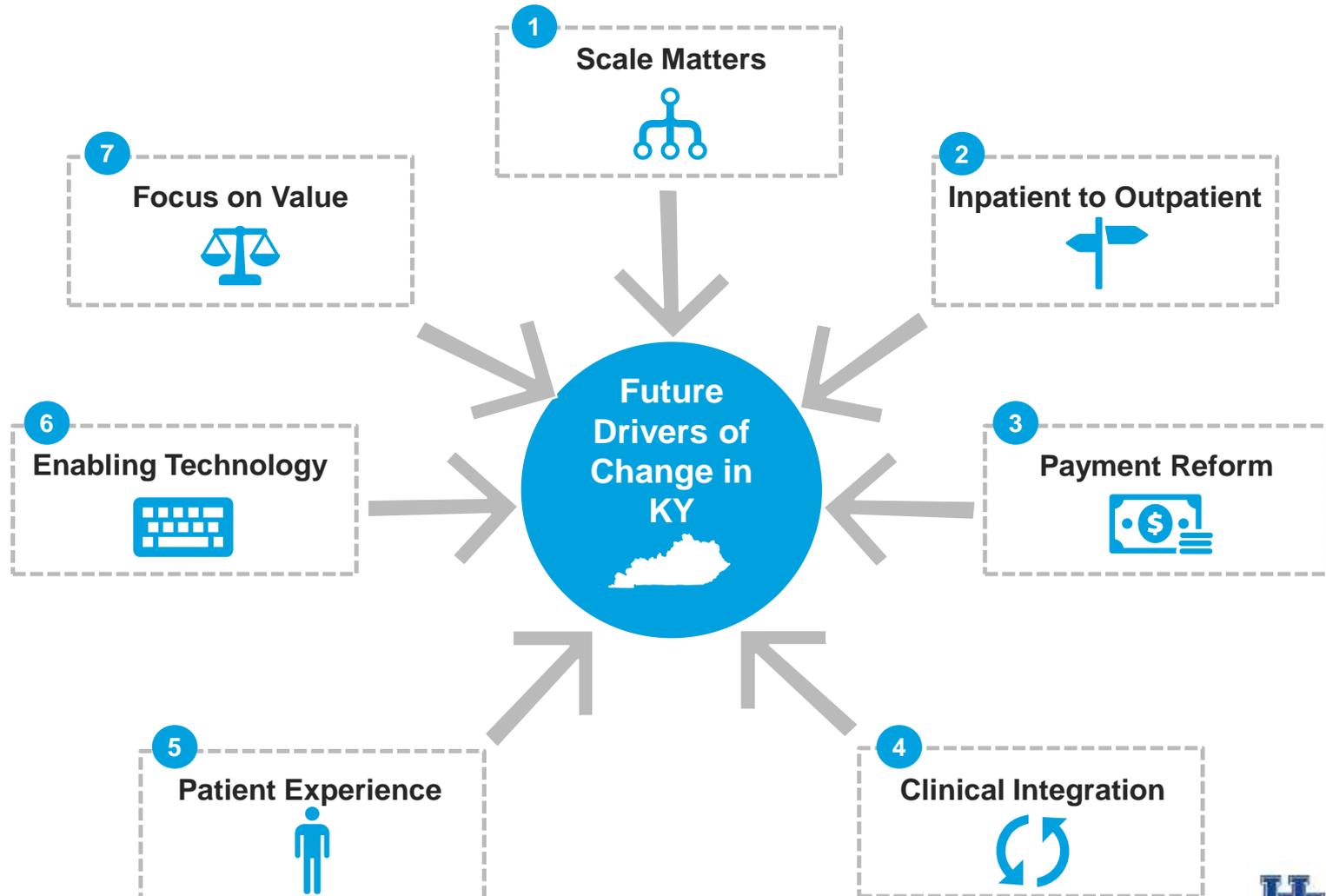
NIH Funding Comparison

NIH Funding by Federal Fiscal Year



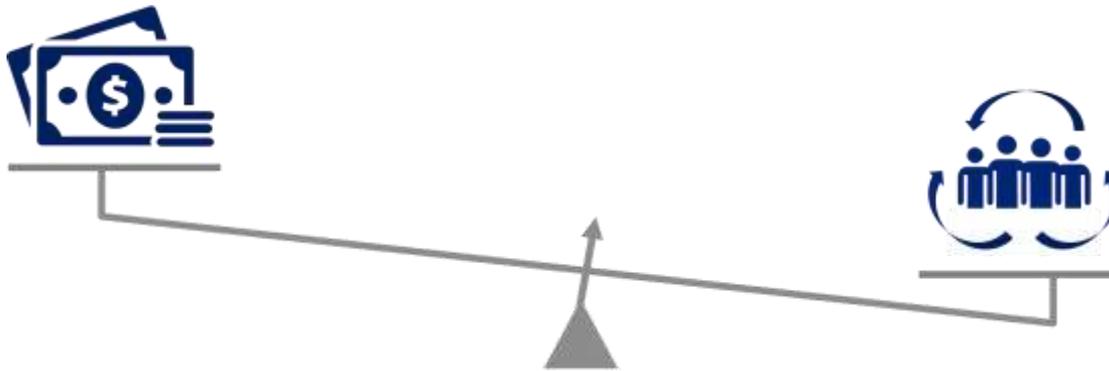
Responding to National Drivers of Change

UKHC and other providers in Kentucky will need to respond to national trends



Value-Based Care in Kentucky

Pressure to lower health care costs and the increasing prevalence of VBC initiatives may “tip the scale” towards value-based care in Kentucky



Factors That Could “Tip the Scale”

- Phasing of payment reform
- Competition amongst providers
- Commonwealth of Kentucky fiscal requirements
- Increased focus on population health management
- Proliferation of population management technology
- UKHC leadership in care excellence

Inflection Point for Kentucky

Changes in the national market and within the Commonwealth have created a major inflection point in healthcare delivery in Kentucky



National trends in healthcare will shift Kentucky's focus from isolated illness and injury care to coordinated, comprehensive care and improved outcomes

- 1 Kentucky needs a statewide health network or collaborative to shape the future
- 2 Focus will shift to improving health outcomes and rationalizing not rationing care
- 3 Care must be affordable, accessible, coordinated, efficient, and high quality

It's a Marathon, not a Sprint

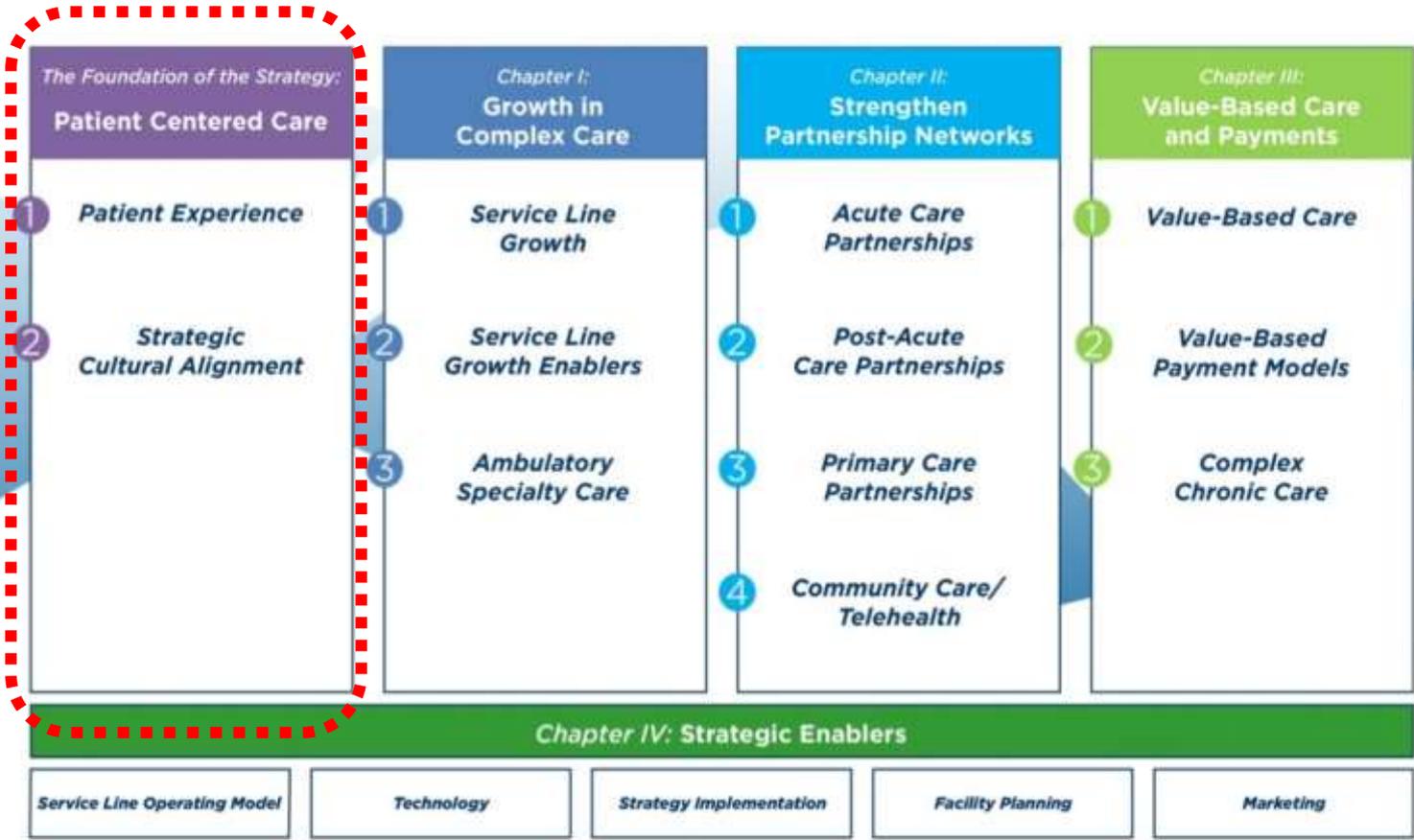


UK HealthCare Goal

Create a system that *rationalizes* care, not rations care.

- Provides care in appropriate settings and develops a seamless continuum of care.
- Will require partnerships with providers, insurers, and purchasers AND appropriate integrative systems – information systems and medical management tools.
- System may be virtual, real or a combination.

UK HealthCare Strategy 2020



THE FOUNDATION OF THE STRATEGY: PATIENT CENTERED CARE

Strategic Cultural Alignment

Strategic Cultural Alignment

Staff Engagement

- Senior Leader communication of 2020 Strategy underway
- RFP submitted for revitalized Reward and Recognition program
- Quarterly Staff Appreciation Stations started in November 2015.
- 2016 survey planning underway for mid-March launch
- 2015 Leader Resource Sessions completed in late 2015.
- Talent Management - Group one complete and group two – starting in early 2016.
- Leadership Development Quarterly Sessions approved and in development -starting in February 2016.

Physician Engagement

- Senior Leader communication of 2020 Strategy underway
- Meetings held with each Department Chair to review data
- Physician Engagement Leadership Group meetings started in late 2015 and continues to meet monthly.
- Round one: Physician Breakfasts with Drs. Karpf and Cofield begin in January 2016.
- 2016 survey planning underway for mid-March launch
- Senior Leader shadowing of faculty begin in Spring 2016
- Involve faculty in Quarterly Leadership Development activities

Diversity & Inclusivity

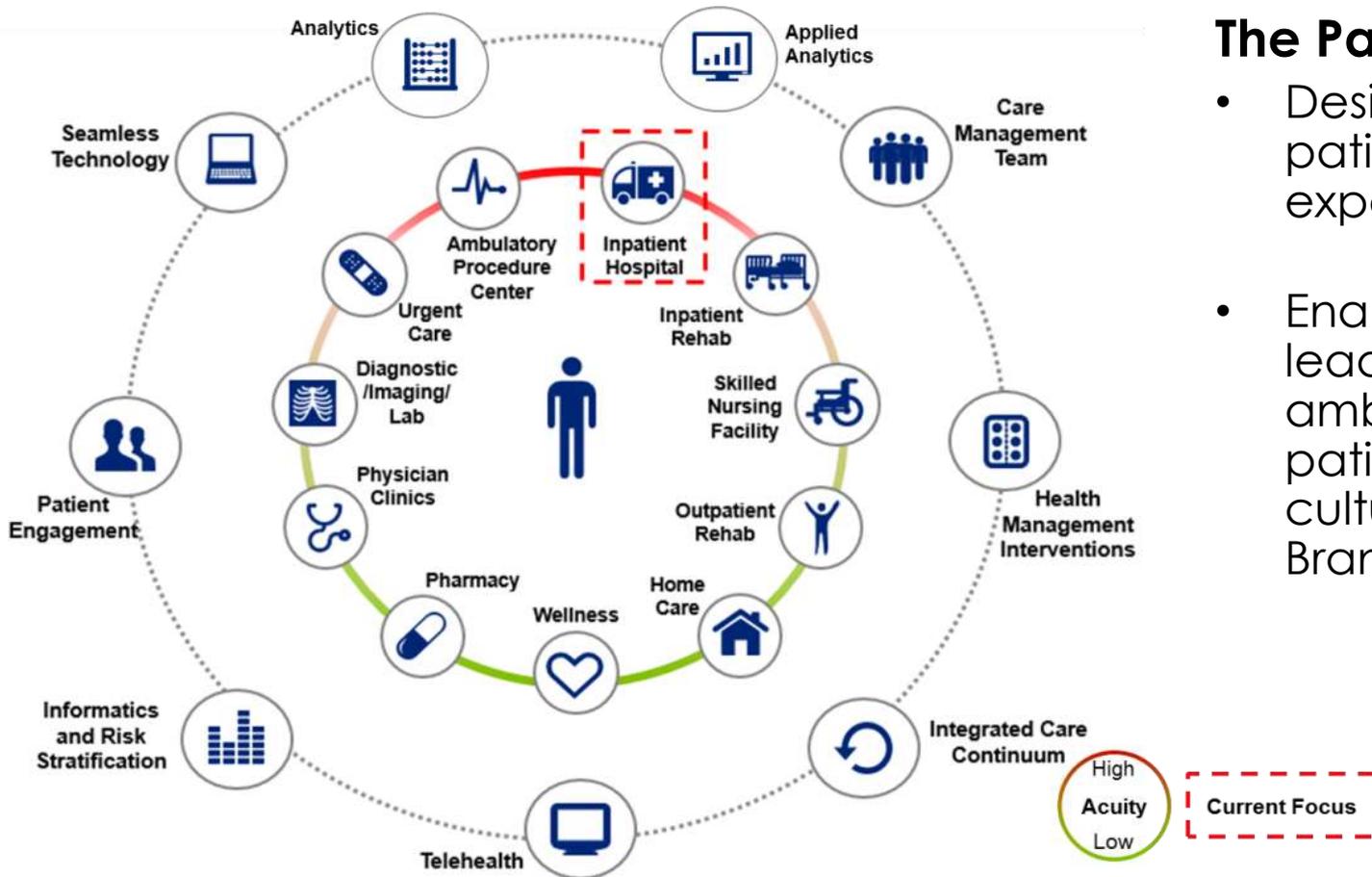
Diversity and Inclusivity Process Measures

- Developing a Diversity and Inclusiveness (D&I) Steering Council at UKHC
- UKHC earned Healthcare Equity Index (HEI) designation
- Eastern State Hospital, managed by UKHC, is an HEI leader (www.hrc.org)
- UKHC is a member of the Institute for Diversity in Health Management
- Deployment of Unconscious Bias training to all UKHC team members and faculty
- Development of D&I web-based training for all UKHC team members and faculty (to be completed annually)
- Establish numerical objectives for Strategy 2020 in-line with University strategic goals
- Introducing D&I concepts at New Employee Orientation

<https://vimeo.com/posttime/review/149310673/bb404f8d13>

THE FOUNDATION OF THE STRATEGY: PATIENT CENTERED CARE

Patient Experience



The Patient Journey:

- Design a leading patient-centric experience
- Enable staff and leadership to be ambassadors of the patient-centered culture and UKHC Brand

THE FOUNDATION OF THE STRATEGY: PATIENT CENTERED CARE

Patient Experience

Heart Transplantation Patients 

The journey...



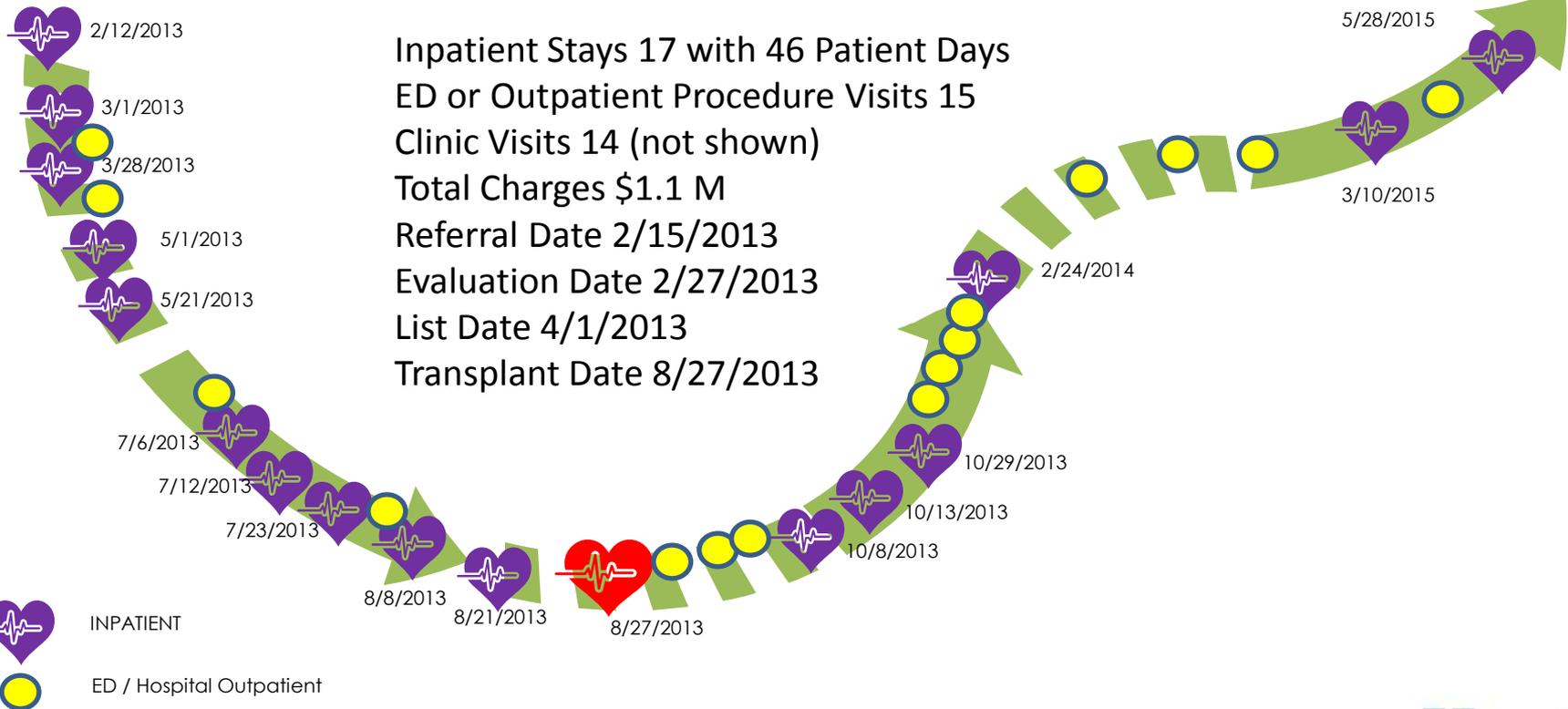
THE FOUNDATION OF THE STRATEGY: PATIENT CENTERED CARE

Patient Experience



Middle-Aged Male
Southern KY

Hypertension	Pulmonary Embolism	Esophageal Reflux
Valve Disease	Cardiomyopathy	Renal Failure
AMI	Dysrhythmia	Liver Disorder
Cardiac Bypass	Heart Failure	Lupus
Diabetes	Obesity	Mental Disorders
Hyperlipidemia	Anemia	Anxiety / Panic
Electrolyte Imbalance	Pacemaker	Alcohol Abuse
Smoking	Heart Transplant	Hearing Loss



Inpatient Stays 17 with 46 Patient Days
 ED or Outpatient Procedure Visits 15
 Clinic Visits 14 (not shown)
 Total Charges \$1.1 M
 Referral Date 2/15/2013
 Evaluation Date 2/27/2013
 List Date 4/1/2013
 Transplant Date 8/27/2013

 INPATIENT
 ED / Hospital Outpatient

Establishing Patient and Family Partners Programs

- Kentucky Children's Hospital Patient/Family Partnership Council
- Building Design Team Patient/Family Council
- UKHC Employee Patient/Family Partnership Council
- UKHC Patient/Family Partnership Council

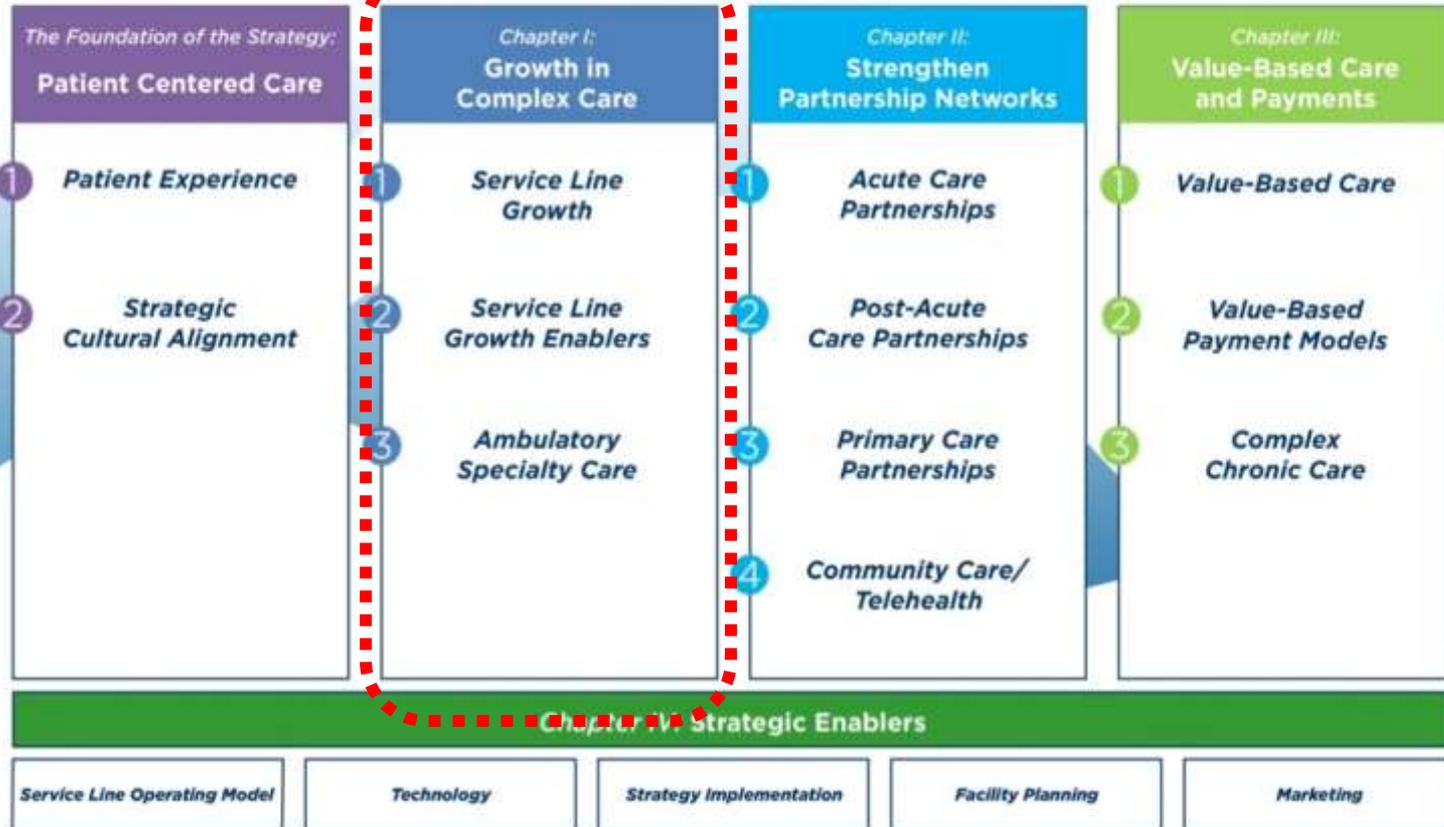
THE FOUNDATION OF THE STRATEGY: PATIENT CENTERED CARE

Patient Experience

Markey Cancer Center 3RD Floor Hematology/BMT Unit



UK HealthCare Strategy 2020



GROWTH IN COMPLEX CARE

Service Line Growth

Woman Donates Kidney to Stranger, Now They're Getting Married



Heart transplants unite long-lost brothers



Young Lexington actor is back in full voice after almost dying



After One Twin Brother Collapses, the Other Discovers They Share a Rare and Often-Fatal Heart Defect: 'God Saved Both of Our Lives'



People Exclusive

Kidney donors, recipients meet for the first time



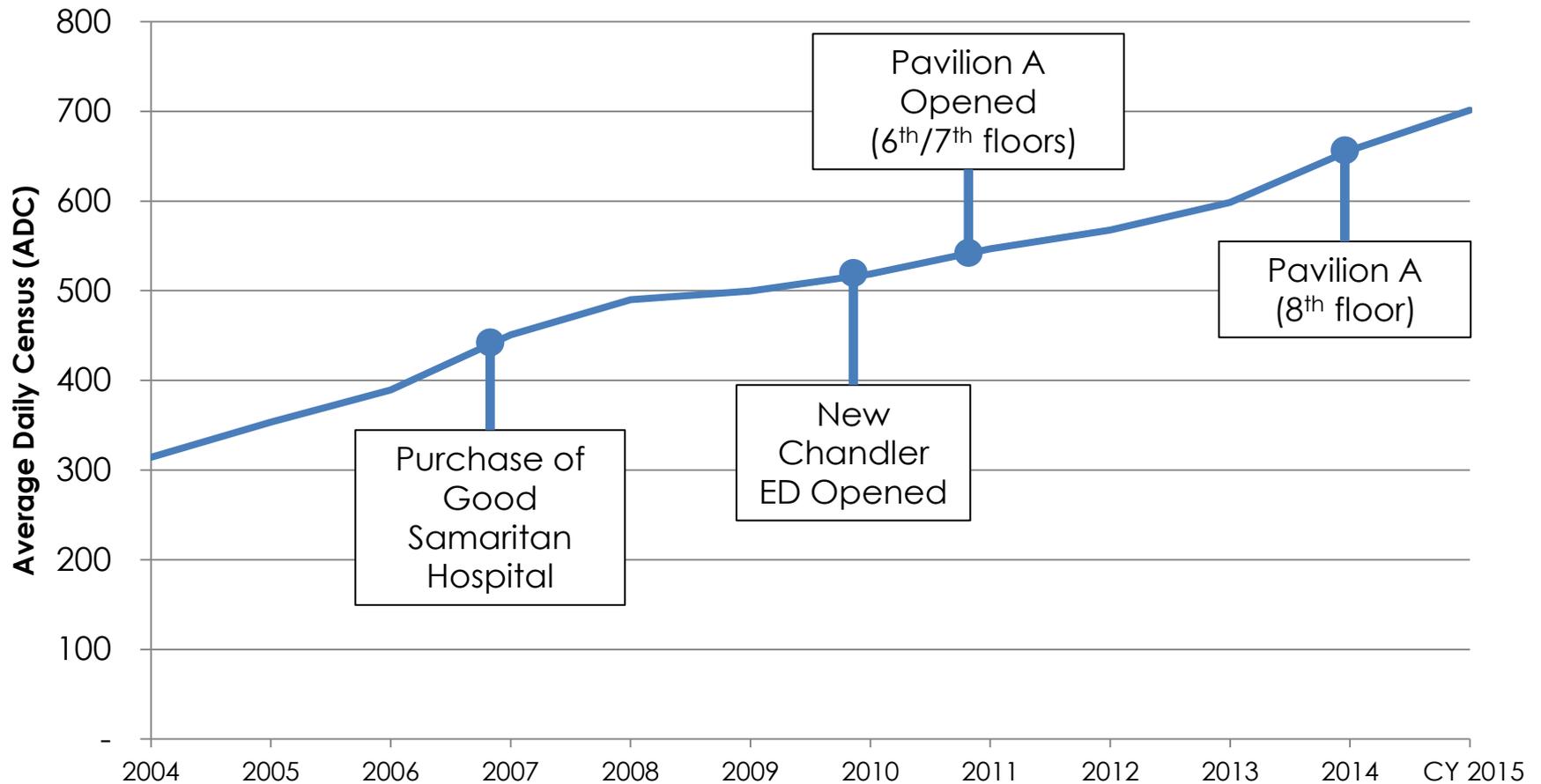
UK broke Kentucky heart transplant record in 2015



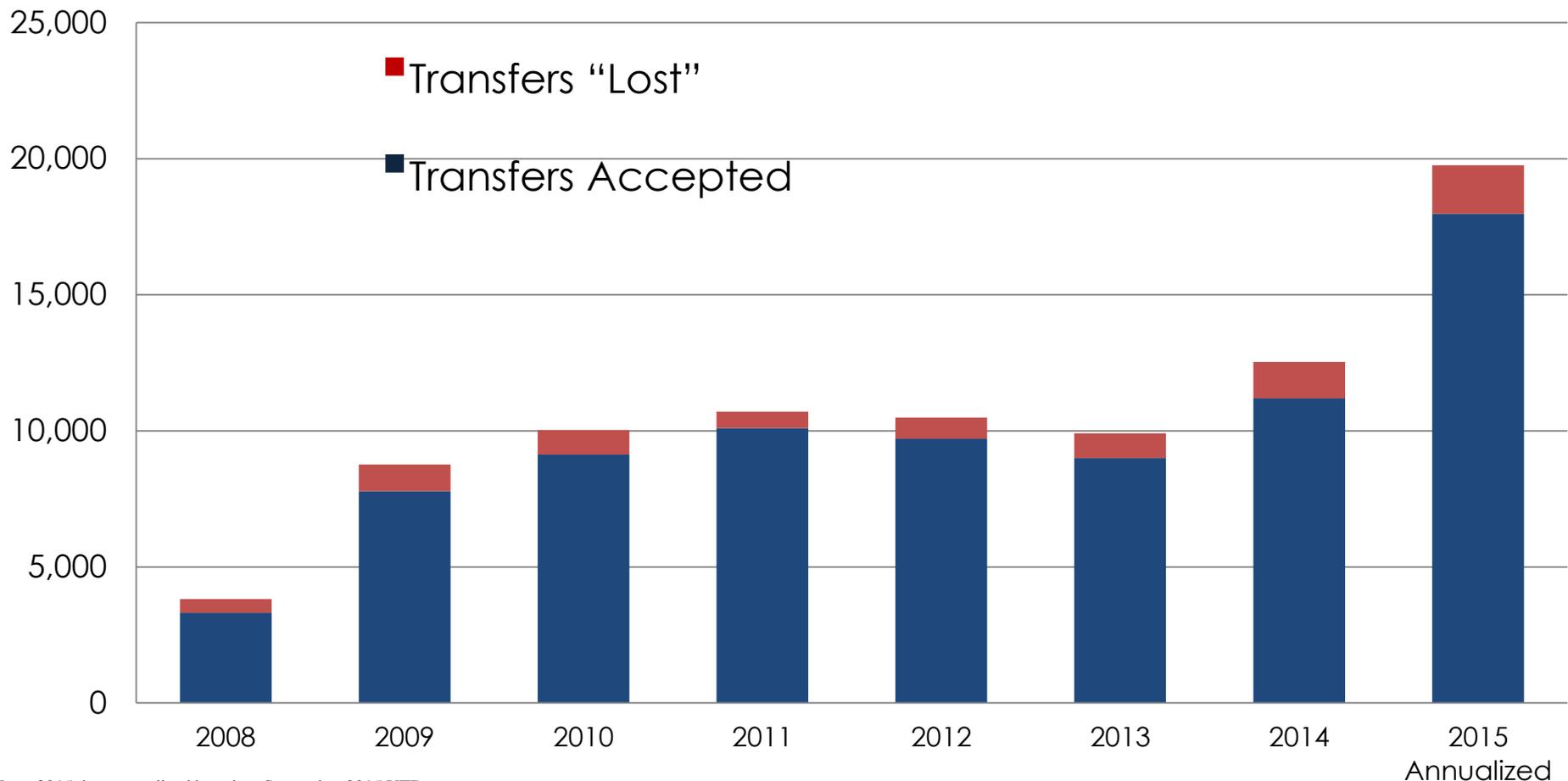
GROWTH IN COMPLEX CARE

Service Line Growth

Annual Average Daily Census CY 2004 – CYTD 2015



UK HealthCare Adult Transfer Request Trend (CY2008 – CY2015 Annualized)



Note: 2015 data annualized based on September 2015 YTD

GROWTH IN COMPLEX CARE

Service Line Growth

A formal Service Line Operating Model is the next step in the maturation of growing our advanced subspecialty programs



Create a more integrated multispecialty team



Continue to focus on the most advanced subspecialty care and its future evolution in technology and care delivery



Grow programs to comparable size of national programs to ensure future relevance



Continuous value optimization (quality, patient experience and cost efficiency)



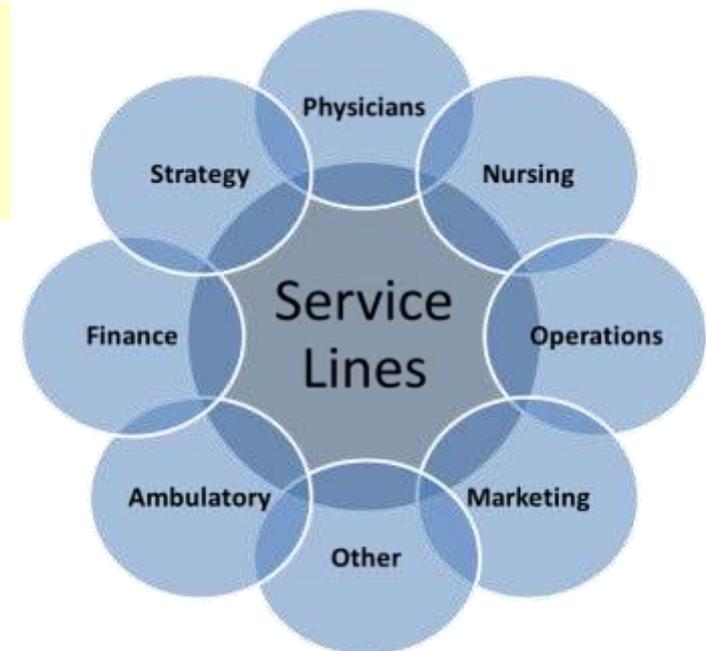
Place greater focus on managing the patient across the continuum of care

GROWTH IN COMPLEX CARE

Service Line Growth

UKHC leadership has identified nine service lines as priorities for growth over the next five years, supported by growth accelerators

- Gill Heart Institute
- End-Stage Organ Failure & Transplantation
- OB / MFM / NICU
- Markey Cancer Center
- Kentucky Children's Hospital
- Digestive Health
- Kentucky Neuroscience Institute
- Musculoskeletal
- Trauma & Acute Care General Surgery



GROWTH IN COMPLEX CARE

Service Line Growth

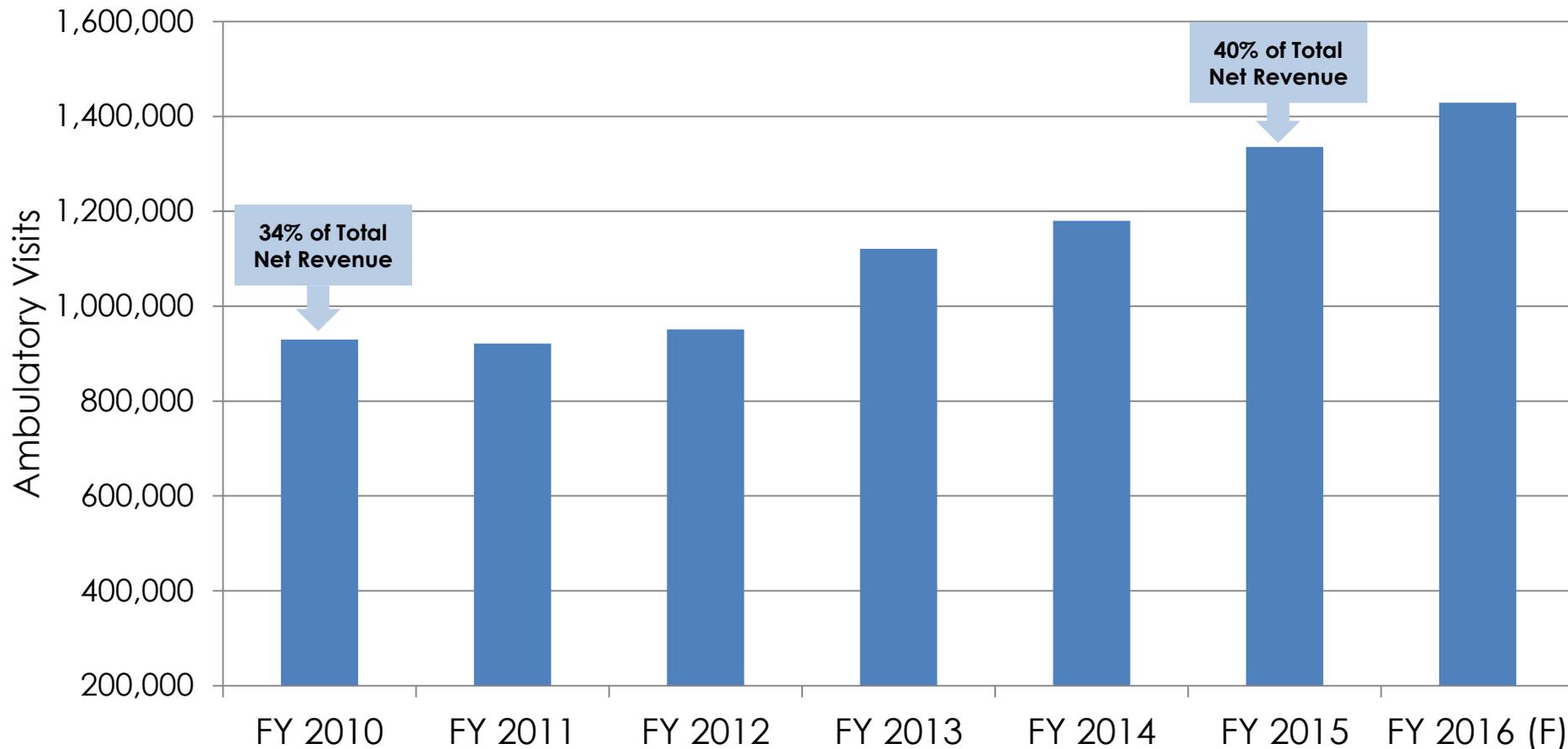
- Significant investments made to-date:
 - \$15 million has been set aside for start-up investments associated with the implementation of strategic initiatives
 - 90+ faculty recruitments approved for FY 2017 focused both on subspecialists and primary care providers
 - Markey Cancer Center Affiliate and Research Networks as well as Community Outreach and Education
 - Personalized Medicine / Genomics Program
 - Enhancement and integration of ambulatory services associated with the Joint Replacement Program

GROWTH IN COMPLEX CARE

Ambulatory Specialty Care

Ambulatory Visits

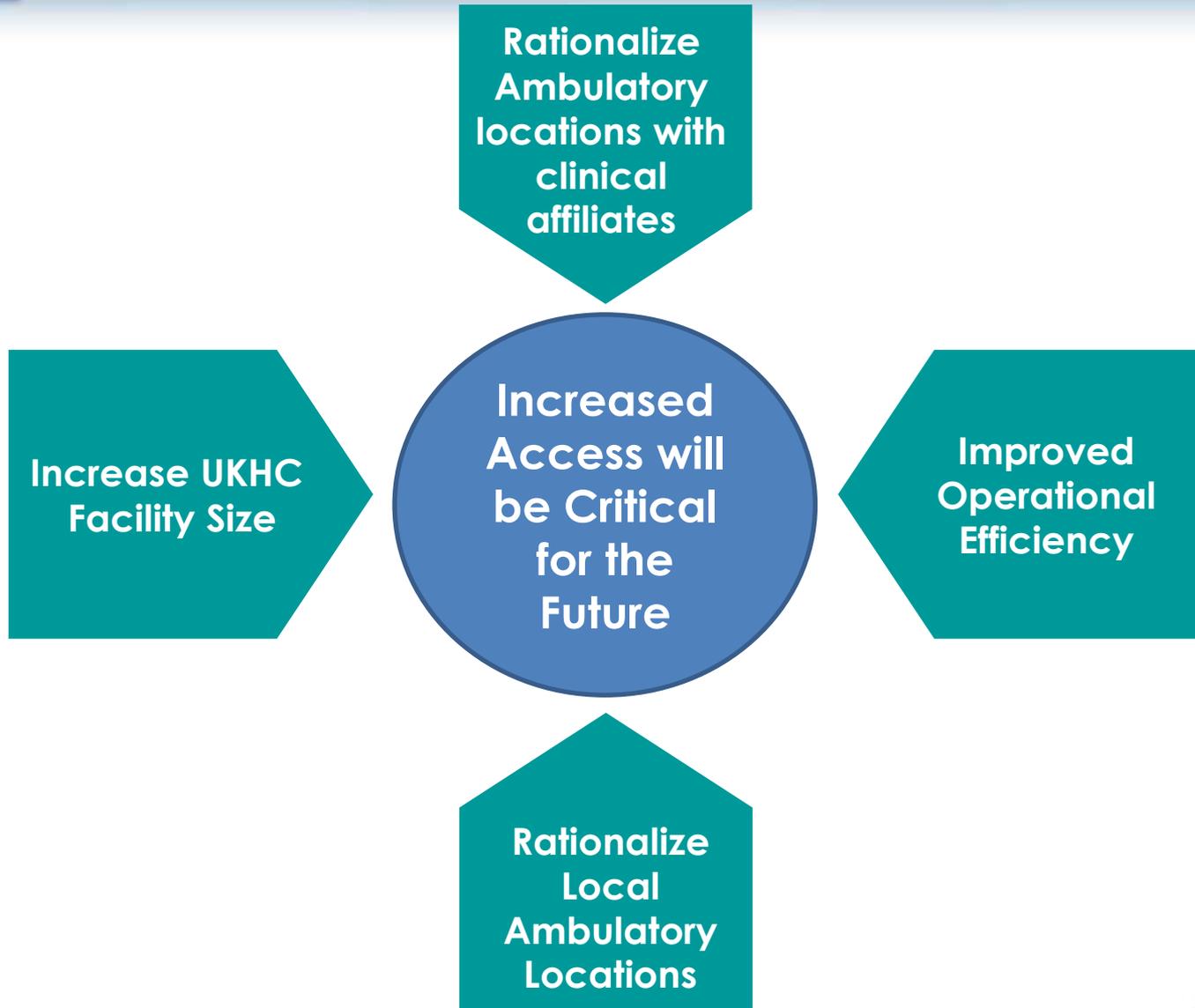
The FY 2016 Forecast is projected to have 54% higher ambulatory volume compared to FY 2010



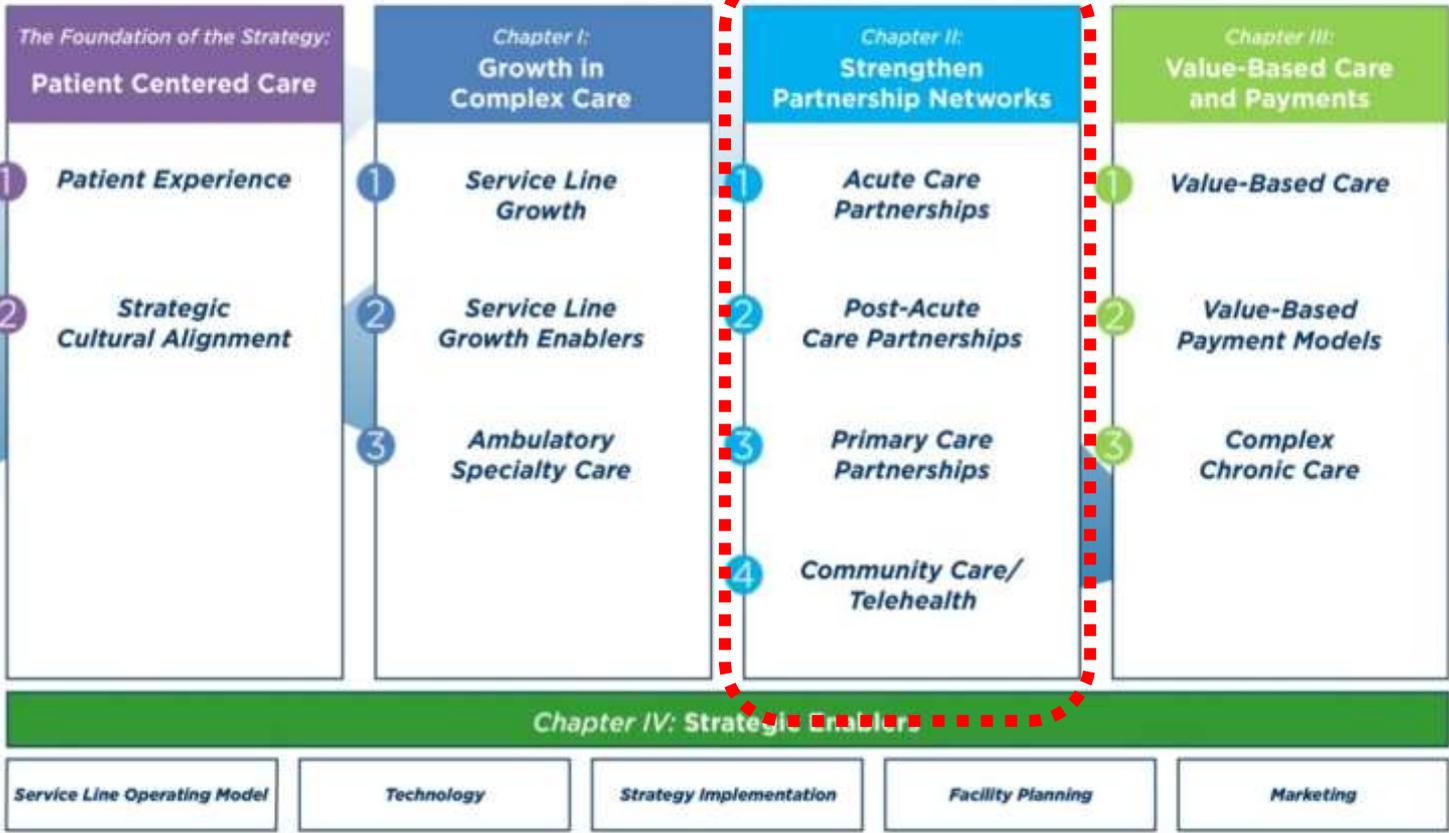
Note: Includes Clinic Visits, Outpatient Hospital Visits and Retail Pharmacy

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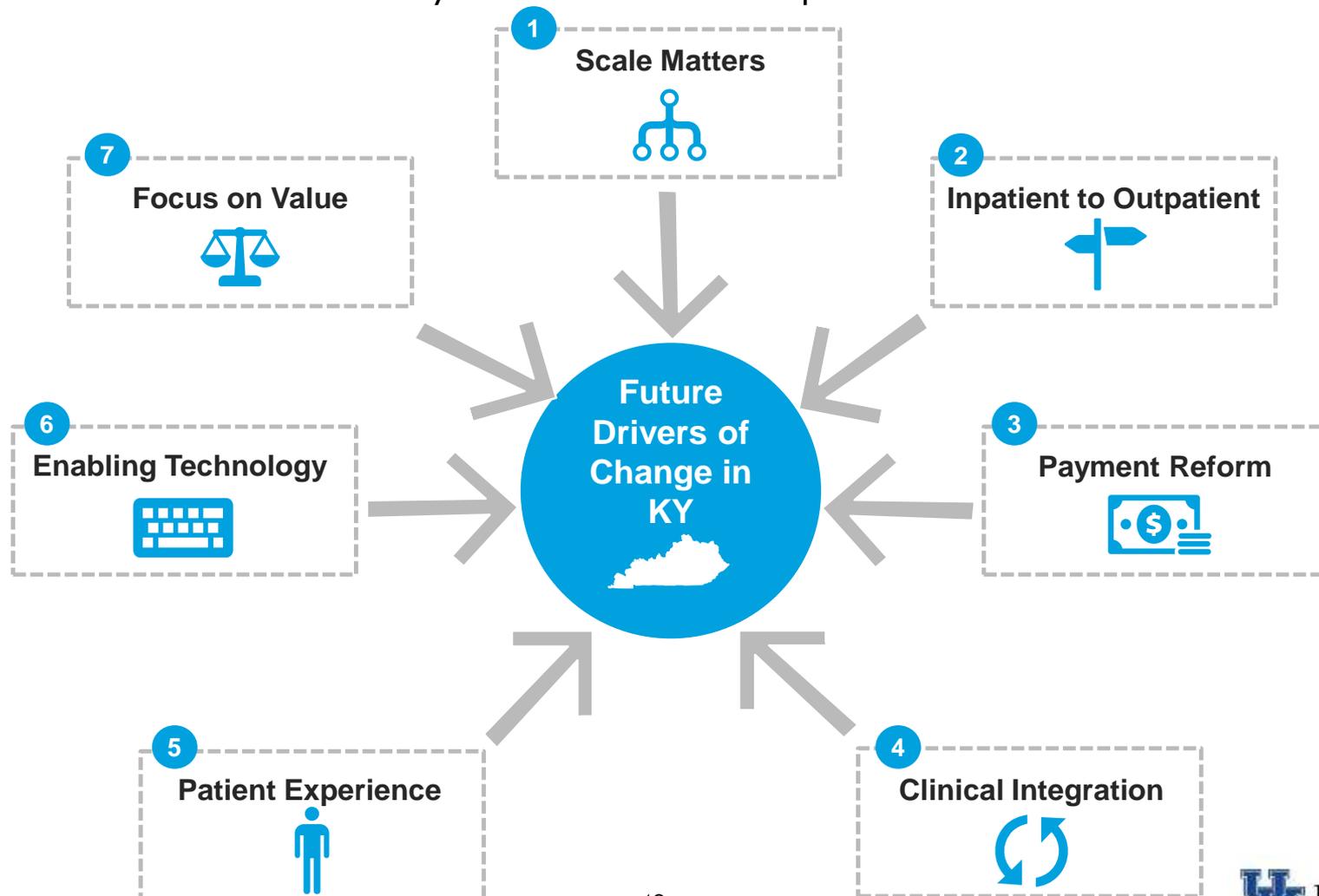
GROWTH IN COMPLEX CARE *Ambulatory Specialty Care*



UK HealthCare Strategy 2020



- **Responding to National Drivers of Change:** UKHC and other providers in Kentucky will need to respond to national trends

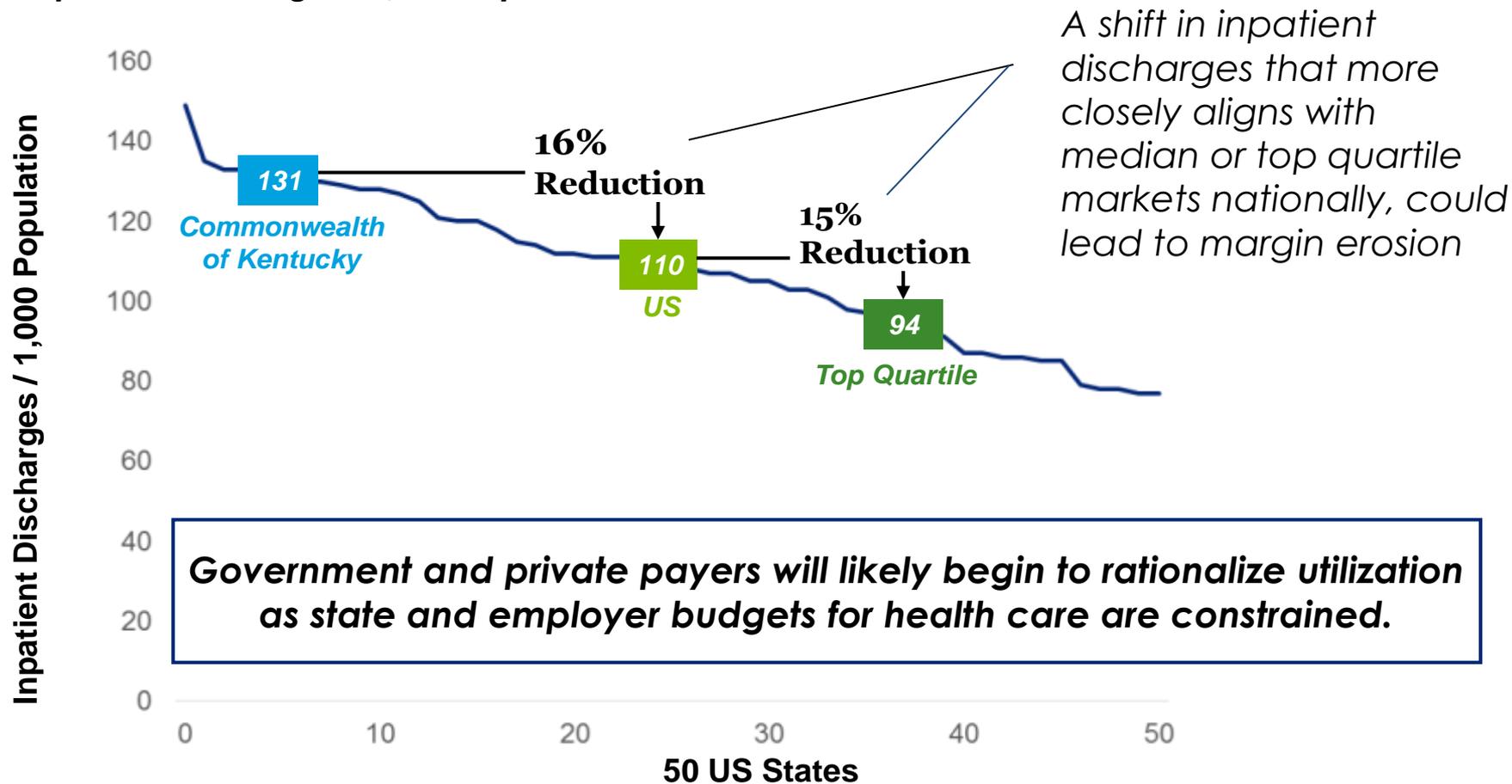


STRENGTHEN PARTNERSHIP NETWORKS

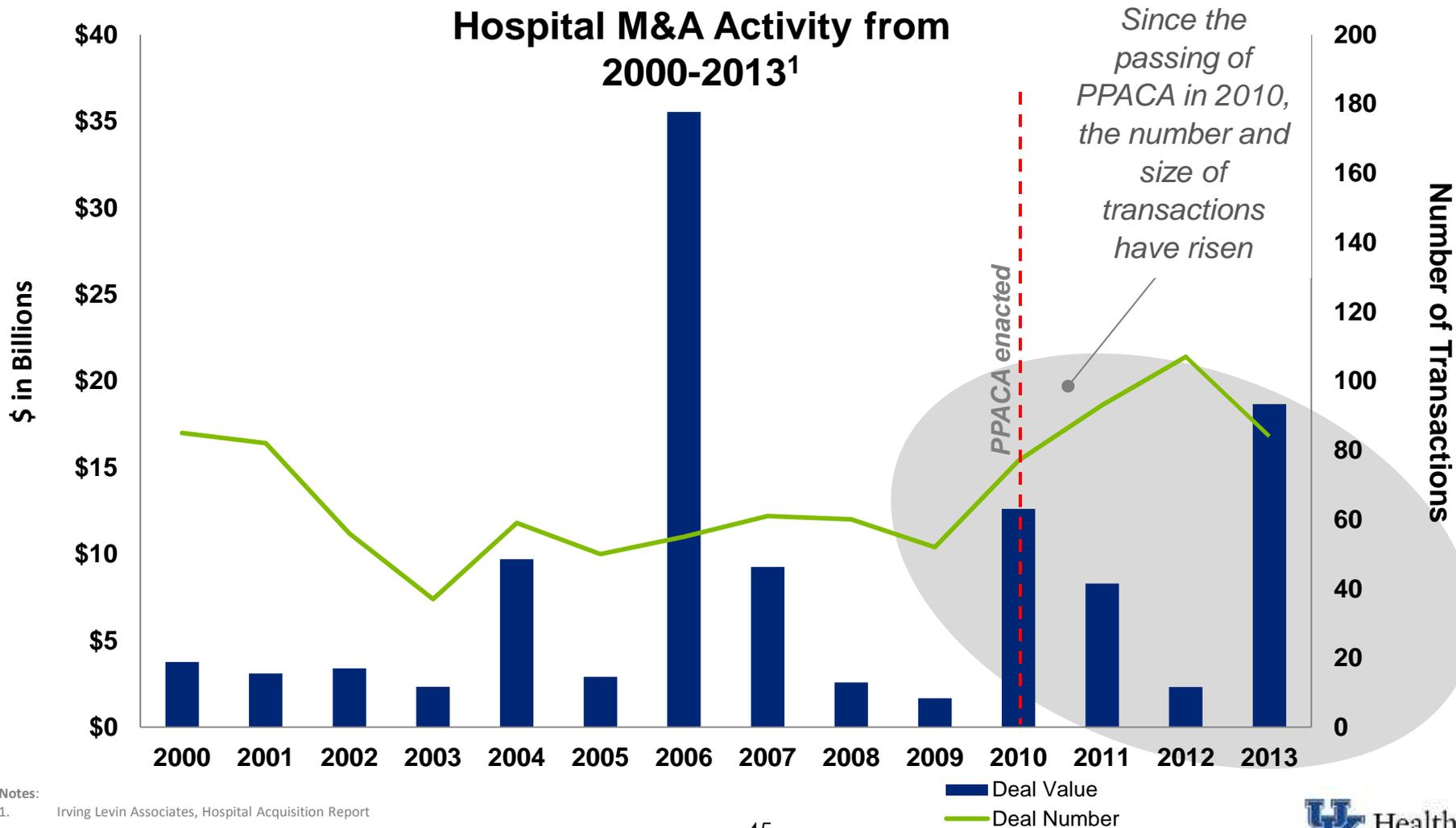
Acute Care

- National trends towards decreased inpatient utilization is a challenge

Inpatient Discharges / 1,000 Population



- Nationally, the hospital industry is consolidating as providers seek the necessary scale to compete in today's healthcare environment



Notes:

1. Irving Levin Associates, Hospital Acquisition Report

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- Consolidation within Kentucky's fragmented payer market, such as the potential sale of Humana, could accelerate payment model shifts and heighten the need for provider collaboration

"Health insurer Humana Inc. is exploring a possible sale of the company, a move that could trigger a round of mergers in an industry grappling with challenges and opportunities the federal health-care overhaul has created"

-Wall Street Journal¹

"Shares surge 20% to close at \$214.65, an all-time high"

-Wall Street Journal¹

"Aetna has been viewed by some industry analysts as the most likely acquirer of Humana, and executives at Aetna have spoken publicly about their interest in acquisitions. Cigna and Anthem also have been linked to Humana, though some industry experts believe an Anthem tie-up could face regulatory challenges over Humana's commercial business, which overlaps with Anthem's in markets such as Kentucky."

-Wall Street Journal¹

Notes:

1. Source: WSJ Online, May 29, 2015

- **The Need for Change:** There are many areas of opportunity to improve healthcare in Kentucky



Fourth highest mortality rate for heart disease in the US



Highest rate of smoking in the US



The **prevalence of obesity increased** from 30.4% to 31.3% in 2013

44th

Premature Death

45th

All Health Outcomes

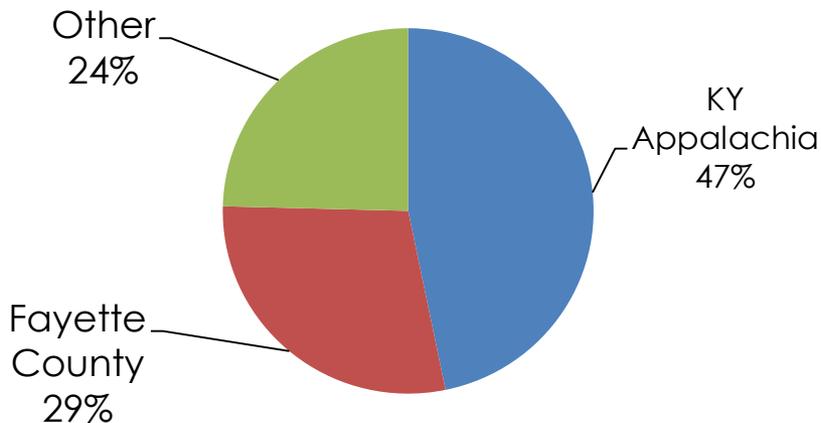
49th

Number of days a person could not perform work due to physical health issues

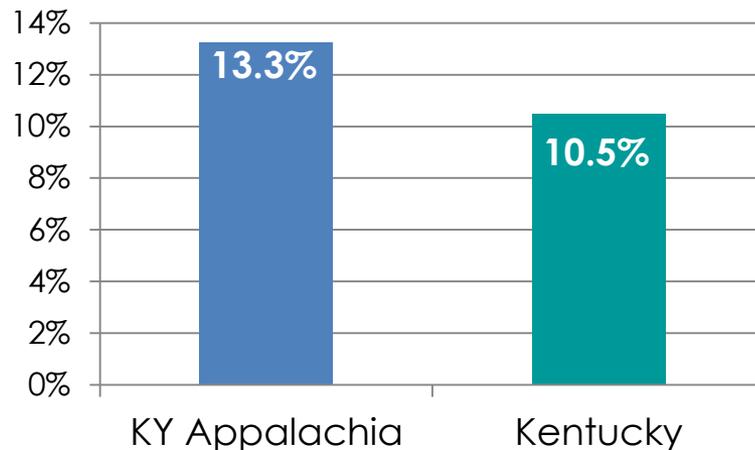
50th

Smoking and Cancer Deaths

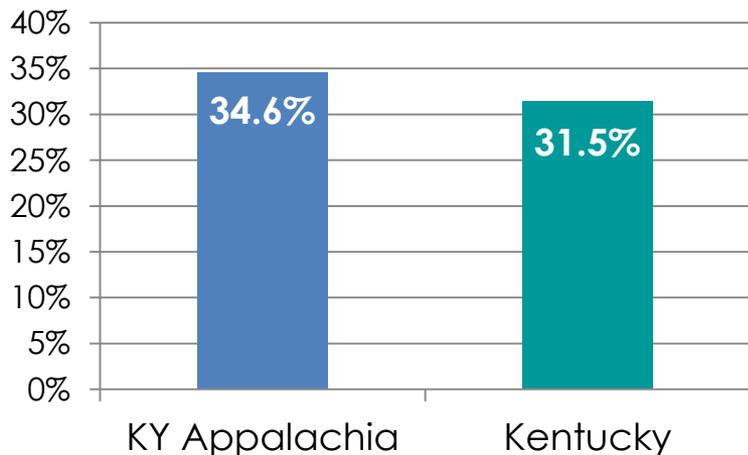
FY15 UKHC Inpatient Cases



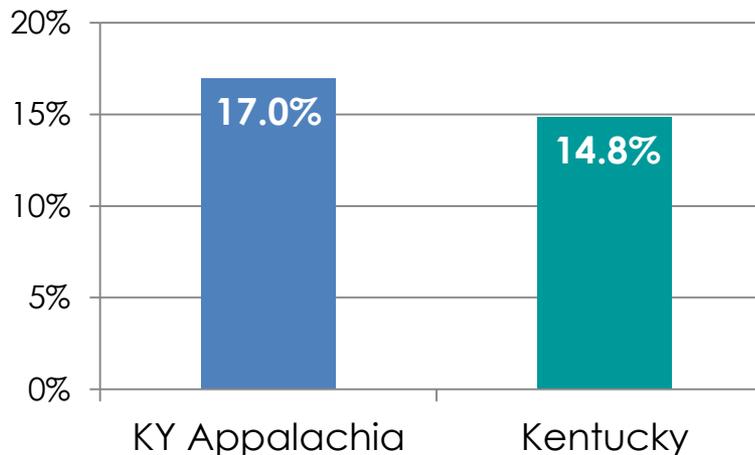
Prevalence of Diabetes



Prevalence of Obesity



Prevalence of Asthma



Note: Prevalence data from Place Matters: Health Disparities in Kentucky (2012 Report / 2008-2010 data)

- **Inflection Point for Kentucky:** Changes in the national market and within the Commonwealth have created a major inflection point in healthcare delivery in Kentucky



National trends in healthcare will shift Kentucky's focus from isolated illness and injury care to coordinated, comprehensive care and improved outcomes

- 1 Kentucky needs a statewide health network or collaborative to shape the future
- 2 Focus will shift to improving health outcomes and rationalizing not rationing care
- 3 Care must be affordable, accessible, coordinated, efficient, and high quality

- **Acute Care Partnerships: Selected Strategy**

UKHC could be a catalyst to pursue a collaborative in the Commonwealth in order to gain scale and prepare for population health

***Expand UKHC's presence across Kentucky and beyond** to reach patients near their homes and rationalize care across the region ...*

*...by collaborating with **health systems** to reduce costs and increase efficiency...*

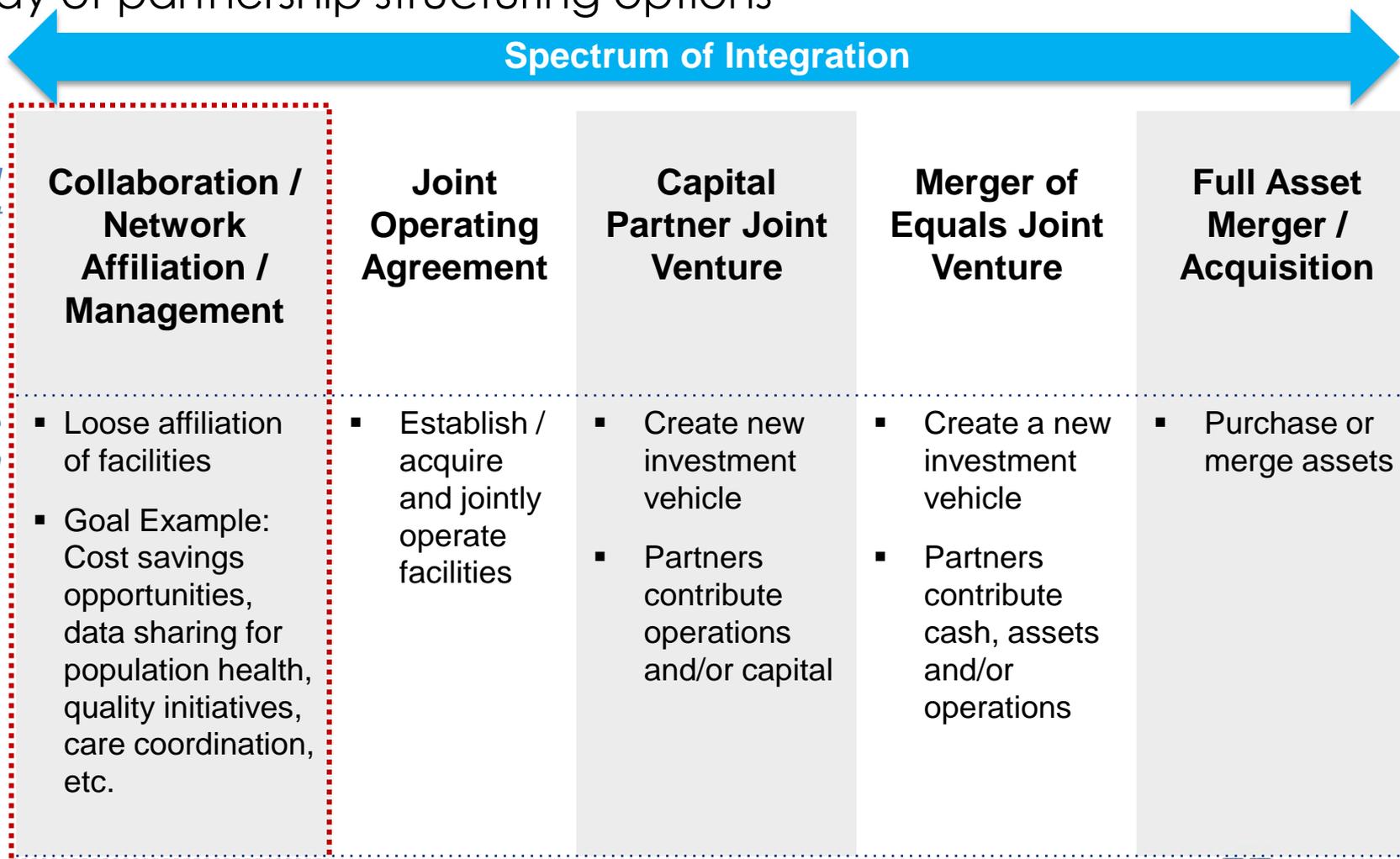
*...and position for population health by building a **partnership network that reaches five million lives...***

*...and by partnering with **smaller community hospitals** in order to deliver community care close to home and provide seamless complex care at the quaternary academic hub*

STRENGTHEN PARTNERSHIP NETWORKS

Acute Care

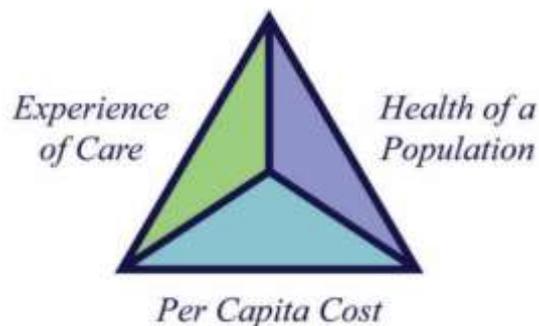
- As providers seek scale and efficiency, organizations are utilizing an array of partnership structuring options



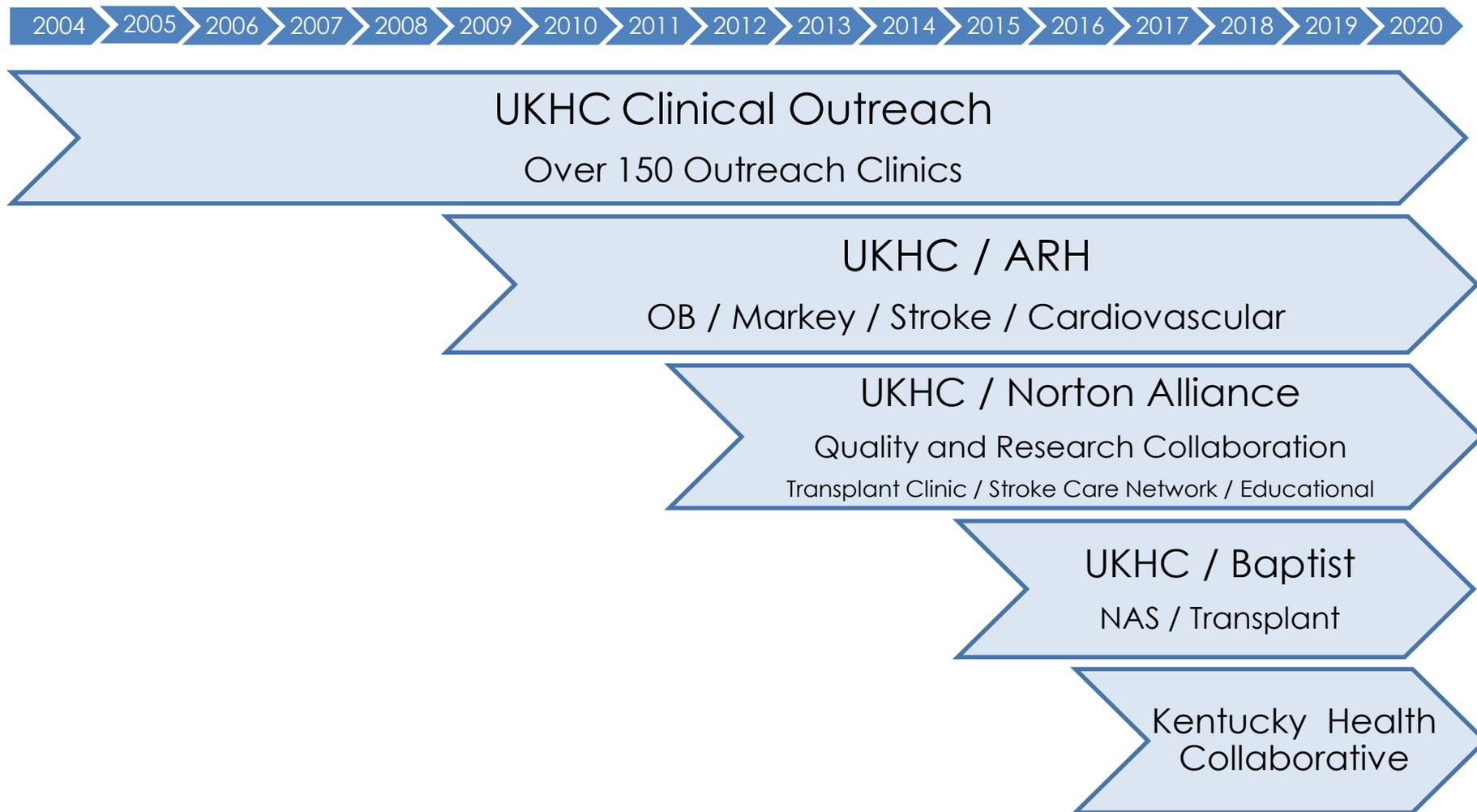
- Leading Healthcare Organizations are Responding by Forming Collaboratives



- Most of these state-wide collaboratives structure their programs and services around the **Triple Aim**, which aligns with UK HealthCare's strategic plan



The Evolution of UK HealthCare's Outreach and Partnerships



STRENGTHEN PARTNERSHIP NETWORKS

Acute Care

Mission of the Proposed Kentucky Health Collaborative

The purpose of the Kentucky Health Collaborative is to be a state-wide collaborative of leading healthcare providers and systems that serves as a model for quality, safety, access, coordination, effectiveness, and efficiency of care and the advancement of benchmark clinical services, education, and research through innovative collaborative initiatives.





NORTON
HEALTHCARE



St. Elizabeth
HEALTHCARE

BAPTIST HEALTH



Appalachian Regional Healthcare



Ephraim McDowell
Health.

CHC
COMMONWEALTH
HEALTH
CORPORATION




Owensboro
Health

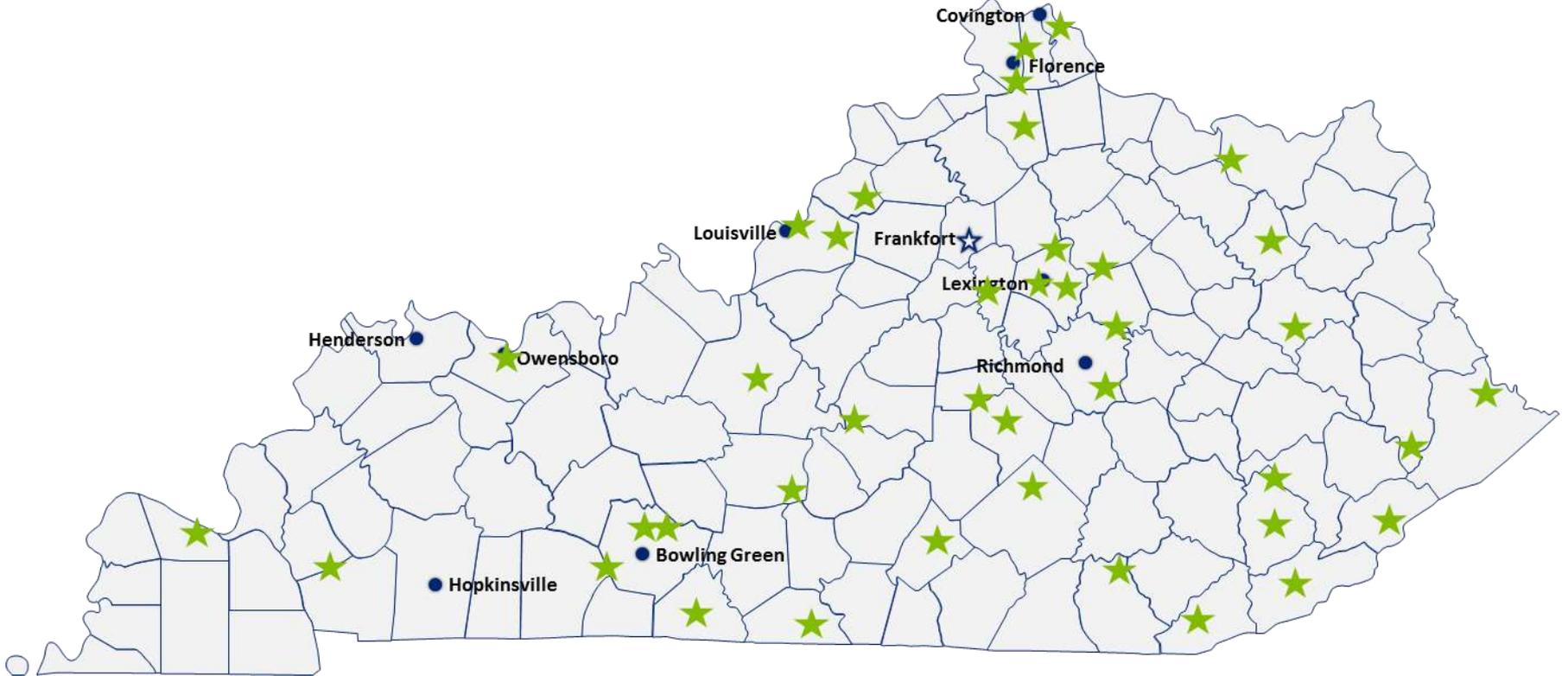
LIFEPOINT
HOSPITALS®



St. Claire Regional
Medical Center

STRENGTHEN PARTNERSHIP NETWORKS

Acute Care



Next Steps:

- Finalize Business Structure, Governance Structure and Capitalization Terms and meeting schedule
- A general announcement will be made January 27TH regarding the formation of the collaborative and the hiring of an executive director
- Collaborate with group to launch round table approach to organize initiative planning teams

- Initial Priorities Identified by Potential Members



Joint Purchased Services and Supply Chain



Improve Care Access, Coordination and Care Transitions while Supporting Longer Term Workforce Development / Training



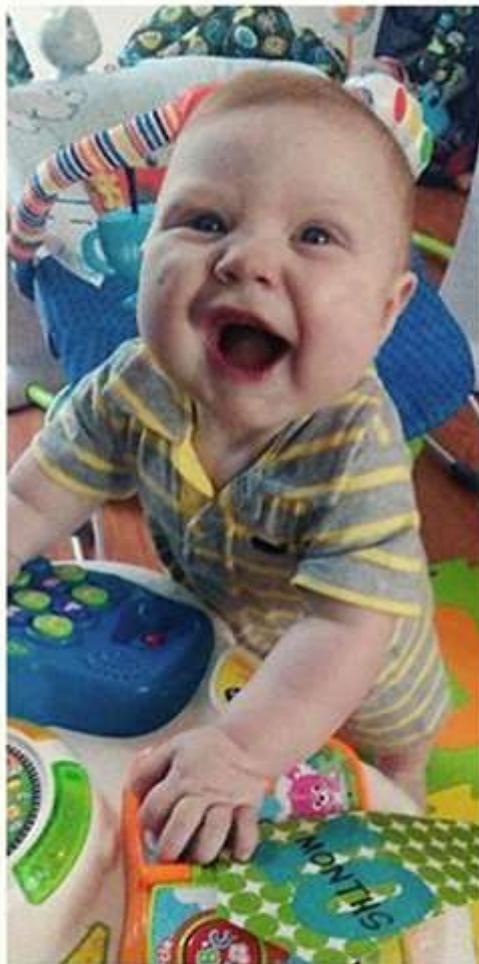
Developing Cancer Prevention, Control Activity, and other Health Promotion Efforts



Population Health Information Technology

STRENGTHEN PARTNERSHIP NETWORKS

Acute Care



In partnering with Cincinnati Children's, UK HealthCare will be collaborating with one of the top three children's hospitals in the country and a Top 10 pediatric heart care program.

#caring4kidshearts



STRENGTHEN PARTNERSHIP NETWORKS

Acute Care

Integrated Pediatric Heart Care



Post-Acute Care Partnerships: Improve outcomes and reduce wait times for post-acute care by partnering with local and regional facilities

Improve care delivery and virtually expand acute care capacity
by moving patients to more appropriate settings as quickly as health status warrants...

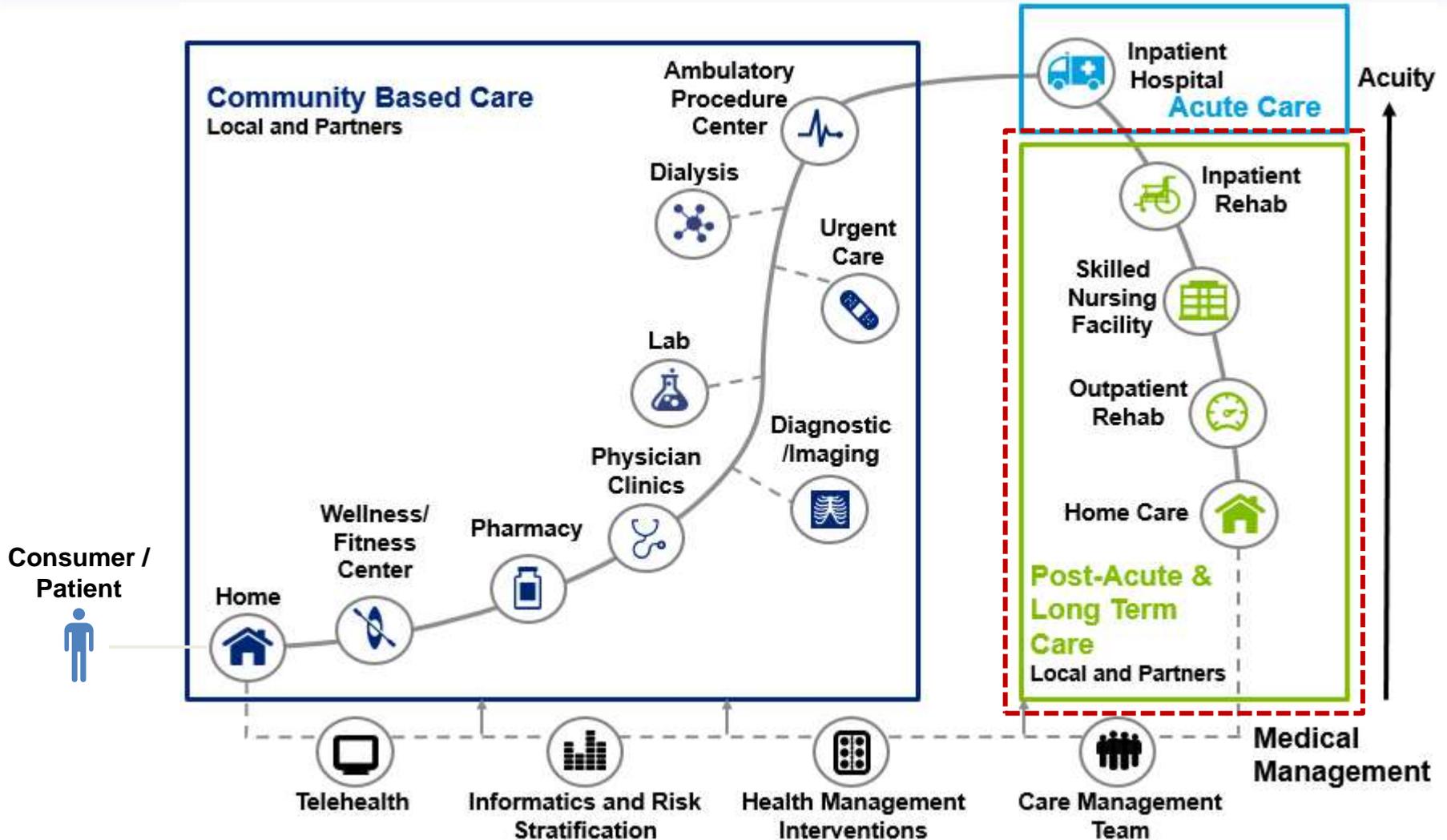
*...by **creating access to inpatient rehab beds** in conjunction with local providers...*

*...and **improving UKHC's discharge planning processes** to improve outcomes and reduce costs*

*...and **developing an integrated post-acute care network** across Kentucky for UKHC patients leading to improved outcomes and efficiency indicated by a LOS Index to 1.0 or less*

STRENGTHEN PARTNERSHIP NETWORKS

Post-Acute Care



Source: Derived from Sg2 Care Continuum

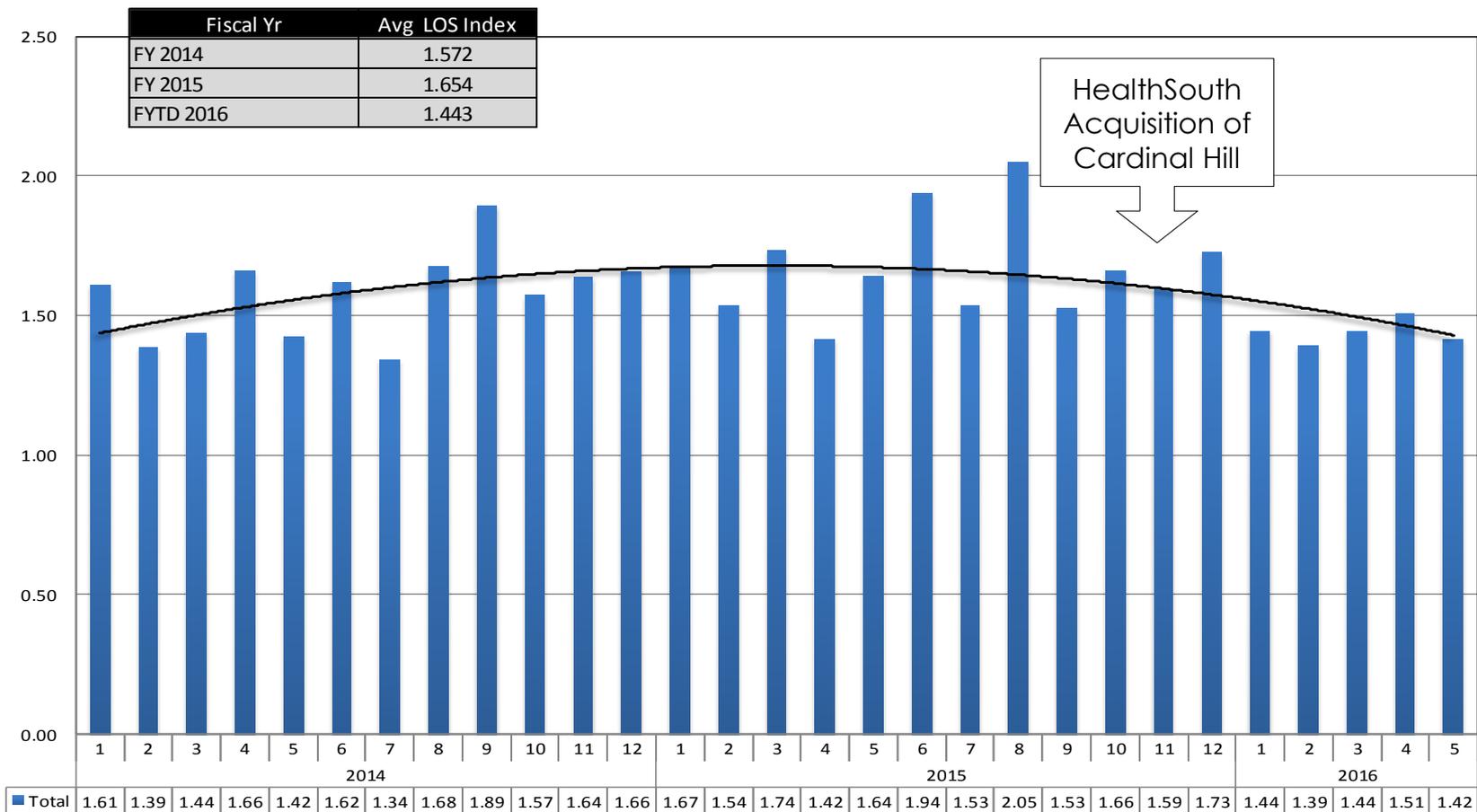
STRENGTHEN PARTNERSHIP NETWORKS

Post-Acute Care

UNIVERSITY OF KENTUCKY HEALTHCARE
CHANDLER & GOOD SAMARITAN HOSPITALS

INPATIENTS DISCHARGED TO REHAB - LOS INDEX TREND

Fiscal Year-to-Date through November 30, 2015



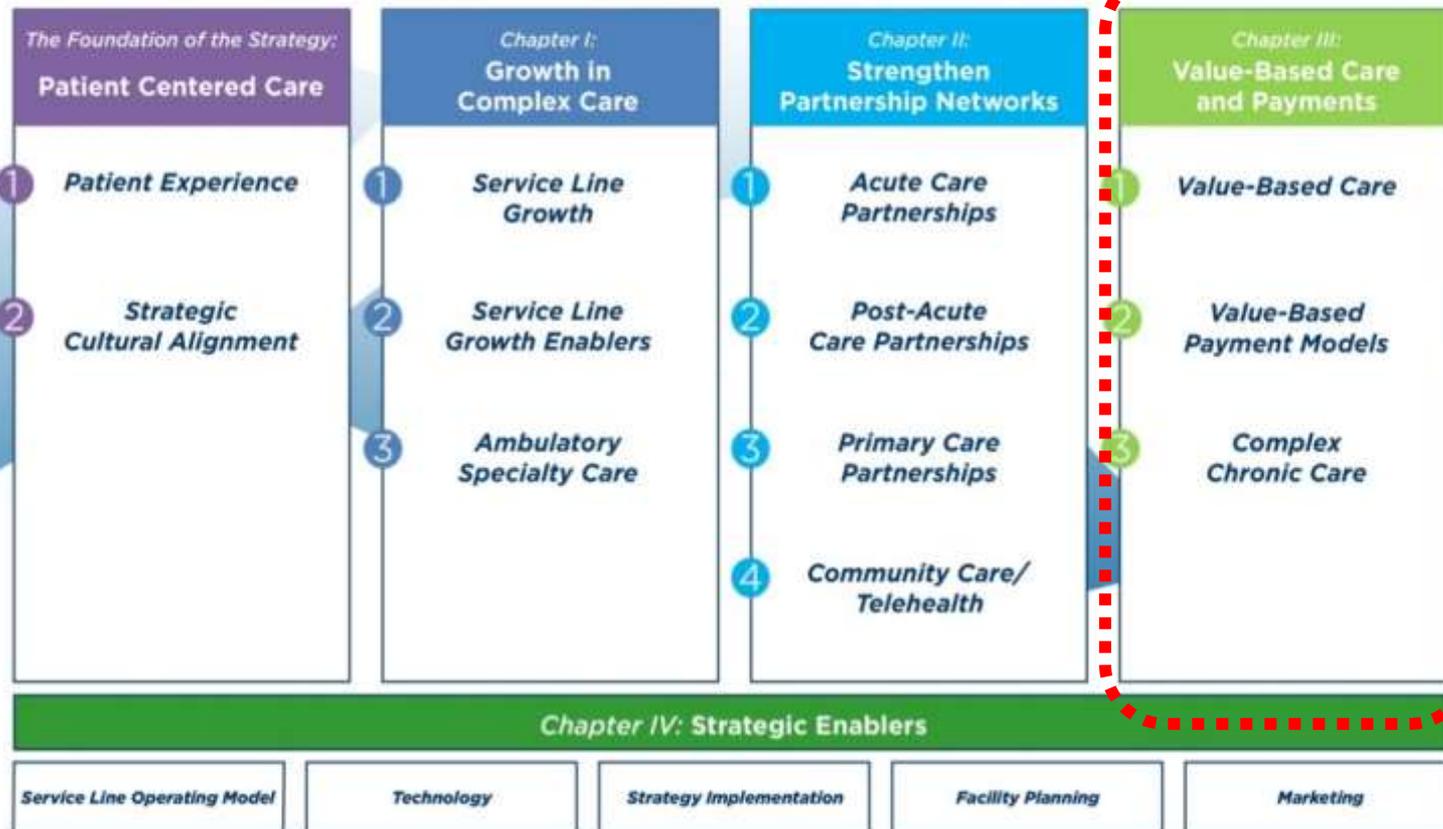
- Established Post-Acute Care Partnerships
 - Cardinal Hill / HealthSouth Rehabilitation Hospital
 - Stepworks Recovery Center and Recovery Works Programs
 - Appalachian Regional Healthcare and LifePoint Health Swing Bed Program
 - Skilled Nursing Facility Preferred Provider Network
 - Kentucky Appalachian Transitions Services (KATS) Program

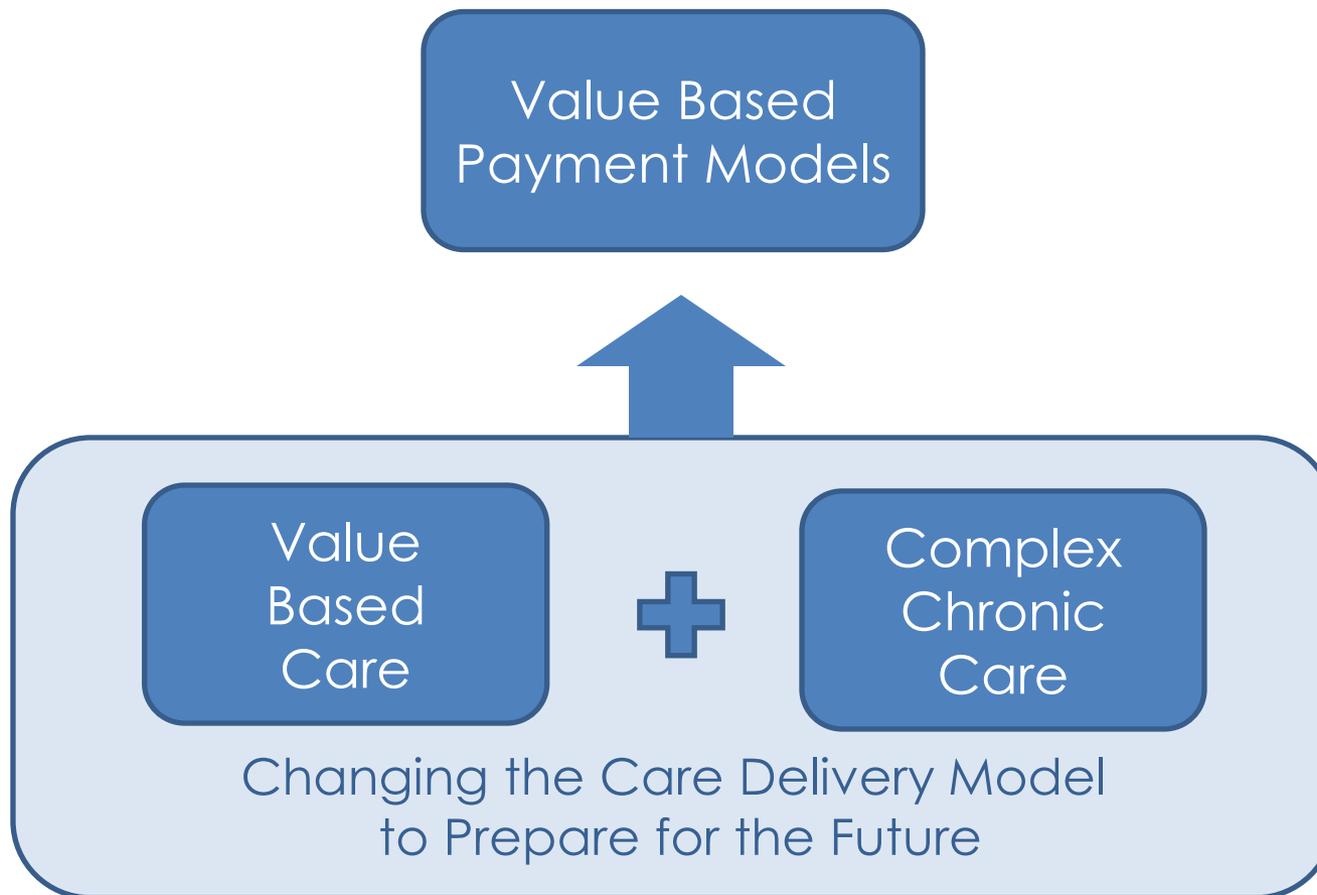
Primary Care Partnerships

- As the health care system continues to evolve, it will be critical for UK HealthCare to have the appropriate sized primary care network either through partnering with existing providers or growing its existing practices.

- Telehealth was first established at UKHC in 1995 and had expanded to over 40 healthcare clinics by 1999
- In 2000, all payors began to reimburse providers for clinical visits completed via telehealth
- Telehealth gets the right care to the right people at the right time in the right place at the right cost
- The program conducted **less than 100 clinical encounters in 1996** and in **2015 reached over 4,700 patients in over 23 medical specialty services**

UK HealthCare Strategy 2020





UK OptimalCare

Goal: Optimize patient care through the elimination of unnecessary variation

- Types of Variation -

Necessary	Unnecessary
<ul style="list-style-type: none"> • Patient factors • Uncontrollable extrinsic forces • Negotiated patient preference 	<ul style="list-style-type: none"> • Variable application of evidence-based practice • Local clinical culture lacking best practice mindset • Physician, nurse or other provider preference (style, habit, recency bias) • Convenience (hospital/provider centered) • External pressure (reimbursement, patient preference, etc.)

VALUE-BASED CARE AND PAYMENTS

Value-Based Care

UK OptimalCare Support Group Members

- Bernie Boulanger - Chair
- Sue Durachta (Ambulatory)
- Byron Gabbard (Finance)
- Gary Johnson (Pharmacy)
- Lorra Miracle (Supply Chain)
- Cecilia Page (CIO)
- Carol Steltenkamp (CMIO)
- Colleen Swartz (CNE)
- Mark Williams (CTLO)

Functions

- Identify opportunities for improving value delivery.

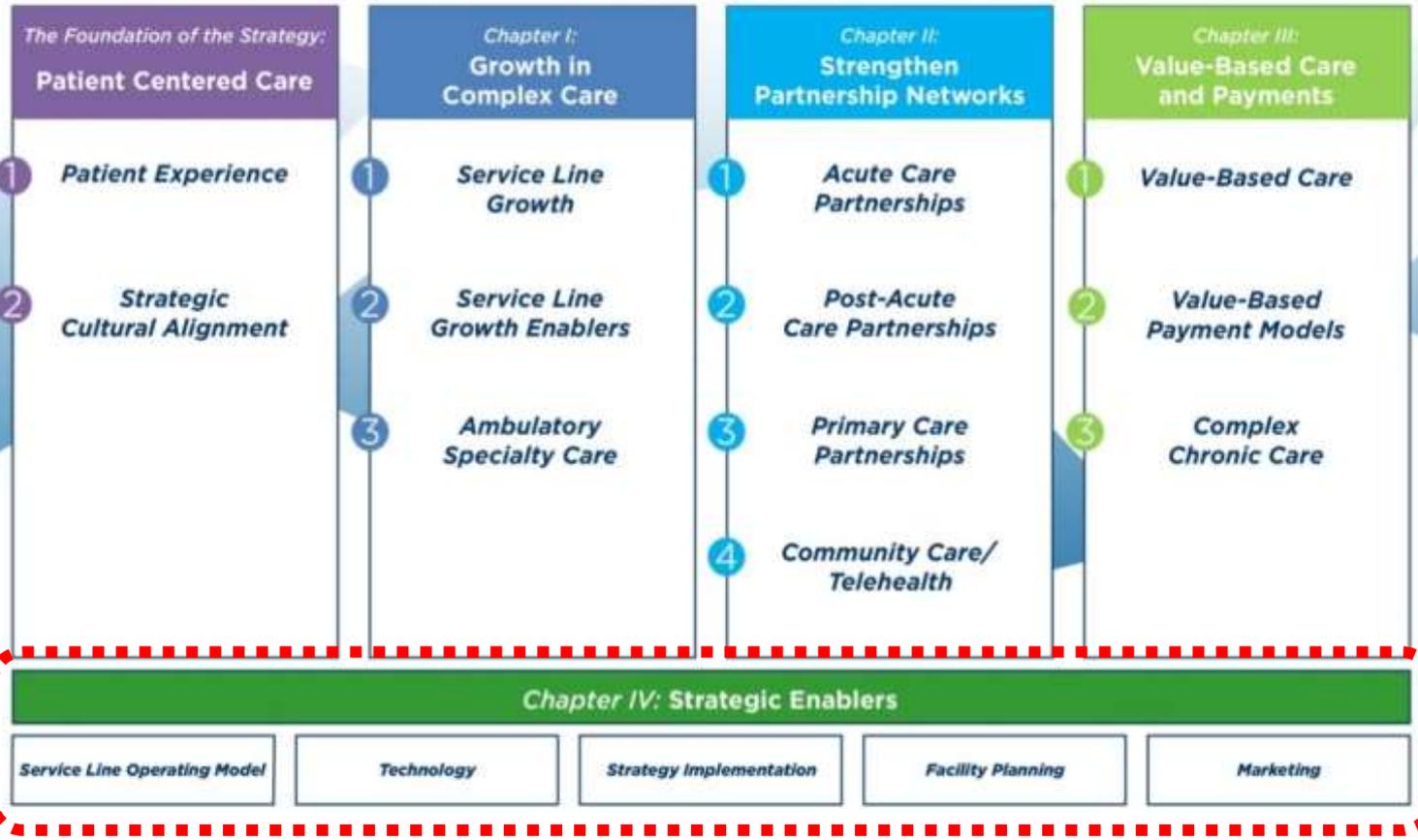
Value = (Quality + Service + Access) / Cost

- Prioritize opportunities
- Engage and support OptimalCare Teams in identifying practice gaps and barriers
- Allocate resources for OptimalCare teams to ensure success
- Facilitate implementation and measurement

UK OptimalCare: Achievements

- *Infant Bronchiolitis*
 - Dr. Jeff Bennett
- *Pulmonary Embolism*
 - Dr. George Davis, Dr. Susan Smyth & Dr. E. Xenos
- *Concussion*
 - Dr. Dan Han

UK HealthCare Strategy 2020



STRATEGIC ENABLERS

Strategy Implementation



Enterprise Strategy Office created and fully staffed



Communication cascade has been deployed to inform and engage all team members of UK HealthCare regarding the strategic plan and their role in the implementation



Priority setting and decision-making process has been developed to manage strategic initiatives

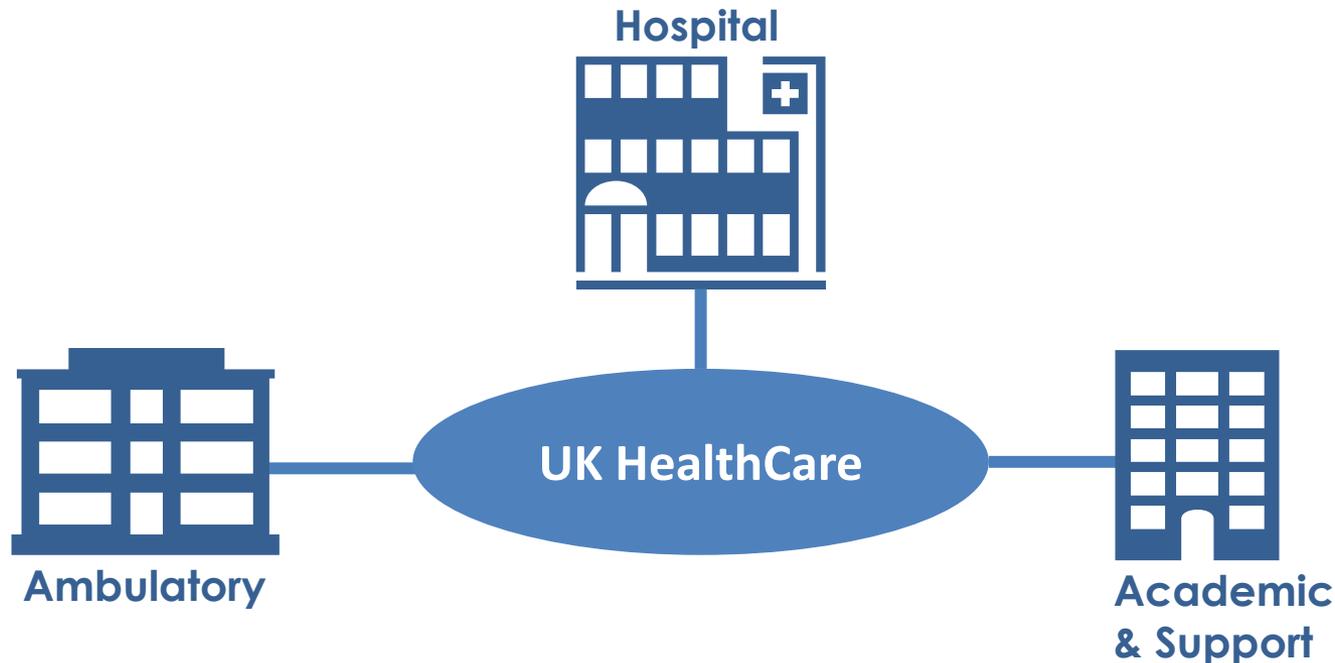


Implementation progress is being tracked and communicated to Executive Leadership

Accomplishments To Date	Next Steps
Significant growth in AWARENESS of UKHC brand name	Increase UNDERSTANDING of what the UKHC brand is and what makes it DIFFERENT
Significant growth, especially as it relates to HOSPITAL TO HOSPITAL TRANSFER and outreach partnerships	Drive UKHC as a choice among CONSUMERS
Growth of SUB-BRANDS LIKE MARKEY AND GILL as standalone brands	CLARIFY and increase the CONNECTION between UKHC masterbrand and sub brands like Markey & Gill
Launch of FIRST-EVER BRAND CAMPAIGNS	Launch of new brand campaign that underscores our DIFFERENTIATORS as a provider of ADVANCED MEDICINE
Provided STRONG TACTICAL SUPPORT to the enterprise through support materials	Position marketing as a STRATEGIC ENabler for enterprise
Raise profile of UKHC among key stakeholders	Raise esteem and reputation of UKHC nationally, regionally and locally

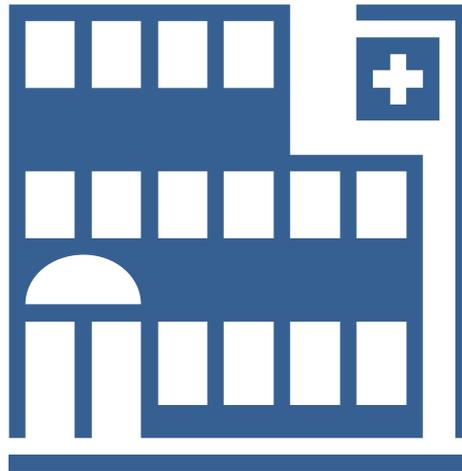
- **Electronic Health Record:** An enterprise foundation necessary for an integrated, patient-centric, point of care system – Strategic opportunities for improvement developed by June 30, 2016
- **Enterprise Analytics and Data Warehouse:** An enterprise foundation necessary for meeting analytics and data requirements for a patient-centered system of care
- **Enterprise Integration and Interoperability:** An enterprise foundation necessary for enabling interoperability and data sharing internally and externally to UKHC

Facilities development will continue into the foreseeable future as we both renew and expand to meet the demand for our services



Facilities have and will continue to be developed in a phased approach

Hospital Facilities



Chandler Hospital - Completed

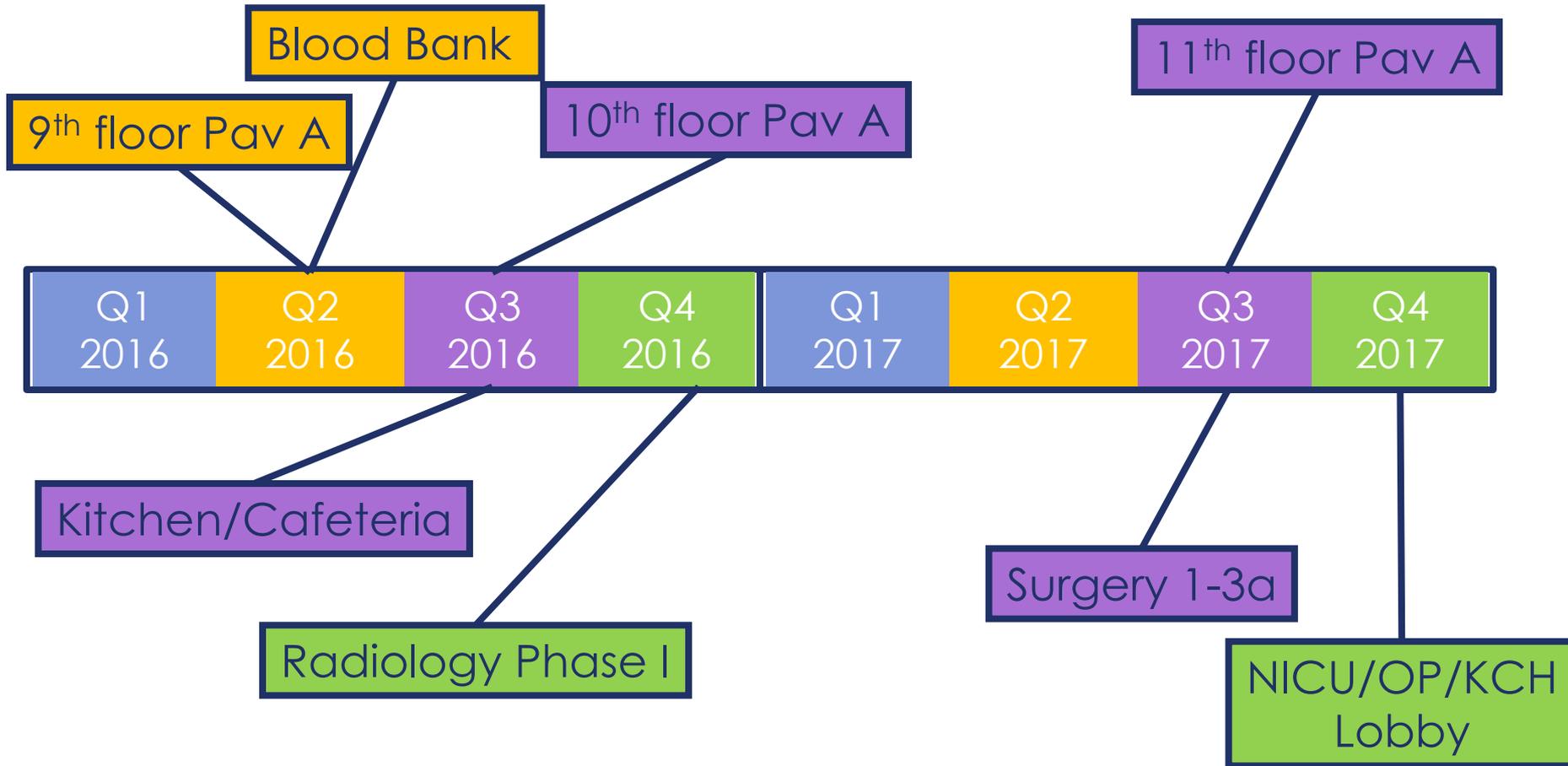
Phase	Scope	Square Feet of Phase	Cost of Phase	Cumulative Project Cost	Cumulative % SF Finished
Phase 1A	1.24M square foot structure; two patient floors, ED, lobby, parking garage; infrastructure, auditorium, chapel and related support space	560,000	\$532.3M	\$532.3M	47%
Phase 1B	Operating rooms, PACU, central sterile and related support space	95,800	\$37.7M	\$570.0M	55%
Phase 1C	Data Center and related support space	4,500	\$5.6M	\$575.6M	55%
Phase 1D	One patient floor and pharmacy project	73,500	\$31.5M	\$607.1M	61%
Phase 1E	Clinical Decision Unit (OBS unit)	9,000	\$6.0M	\$613.1M	62%

Chandler Hospital – Construction

Phase	Scope	Square Feet of Phase*	Cost of Phase	Cumulative Project Cost	Cumulative % SF Finished*
Phase 1F/1G	<ul style="list-style-type: none"> -9th Floor -10th Floor -Kitchen, Cafeteria -Radiology Phase I (MRI/CT/Ultrasound) hyperbaric & Eye Consult -NICU, KCH Entry, OP Treatment and Sedation -ORs and support space, -11th Floor -Blood Bank, PT/OT/RT 	266,040	\$262.0M	\$875.1M	81%

*Square footage fit up related to Pav A facility only (does not account for Pav HA/H associated components of projects)

Chandler Hospital – Construction Timeline



Chandler Hospital – Future

Future Fit-up	Pavilion	Est Cost*	Result
Radiology Phase 2	A	\$11.3M	Completes Radiology in Pav A
Patient Floor 5	A	\$37M	Continues with fit up of patient rooms in Pav A
Patient Floor 12	A	\$37M	Completes the fit up of patient rooms in Pav A
Pav A PACU (3b & 4)	A	\$8.1M	Completes fit up of Pav A PACU
Pav A ORs (phase 5)	A	\$16.4M	Completes fit up of Pav A ORs
Birthing Center	H & HA	\$22.0M [^]	Provides long term birthing program best practice
CDU Relocation	H	\$6M [^]	Provide consolidated CDU
Interventional Services Study	A & G	\$35.37M [^]	Relocates interventional services to Pav A and provides new expanded location for Endoscopy
Dialysis/Pheresis Study	H	\$2.5M [^]	Provides a long term location centrally located to Pavilion A and B for Dialysis/Pheresis services
Office Support	A/H	\$10.1M [~]	Completes fit up of Pav A support services space and others within Pav H
Garage Extension	n/a	\$35M	Provide additional 1000-1200 parking spaces

*estimates to be revised based on updated master plan

[^]does not include FFE budget numbers

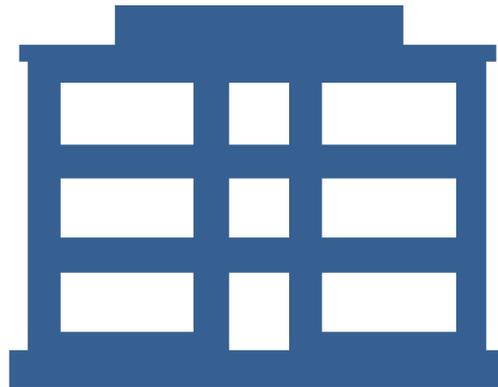
[~]area will be less than original estimate
if less complex fit up

Chandler Hospital – Future

Future Fit-up	Pavilion	Est Cost*	Result
Hospital Laboratory Relocation	H	\$45.6M	Relocates laboratory allowing for the floor to be retrofitted for PICU
Pediatric Progressive care and PICU	HA	\$21.7M	Completes move of Pediatrics to space consistent with current standards
Heliport	A	\$2.1M	Adds 2 heliports to Pav A
Upgrade H 7&8	H	\$15.0M	Interim solution for Pav H beds or office/support (eg Phase 1 infusion, hospice, sim space)
Roach upgrade	CC	\$15.0M	Interim solution for Roach beds or ambulatory space or office/support (eg Phase 1 infusion, hospice, sim space)
Pav H upgrade for support	H	\$40.5M	Converts Pav H long term use (envelope & Infrastructure)
TOTAL		\$360.67M+	

*estimates to be revised based on updated master plan

Ambulatory Facilities



Ambulatory – Recently Completed

Project	Location	Square Feet	Scope
Pain Services	KYC South	6,152	Relocation from UKGS to KY Clinic South. Provided an increase in procedural and exam room capacity in order to accommodate increased volumes.
General Pediatrics	KYC South	20,295	Relocation from KY Clinic to KY Clinic South to provide space for expanded volumes in both General Pediatrics and future expansion of Specialty Pediatric Services.
Rheumatology & Nephrology Clinic	UKGS - PAC	4,865	Relocation of services to the UKGS PAC building to provide expanded space for increased patient volumes.

Ambulatory – Construction

Project	Location	Square Feet	Scope
Ophthalmology	Shriners	40,000	Relocation of ophthalmology services and administrative support to the 4 th /5 th floor of the Shriner's building.
Specialty Pediatrics	KYC 2	8,445 (A) 8,176 (B)	(A) Renovation/upgrade of current specialty pediatrics clinic to current pediatric specific finishes (B) Expansion of services into vacated general pediatrics pod within the KY Clinic
Transplant Clinic	KYC 3	16,443	Relocation/expansion of clinical services and administrative support in the KY Clinic
Urology Clinic	KYC 2	8,860	Renovation/expansion of clinical space within the KY Clinic

Ambulatory – Construction

Project	Location	Square Feet	Scope
Dance Blue Pediatric Hematology Oncology Clinic	Pav H	9,100	Renovation and relocation to the 4 th floor in closer proximity to KCH inpatient services
Orthopaedic Clinic	KYC 1	17,655	Renovation of existing clinic in order to increase operational efficiencies and improve patient flow.
Community Cardiology	UKGS MOB	6,620	Relocation to MOB at UKGS from the Gill to allow for increased patient volumes
Radial Lounge	Gill	583	Renovate a space to provide a recovery space for increased throughput of the Cath Labs recovery.

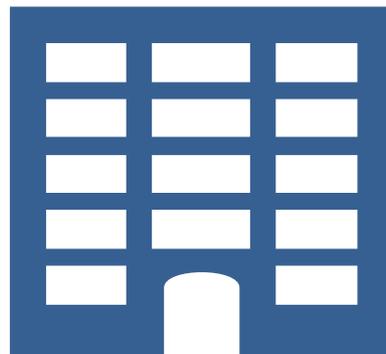
Ambulatory – Preliminary Planning

Priorities in Study	Location	Square Feet	Issues Identified
Medicine Services	KYC 2	22,000	High growth, space constraints
UKGS MOB Lab services	UKGS MOB 1	290+	Limited capacity, space constraints
Turfland	Turfland 1 & 2	11,803 (A) 35,000 (B)	(A)Expansion of clinical services (B)Administrative support space available at location.

Ambulatory – Future

Priorities for Future Study	Issues Identified
Oncology	High growth and utilization, space constraints
OB/GYN	High growth and space constraints
Infectious Disease	High growth and utilization
CT Surgery & Cardiology	Consolidation within 1 location
ENT	Need increased flexibility and flow improvement
Spine & Joint	Low exam room to provider ratio, limited radiology access
KYC Therapy	Space constraints
Dentistry	Space constraints
Radiology services – MOB	Limited access for Spine/Joint and other services in MOB

Academic & Support Facilities



Academic & Support Space:

- Relocated administrative functions as appropriate off campus
- Reallocating campus space to highest and best use
- Redeveloping Hospital and College of Medicine space for academic and support space

Considerations and Recommendations

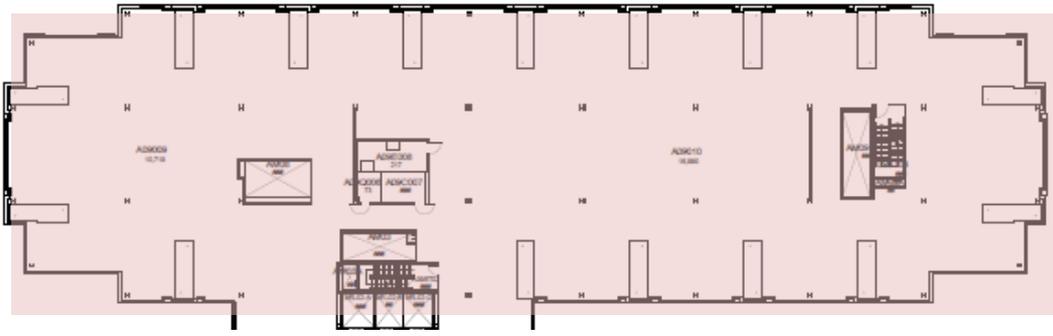
- Next Facilities Phases -

Hospital • Ambulatory • Academic & Support

Patient Bed Capacity Review – December Report

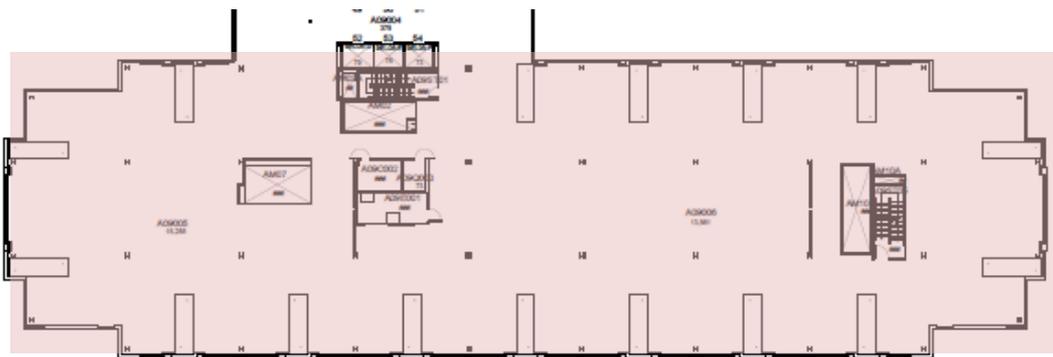
“Key Take Away Points”

- UK HealthCare inpatient capacity is at maximum levels nearly every day
- No end in sight to the demand for our high quality, specialized services
- More than 75% of 128 new beds in Pavilion A will be consumed upon opening in CY2016
- UK HealthCare must consider additional expansion of clinical capacity to support planned Service Line growth



The existing “Transitional” patients will fill this space

Opening Summer 2016
64 Beds



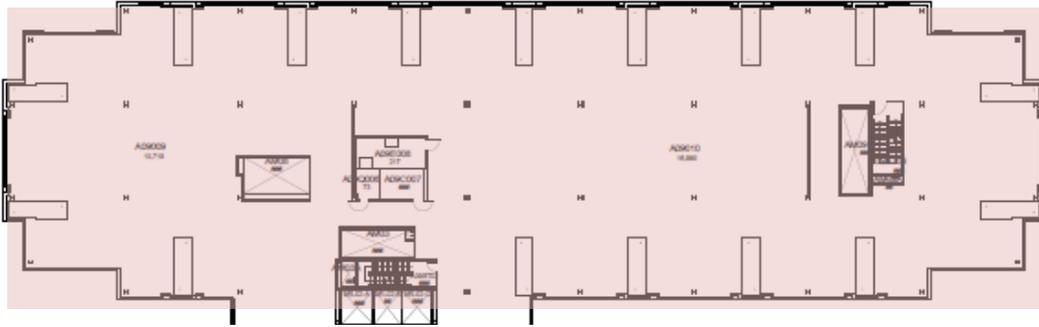
NINTH FLOOR PLAN
PATIENT CARE FACILITY (PAVILION A)

68,164 Gross Square Ft.



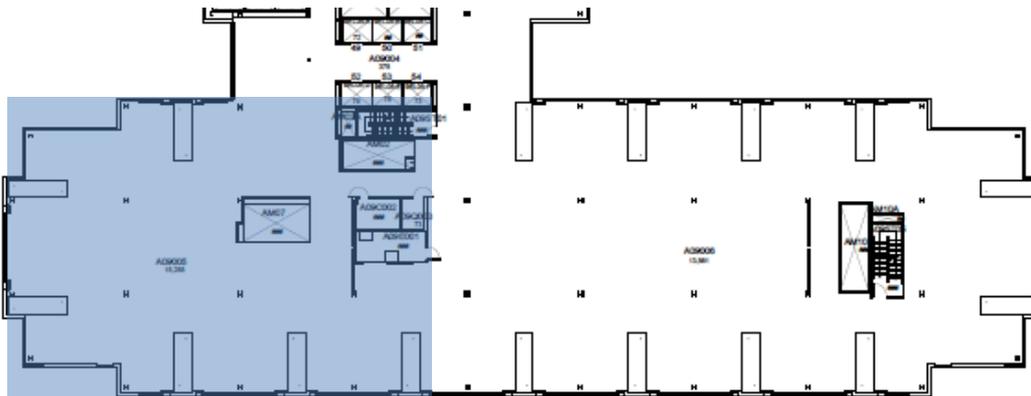
STRATEGIC ENABLERS

Facility Planning



With our maximum transitional patients and typical number of “Lost Transfers”

**Pavilion A 10th floor
Opening CY2016
Total of 64 Beds**



**TENTH FLOOR PLAN
PATIENT CARE FACILITY (PAVILION A)**

68,164 Gross Square Ft.



Patient Floors

- Floors 5 and 12 of Pavilion A remain “shelled”
- This creates total incremental inpatient capacity of 128 beds

Additional Considerations to Support Future Growth

- Interventional Services (Angiography and Cardiac Catheterization Labs)
- Diagnostic and Therapeutic Endoscopy Services
- Dialysis / Pheresis Services
- Radiology “Phase 2”
- Vascular and Pulmonary Function Testing

Additional Facility Considerations to Support Service Line Growth

- An Additional 64 Inpatient Beds
- OB/GYN Facility Renovations
- Clinical Decision Unit Re-location
- Expansion of Surgical Services
- Ambulatory Care Capacity

Recommendations

- Complete the fit up of Fifth Floor of in Pavilion A
(FCR at February Board Meeting - \$37M)
- Initiate project to provide Radiology services to Spine/Joint program and other service in MOB
(FCR at February Board Meeting - \$1.5M)
- Initiate project to upgrade / renovate facilities in the College of Medicine to faculty office and support space
(FCR at February Board Meeting - \$5M)
- UKHC Leadership will propose additional facility investments in May/June

Financial Forecast & the Strategic Plan

Financial Planning Framework

- Review current financial drivers and results
 - Operating Cost Changes
 - Activity Forecast
 - Reimbursement / Payment Trends
- Overlay Current Operations with Strategic Plan Impacts
 - Strategic Investments
 - Programmatic
 - Faculty
 - Operational
 - Strategic Capital Investments
 - Facilities
 - Infrastructure
 - Information Technology

Financial Plan/Model Drivers

Clinical and Operation Requirements

- Continued high patient demand for services
- Workforce needs (faculty and staff)
- Information technology – data warehouse (5-year assumption = \$37.6M)
- Strategic plan investments (5-year assumption = \$25M)
- Research and academic support (5-year assumption = \$50M)

UK HealthCare Strategic Capital and Investment Needs

- Approved projects, infrastructure and capital expenditures, are estimated to be \$628 million for FY2016 through FY2020
 - Facilities Infrastructure = \$24.4M
 - Ambulatory = \$25.4M
 - Chandler Hospital = \$226.3M
 - Routine Equipment & Renovations = \$352.0M
- The potential need for \$600 to \$725 million of additional capital expenditure for facilities, equipment and information technology is also forecasted over the next 5 to 7 years
 - Ambulatory = \$50.0M
 - Information Technology = \$250-\$300M
 - Chandler Hospital = \$320-\$360M
 - Equipment = \$7.0M

Financial Plan/Model Drivers

Increasing Capital Access Standards

- Maintenance of UK HealthCare's current level of capital access (essentially an "A" rating) requires strong performance and liquidity
- Benefits of a strong UK HealthCare to the broader UK system (especially in terms of liquidity) are explicit and material

Market-Driven Forces / Sensitivities

- Insurance market transformation, including increased consumerism
- Constriction of Medicare, Medicaid and commercial reimbursement
- Downward pressure on inpatient utilization; mixed changes in outpatient services

Financial Plan/Model Projections

Key Utilization Statistics

Inpatient Discharges

Inpatient Days

Average Length of Stay

Average Daily Census

Outpatient Visits

Number of Licensed Beds

Occupancy %

	2016	2017	2018	2019	2020
Inpatient Discharges	37,333	38,778	40,534	42,000	42,936
Inpatient Days	250,151	257,839	267,674	275,444	280,006
Average Length of Stay	6.70	6.65	6.60	6.56	6.52
Average Daily Census	685	706	733	755	767
Outpatient Visits	1,428,967	1,506,669	1,574,666	1,640,910	1,686,546
Number of Licensed Beds	855	901	901	901	901
Occupancy %	80.16%	78.40%	81.39%	83.76%	85.14%

Note: 475 Transfers added in FY2018 in addition to 1% per year growth assumption

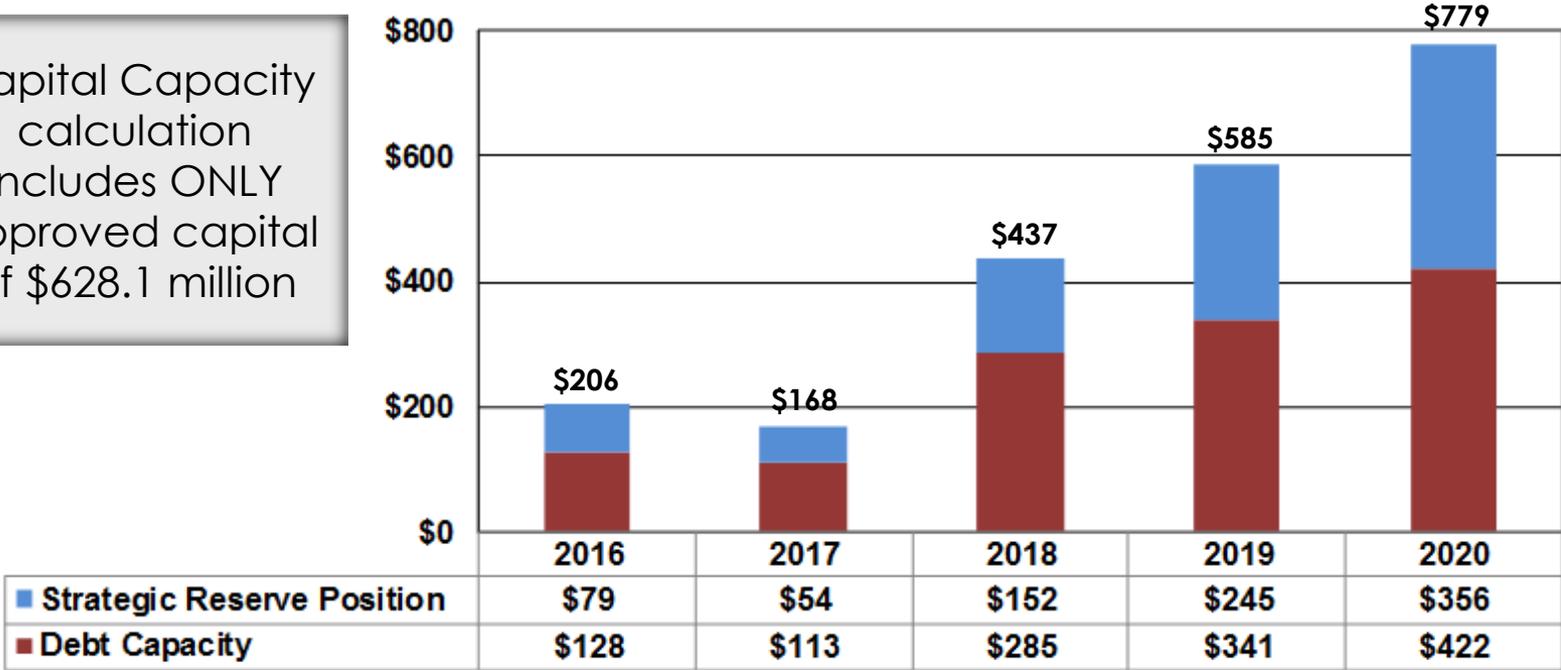
Financial Plan/Model Projections

Ratio / Statistic	Moody's	S&P	Historical			Projected				
	A2	A	2013	2014	2015	2016	2017	2018	2019	2020
Operating EBIDA	\$61.2	---	\$100.8	\$143.7	\$241.4	\$214.3	\$169.8	\$200.1	\$223.0	\$233.0
Cash Flow (Net Inc + Depr)	\$81.9	---	\$115.2	\$173.2	\$245.6	\$209.6	\$174.8	\$206.6	\$232.3	\$245.9
Total Debt	\$205.1	---	\$457.7	\$423.6	\$520.6	\$496.4	\$471.6	\$445.9	\$423.0	\$399.8
Total Debt Service	\$15.9	---	---	---	---	\$45.1	\$45.2	\$45.1	\$41.4	\$40.9
<i>Profitability</i>										
Operating Margin	3.0%	2.9%	3.1%	6.6%	13.3%	9.5%	5.6%	7.1%	7.9%	8.0%
Operating EBIDA Margin	10.6%	9.1%	10.6%	12.9%	18.7%	15.3%	11.4%	12.7%	13.4%	13.5%
<i>Debt Position</i>										
MADS Coverage (x)	5.4	4.0	3.1	4.5	6.1	5.4	4.6	5.3	5.9	6.2
<i>Liquidity</i>										
Days Cash on Hand (days)	235.6	196.4	118.0	137.4	189.4	193.8	178.3	190.3	213.5	238.9

Capital Capacity

Net Capital Capacity (\$ Millions)

Capital Capacity calculation includes ONLY approved capital of \$628.1 million



Note (A): Strategic Reserve Position calculated as surplus (deficit) of actual days cash on hand versus 170 days cash on hand target
 Note (B): Debt capacity assumes MADS coverage target of 4.0 (weighted 50%), debt-to-cap target of 40% (weighted 10%), and cash-to-debt target of 125% (weighted 40%); debt capacity targets are in line with 2015 Not for profit Healthcare rating agency medians for Moody's "A2" and S&P "A" categories

Financial Plan Sensitivity and Risk

Risk Profile Matrix / Management

Risk	Control	Magnitude	Strategic Placemat – Potential Impacts				
			Patient Centered Care	Growth in Complex Care	Strengthen Partnership Networks	Value-Based Care & Payments	Strategic Enablers
Medicaid	State						
Managed Care Rates	Payors						
IP Volumes	Market						
OP Volumes	Market						
ALOS							
Non-Labor							
Labor Productivity							
Capital Need							
Operating Support							

High Impact
 Low Impact

Positive Impact
 Negative Impact

Impact of Changes

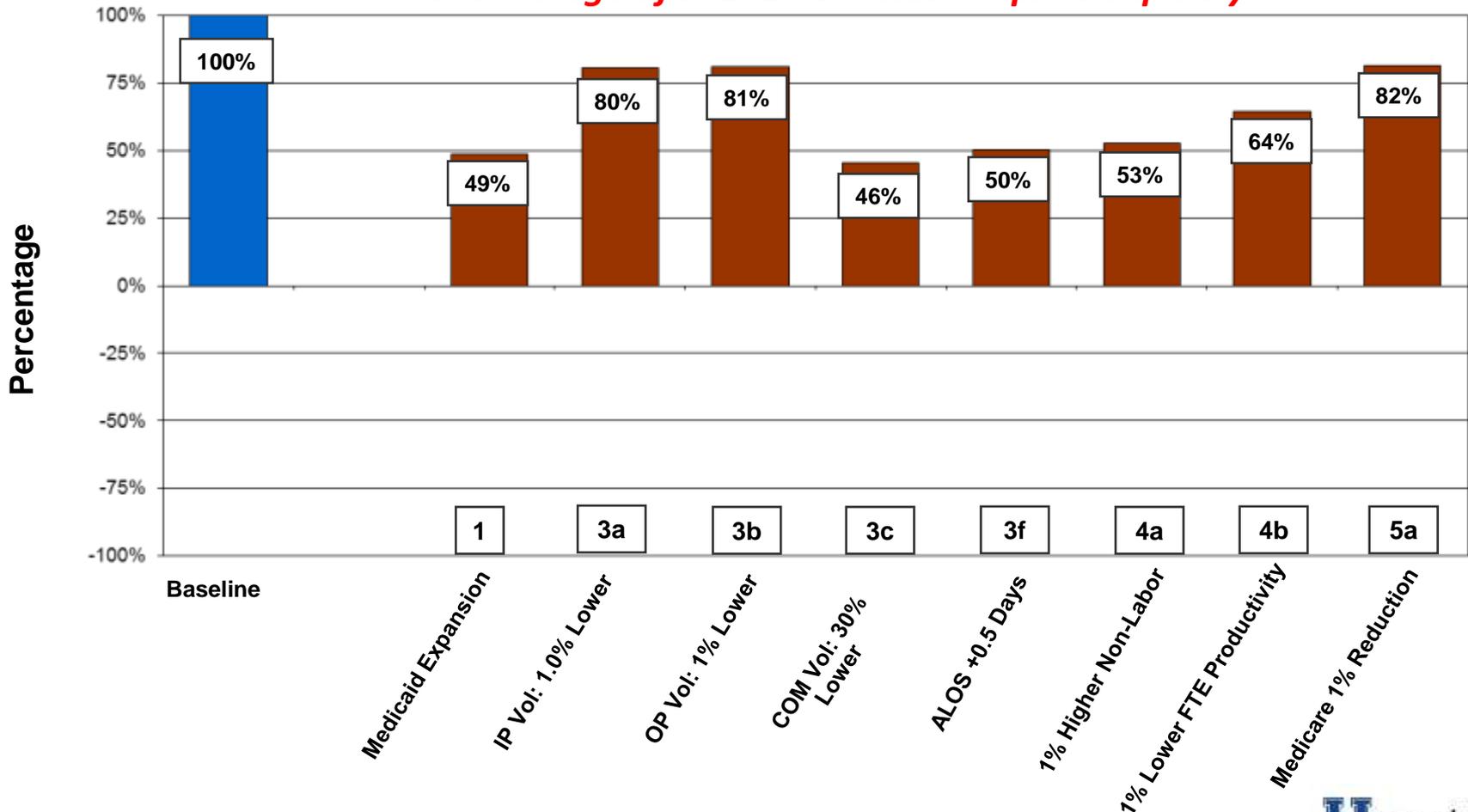
Testing the Impact of Changes to Key Assumptions on UK HealthCare's Capital Capacity is a Vital Management Tool

- The only thing we can be sure of is that the assumptions are “wrong” as soon as they are defined
- Risk associated with key assumptions was tested through sensitivity analysis and development of alternative operating scenarios
- Analysis was focused on areas associated with the highest levels of potential volatility and uncertainty, including:
 - Medicare, Medicaid, and managed care and commercial insurer payment rates
 - Future status of special programs (e.g., Medicaid expansion and disproportionate share)
 - Future inpatient volume, outpatient volume, and length of stay trends
- Sensitivity impact was quantified in terms of UK HealthCare capital capacity (i.e., its ability to generate the capital necessary to pursue incremental strategic initiatives)

Sensitivity Analysis Results

Medicaid Expansion, COM Volume Growth, and Managed Care Rates are Key Areas of Risk

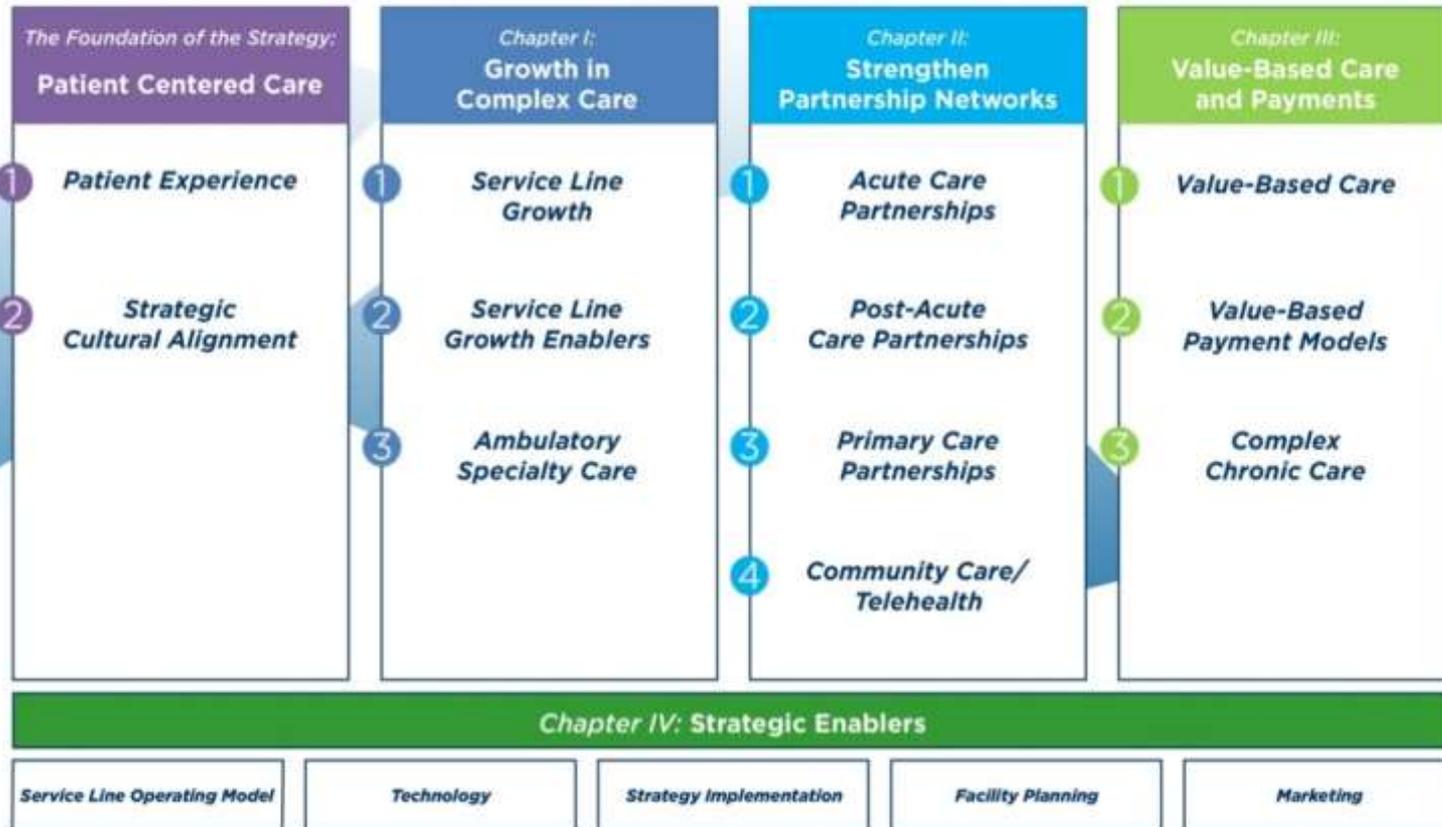
Percentage of FY2020 Baseline Capital Capacity



Baseline Conclusions

- The UK HealthCare baseline financial plan projects that the organization will be well positioned to make additional investments in operations, strategy and capital
- Based on the baseline projections, UK HealthCare will re-generate necessary capital capacity available to support future strategic initiatives and investments
- Sensitivity analysis indicates that future risk for UK HealthCare is focused in three major areas over which UK HealthCare has the least control:
 - **Medicaid Expansion**
 - **Future Volume**
 - **Managed Care Rates**
- Vigilant cost, clinical care management and successful strategic investments will support the systems continued financial requirements

UK HealthCare Strategy 2020



It's a Marathon, not a Sprint

Next Milestones

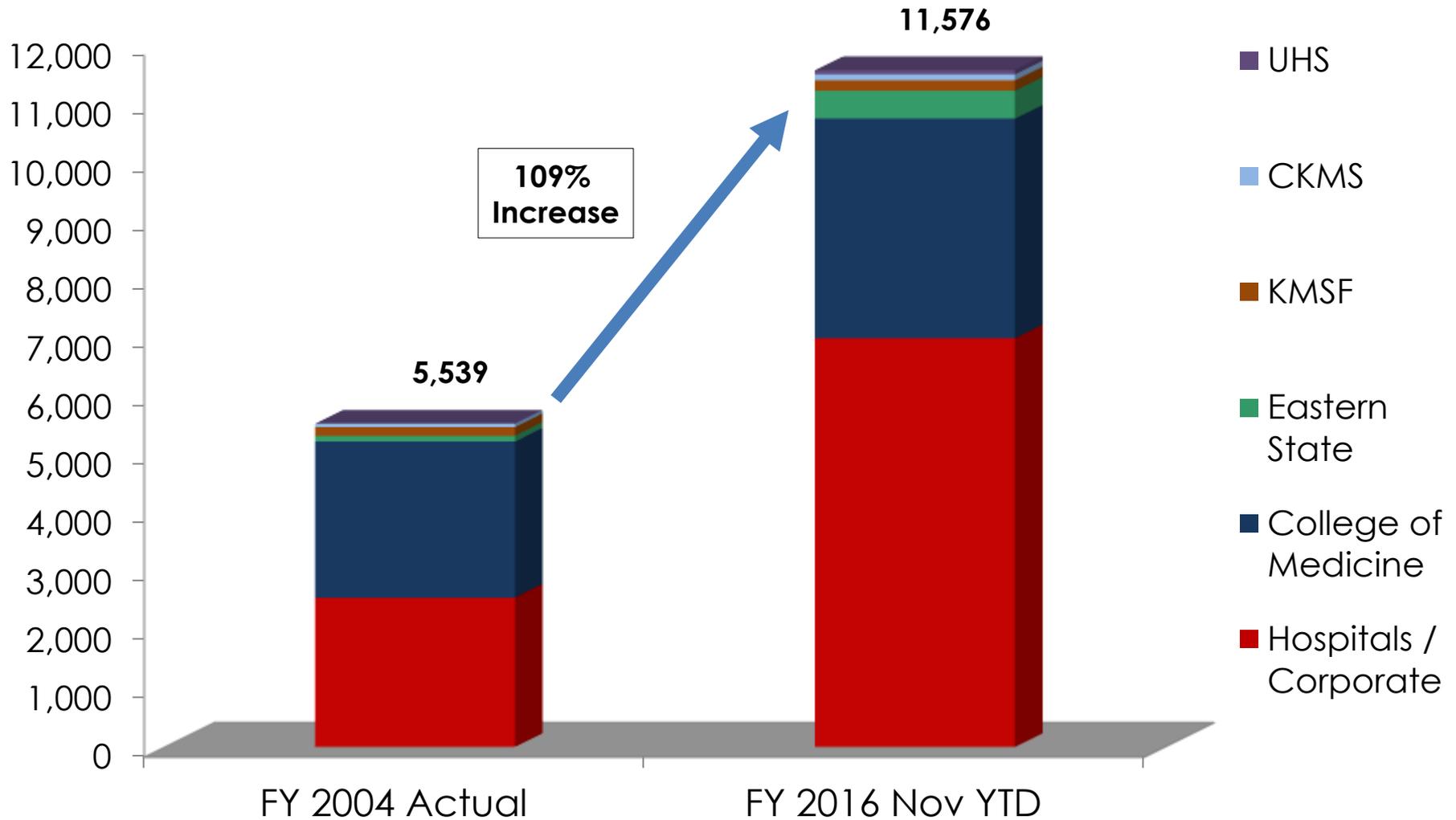
- Establish the Collaborative
- Continue with Next Phase of Facility Plan
- Plan Next Part of Race Course
 - Medical Management



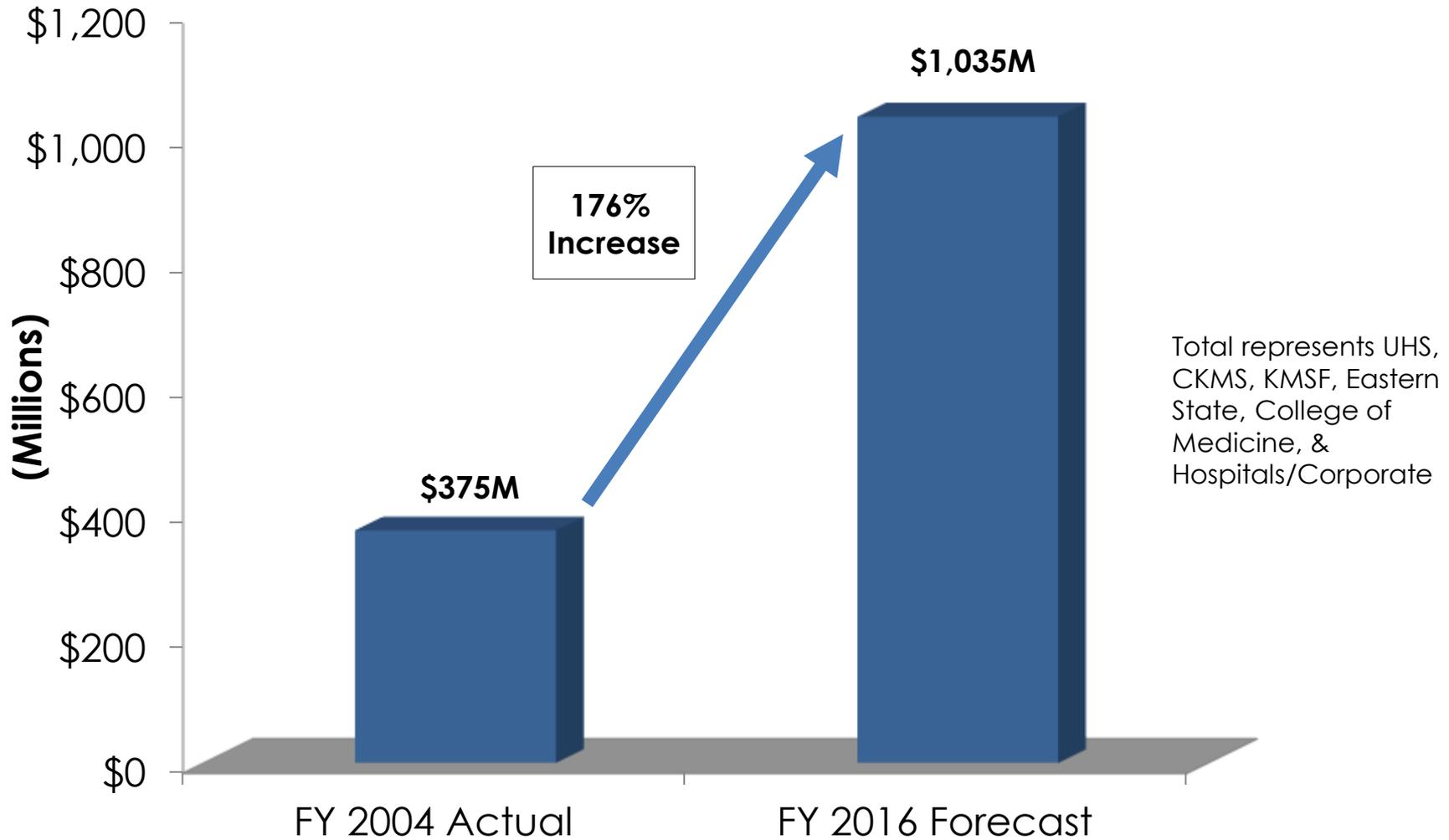
What We Must Be

1. The preeminent academic medical center serving Kentucky and beyond – in all three missions
2. The provider of accessible advanced subspecialty care for Kentucky and beyond
3. The Academic Medical Center serving an extensive collaborative of healthcare providers across the state and beyond
4. An Organization focused on appropriate care in the appropriate setting – community first, ambulatory second, hospital third
5. An organization operating at the highest levels of quality, safety, efficiency, patient satisfaction and employee/faculty engagement
6. The fundamental support of UK's biomedical research and educational efforts
7. A major economic driver for the Bluegrass and beyond

Economic Impact - FTEs



Economic Impact – Personnel Expense



Total represents UHS, CKMS, KMSF, Eastern State, College of Medicine, & Hospitals/Corporate

UK HealthCare Strategy 2020

