

# HealthKentucky<sup>2013</sup>

A Report on Medical Research, Innovation, Life Sciences, Facilities and Healthcare Providers



A Special Advertising Report Published by

The Lane Report

Corporate Underwriters



Responsive 24/7

(MCBRAYER)  
McBrayer, McGinnis, Leslie & Kirkland, PLLC  
ATTORNEYS AT LAW



HealthEnterprisesNetwork  
A Greater Louisville Inc. Affiliate

PAID  
U.S. POSTAGE  
Lebanon Jct. KY  
Permit #327

201 E. Main St. Ste. 1402, Lexington KY 40507  
ELECTRONIC SERVICE REQUESTED



# BLUEGRASS Oxygen

*"Kentucky's Best Home Oxygen Company"*

***Voted The Best Home  
Respiratory Provider in the  
US by HME News!***

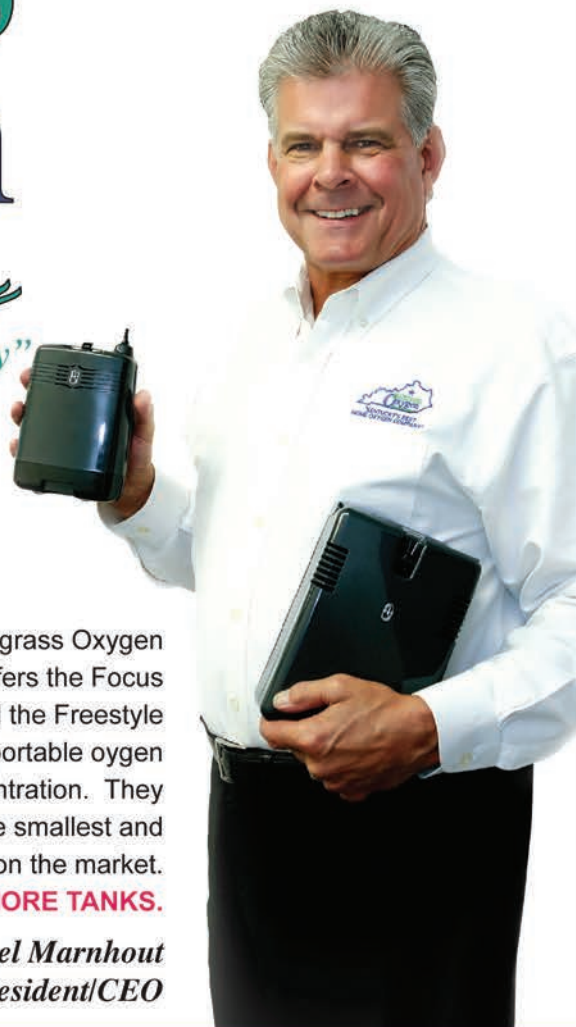


**2012 HME Excellence Award  
Best Home Respiratory Provider**

Bluegrass Oxygen offers the Focus and the Freestyle portable oxygen concentration. They are the smallest and lightest on the market.

**NO MORE TANKS.**

***Michael Marnhout  
President/CEO***



**We are extremely proud to have received this award. Bluegrass Oxygen is the only home oxygen company in Kentucky to have ever received this honor.**

**If you want THE BEST, CALL THE BEST.**

**Call Bluegrass Oxygen for all your home oxygen and sleep disorder needs.**

## **Offices Near You**

**1032 Majaun Road, Lexington, KY40511**

**842 S. 2nd Street, Lousville, KY 40203**

**1372 North Lake Drive, Prestonsburg, KY 41653**

**112 Hardin Lane, Somerset, KY 42503**

**25 Medical Lane, PO Box 1217, Whitley City, KY 42653**

**3454 Gest Street, Suite E, Cincinnati, OH 45203**

**1-800-404-8838**

**[www.bluegrassoxygen.com](http://www.bluegrassoxygen.com)**

201 East Main Street, Suite 900  
Lexington, Kentucky 40507  
(859) 231-8780 | [www.mmlk.com](http://www.mmlk.com)

*Responsive 24/7*  
**(MCBRAYER)**  
McBrayer, McGinnis, Leslie & Kirkland, PLLC  
ATTORNEYS AT LAW

THIS IS AN ADVERTISEMENT

**ESPECIALLY IN HEALTHCARE LAW, PREVENTION CAN BE THE BEST MEDICINE.**

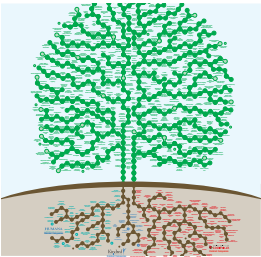
CELEBRATING **50** YEARS OF LEADERSHIP IN LAW.

- ☐ Business Law
- ☐ Government Access
- ☒ Healthcare Regulation
- ☐ Real Estate
- ☐ Litigation



# HealthKentucky<sup>2013</sup>

A Report on Medical Research, Innovation, Life Sciences, Facilities and Healthcare Providers



4



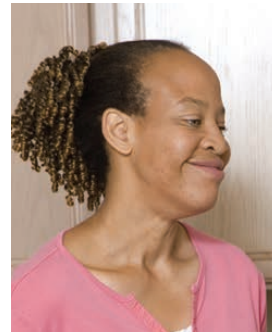
16



12



18



8

STENZER  
NOON



22

## Health Care Updates

- 4** Health Enterprises Network
- 8** ResCare
- 10** Office Resources, Inc.
- 12** Norton Healthcare
- 14** UK HealthCare
- 16** LifePoint Hospitals
- 18** University of Louisville Research
- 22** University of Louisville Hospital
- 24** KentuckyOne Health
- 28** KentuckyOne Health and University of Louisville Partnership
- 30** University of Louisville Physicians
- 31** The Nucleus Building

## Cover Story

- 32** Bigger Systems, Better Healthcare

## Wellness Updates

- 35** Gluten-Free
- 36** Healthy and Youthful from the Inside Out
- 38** Plyometric Training

## Hospitals

- 40** Kentucky's Hospitals Ranked by Certificate of Need





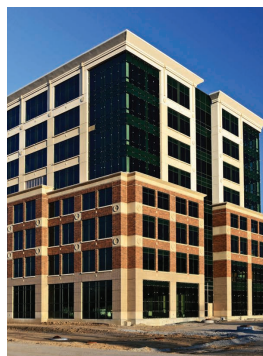
14



10



24



30



28



Ed Lane

## From The Publisher

The Lane Report's Health Kentucky provides information about the diversity of the state's health care industry; the high quality of medical services, facilities, training, and research that are available; and how the health of Kentuckians will be transformed as care providers conform to regulations promulgated by the Affordable Care Act.

Kentucky also benefits from the significant economic impact and employment opportunities medical services provide the state's economy and its citizens.

# The Lane Report

Corporate Underwriters



Responsive 24/7

**(McBRAYER)**  
McBrayer, McGinnis, Leslie & Kirkland, PLLC  
ATTORNEYS AT LAW



**HealthEnterprisesNetwork**  
A Greater Louisville Inc. Affiliate

# HealthKentucky<sup>2013</sup>

A Report on Medical Research, Innovation, Life Sciences, Facilities and Healthcare Providers

The Lane Report's Health Kentucky 2013 is a special advertising publication published by Lane Communications Group. Health Kentucky is also published digitally at [lanereport.com](http://lanereport.com).

Publisher and Executive Editor:	Ed Lane
Editorial Director:	Mark Green
Associate Editor:	Karen Baird
Special Publications Editor:	Lorie Hailey
Associate Publishers:	Richard Kelly
	Donna Hodsdon
Design:	Paul Blodgett, PJB Marketing
Pre-press:	Jessica Merriman, MDG
Treasurer:	Jeromie Kirk
Executive Administrator:	Nicole Conyers
Printing	Publishers Printing Co.

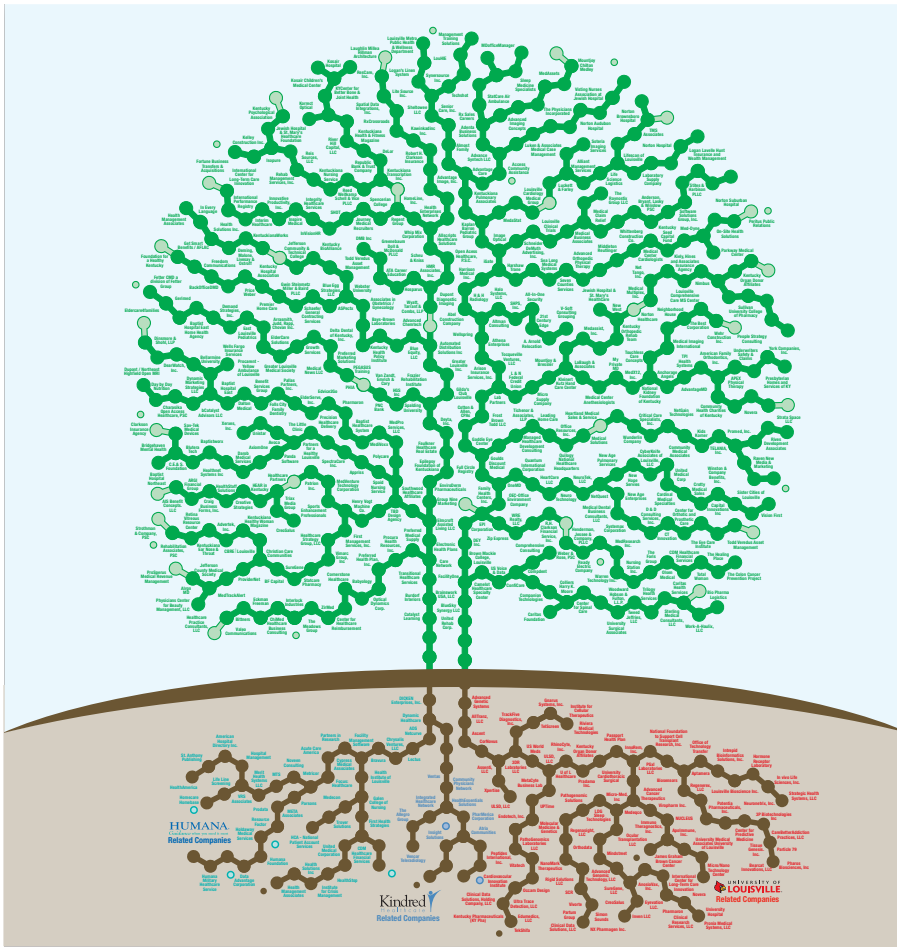
©2013 Lane Communications Group

No part of this magazine may be reprinted without the permission of the publisher. Colleges, universities, state agencies and other advertisers are responsible for the accuracy of their content.

(859) 244-3500  
201 East Main Street  
Lexington, Kentucky 40507

# Healthcare Energizes Louisville's Economy

## Innovation in care delivery, health logistics, and wellness powers a vast economic engine



## 2011 Louisville family tree of health-related companies

## Regional Workforce

Kentucky's vibrant healthcare sector is a national leader in front-line care delivery, innovation and healthcare logistics, and Louisville's role is increasingly gaining notice even internationally. The **Health Enterprises Network**, based in Louisville, serves a 27-county region and constitutes a sort of commercial connective tissue within this vast, dynamic economic engine.

Some 62,000 people work for the top 12 health-care employers in Louisville alone. Of the 20,000 jobs Louisville Metro added in 2011, more than half were in the professional and business services sector. **KentuckianaWorks**, which administers federal, state and local workforce development funding for the region, identified 16 rival cities that the Louisville area competes against. Louisville showed strength particu-

larly in the long-term care industry, placing second in both revenues per capita and payroll per capita.

Since 2000, Louisville has landed the headquarters of **PharMerica Corp.**, an institutional pharmacy services company, **RecoverCare**, **Healthland** and **Achieve**. **Humana's** Louisville employment jumped from 4,000 to well over 11,000 since 2000. Employment has surged to 9,600 at **Norton**, Louisville's largest health-care provider, from 5,000 more than a decade earlier.

**ZirMed**, whose software helps medical providers get paid more quickly and accurately, has grown from 30 employees in 2004 to more than 300 today. The company moved into a new 12-story headquarters tower in downtown Louisville in 2009.

In Southern Indiana, an increase in healthcare jobs was the only significant positive change between 2008 and 2009. All other business sectors were flat or decreased; healthcare gained 692 jobs while manufacturing lost 4,558 jobs.

Also the state tax climate has improved, moving up from 34th best in the nation to 20th.

## Merge, merge, merge

“Merger” is certainly not new in healthcare and certainly not new to Kentucky. For example, in the 1990s, **Sts. Mary & Elizabeth** formerly operated as part of **Caritas Health Services**, whose Nelson County-based parent the **Sisters of Charity of Nazareth Health System** became part of the Denver-based **Catholic Health Initiatives**. **Jewish Hospital HealthCare Services** merged with Caritas in 2005, leaving Jewish with 25 percent ownership.

But “merger” has taken on a new face due to additional market demands. “Population health management” – the latest vogue in healthcare – aims to improve the health outcomes of an entire population, largely using intervention and prevention strategies that are not something an individual hospital can tackle. As physicians and hospitals prepare to take on more responsibility and risk, they soon take ownership of the population health management traditionally led by payers, aka the insurers.

This is one big reason healthcare organizations are forming alliances and clinical relationships cover-



ing widening geographies. True, the federal Patient Protection and Affordable Care Act (ACA) will lead to more patients having insurance. Medicaid and Medicare provider payments will be reduced, while “disproportionate share funds (DISH) payments will sunset and – even with the ACA in place – many people will still remain uninsured. Overall, reimbursement is

**Madisonville.** Baptist Health now owns eight hospitals and manages two. In fact, every six inpatients in Kentucky receive care at one of Baptist’s hospitals.

In November 2012, **Norton** and **Southern Indiana’s Clark Memorial Hospital** started their strategic partnership. Meanwhile, Kindred, which owns and operates hospitals outside Kentucky, has fully inte-



Regional medical center in downtown Louisville is home to numerous healthcare providers.

declining, and more emphasis will be placed on keeping people healthy, not just treating their illnesses.

In January 2012, **Catholic Health Initiative** (CHI), bringing strong capital investment, merged **Saint Joseph Health System** with **Jewish Hospital & St. Mary’s HealthCare** to form **KentuckyOne Health**, the largest healthcare system in the state. Since the formation of the St. Joseph system, CHI has invested \$560 million. Most recently, the joint-operating agreement among **UofL**, **University Medical Center** and **KentuckyOne** announced in December 2012 will result in a \$1.39 billion investment and nearly 200 locations statewide.

Meanwhile, **UK HealthCare** in Lexington has formed alliances all over the state by expanding advanced subspecialty care and improving the availability of quality care to rural hospitals and clinic sites. Two years ago, **UK** entered into a large partnership with **Norton HealthCare** that formalized the two organizations’ ongoing alliance in clinical programs, workforce, education and research.

Improving access to capital, upgrading services and saving money are also motivating factors for conjoined efforts. Louisville-based **Baptist Health** acquired **Pattie A. Clay Regional Medical Center in Richmond** and **Regional Medical Center in**

grated the business of **RehabCare Group** and bought **IntegraCare Holdings**, which provides home-health and hospice services. Hosparus has grown substantially as well as becoming one of the largest hospices in the region.

Not only have institutions merged, but the merging of clinical functions – such as behavioral with physical health – has become key and Kentucky is leading the way nationally. Again, cost pressures have forced such clinical collaboration. One example was Norton Healthcare’s 2012 acquisition of **LIFESCAN Louisville**, an outpatient diagnostic imaging center.

Kentucky also is a national leader in accountable care organization (ACO) development. **Norton Healthcare** and **Humana** are one of only five national ACO pilot sites and the only one in Kentucky to study the ACO model through the Brookings-Dartmouth pilot project. Humana has worked with Brookings-Dartmouth since 2008, exploring ACO and bundled payment models. **Baptist Health** has long had **Bluegrass Family Health**, which is based in Lexington.

## Health’s Economic Impact

Twelve of the largest private-sector employers in Greater Louisville and Southern Indiana are health-related (as ranked by number of local employees), representing a significant share of resources and talent.

EMPLOYER	RANK	TOTAL EMPLOYEES
UPS Inc. (healthcare logistics)	1	20,117
Humana Inc.	2	11,000
Norton Healthcare Inc.	3	9,658
KentuckyOne Health Inc.	5	5,898
Baptist Health	7	4,219
University of Louisville Hospital	9	2,331
Kindred Healthcare Inc.	10	2,252
Floyd Memorial Hospital & Health Services	12	1,612
Clark Memorial Hospital	28	1,216
Seven Counties Services Inc.	19	1,215
Anthem Blue Cross & Blue Shield Kentucky	22	1,122
ResCare Inc.	24	1,070

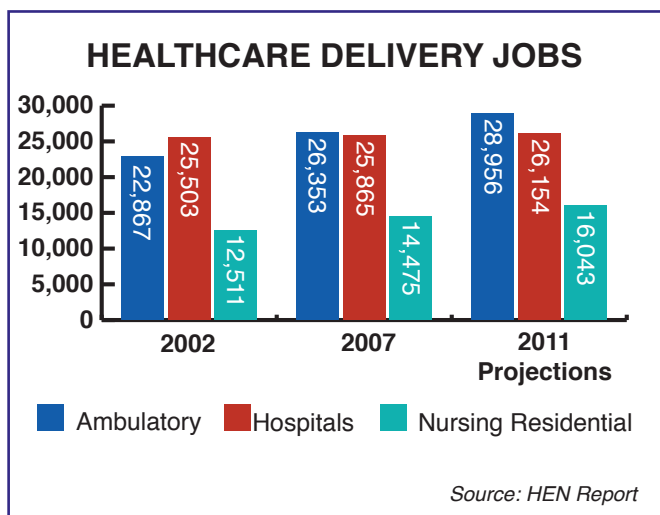
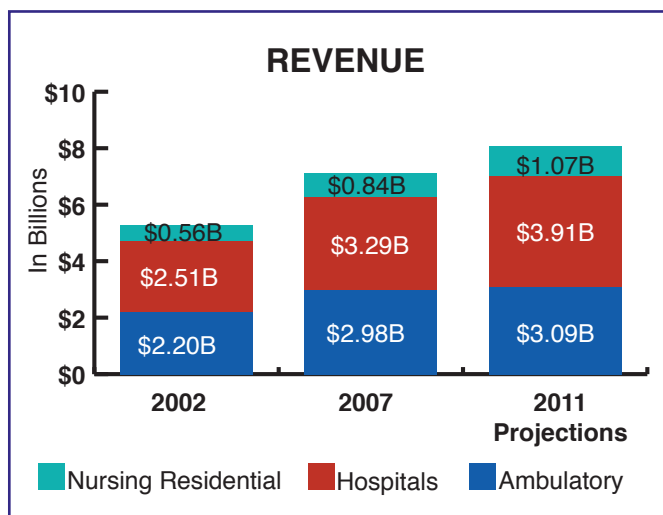
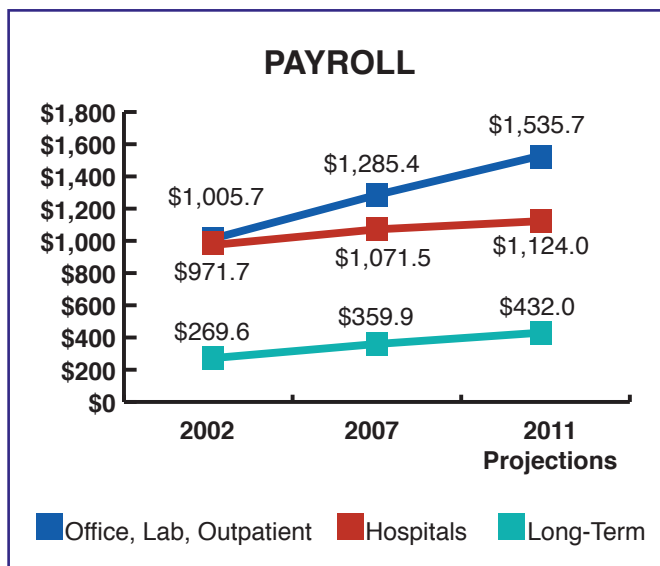
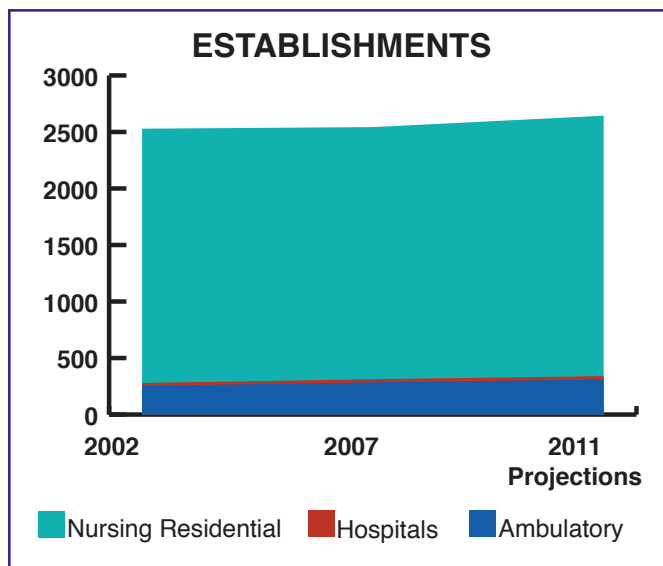
Source: Business First

Health benefit companies, now being a direct provider of primary care, head the continuing list of mergers. The Humana-CareSource alliance was established in 2012 to directly serve both the Medicare and Medicaid populations. In late 2012, **Humana** agreed to purchase Florida-based **Metropolitan Health Networks** and **MCCI** holdings, benefit coordinators for both Medicare Advantage and Medicaid. Earlier in 2012, **Humana** purchased the San Jose, Calif.-based **Certify Data Systems**, a health information exchange technology firm. In 2010, Humana paid \$805 million for Texas-based **Concentra**, which operates 300 front line medical care centers in 42 states. And **Wellpoint** (Anthem) closed its \$4.46 billion acquisition of the managed care company **Amerigroup** in December 2012.

On the state-public side of the equation, the merger of all Medicaid programs into managed care has been an innovative approach to better manage tax dollars. For well over a decade, Louisville-based **Passport** has been a strikingly successful, nationally recognized model of Medicaid-managed care and one of the few provider-owned plans in the U.S.



Top left: Michael P. Muldoon, MPH, Executive Director, Health Enterprises Network. Top right: Ralph Gronefeld, President/CEO, ResCare, and Chair, Health Enterprises Network.



Kentucky's need to truly "manage the care" for Medicaid now has been replicated throughout the state. In 2011, new contractors were added: **Humana**, **WellCare** and **Coventry**. (**Centene** entered the state but left.) And as ACA implementation is predicted to expand Medicaid roles, especially in Kentucky where 14.4 percent are uninsured, boom times are here for data management companies. Kentucky has been approved for \$60 million in federal grants to implement Medicaid and exchange systems.

#### Jobs are created around ideas and ideas come with individuals

Innovation and entrepreneurs will continue to drive the healthcare economy. In the past, the frequent absence of market pressure – and innovation – reduced the pressure for cost savings in healthcare. But times are different. The nationwide 2011 State of Entrepreneurship Index, a ranking that measures how states stack up with business formation and innovation, puts Kentucky at No. 24, up from No. 50

in 2008. Kentucky was among the top states for new startups formed in 2011. Overall from 2001 to 2010, Kentucky ranked fifth among all 50 states.

Kentucky is moving from an economy shaped largely by "foundation" industries to one based on the DNA of entrepreneurial enterprises. It is now a given that Louisville is a major entrepreneurial center. And financially, the Louisville angel and venture capital scene looks healthy, with far more money available than five years ago despite a dismal national economy. Seed funds and investment firms also are numerous.

**Louisville's Nucleus iHub** space is reflective of the new co-working trend, allowing workers to access files from any place with an Internet connection. This entrepreneurial life sciences networking facility encourages more freelancing and more flexible working arrangements.

Today, **Dataseam** computers bring powerful computing capacity to the **UofL's Brown Cancer Center**, which boasts the nation's largest pipeline of patient cancer drugs. The two largest biotech companies in

the world – **Amgen** and **Genentech** – are well represented in Louisville. And thousands attend Idea Festival, the yearly gathering of visionary intellectuals from around the globe, to present, meet and share.

This kind of energy has lured companies to Louisville to incorporate technology into the senior market, for example. Meanwhile, UofL's Entrepreneurship MBA has been ranked first in the nation. Another excellent example of innovation is **MedVenture Technology (now Helix Medical)**, which continues its leading strong growth with medical device manufacturing.

#### Wellness: where innovation initiatives really count

Innovation extends to wellness programs. With Kentucky being known for challenges in the personal health arena, the state has proven to be an outstanding laboratory for new initiatives, whether through volunteer programs, community outreach, employer sponsored or hospital wellness programs. For example,



nationally, only 48 percent of employers incentivized the “at risk” to modify behavior; in Louisville, 62 percent of employers incentivize.

In January 2012, Louisville was honored for strong efforts to combat youth obesity when it was one of six cities awarded the first **Childhood Obesity Prevention Award** at the U.S. Conference of Mayors. UofL was one of six nationwide recipients of the **Oracle award** for creating groundbreaking software to enable providers, patients and insurers regarding patient’s health status in a user-friendly format. In 2010, Louisville was awarded a \$7.9 million prevention grant to promote healthy eating.

Sometimes innovation does not have to be elaborate to have an impact. **Walmart** introduced a Great for You icon to help customers quickly identify healthier food options in its supermarket. As part of the new arrangement, members of the **Humana Vitality** wellness program receive a 5 percent discount.

Institutional innovation has been strong. In July 2012, **UK’s Chandler Medical Center** was ranked the No. 1 hospital in Kentucky and was listed by *US News & World Report* as “high performing” in 10 specialty areas. UK physicians implanted one of the first total artificial hearts in Kentucky; fewer than 30 medical centers in the country are certified for such.

And, the **National Institutes of Health Nanomedicine Center**, one of only eight such centers in the United States, is moving to UK. In late 2011, UK became home to the new **Center for Pharmaceutical Research and Innovation** to better prepare UK to partner with the pharmaceutical industry. Of many other noteworthy innovations is the **UK College of Nursing’s** role in the federally mandated patient-centered comparative clinical effectiveness research.

UKCED technology based success stories are varied and numerous. They include: **Bluegrass Vascular Technologies**, which addresses shortcomings in vascular access procedures; **Seikowave**, which captures 3D dental images; and **CoPlex Therapeutics**, which uses preclinical oral small molecules for Alzheimer’s treatment.

From Kentucky’s first heart transplant and implanting the **AbioCor** artificial heart, UofL researchers continue to be on heart disease’s front lines. **Dr. Roberto Bolli’s** team continues to conduct NIH-funded stem cell research to regenerate dead heart muscle after a heart attack.

There’s even innovation on the healthcare-social service side. Louisville’s very successful **Supplies Over Seas (SOS)** is one of only 15 medical surplus recycling organizations in the United States.

### \$44 billion aging-care “cluster”

As a 78-million-strong generation heads into retirement, aging baby boomers are flooding the senior care market, creating a “silver tsunami” of demand for

everything from assisted-living centers to devices that monitor vital signs remotely. In 2006, in part as a result of a detailed study by HEN, city leaders noticed Louisville could become an aging-care hub.

Louisville’s push to become a senior care leader is based on the economic theory called “clustering,” which occurs when a concentration of organizations that operate in the same sector in the same region enjoy competitive advantages, leading to more innovations and an environment that fosters startups. For the entire state, the senior population is expected to rise and level off by mid-century. In 2010, Kentucky has 552,674 residents who were 65 and older; the prediction for 2050: more than 1 million.

In 2010, cooperating with **NUCLEUS, Signature HealthCARE** founded the **International Center for Long-Term Care Innovation**, a Louisville think tank and business accelerator for long-term care clients that encourages access to research, startup funding and the ability to network with key players. Area forums are also regularly conducted among aging-care leadership to better understand issues and best practices.

**Aging-care and wellness companies in greater Louisville have total annual revenue of \$44 billion and employ over 14,000 people.** The providers constitute the largest such concentration of

aging-care business in the world: **Almost Family; Atria Senior Living Group;** giants **Humana** and **Anthem** with their Medicare products; Fortune 500 sub-acute care operator **Kindred; PharMerica; Elmcroft Senior Living; Trilogy Health Services; ResCare; Christian Care Communities;** and **Signature HealthCARE.**

These additional post-acute care companies have a presence in HEN’s service area: **Genesis HealthCare; Brookdale Senior Living; Sun Healthcare Group; Sunrise Senior Living; RehabCare Group; Regency Hospital Co.;** and **Advocat.** Another is **Arcadia Communities**, a diverse real estate company that owns and manages senior care facilities.

Medicaid for long-term care is remarkably strong in Kentucky. A comparison of 50-state Medicaid spending (Kaiser, 2009) for all type of long-term care services shows Kentucky spends a higher percentage on nursing facilities than only three other states.

In November, Louisville will host its first national innovation conference on aging care. And the

Louisville Convention & Visitors Bureau continues to seek national and international aging care-related conferences. Geriatrics is a strong program at local schools. UofL’s vice chair for geriatric, **Christian Davis Furman M.D.**, is the only Kentuckian selected to serve on CMS’ innovation advisors program.

**UK’s Sanders-Brown Center on Aging**, opened in 1979, continues as one of the nation’s 10 original Alzheimer’s Disease Centers.

### An Educated Workforce

Experts say the key to growth, the key to leadership and the key to economic prosperity is an educated workforce. An increase of over 8,000 young adults with bachelor’s degrees or higher between 2000 and 2010 propelled Louisville into first place in the rate of improvement among its peer cities. For the first time, Louisville produced and attracted similar numbers of educated young adults as perennial top-tier cities



Sara Thompson, discussion recorder, from the network’s **HARVEST** dinner of business professionals to promote the economic issue of wellness and food-driven solutions

Charlotte, N.C., and Columbus, Ohio – a substantial accomplishment. Also statewide enrollment in Kentucky graduate programs increased steadily from 27,963 in 2009 to 29,016 in 2010.

At **UofL**, the fourth fastest-growing research university in the nation, \$1.3 billion has been invested in campus and facility improvements since 2001. Aging is one of the university’s most prominent cross-disciplinary fields. UofL boasts more than 120 researchers focused on healthcare, and eight of its schools have some emphasis on aging. In 1998, UofL filed for 151 patents; in 2012, 1,346 were filed. Also, public-private partnerships are growing, with **UofL’s School of Nursing, Trilogy, Elmcroft** and **Signature** providing dollars to train nurse practitioners with the geriatric population. And, tax dollars continue to pour into Louisville and Lexington for the “Bucks for Brains” program, intended to attract leading post-graduate teachers and researchers. As of 2012, the net economic impact has been almost \$1 billion, with a statewide employment gain of more than 150. ■



ResCare client Janet Clements receives supports through Rest Assured, ResCare's exclusive web-based Telecare system. Telecaregiver Dave Crowe can chat face-to-face with her any time of the day, whether to give reminder cues or to ensure her safety.

# ResCare is RESpect and CARE

## Assisting people to reach their highest level of independence

ResCare is a Louisville-based, national human services company. Through its **ResCare Residential Services** and **ResCare HomeCare**, employees help individuals with cognitive and intellectual disabilities and seniors to live at home, continue to be contributing members of their communities and make decisions for themselves.

The company's **ResCare Workforce Services** offers counseling, training and job placement to people of all ages with barriers to employment and **ResCare Youth Services** provides education, training and foster care services to children and young adults.

At the center of ResCare's culture is the person who receives services. Whether it's sitting across the desk with a single mom who needs a job or helping a man with dementia stay in his own familiar surroundings or working with a vet who's suffered a brain injury so he can return home to loved ones or watching a person with developmental disabilities brush her own teeth for the first time—that individual is the company's focus.

With nearly 40 year's experience, ResCare serves more than 50,000 people every day with over 45,000 employees in 43 states, Washington, D.C., Canada and Puerto Rico.



Pharmacist Deborah Wilson is part of Pharmacy Alternatives, a ResCare company created specifically with the special needs of people with cognitive and intellectual disabilities in mind. Pharmacy Alternatives serves organizations nationally as well as individuals supported by ResCare.

### Keeping seniors at home

ResCare has an industry recognized Best In Class® Quality Assurance and Compliance Program and a mission to keep quality high while at the same time drive down the cost of care to clients, government and private partners.

ResCare has seen quality and cost benefits in combining technology with the human touch. As the nation's largest non-franchised home care provider, ResCare HomeCare offers personalized home care services to people of all ages, physical conditions and cognitive abilities, giving them the ability to maintain their safety and independence in their own homes. That support may be running errands, taking them to doctors' appointments or offering everything from registered nursing services to homemaking.

It may also mean virtual care through **Rest Assured®**, ResCare's exclusive web-based Telecare system that connects people in real time with telecaregivers or family through specially designed video, audio and computer connections. Clients call their Rest Assured



Telecaregivers their “guardian angels” who are there at a press of a button or just a “shout out.”

Trained caregivers get to know each individual personally, communicating face-to-face through Rest Assured’s patented touch screen. The technology is state of the art, but the most important aspect and what sets Rest Assured apart is the people. They all have years of caregiving experience and are required to be certified Direct Support Professionals. They know how to recognize early signs of serious health issues and can notify family, get help immediately or notify health care providers. They help manage medication with prompts to the individuals and they monitor security and safety sensors throughout the home.

ResCare also offers the **One Touch** system, which is the first step in the company’s continuum of care. A pendant is worn by the patient who can immediately notify Telecaregivers, trained caregivers who can give real time assistance, of problems.

ResCare HomeCare also offers other signature programs, including **Disease Management Telehealth**. Telehealth gives patients the ability to automatically and dependably transmit accurate and timely health readings for their care providers to monitor and review. Care plans are created to help patients remain healthy and prevent hospitalizations. Using its Telehealth program in Louisville, ResCare has served 150 clients with 94 percent of the clients’ conditions stabilizing or improving and reducing re-hospitalizations by 85 percent. Re-hospitalizations cost the nation’s healthcare system \$25 billion annually. The cost of Disease Management services? It ranges from \$0 to \$100 per month depending on the level of services provided. High quality and cost savings. Priorities.

### Partnerships for solutions

Medication errors are a huge risk for seniors who sometimes see multiple physicians prescribing different medications for different conditions making it difficult for them or their caregiver to determine whether there are conflicts in those medications. Layer on top of that the confusion that sometimes accompanies medical conditions and the risk of medication errors skyrockets. Adverse drug reaction is the 4th largest cause of death among seniors and 25 percent of all nursing home admissions are related to improper self-administration of medicine sky-rocketing hospital admission costs by \$8.5 billion annually.

ResCare has addressed these concerns for people with cognitive and intellectual disabilities by creating a special pharmacy, **Pharmacy Alternatives**, which serves organizations nationally as well as people who receive ResCare’s services. Pharmacy Alternatives tracks medications and looks



Left: ResCare support professional Terrance Cecil ( L ) helps Clayton Salyers navigate his laptop at Salyers’ Kentucky home. ResCare Residential Services provides in home supports to people with intellectual and developmental disabilities. Below: ResCare staff member Cynthia Hayden ( R ) helps Sileka Edwards learn how to live more independently at Edwards’ home in Kentucky.



for potential errors. It also prepackages prescriptions in single-dose containers to prevent medication errors in their homes.

ResCare HomeCare saw an opportunity to help the seniors it serves in a similar way by entering a national affiliation agreement with Walgreens in a rollout of its **DailyMed by Walgreens™** prescription service. It consolidates all medications to a single pharmacy, synchronizes all medications to a single start date and provides a complete computerized drug use review to identify drug-to-drug interactions, duplicate therapies, allergy interactions and disease interactions. It’s a safe and effective way for patients to organize and keep track of multiple medications, with

individual, pre-sorted packets that indicate date and time medications are scheduled to be taken.

Through the agreement with Walgreens, ResCare is helping drive down the cost of health care while helping seniors maintain their independence and health for as long as possible. Best of all, the cost of the Medication Management Program is free to patients.

**ResCare’s focus in all its businesses is to look at innovative ways to improve quality and drive down costs.** Its goal is to be the low-cost provider by providing a full continuum of care that is flexible and based on the individual needs of the people it serves. [ResCare.com](http://ResCare.com)

# Office Resources, Inc. - together with its partners - is transforming real-world healing environments



As the focal point for patient care, solutions need to address access, control and comfort. The goal? Space that is less cluttered and more relaxed. These are the hallmarks of an environment that is conducive to healing.

Think back 30 years. Many healthcare facilities in the country were built even longer ago – in the ‘50s and ‘60s. And many of these facilities haven’t changed. Even though much about healthcare and the way it’s delivered has.

## The future is now

Just a few short years ago, we joined together with our partner Nurture by Steelcase, to take a fresh approach to healthcare. The equation was elegantly simple. Think differently and collaborate with the goal of transforming real-world, healing environments. The status quo was questioned. Natural synergies developed. Change was on the way.

We are here today, together, at a moment when we can truly make a difference. We can call our work a cause. Humbled by the work being done at the front line of this movement, we are working daily to make the world of healing a better place.

We are Office Resources, Inc. We are focused on healthcare environments and how products within these environments can make them more conducive to the healing process. And together with our partners, we are moving the healthcare experience forward.

## Three is not a crowd

At the core of our approach is the idea that patients, caregivers and partners in care have their own distinct needs within the healthcare environment.

We know this because we have watched them firsthand.

Research and collaboration have allowed us to not only see, but experience the interconnectedness of environments – how one action affects another. So we understand the necessity of a holistic approach. From workflow and productivity issues to improved comfort and control, we are committed to making healthcare environments of all kinds better for all users.

## Let’s work together to transform your healthcare environment

We don’t see spaces in need of filling. Or rooms in need of furnishings. We see environments and their potential. Reliable. Flexible. Environmentally



At right, top: Effective communication can be facilitated not only with technology, but by considering the relationships among patients, caregivers and partners in care. Reducing stress, by focusing on comfort, further improves the efficacy of communications. Middle: Waiting rooms should be as flexible and accommodating as possible – both in form and function. That's why we can provide a wide variety of products that can be easily reconfigured for the appropriate level or socialization or privacy.



friendly. Together we can make a difference, to improve your delivery of care, to promote healing and help your patients get better faster.

### **ORI, Office Resources, Inc.**

ORI, Office Resources, Inc., has offices and showrooms in Metro Louisville, Greater Lexington, Frankfort and Bowling Green and assists health care providers throughout Kentucky. ■

[oriusa.com](http://oriusa.com)

Exam rooms are used for much more than exams. Our products solutions are as flexible as the space itself, going beyond comfortable seating to address storage, technology and communication needs that can benefit all.



# Norton Healthcare rides the wave of the future with electronic medical records



Christopher S. McClellan, M.D., right, shows patient Robby Shaw how to use MyChart, a feature of Epic, Norton Healthcare's new electronic medical records system, at Norton Community Medical Associates – Barret.

**Glenda Clevenger** more easily manages the care of her elderly parents. Filling prescriptions at the pharmacy near her rural home is effortless for **Betty Hart**. **Jim Meyers** works closely with his physician to make plans for his health without leaving his office.

Clevenger, Hart and Meyers are benefiting from the virtual world of medicine offered by Norton

**Brian L. Schulman, M.D.**, and patient **Rachel Tindall** look at Norton Healthcare's electronic medical records system during her visit to Norton Community Medical Associates – Brownsboro.

Healthcare's new electronic medical records (EMR) system. Known as **Epic**, the EMR system connects all Norton Healthcare facilities. Patients can even opt in to the technology through MyChart.

Norton Healthcare embarked on a journey two years ago to implement a better medical records system. Today, all Norton Healthcare hospitals, outpatient centers, diagnostic facilities, physician practices, emergency departments and **Norton Immediate Care Centers**, as well as **Norton Cancer Institute**, have the EMR system.

"Epic helps us fulfill our mission to provide quality health care to all those we serve," said **Steven T. Hester, M.D., MBA**, system senior vice president and chief medical officer for Norton Healthcare. "It aligns with our value to continually improve care and service by standardizing our processes and work flows using best practices."

The EMR captures clinical, financial and operational data related to each patient and organizes it into a consistent record that is accessible across the care continuum.

"Epic enhances patient engagement through the use of technology," said **Steve Heilman, M.D.**, system vice president and chief medical information officer for Norton Healthcare. "It improves satisfaction by engaging patients and their families in their care."



Steven T. Hester, M.D., MBA, system senior vice president and chief medical officer for Norton Healthcare.

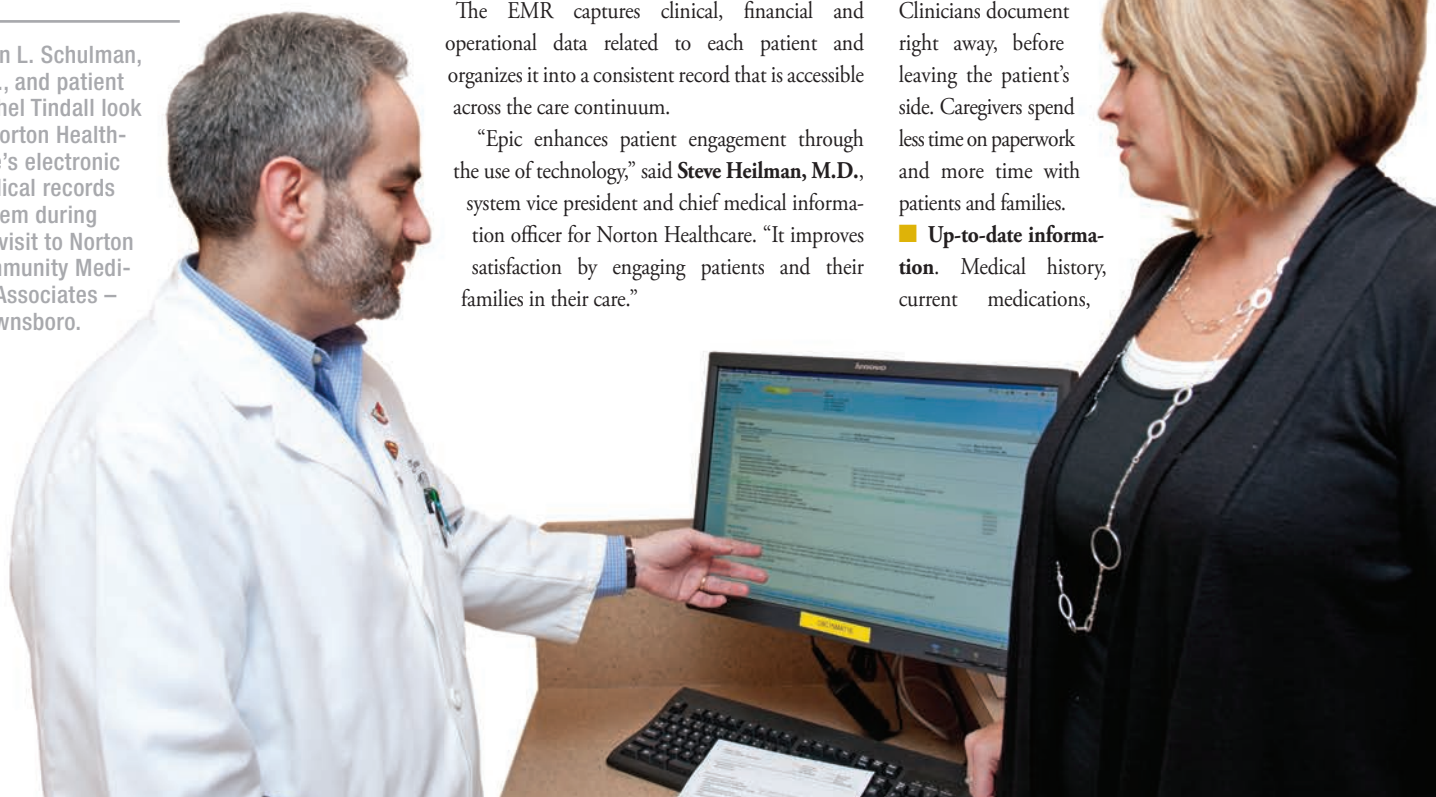
## Epic offers:

■ **One electronic medical record** that all caregivers can view. The record is easily accessed and shared by Norton Healthcare caregivers, whether in a physician office, hospital or outpatient facility.

■ **Safer, more efficient care.** Working from a shared medical record decreases the likelihood of drug interactions and provides faster access to lab, radiology and other test results. The system automatically checks any new prescription being considered and compares it with current medications and allergies to ensure they are safe to take together.

■ **Better work flow.** Clinicians document right away, before leaving the patient's side. Caregivers spend less time on paperwork and more time with patients and families.

■ **Up-to-date information.** Medical history, current medications,







Janet White, service excellence manager at Norton Audubon Hospital, talks with patient Imogene Cecil about Norton Healthcare's new electronic medical records system.

allergies, insurance and contact information are stored and can be accessed easily.

■ **Connection to a network of hospitals nationwide.** Health care providers can retrieve patient records from other facilities quickly to improve care.

## Signing up for MyChart

Anyone who has a Norton Healthcare physician can sign up for MyChart. Go to [NortonHealthcare.com/MyChart](http://NortonHealthcare.com/MyChart), click on "Login (first time)" and enter the activation code given to you by your physician. If you do not have a physician or activation code, request a code by clicking "I need an activation code." You can also call (502) 629-1234 to find a Norton Healthcare physician or to ask for a code. A MyChart mobile app for Android or iPhone also is available on the website.

**Christopher S. McClellan, M.D.**, internal medicine physician with Norton Community Medical Associates – Barret, believes having information in one place is better for patients.

"Previously, the patient's medical record was only as good as the filing ability of the doctor and staff," Dr. McClellan said. "With Epic, there is one central 'clearinghouse' for information without the human error of misfiling. This allows all doctors caring for the patient to be able to make immediate decisions with the most up-to-date information."

Dr. McClellan, who has served as a physician champion throughout the EMR's implementation, said the new system eliminates unnecessary duplicate testing.

"A lot of repeat testing is done simply because we don't have the information available at the time of decision making," he said. "This is especially true with labs in the outpatient setting and procedures done in the inpatient setting. With Epic, our efficiency is improved greatly because we are able to decide what needs to be done while the patient is in the hospital and what can wait until discharge."

**John L. Snell, D.O.**, internal medicine physician with Norton Community Medical Associates – St. Matthews, saw immediate results when the EMR was installed in his office.

"Epic went live on a Wednesday," he said. "During my first appointment I found a mass on the patient's thyroid, so I ordered an ultrasound of the area. Our staff was able to get an appointment for him that morning at Norton Suburban Hospital. I then went to a meeting and by the time I got back to my office, I had the results of his test in my Epic in-basket, showing that the mass had the characteristics of a tumor. I called the patient on his cellphone as he was leaving his appointment. He had surgery on Friday."

Dr. Snell pointed out that this three-day time frame from diagnosis to surgery is in sharp contrast to how long the process could have taken before having the EMR.

"I was worried that with Epic the patient might get lost in the shuffle," he said. "But after my experience the first day I thought, 'Wow, this system has a huge benefit for the patient.'"

By utilizing MyChart, Epic also gives patients and their families the opportunity to be more involved in their care. MyChart gives patients access to portions of their records day or night.

Meyers and his physician review test results in MyChart, create a health plan and monitor progress.

"As a patient, I couldn't ask for a better experience," Meyers said. "It works for me."

Clevenger's parents have given her access to their MyChart account to help track appointments and medications. She also has her own account.

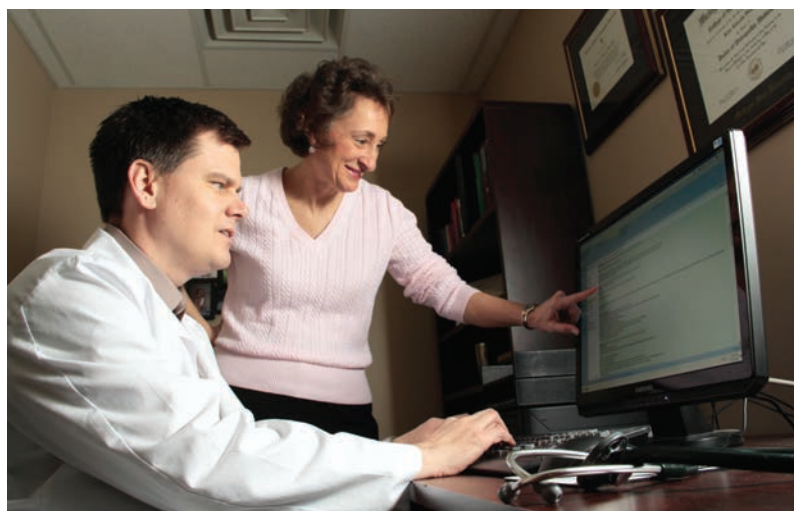
"I'm a fan. It has made such a difference in communicating with my physician," Clevenger said. "Appointments, test results and medications are listed so I can access everything easily."

Hart likes having a prescription sent directly to her pharmacist before she leaves the doctor's office. She no longer has to wait at the pharmacy or worry that it might close before she can get there with a prescription in hand.

"It's seamless," Hart said.

As Norton Healthcare grows, use of the EMR's features will also grow.

"Now that the entire system has come together, we will be able to better see Epic's full benefits," Dr. Heilman said. [nortonhealthcare.com](http://nortonhealthcare.com)



John Snell, D.O., and Therese Thomas, practice manager for Norton Community Medical Associates – St. Matthews, work with the Epic electronic medical records system.



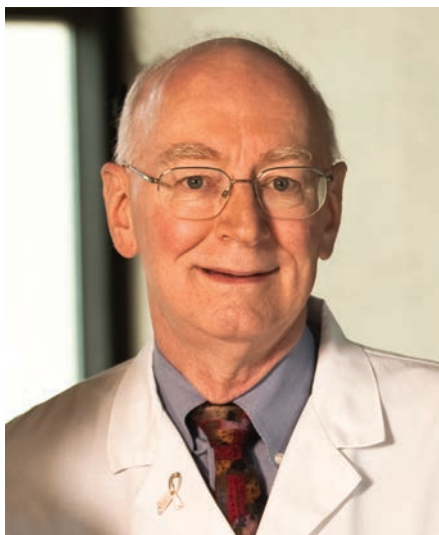
# Celebrating 28 years of beating the cancer odds

Twenty-eight years later, UK alum Ronnie Boyle still farms land in Lincoln County – proving those wrong who thought his cancer was inoperable, incurable and untreatable.



**Ready at a moment's notice with critical subspecialty care. That's why we're here.**





UK physicians such as Ed Romond, MD, ensure the nation's best evidence-based medicine is available to the people of Kentucky.

"I was really worried that we wouldn't be successful," Romond remembered. "But Ronnie was a young man, and a father, and we were determined to do all we could."

"Dr. Romond didn't want me to have surgery on the tumors until my chemo was done so the scar tissue wouldn't keep the chemo from getting into the cells," Ronnie recalled. So he waited, and endured four rounds of then groundbreaking chemotherapy over a span of 12 weeks without the benefit of today's anti-nausea medications. He also had bone marrow harvested and numerous blood transfusions.

The combination of four drugs, given at doses only read about in medical journals, showed promise. They lowered Ronnie's hCG levels to a mere 10 – signaling a dramatic reduction in the amount of cancer that remained in his body.

With this positive sign, surgery was scheduled to remove the remaining tumors. Teams from Urology and General Surgery took more than 11 hours working on Ronnie, shelling out the tumors from his liver and spending eight hours alone gently peeling the remaining three-inch tumor from his aorta, leaving him with an 18-inch scar as a reminder. Only a few days later, Ronnie's hCG was zero, and hope began to rise.

Each day Ronnie continued to improve and in the summer of 1984, he left UK Chandler Hospital a cancer-free man. He continued to see Dr. Romond for regular follow-ups the next few years until he and his doctors could finally breathe a sigh of relief.

Now 28 years later, Ronnie's message to others is clear: "Don't put off screenings and push forward until you find the answers you need. Dr. Romond showed great compassion and concern for my family and me, and it saved my life."

It's caring for patients like Ronnie that has shaped the way Dr. Romond treats patients even today. "There is a famous quote from a 1927 lecture to Harvard medical students. We try to live by this simple commitment: 'The secret of the care of the patient is in caring for the patient.' In Ronnie's treatment, that's what we all did." ■

Some people measure cancer remission in months; some in years. UK alum **Ronnie Boyle** of Moreland, Ky., measures his survival in decades – and gives the credit to God and a talented staff of **UK Markey Cancer Center** physicians and nurses who saved his life.

In 1983, Ronnie was in his 30s, working full time and raising three young boys – then ages 2, 5 and 8 – when he began to notice back and abdominal pain that just wouldn't go away. These symptoms, coupled with others, sent him to his family doctor for help.

"I had been having trouble for about a year," said Ronnie, "and the doctors just kept telling me it was prostatitis." But it was much more than that. Blood work from Ronnie's family doctor revealed an ominous sign that was soon confirmed – metastatic testicular cancer.

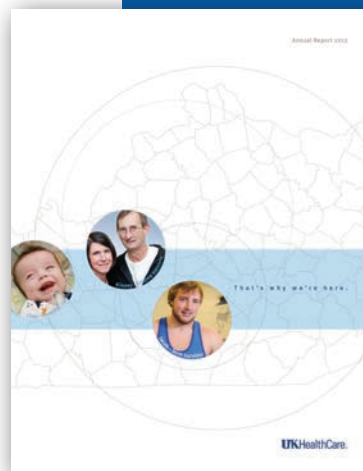
His cancer far advanced, Ronnie's body was being consumed by tumors. Diagnostic images showed 15 on his liver, 15 on his lungs, and one the size of a basketball lying directly on his vena cava and aorta at the back of his abdomen. Ronnie was admitted to UK on January 27, 1984, and began an aggressive regimen of chemotherapy drugs to battle the tumors. Supervising his care was hematologist-oncologist **Ed Romond, M.D.**, who had only recently arrived at UK in November 1983 fresh from an oncology fellowship.

"It was one of the worst cancers I had seen, or have seen since then, during my career as a physician," recalled Romond.

Known as choriocarcinoma, the aggressive cancer secretes a protein known as beta hCG, and research indicated that patients with levels over 10,000 were difficult to cure. Ronnie's level was 367,000.

## Some of the highest cancer survival rates in Kentucky

When it comes to a cancer diagnosis, few aspects of care matter until the question of prognosis, or survival, is answered. The UK Markey Cancer Center has recruited nationally recognized experts from across the country and focused them as multidisciplinary teams to diagnose, treat and combat cancer. They have a track record that speaks for itself – some of the highest cancer survival rates in the state.



Ronnie Boyle's story is not unique. For more on how UK HealthCare is bringing advanced subspecialty care to the commonwealth, call **800-333-8874** for a copy of the 2012 *UK HealthCare Annual Report* or go online to [ukhealthcare.uky.edu](http://ukhealthcare.uky.edu) to download a copy.



# Our 2012 Report to the communities we serve in Kentucky

## OUR MISSION

Making Communities Healthier

## OUR VISION

We want every hospital to be a place where:

- People choose to come for healthcare
  - Physicians want to practice
  - Employees want to work

## OUR HIGH FIVE GUIDING PRINCIPLES

- 1) Delivering high-quality patient care
- 2) Supporting physicians
- 3) Creating excellent workplaces for our employees
- 4) Strengthening the hospitals' role in their communities
- 5) Ensuring fiscal responsibility

For more than a decade, LifePoint Hospitals® has been committed to providing the best possible care to non-urban communities across the United States. We want to be our communities' first and best choice for quality healthcare.

At LifePoint, local community involvement is at the center of our philosophy of care. Each LifePoint hospital is a community hospital, dedicated first and foremost to serving the healthcare needs of its community.

We are committed to strengthening and enhancing the services that will benefit and improve the communities our hospitals serve. We make capital investments in state-of-the-art technology, facility improvements and talented staff to give our hospitals the resources they need to help make their communities healthier.

LifePoint's hospitals are among the largest employers, taxpayers and businesses within their communities. We believe that a healthy hospital makes for a healthy community, and we recognize the crucial role a hospital plays in supporting the economic health and development of the community.

Since its founding, LifePoint has invested more than \$1.8 billion to grow and expand services in its hospitals' communities and has provided high-quality care to more than 3 million patients.



## About LifePoint Hospitals

- Founded in 1999
- Focuses on non-urban communities
- Operates 57 community hospitals in 20 states
- Is the sole community hospital provider in the majority of its markets
  - Employs more than 29,000
  - Maintains relationships with more than 3,200 physicians





LifePoint Hospitals, through its affiliated facilities, is proud to provide quality healthcare close to home in nine communities across Kentucky. These Kentucky hospitals contribute significantly to the economic success of their communities. They employ more than 3,700 individuals and have a total annual payroll of nearly \$200 million. In 2012, they invested more than \$50.4 million in their facilities, including new equipment, technology replacement, information technology additions and updates as well as important facility upkeep and maintenance. Each LifePoint hospital compiles an annual Community Benefit Report, showing the scope of its overall contributions to the communities it serves. Below is a summary of the data from LifePoint's affiliated hospitals in Kentucky. ■

# Community Benefit Report Hospitals in Kentucky

**Charity and other uncompensated care** ..... \$ 17,972,054

Includes unpaid cost of Medicaid as well as charity care and bad debt

**Community benefit programs** ..... \$ 5,664,542

Physician Recruitment ..... \$ 4,398,914

Donations to Nonprofit Organizations ..... \$ 375,719

Health Professionals Education ..... \$ 504,370

Tuition Reimbursement ..... \$ 385,539

**Taxes** ..... \$ 9,228,377

Property and other taxes ..... \$ 7,428,377

Sales taxes (estimated) ..... \$ 1,800,000

These sales and property tax dollars help support local communities and the state, including schools, development of roads, recruitment of business and industry, and other needed services.

**2012 TOTAL** ..... \$ 32,864,973

## LIFEPOINT AFFILIATED HOSPITALS IN KENTUCKY

Bluegrass Community  
Hospital in Versailles

Bourbon Community  
Hospital in Paris

Clark Regional Medical  
Center in Winchester

Georgetown Community  
Hospital in Georgetown

Jackson Purchase Medical  
Center in Mayfield

Lake Cumberland Regional  
Hospital in Somerset

Logan Memorial Hospital  
in Russellville

Meadowview Regional  
Medical Center in Maysville

Spring View Hospital  
in Lebanon



LifePoint Hospitals  
103 Powell Court  
Brentwood, TN 37027

LifePointHospitals.com

"Charity and other uncompensated care" includes the amounts not covered by Medicaid reimbursement and supplemental payments, as well as charity care and bad debt. "Physician recruitment costs" include recruitment costs and support of new physicians' initial practice establishment in the community. Payroll includes consolidated salaries, wages, benefits and contract labor costs. "Capital investments" include facility expansions/renovations, equipment purchases, technology replacement, information technology additions/updates, and routine facility upkeep and maintenance.

All references to "LifePoint," "LifePoint Hospitals," or the "Company" used in this release refer to LifePoint Hospitals, Inc. and its affiliates.

# Research to Reality: How UofL doctors are turning research into life-changing medical solutions

Opened in 2009, UofL's Clinical and Translational Research building houses researchers exploring ways to prevent, treat and cure diseases that impact people throughout the world.





# The hallmark of every academic health center begins with its reputation for medical research.

The challenge is how to transform that research into reality, producing treatments and cures that impact the lives of real people. **The University of Louisville Health Sciences Center** has been conducting life-changing research that will lead the way across the health care spectrum well into the 21st century.

**Suzanne Ildstad, M.D.**, director of the **University of Louisville Institute of Cellular Therapeutics**, is leading a team in the search for a way to eliminate the need for anti-rejection drugs for patients receiving an organ transplant. **Northwestern Medicine**® and University of Louisville researchers are partnering on a clinical trial to study the use of donor stem cell infusions that have been specially engineered to “trick” the recipients’ immune system into thinking the donated organ is part of the patient’s own body, thus gradually eliminating or reducing the need for anti-rejection medication.

“Being a transplant recipient is not easy. In order to prevent rejection,

current transplant recipients must take multiple pills a day for the rest of their lives. These immunosuppressive medications come with serious side effects with prolonged use including high blood pressure, diabetes, infection, heart disease and cancer, as well as direct damaging effects to the organ transplant,” Ildstad said. “This new approach would potentially offer a better quality of life and fewer health risks for transplant recipients.”

It’s the first study of its kind, where the donor and recipient did not have to be related and did not have to be immunologically matched. Previous studies involving stem cell transplants for organ recipients have included donors and recipients who are siblings and are immunologically identical, something that only occurs in about 25 percent of sibling pairs.

In a standard kidney transplant, the donor agrees to donate only their kidney, but Ildstad’s research takes it a step further by asking the person to donate part of their immune system

as well. About one month before the kidney transplant bone marrow stem cells are collected from the blood of the kidney donor using a process called apheresis and then sent to the University of Louisville to be processed. UofL researchers then enrich for “facilitating cells” believed to help transplants succeed.

During the same time period, the recipient undergoes pre-transplant “conditioning,” which includes radiation and chemotherapy in an effort to suppress the bone marrow so the donor’s stem cells have more space to grow in the recipient’s body.

Once the enriched stem cell product is ready, it is transported back to Northwestern, where the recipient undergoes a kidney transplant. The donor stem cells are then

transplanted one day later, prompting stem cells to form in the marrow from which other specialized blood cells, like immune cells, develop. The goal is to create an environment where two bone marrow systems exist and function in one person. The recipient would initially take anti-rejection drugs but have the dosage decreased over time with the goal to stop a year after the transplant.

“This is something I have worked for my entire life,” said Ildstad, who pioneered the approach and is known for her discovery of the “facilitating” cell.

**Roberto Bolli, M.D.** is one of the world’s leaders in transforming heart research into practical procedures and remedies.

In recent years, he has successfully demonstrated that giving patients with heart failure infusions of their own cardiac stem cells following bypass surgery

not only improves heart function, but also leads to healing of the heart itself.

In an effort to further this lifesaving research, Bolli is leading a group to establish a network of seven regional centers across the United States in the **Cardiac Cell Therapy Research Network (CCTR)**, including one at UofL, which would conduct early clinical trials of adult stem cell therapies in patients with heart disease.

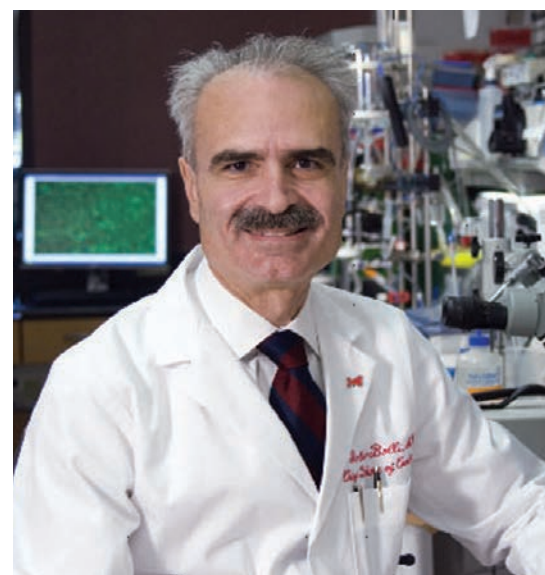
This move will test the validity of new therapies by replicating studies in patients at two or more of the network’s centers located at **UofL, Stanford University, Texas Heart Institute, Minneapolis Heart Institute, University of Florida, University of Miami and Indiana University.**

Replicating studies in several locations with a large number of patients is necessary for researchers to ultimately determine which ones can be submitted to the Food and Drug Administration for approval.

“Through the work of Dr. Bolli and his team, the UofL Health Sciences Center continues to fulfill the promise of a great metropolitan research university,” said **Dr. James Ramsey**, president of the University of Louisville. “Success like Dr. Bolli’s in conducting basic research lays the foundation for him to conduct clinical studies that will determine the standard of care for the future.



**Suzanne Ildstad, M.D.**, is conducting research aimed at eliminating the need for anti-rejection drugs for patients receiving an organ transplant.



**Dr. Roberto Bolli, M.D.** is leading the creation of a nationwide network that would conduct early clinical trials of adult stem cell therapies in patients with heart disease.

“Clinical trials of new adult stem cell therapies are among the most promising and exciting areas of medical research today, and being part of a national network such as the CCTR means UofL can bring this cutting-edge medicine to the people of Kentucky and beyond.”

*Continued on page 20*





UofL's Roman Research Lab.

*Continued from page 19*

Bolli emphasized the new direction this grant would take his research team at UofL's Institute of Molecular Cardiology where he is director. "Basic research explores new theories and measures the effectiveness of new therapies in preclinical animal models of human disease," Bolli said. "Clinical research takes what has been learned in basic research and applies it to examine whether therapeutic interventions work to heal the body or arrest disease in patients. This grant makes UofL one of the few clinical research centers in the nation offering adult stem cell therapies to patients."

Bolli and his team will study whether the use of various types of adult stem cells is safe and effective in treating cardiovascular disorders such as heart failure, heart attacks and peripheral arterial disease, a condition in which there is insufficient blood flow to the legs.

The stem cell infusions and clinical studies will be performed at **Jewish Hospital**, a part of KentuckyOne Health, by Bolli's team along with the team of **Dr. Mark Slaughter**, chief of the Division of Thoracic and Cardiovascular Surgery at UofL. Because the **National Heart, Lung and Blood Institute** funds the procedures separately from the grant allocation, Bolli said he expects an additional \$4 million will be brought to Louisville as a result of participating in the CCTRN, making the total amount of money awarded in this grant estimated at \$7.4 million.

"My colleagues and I look forward to working with the NIH and the other universities and institutes

in the CCTRN to hopefully make adult stem cell therapy a clinical reality for patients who otherwise have no options," he said.

Another team of researchers, led by scientists at the University of Louisville, is undertaking a task once thought completely impossible - to give the paralyzed the use of their arms and legs back.

**Susan Harkema, Ph.D.**, a professor in the Department of Neurological Surgery, and her colleagues throughout the country are exploring the use of electrical stimulation directly on patients' spinal cords to try to help them regain the use of their limbs.

More than 6 million Americans live with some form of paralysis, with more than 1.275 million spinal cord related and many completely paralyzed in the lower extremities.

To date, three individuals have been implanted with the epidural stimulator; all three have experienced similar results, each with an ability to supply the muscular push on their own to reach a standing position. All three are able to remain standing and bear their own body weight. A fourth individual was implanted earlier this year and is currently undergoing training similar to the other three.

The initial participant in this ground-breaking research was Rob Summers. In 2006, Summers was a star college baseball pitcher, helping lead Oregon State to a College World Series title. A month later, he was the victim of a hit-and-run accident near his Oregon home that left him paralyzed and was told by doctors that he would be a quadriplegic the rest of this life.

In 2011, Summers made international news when results of the team's research were published in the journal *The Lancet*.



Former Oregon State baseball player Rob Summers, once completely paralyzed, can now make repeated stepping motions on a treadmill thanks to the work of Susan Harkema, Ph.D., (second from right) and her team at UofL's Department of Neurological Surgery.

The unprecedented results were achieved through continual direct epidural electrical stimulation of Summer's lower spinal cord, mimicking signals the brain normally transmits to initiate movement. Once that signal is given, the spinal cord's own neural network, combined with the sensory input derived from the legs to the spinal cord, is able to direct the muscle and joint movements required to stand and step with assistance on a treadmill.

The other crucial component of the research was an extensive regime of "locomotor training." Assisted by rehabilitation specialists, the individual's spinal cord neural networks were retrained to produce the muscle movements necessary to stand and to take assisted steps. Research participants received 80 hour-long sessions of locomotor training prior to being implanted.

"This has completely changed my life," Summers says. "To have the ability to stand on my own is the most amazing feeling. Beyond all, my sense of well-being has changed. My physique and muscle tone have improved greatly."

Relief from secondary complications of complete spinal cord injury – including impairment or loss of bladder control, sphincter control and sexual response – are all benefits of the of the epidural stimulation.

"This is a breakthrough. It opens up a huge opportunity to improve the daily functioning and quality of life for these individuals and others like them," said Harkema. "But we still have a long road ahead."

Not all research involves creating new treatments. It also includes finding ways to deliver that treatment more efficiently and at less cost.

Researchers at the **James Graham Brown Cancer Center** are examining the effectiveness of less frequent and higher dose radiation treatments for patients, with the goal of producing the best possible outcomes with the least possible inconvenience.

The center, a part of KentuckyOne Health, participates in the federally funded Surveillance Epidemiology and End Results registry, which tracks how cancer is being diagnosed and treated and how outcomes vary in different geographic and population areas across the country.

"We used a lot of data from that resource to generate a snapshot of how the state has been doing over the past 10 or 15 years in treating breast cancer, diagnosing it and providing access to what we consider the gold standard of care in therapy," explained **Anthony Dragun, M.D.**, associate professor of radiation oncology.

The work led to a landmark study, published in 2011 in the *Journal of Cancer*, showing that of

the patients with early stage breast cancer in the state who qualified for radiation treatments, only about two-thirds actually receive it. Those going without typically are older individuals, patients who live in more rural counties and certain minority groups.

Surprisingly, the main reason that those who need treatment decide to stay away has nothing to do with lack of health care coverage — many do.



Instead, it's a matter of inconvenience and out-of-pocket costs.

"Radiation therapy traditionally requires a commitment to come to a cancer center every day for an extended period of time, usually between five to seven weeks. So if you look at those patients that are not getting it, you often find they have to travel some distance to receive treatment and they don't have the out-of-pocket resources to do this — especially when gas is running near \$4 a gallon."

As a way to reduce the burden of access to radiation services, Dragun developed a novel treatment regimen that reduces both the number of treatments each week and their duration.

Beginning in January 2011, a once-weekly regimen for breast cancer treatment "has been the highest accruing clinical study in the cancer center since it began two years ago," he said.

Initial results of the first 50 patients, reported in April 2012, revealed that all were receiving the same benefits with the shorter routine as those with traditional radiation scheduling.

"The side effects were exactly what we would have anticipated based on our experience with traditional radiation — certainly no worse and probably a bit better than anticipated," Dr. Dragun said. "And patients were very satisfied."

**Anthony Dragun, M.D.**, and others at the **James Graham Brown Cancer Center** developed a treatment that allows patients flexibility in how often they receive radiation therapy.

Most importantly, Dragun said that many of his patients indicated that if they did not have this as an option, they would not have been able to get radiation.

"Among the goals we have set for the James Graham Brown Cancer Center," added its director, **Donald Miller, M.D., Ph.D.**, "is to deliver the latest medical advances to our patients with compassion and respect, to generate the knowledge that helps us cure cancer, and to address the prevalence and impact of cancer on Kentuckians." ■



# Only one stroke center in Kentucky can provide truly comprehensive stroke care



When University of Louisville Hospital became the first and only facility in Kentucky to earn Advanced Comprehensive Stroke Center (CSC) certification from The Joint Commission, it joined an elite group of only 20 facilities nationwide. Designation as a CSC is the newest and highest level of Joint Commission certification for stroke centers, and it means that stroke care in this region ranks with the best in the country.

Already the first in the commonwealth to be named a Primary Stroke Center back in 2004 -- the highest level of certification until now -- University Hospital's latest accomplishment demonstrates their continued commitment to providing the best stroke care in the region.

## The impact reaches far beyond Louisville Metro

In 2011-2012, some 50 different hospitals across western and central Kentucky and southern Indiana transferred patients to University Hospital's Stroke Center for care. With the new certification as an Advanced Comprehensive Stroke Center, the hospital expects that number to climb and is prepared for that growth.

**Dr. Kerri Rimmel**, director of University Hospital's Stroke Center, explains the importance of being able to provide comprehensive care in the region. "Stroke is the fourth-leading cause of death and the leading cause of long-term adult disability in the United States. Additionally, Kentucky ranks above the national

Pictured from left to right, Dr. Warren Boling, chief of neurosurgery at University Hospital; Dr. Kerri Rimmel, director of University Hospital's Stroke Center; Jim Taylor, former president of University Hospital; Angela Krohn, stroke survivor and former University Hospital patient, with her son, Andrew and husband, Brad; Congressman John Yarmuth; and James Ramsey, UofL president

average in the prevalence of many stroke risk factors -- like high blood pressure, smoking, diabetes, lack of exercise, obesity and high cholesterol. Kentucky needs the best stroke care, and University Hospital becoming a Comprehensive Stroke Center is the next step in advancing that care in our region and state."





Dr. Kerri Remmel at the Comprehensive Stroke Center news conference

To earn certification as a CSC, hospitals must demonstrate that they have the most advanced equipment, infrastructure, and multidisciplinary team of staff and physicians to treat complex stroke cases. The last step in the certification process was a two-day site visit by Joint Commission surveyors. At the end of their review, University of Louisville Hospital met every one of those standards.

### Multiple disciplines collaborate for individualized care

One important factor in the Joint Commission's assessment was the clear collaboration between neurology and neurosurgical services at University Hospital's Stroke Center. The teamwork between the two is critical in managing complex stroke cases. Although neurologists treat the vast majority of stroke patients, there are cases which require neurosurgical services.

"University Hospital's CSC designation signifies our commitment to providing multidisciplinary stroke care," said **Dr. Warren Boling**, chief of Neurological Surgery at University Hospital. "Our neurology and neurosurgical teams work together to provide individualized stroke care. We are able to determine as a team which treatment is best for each patient."

### Still leading after all these years

The certification as Advanced Comprehensive Stroke Center is just the latest in a long line of firsts for the stroke team at University Hospital. In addition to becoming the first Primary Stroke Center in the state in 2004, they inaugurated Kentucky's first stroke telemedicine program in 2007, invested \$1.4 million in a dedicated stroke unit in 2009, and became the first hospital in Kentucky to receive the American Heart

Association/American Stroke Association's Target: Stroke Honor Roll Award in 2011.

In that same year, they developed Kentucky's first stroke nursing fellowship program. It is a record of achievement that has made them a multi-year recipient of the American Heart Association's Stroke Gold Plus Quality Achievement Award.

"There are very few Comprehensive Stroke Centers in the United States, making this a great accomplish-



Dr. Warren Boling speaking at the Comprehensive Stroke Center announcement

ment for University Hospital, the city of Louisville and the commonwealth," said **James Taylor**, former president of University Hospital. "Our Stroke Center is committed to providing the best patient care, and this certification reinforces that dedication."

**James Ramsey**, University of Louisville president agrees. "University Hospital's Stroke program is locally and nationally recognized because of its team of expert physicians and nurses. I'm proud of their accomplishment and what it means for the people of Louisville and throughout Kentucky."

To learn more about University Hospital's Comprehensive Stroke Center, now part of KentuckyOne Health, go to: [university-hospital.org/stroke](http://university-hospital.org/stroke).



Dr. Kerri Remmel, director of University Hospital's Stroke Center, educating residents at University Hospital in the Stroke Unit

# Dedicated to building a healthier Kentucky

Together we will create an integrated, comprehensive health system known for:

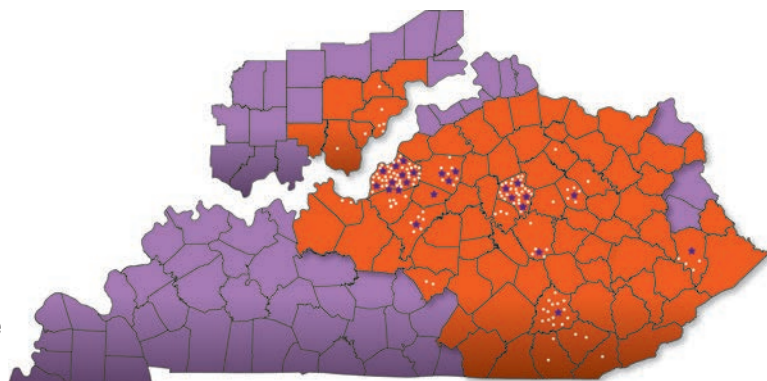
- Efficiently providing the highest quality care and services
- Reducing the incidence of disease
- Eliminating inequities in access in the communities it serves

Saint Joseph nurse-volunteers with the Surgery on Sunday program. Lexington, KY

KentuckyOne Health  
200 Abraham Flexner Way  
Louisville, KY 40202  
[KentuckyOneHealth.org](http://KentuckyOneHealth.org)

Continuing Care Hospital  
Flaget Memorial Hospital  
Frazier Rehab Institute  
James Graham Brown Cancer Center  
Jewish Hospital  
Jewish Hospital Medical Center East  
Jewish Hospital Medical Center South  
Jewish Hospital Medical Center Southwest  
Jewish Hospital Medical Center Northeast  
Jewish Hospital Shelbyville  
Jewish Physician Group  
Our Lady of Peace

Saint Joseph Berea  
Saint Joseph East  
Saint Joseph Hospital  
Saint Joseph Jessamine  
Saint Joseph London  
Saint Joseph Martin  
Saint Joseph Mount Sterling  
Saint Joseph Physicians  
Sts. Mary & Elizabeth Hospital  
University of Louisville Hospital  
VNA Nazareth Home Care  
The Women's Hospital at Saint Joseph East



★ Hospitals and Outpatient Facilities  
● Additional Clinics and Physician Practices



## Common Good for the Commonwealth

Working together for a healthier Kentucky. Wherever we live, whatever our skill, however we worship, we are united as KentuckyOne Health for the common good of the Commonwealth. Taking care of people is an honor and a privilege. It comes with great responsibility. We must continue to deliver on our promise to Kentuckians. That's why we reach out to assess the needs of the communities we serve, evaluate our efforts and renew our commitment to doing even better.

In this annual accounting, we report to you how we are living up to our commitment. It is an overview of the dollars — from the value of no-cost care to those unable to

afford it, to covering the cost of services Medicaid does not pay, to donating money and services to benefit the poor — as well as stories of lives we have touched at home in Kentucky and across the globe. From our involvement with Supplies Over Seas to supporting violence prevention work in our own backyards, we are proud to be a part of our new organization carrying on a rich heritage of compassion for the common good.

Ruth W. Brinkley, President  
and CEO KentuckyOne Health



## Reporting Our Community Benefit for 2012

Community Benefit Provided for the Poor	FY 2012	Benefits Provided for the Broader Community	FY 2012
Cost of charity care provided	\$85,118,487	Non-billed services for the community	\$385,995
Unpaid cost of Medicaid	16,712,796	Education/research provided to the community	6,018,162
Unpaid cost of indigent programs	12,581,343	Other benefits provided to the community	490,626
Non-billed services for the poor	3,106,886		
Cash and in-kind donations for the poor	1,254,442	<b>TOTAL cost of community benefit provided to the community</b>	<b>\$6,894,783</b>
Other benefits provided to the poor	2,163,313	<b>TOTAL cost of community benefit</b>	<b>\$127,832,050</b>
<b>TOTAL cost of community benefit provided to the poor</b>	<b>\$120,937,267</b>		

This report covers the fiscal year ended June 30, 2012, for KentuckyOne Health and its predecessor organizations, the former Jewish Hospital & St. Mary's HealthCare and the former Saint Joseph Health System, which merged to form KentuckyOne as of January 1, 2012.

## KentuckyOne Health Board of Directors

**Michael Ades**  
Attorney, retired

**LouAnn Atlas**  
Fifth Third Bank

**Ruth Brinkley, FACHE**  
President & CEO

**Valerie Briones-Pryor, M.D.**  
(Observer)  
Primary Care Physician

**Jane Burks**  
Volunteers of America

**Jane J. Chiles**  
Meridian Chiles Advertising

**David I. Dunn, M.D.**  
UofL

**Paul Edgett**  
Catholic Health Initiatives

**David Fennell**  
Business Executive, retired

**Robert M. Hewett, Chair**  
Business Executive, retired

**Miller Hoffman**  
Hoffman Robertson Insurance

**Robert C. Hughes, M.D.**  
Physician

**Steve Raible, M.D. (Observer)**  
Louisville Heart Specialist

**Robert W. Rounsavall III**  
Dixie Real Properties

**Michael Rowan**  
Catholic Health Initiatives

**Richard Schultz**  
Ad Executive, retired

**John D. Stewart II, M.D.**  
(Observer) Surgeon

**Gerald Temes, M.D.**  
Thoracic Surgeon, retired

**Louis Waterman**  
(Observer) Attorney

**Liz Wendeln, SCN**  
Board of Stewardship Trustees  
Catholic Health Initiatives

**Russell Williams, M.D.**  
Surgeon

## About KentuckyOne Health

**KentuckyOne Health** was formed when two major Kentucky health care organizations came together in early 2012. KentuckyOne Health combines the Jewish and Catholic heritages of the two former systems — **Jewish Hospital & St. Mary's HealthCare** and **Saint Joseph Health System**. In late 2012, the organization formed a partnership with the **University of Louisville Hospital and James Graham Brown Cancer Center**.

The nonprofit system is committed to improving the health of Kentuckians by integrating medical research, education, technology and health care services wherever patients receive care. KentuckyOne Health has more than 200 locations including hospitals, physician groups, clinics, primary care centers, specialty institutes and home health agencies, with more than 15,000 employees across the state of Kentucky and southern Indiana.

KentuckyOne Health is the largest health system in Kentucky and has more than 3,100 licensed beds.

## KentuckyOne Health wellness initiatives target communities throughout Kentucky

Many American adults spend most of their waking hours at sedentary jobs. Their lack of regular physical activity raises their risk for a host of medical problems, such as obesity, high blood pressure and diabetes. **KentuckyOne Health** is committed to improving the health of all Kentuckians.

activity. A study published in 1986 in the **New England Journal of Medicine** found that some adults may gain two hours of life expectancy for every hour of regular, vigorous exercise they performed.

Just 30 minutes of walking a day can reduce the risk of heart disease, improve blood pressure

### Free screenings available

Another important aspect of improving the health of all Kentuckians is preventative medicine.

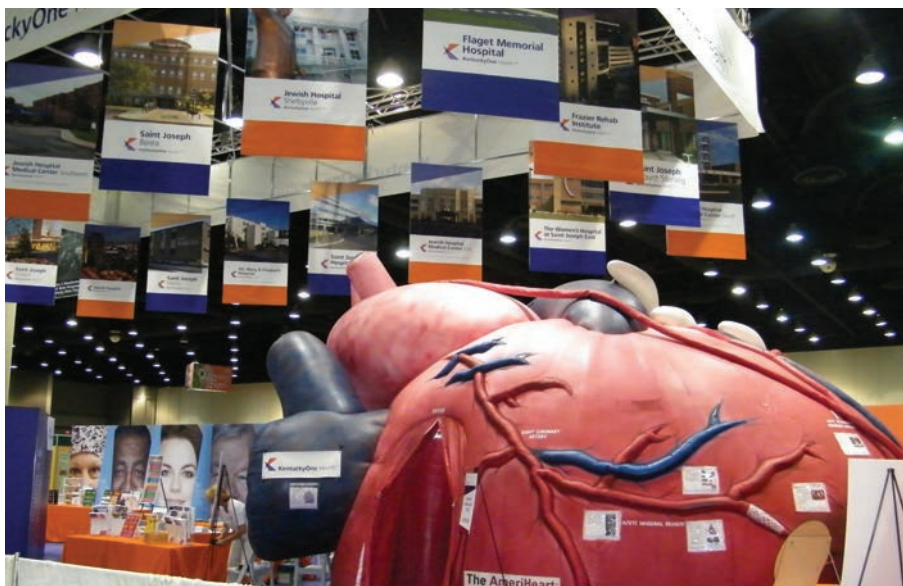
KentuckyOne Health facilities across the state regularly offer free opportunities for blood pressure and cholesterol screenings among others. Free screenings are also available to the more than 600,000 attendees at the Kentucky State Fair.

Health awareness and education events are also aplenty. From the **American Heart Association's Go Red For Women** events in Berea, Lexington, London, Louisville, Martin, Mt. Sterling and beyond promoting heart health for women to the colon cancer awareness fair in Bardstown, our experts are at work daily to help Kentuckians live healthier lives.

The **Women's Hospital at Saint Joseph East, Saint Joseph London** and **Flaget Memorial Hospital** host maternity fairs in April and May to share the latest in childbirth and infant care with expectant mothers.

Lexington-area residents at risk for diabetes can take part in **Saint Joseph Diabetes and Nutrition Center** programs including the CDC's National Diabetes Prevention Program, which helps those at high risk for developing Type 2 diabetes to adopt and maintain a healthy lifestyle. The program begins in May and runs for 16 weeks.

**Jewish Hospital Shelbyville** hosts a women's health event each May and a men's health event each June. Also in June, **Saint Joseph Berea** hosts "Get Healthy Berea" and **Saint Joseph Jessamine** hosts a Community Health Fair. Saint Joseph Martin will join with



KentuckyOne Health booth at the Kentucky State Fair.

KentuckyOne Health implemented multiple programs in Louisville to improve employee health and wellness, including smoking cessation classes, "free fruit Fridays" for employees to promote healthy eating and the creation of walking paths to encourage physical activity and help employees track their exercise.

"I am thrilled that the innovative programs are helping our employees live healthier lives," said **Julie McGregor**, vice president, human resources, KentuckyOne Health.

Worksite wellness programs are also underway at other KentuckyOne Health facilities throughout the state.

### Take a walk

As the largest health care provider in the state, KentuckyOne Health is committed to improving the health of both individuals and entire communities through outreach and disease prevention programs. Encouraging physical activity is a key component of building healthier lives.

According to the American Heart Association, walking has the lowest dropout rate of any physical

and blood sugar, elevate mood, and reduce risk of osteoporosis, cancer and diabetes.

This summer, KentuckyOne Health is teaming up with the Mayor's Healthy Hometown Movement to get Louisville area residents to "Walk With a Doc," a nationwide program that empowers people to improve their health through physical activity by exercising side-by-side with their healthcare providers.

Since November, KentuckyOne Health has held monthly Walk With a Doc events at Beckley Creek Park at The Parklands of Floyds Fork. Beginning May 18, it will add monthly walks at Iroquois and Shawnee parks for residents of south and west areas of Louisville.

Walkers have the opportunity to learn about important health topics, ask medical questions in an informal manner and receive free blood pressure screenings. KentuckyOne will provide an incentive to walkers to "build a walking habit."

"Our community has asked for more free services, education and prevention programs and we've made it our mission to fulfill that request," said **Alice Bridges**, vice president, healthy communities, KentuckyOne Health. "We're grateful to the leadership of **Dr. Jesse Adams** and the partnership with our local parks to bring this effective national program to our hometown."



The Maternity Fair at The Women's Hospital and Saint Joseph East, Lexington.

other health and community organizations to offer free screenings and information at a series of health education events in May. And the list goes on. Contact the KentuckyOne facility near you to learn more about free screenings and events in your community.

Together, we can improve our state's health rankings and live longer, healthier lives.



## KentuckyOne Health invests an additional \$30 million in heart and vascular services



KentuckyOne Health, a leader in cardiovascular care, is investing an additional \$30 million in its **KentuckyOne Heart and Vascular Institute** over the next three years. KentuckyOne has already invested more than \$100 million over the past 10 years, bringing the total investment to more than \$130 million during that time.

KentuckyOne Health treats more heart patients than any other health system in the state of Kentucky and has performed many firsts in heart care in Louisville, Lexington, the region, state and world.

Kentucky has some of the nation's highest rates of cancer, obesity and death due to heart disease and stroke.

KentuckyOne Health has the resources and reach to address the state's greatest health challenges. "Too many Kentuckians are at risk for heart attack or stroke," said **Ruth Brinkley**, president/CEO, KentuckyOne Health. "We want to save more lives than ever before by investing in technology and resources to provide heart and vascular care across the commonwealth, including to individuals in their own hometowns and communities."

"With KentuckyOne Health's development of virtual/remote consultation

clinics across the state of Kentucky, doctors can provide care to patients with heart disease closer to their homes," said **Mark Slaughter, M.D.**, executive director of cardiovascular services for the KentuckyOne Health Louisville market. "I am honored to be here at a time when this leading heart center is making additional investments and expansion in a number of programs like our Transcatheter Aortic-Valve Replacement (TAVR), Imaging, Arrhythmia and Peripheral Vascular Disease programs. An expansion of the Hybrid Operating Room technology and a dedicated Cardiac Resuscitation Center will also give patients access to more unique and specialized services," added Slaughter who is also the director of the Division of Thoracic and Cardiovascular Surgery at the University of Louisville.

"Investment in state-of-the-art technology upgrades of our cardiac catheterization and electrophysiology laboratories means patients across central and eastern Kentucky will have access to more of the newest technologies in the U.S.," said **Robert Salley, MD**, new KentuckyOne Health executive director of Cardiovascular Services in the Lexington market. "We will see enhancements to our coronary care

**Robert Salley, M.D., Executive Director of Cardiovascular Services in the Lexington market.**

nursing units and expansion of our cardio diagnostics ambulatory platform."

"When it comes to heart care, KentuckyOne Health is the answer for many patients, whether you live in Kentucky or other cities across the U.S.," said **Bev Weber**, Louisville market leader, KentuckyOne Health. "We have translated innovation from the laboratory to the healing bedside for many years. The physicians with Jewish Heart Care (Louisville) have been known to perform many firsts in heart care around the world, nation and state.

"KentuckyOne Health is taking a lead position in the fight against heart and vascular disease in the state," said **John Smithhisler**, Lexington market leader. "We are investing in our central and eastern Kentucky physicians, technologies and collaborations to build healthier communities.

We continue to reach out to communities bringing better health care to central and eastern Kentucky and we remain at the forefront of cardiovascular care among regional hospitals."

Combining their heart care across the state, the vision of the new KentuckyOne Heart and Vascular Institute is to be the leader in the development and



**Mark Slaughter, M.D., Executive Director of Cardiovascular Services in the Louisville market.**

delivery of a Heart and Vascular Services network by offering evidence-based, person-centered, reliable care in the most appropriate care setting to improve health in the populations KentuckyOne serves. The vision will be advanced through strategic alignment with physicians and healthcare delivery partners, innovation and a clinical covenant with patients and payors. ■



UofL President James Ramsey (l) worked closely with Kentucky Governor Steve Beshear (m) and Attorney General Jack Conway (r) to solidify the partnership with KentuckyOne Health.

# Partnership for a healthier Kentucky

**New collaboration brings together academic and community physicians, creating a medical staff of more than 3600**

Health care in Kentucky took a bold step forward following the recent partnership of the **University of Louisville, KentuckyOne Health and University of Louisville Hospital | James Graham Brown Cancer Center.**

The innovative partnership brings together academic and community physicians, creating a medical staff of more than 3,600 physicians across the commonwealth and more than 3,100 licensed beds. The network includes hospitals, clinics, specialty institutions, home health agencies, satellite primary care centers and physician groups with more than 200 locations combined.

“Our goal is to transform health care in Kentucky and beyond,” said **Dr. James Ramsey**, president of the

University of Louisville. “Through this partnership, we will be able to impact the entire process of health care – from how and where we educate new health care providers, expansion of research capabilities and opportunities, to how care is delivered, and working within communities to help people have a better understanding of how to live healthier lives.”

This new collaboration allows University of Louisville Hospital | James Graham Brown Cancer Center to continue its role as an innovative academic medical center, while remaining a critical regional safety net hospital that provides the highest level of care to all patients. This partnership also empowers the University of Louisville to continue to

produce the next generation of high quality health care professionals by recruiting and retaining the best faculty for its health schools.

Additionally, it provides UofL researchers the opportunity to bring promising, 21st century treatments and cures to more patients suffering from everything from heart disease to cancer. Not only will it result in better information about the effectiveness of those efforts, it will engage people throughout the commonwealth to be part of the creation and development of tomorrow's health care.

“This new relationship expands our resources into a statewide network,” said **David L. Dunn, M.D., Ph.D.**, executive vice president for health affairs at the





Top: UofL Executive Vice President for Health Affairs David Dunn played a key part in creating the partnership, which gives the university access to an expansive statewide network. Middle: KentuckyOne Health CEO Ruth Brinkley says all Kentuckians will benefit from the new integrated health system. Bottom: UMC President and Chief Executive Officer Jim Taylor

University of Louisville. “Our students now have additional training opportunities and our faculty can offer access to clinical trials — helping more people and extending research opportunities.”

“We know all too well the health challenges that Kentucky faces ... from a significant shortage of physicians to a high incidence of disease,” said **Ruth Brinkley**, chief executive officer for KentuckyOne Health. “To meet these challenges head on — and provide quality care for all Kentuckians — Kentucky needs a premier, integrated health system, and that is what we have with this partnership.”

The state of health care in the United States is at a critical stage and Kentucky is a microcosm of the challenges it must meet. The commonwealth faces a shortage of an estimated 3,000 physicians before the end of the decade. And the Affordable Care Act, while providing many with health insurance, doesn’t guarantee access to care because of the dwindling number of available care givers, including physicians, nurses, physician assistants, nurse practitioners and more.

“This partnership provides us the opportunity to 1) have additional teaching and training sites throughout the state so that we can increase the number of people who can provide care and 2) expose more young people to the excitement that comes with being a health care provider and hopefully get them interested so they will go to school, become a provider and return to areas that haven’t had doctors, nurses, etc.,” said **Dr. Toni Ganzel**, interim dean of the UofL School of Medicine.

The partnership is also designed to help people understand, identify and resolve the issues regarding some of the health problems unique to their own communities.

“Working in partnership with communities — individuals, schools, faith groups, social service agencies and businesses — is our defining philosophy,” said **Allen Montgomery**, senior vice president, **Community Health and Advocacy for KentuckyOne**. “That’s because today we are focused on improving health, which involves not only transforming healthcare delivery in a traditional hospital setting or doctor’s office. To make real and lasting impact, we must champion community-based health initiatives which move upstream to address the root causes of poor health in the communities we serve.”

The transformation for all aspects of health care within Kentucky has begun and the partnership between the University of Louisville, KentuckyOne Health and University of Louisville Hospital | James Graham Brown Cancer Center is leading the way — making better care happen here. ■

University of Louisville Physicians provide patient care throughout the Louisville market and beyond.



## Clinical practices integrate to form UofL Physicians

While most of the community is familiar with groundbreaking research done at the **University of Louisville School of Medicine**, the renowned physicians at UofL who teach and conduct research there also touch the lives of thousands of people each year – patients they treat in an office or hospital setting. Until 2012, the school's clinical practices operated as independent entities, each with their own office staff and unique operations. These practices have now merged to become University of Louisville Physicians, serving more than 200,000 people each year as the largest multispecialty practice in the region.

As of Jan. 1, 2013, UofL Physicians includes 25 clinical practices – 600 physicians, 78 specialties and 1,100 team members – making it one of the largest employers in the region.

"The formation of the new UofL Physicians organization strengthens the overall delivery of care to our patients. This is the model of top academic integrated physician practices like the Mayo Clinic and Vanderbilt that offer unsurpassed patient care experiences, in part because their services are offered in a coordinated fashion," said **Gregory Postel, M.D.**, chairman of the UofL Physicians board and chair of the UofL Department of Radiology. "Appointments are scheduled efficiently and in concert with appropriate consultants. Secure health records are stored and shared by members of the health care

team through electronic health records and other programs that individual practices may not have the ability to introduce."

One of the greatest benefits to come with UofL Physicians' integration is the implementation of a \$12 million companywide electronic health records system (EHR).

"Using such a system makes sense for both UofL Physicians and our patients," Chief Information Officer **Chuck Fitch** said. "It will help us produce better outcomes for our patients via consistent information sharing. We are the first major physician group practice in Louisville to have our system up and ready to serve our patient population."

For patients, this new EHR system will allow easier and safer access to high-quality care in the UofL Physicians network. All physicians within the organization will be able to track blood type, medications, allergies, drug interactions, treatment plans and other aspects of their

patients' medical history. The system also allows patients to obtain online copies of their records if they are to travel abroad, eliminating the need for a trip to the physician's office to obtain these records. For people travelling, these records literally could mean life or death.

For doctors, the system allows diagnoses to be communicated more effectively across specialties and office locations. With so many providers, an EHR system allows all of them to have access to a patient's course of treatment.

Integrated faculty practice plans are the gold standards at academic health centers. Approximately 90 percent of medical schools operate under such a model.

"In an increasingly competitive health care landscape, UofL Physicians' integration will allow us to present a united approach in a sometimes divided market," said UofL Physicians CEO

**Michael Bukosky**. "As clinicians, researchers and teachers of tomorrow's doctors, we are committed to a healthy future for our community and our country."

To find a physician or practice, visit [UofLPhysicians.com](http://UofLPhysicians.com) or call 502-588-6000.

Find us at [facebook.com/uoflphysicians](https://www.facebook.com/uoflphysicians)



University of Louisville Physicians is the most comprehensive specialty and subspecialty physicians practice in the area. Patients from throughout the state and region seek care of our faculty-physicians.



# Nucleus Rising

The Nucleus Building – a new office, research and technology building – will soon open its doors. Located in an area where Louisvillians once bought meats and fresh produce, the 200,000-s.f., environmentally friendly and artistically pleasing structure is expected to open this summer on the old Haymarket site.

The building will have a dry lab space, a green roof, retention basins to limit rainwater runoff into sewers and is expected to be LEED certified for its energy saving features. It's the newest building constructed by **Nucleus – Kentucky's Innovation Center**, an economic development arm of the **University of Louisville Foundation** and brainchild of UofL President **James Ramsey**.

Ramsey, who has been the university's president since 2002, believed that UofL could boost its partnership with Louisville's burgeoning technology and innovation sector and, at the same time, help the school's faculty and local entrepreneurs develop, fund

and shepherd their ideas and inventions to the marketplace. But, UofL needed a tool and a place to spur that work. Thus, Nucleus and its downtown research park were born in 2008 to fulfill that role.

Nucleus has grown quickly and provides office and wet and dry lab space for 29 Louisville companies and researchers; inexpensive "laptop space" for startups; and training for entrepreneurs to get their companies off the ground.

When the Nucleus Building opens, it is expected to house companies and innovators in the aging, life sciences and technology sectors. One block away, at the corner of Jefferson and Brook streets, the Nucleus Innovation Center houses companies ranging from **TNG Pharmaceuticals**, which makes an agricultural vaccine, to **PGXL**, which specializes in personalized medicine based on one's DNA. Other companies in the center include a tech company that develops mobile phone apps and another that helps businesses manage employee wellness programs. The new and



UofL President Dr. James Ramsey at the "topping off" ceremony for the Nucleus Building.

popular **iHub** building is in the same city block and provides tables, conference rooms and mingling space for \$80 a month to more than 45 startups who don't need or can't afford traditional office space.

Nucleus also has launched a series of training sessions and programs such as **IdeaHour**, **Lean Launch-Pad** and **e+i** where entrepreneurs meet innovators giving Louisville businesses and startups a chance to learn and share ideas with others. Nucleus also signed agreements to share ideas to develop research parks for the **Owensboro Economic Development Corporation** and the **Wroclaw Research Centre** in Poland.

Dr. Ramsey's vision is working. The University of Louisville is using Nucleus to foster inventions, research and innovation to boost Louisville's economy through an idea marketplace. ■

The Nucleus Building – a new office, research and technology, LEED certified building in downtown Louisville – contains 200,000-s.f. and has a green roof.



# Bigger Systems, Better Healthcare

## Hospitals merging, partnering to survive as shift to population health management continues

By Lorie Hailey

Healthcare is ever-changing, but one theme in recent years is constant: Bigger is better. Financial imperatives are driving healthcare providers to create new business plans and consider different models of service as the focus shifts from episodic care to population health management.

Many Kentucky hospitals are expanding their scales of operations by partnering, forming alliances and, in many cases, merging to survive in a new age of healthcare. Kentucky hospital leaders say the healthcare landscape will continue to evolve; hospitals must adapt to it or be left behind.

"Everyone thinks scale is important under the new healthcare system," said **Dr. Michael Karpf**, executive vice president for health affairs at the **University of Kentucky**. "We'll have to be able to take care of populations rather than individuals."

Population health management, which aims to improve the health of an entire population, largely using intervention and prevention strategies, is not something an individual hospital can tackle, according to **Tom Weiss**, president of Nashville-based **LifePoint Hospitals'** Continental Division, which operates nine hospitals in Kentucky.

"We're not quite there, but it is happening, where we're doing more population healthcare management as opposed to episodic care," he said.

"To do that you have to collaborate. You cannot do it alone."

That's why healthcare organizations in Kentucky and across the nation are forming alliances and clinical relationships covering widening geographies.

Under the federal Patient Protection and Affordable Care Act, Weiss said, healthcare providers will

how we're going to provide increased value to our patients and to the employers who are buying our care."

University of Louisville's University Hospital is the latest to enter an agreement with a larger healthcare entity. In November, the **University Medical Center** and **UofL** announced a partnership that brings together **University Hospital** and the

**James Graham Brown Cancer Center** with **KentuckyOne Health**.

KentuckyOne will invest \$543.5 million in the medical center during the first five years.

The collaboration with KentuckyOne Health is essential for University Hospital | James Graham Brown Cancer Center to continue its core mission as an innovative academic medical center and a vital regional safety net hospital that provides the highest level of care to all patients, the university said.

The partnership will maintain local control of the hospital. It also enables the University of

Louisville to continue to recruit and retain the best faculty for its health schools, which are critical as the pipeline of future generations of doctors, nurses, dentists and caregivers.

Late in 2011, University Hospital agreed to merge with Jewish Hospital and St. Mary's Health Care in Louisville and Lexington-based St. Joseph Health System in a deal that included affiliation with



Photo courtesy of LifePoint Hospitals

LifePoint Hospitals, which acquired Clark Regional Medical Center in 2010, pumped \$60 million into its new 79-bed facility in Winchester. LifePoint owns several hospitals in Kentucky.

get reimbursement rate rewards or penalties for the quality of care they provide.

"It is not the same game that I have grown up with at Baptist for the past 30 years," said **Andy Sears**, vice president for planning and development at Louisville-based **Baptist Health**, which owns seven hospitals in Kentucky and manages two others. "Now, we have to look at how we will be more accountable for care and



deep-pocketed Catholic Health Initiatives in Denver. But Gov. Steve Beshear twice rejected the plan because of the religious affiliations it would create for the public entity.

Carrying on without University Hospital, CHI in January 2012 merged St. Joseph with Jewish Hospital and St. Mary's Healthcare to form KentuckyOne.

### Alliances moving UK toward its goals

UK HealthCare has formed alliances all over the state. Its biggest is with Norton Healthcare of Louisville to focus on improving population health in cancer care, stroke and heart disease; they also began a transplant program that is experiencing success.

The Norton-UK partnership was the result of two realizations, Karpf said. Norton officials "realized they were not going into the extreme tertiary-quaternary care business," he said, and decided to partner with an academic medical center that did.

"At the same time, we came to realize that we had to focus on a broader geography if, in fact, we were going to be a real 'referral center,'" Karpf said.

As healthcare delivery evolves, hospitals that "dabble" in transplants and other complex care will no longer have the population and resource infrastructure to support it, he said. Those procedures will have to be performed at referral centers or "centers of excellence." **UK Chandler Hospital's** goal is to become one.

Referral centers must have a population base of 5 to 6 million people, Karpf said. Without a partner with access to a larger population, UK would never reach that many people. With Norton, it becomes possible.

In the future, Karpf said, there are only going to be 50 or 60 referral academic medical centers in the country. To become a referral center, he said, UK will have to become the tertiary-quaternary care provider for Kentucky and West Virginia, and parts of Ohio and Tennessee.

If Kentucky does not develop a referral center, Kentuckians needing advanced care in the future will have to travel out of the state, Karpf said, making UK's goal of becoming a "center of excellence" especially important.

UK is well on its way, he said, with the UK/Norton program completing 20 transplants in the past four months. A Norton clinic in Louisville evaluates patients. Those needing transplants go to UK for the procedure and stay until stabilized. Follow-up appointments and procedures take place back in Louisville.

UK also works with Norton's hematologists who care for leukemia and myeloma patients, and the hospitals have developed common protocols. Patients needing bone marrow transplants go to UK for that highly specialized process, Karpf said, then have

patients to the next facility when they need a higher level of care," Karpf said.

Some of UK's partners include: the **Markey Cancer Center affiliates**; **Appalachian Regional Healthcare**, a 10-hospital group whose flagship is in Hazard; **St. Claire Regional Medical Center** in Morehead; **Rockcastle County Hospital** in Mt. Vernon; **Harrison Memorial Hospital** in Cynthiana; and **LifePoint Hospitals' facilities** that are in central Kentucky.

Other state hospitals and care provider groups are entering formal mergers, but UK HealthCare



Owensboro Medical Health System is building a new \$385 million hospital and medical complex, the largest individual project among more than \$1 billion in current capital projects by Kentucky healthcare providers.

follow-up appointments with their home hematologist and oncologist.

"We think we're viable, and we need to continue to expand our reach to continue to build those numbers," he said.

### Creating a seamless healthcare referral network

Other UK alliances of varying levels of formality have been formed across the state. These partnerships are not financial mergers. It is creating a network of clinical programs "that provide the right care the very first time and in the right setting and seamlessly move

continues its partnership approach — keeping an eye on the horizon, though. If in five or 10 years it makes sense to merge financially with another institution, Karpf said, UK will consider it.

"We have chosen not to merge and consolidate prematurely because oftentimes that causes political issues and a lot of side issues," he said. "We've tried to develop our relationships in the least threatening way. What we do is help the medical staff and we help the hospital, and we build personal relationships with the doctors and the administrators. Our approach has just been less threatening and less disruptive in the short haul."



## Better bottom line, better patient care

Healthcare reform incentives are not the only reason hospitals are teaming up.

**Baptist Health** (formerly Baptist Healthcare System) last fall acquired **Pattie A. Clay Regional Medical Center** in Richmond and Trover Health System in Madisonville. For those hospitals, Sears said, becoming part of a larger system was a way to increase access to capital, upgrade services and save money.

"We did the math. It became clear that in the long term we were not producing enough to be on our own," said **E. Berton Whitaker**, president and CEO of the **Baptist Health Madisonville** (formerly Trover Health System). "It just made sense to be part of a larger healthcare network so that we can be prepared to purchase smarter, plan smarter and ultimately grow where we might struggle alone."

Individual hospitals must maintain financial reserves independently, Sears said, which limits what they can spend on improvements or new equipment. Being part of a bigger network provides access to more funding and frees up reserve funds for needed projects.

In 2012, for example, the staff of **LifePoint's Clark Regional Medical Center** officially opened a new \$60 million state-of-the-art hospital and \$10 million medical office building. LifePoint committed to building the new facility when it purchased the medical center in 2010.



"In all our communities, we try to keep our facilities as up-to-date as possible," Weiss said.

Multiple efficiencies open up for health facilities in a system, Sears said. For example, a small independent hospital may require its own full-time human resources officer, but in a system be able to share one with other nearby hospitals.

Partnership or affiliation relationships allow hospitals to provide seamless referral care for patients, even in complex cases, Weiss said.

LifePoint operates community hospitals in non-urban areas. It has more than 50 hospital campuses in nearly 20 states. Its nine Kentucky affiliates are in

**Pattie A. Clay Regional Medical Center** in Richmond was acquired by Baptist Health, the Louisville-based statewide provider system. It is now called **Baptist Health Richmond**. The hospital already had been under Baptist's management since 2010.

Versailles, Paris, Winchester, Georgetown, Mayfield, Somerset, Russellville, Maysville and Lebanon. Only **Lake Cumberland Regional Medical Center** in Somerset offers advanced medical care such open-heart surgery and neurosurgery. The rest refer patients to other facilities.

Establishing partnerships lets patients know they have access to the healthcare they need, Weiss said.

Because LifePoint has hospitals clusters in different areas of Kentucky, nearby hospitals can collaborate on healthcare initiatives and sometimes share specialists, Weiss said. The Versailles and Lebanon hospitals, for example, may jointly recruit a neurologist to work at both facilities, lowering their cost to expand services.

Facilities in a system often form one team to tackle an issue they jointly identify, Weiss said.

Baptist Health has four locations on the Interstate 75 corridor: Corbin, London, Richmond and Lexington. They now offer services that complement one another, Sears said.

Both Baptist and LifePoint are interested in adding to their rosters of facilities.

Sears said he sees great opportunities for expanding in Western Kentucky. Baptist Health manages Russell County Hospital and Hardin Memorial Hospital in Elizabethtown, but Sears said the purchase of either of those hospitals is not "on the horizon."

LifePoint is "always looking for opportunities to purchase hospitals," Weiss said.

*Lorie Hailey is associate editor of The Lane Report. She can be reached at [lorie@lanereport.com](mailto:lorie@lanereport.com).*



An artist's rendering depicts a proposed \$50 million 100,000-s.f. facility that would house a 50-bed **Shriners Hospital for Children-Lexington** and a **UK HealthCare ophthalmology clinic** on a city block across Limestone Street from recently completed **UK Chandler Medical Center**. If built, a Shriners parent entity would pay for construction on UK property, and UK would lease 50,000 s.f. of the building for its ophthalmology clinic. Shriners would utilize UK Children's Hospital surgery resources.



# Gluten-Free

## Why are so many people going gluten-free?

Humans have been cultivating grains for more than 10,000 years, so why now are so many people going gluten-free?

It may look like just another food fad, but for those with gluten sensitivity, the latest supermarket offerings could make life a lot easier.

"Millions of people suffer everyday not knowing that what they are eating is making them sick," said **Dr. Edward Conley**. "Doctors are not aggressive enough in diagnosis because they still feel that everyone who is sensitive to gluten must have celiac disease, and that is not true."

Celiac disease, or gluten intolerance, is a serious autoimmune disease in which a person can't tolerate gluten, a protein found in wheat, rye and barley. Symptoms can be quite severe -- including intermittent diarrhea, abdominal pain, weight loss and malnutrition -- or so mild and nondescript as to be overlooked or misdiagnosed. Depression, anemia, muscle cramps, joint pain and skin rashes are all common.

Gluten sensitivities, by contrast, are less severe and characterized by bloating, abdominal discomfort and diarrhea -- and they're on the rise. In fact, it's almost five times more common today than it was 50 years ago, according to a 2009 study conducted by the Mayo Clinic. And most people affected don't even know they have it.

"This is a very serious health issue," Conley explained. "I have seen people who were told they were going to die from autoimmune disease and we were able to reduce the inflammation and damage by getting rid of gluten."

Gluten is most commonly associated with bread and pasta, but it also shows up in some very unlikely

places. Lumped under monikers like "modified food starch" and "vegetable protein," gluten can be hiding in cold cuts, salad dressings, spice blends, spaghetti sauce, beer -- even chewing gum and pills.

Luckily, **the FDA now requires food manufacturers to list common allergens, including wheat**, on all labels -- and with the rise in gluten sensitivities, many companies are using a product's gluten-free status as a top selling point.

"Gluten-free products are beneficial only if you are gluten sensitive. The problem is that 95 percent of people who are gluten sensitive are never diagnosed because doctors don't think of it," Conley explained.

"In my practice, I have seen tremendous destruction of health from the fact that someone is gluten sensitive and never knew that what was causing their abdominal pain or autoimmune disease was due to what they were eating everyday," he said.

Not all gluten-free dietary options are created equal, though.

"A naturally gluten-free grain like quinoa is an excellent choice for a healthy, balanced diet," said **Cheryl McEvoy**, director of communications for the National Foundation for Celiac Awareness.

"Gluten-free cookies, on the other hand, may have the same or even more sugar, fat and sodium than their traditional wheat-based counterparts, so they're not healthier for those who don't have to avoid gluten," McEvoy said.

Even those without acute sensitivities are going gluten-free. Proponents claim that gluten-free diets significantly boost health and energy, aid in weight loss and help patients better cope with migraines, ADHD, autism and depression. Evidence also suggests that gluten can exacerbate chronic health problems like allergies, asthma, digestive disorders and autoimmune conditions.

"I frequently recommend gluten-free diets to my patients. It is not necessary for everyone,

but you would be surprised at how many people feel so much better when they get rid of the gluten," said **Dr. Mary**

**Ann Block**, an osteopathic physician and medical director of The Block Center.

"While we have been making and using grains for 10,000 years, the results still yield a food that is not real. It must be altered, manufactured to be eaten. It

is better and healthier to eat foods the way they come and eating a shaft of wheat just doesn't happen."

If you suspect you may have a gluten sensitivity, track your symptoms and speak with your doctor. They may advise a gluten-free diet. If your doctor suspects celiac disease, they will likely order a blood test to check for raised levels of specific antibodies that are produced in reaction to an allergen. However, these tests have varying degrees of reliability and may show false negatives, so an intestinal biopsy may be required. ■



Strategy | Technology | Results

SIS is a leading technology and managed solutions provider, helping clients design, optimize and support mission-critical assets. With over 30 years of experience deploying technology solutions, SIS combines proven methodologies, experienced professionals and best-of-breed technologies to provide the highest quality of service for more than 1,300 clients both large and small.

## Providing World Class Technology Solutions to Health Care Organizations

- Infrastructure Solutions
- Analytics Optimization
- Disaster Recovery/ Business Continuity (DR/BC)
- Data Center and Cloud Services
- Data Backup and Storage Management
- Software and Applications
- Staff Augmentation

SIS, LLC • 165 Barr Street • Lexington, KY 40507-1321 • (o) 859.977.4747 • (e) info@ThinkSIS.com • www.ThinkSIS.com

# Healthy and Youthful from the Inside Out

## Preventing disease and aging with antioxidant-rich foods

When perusing the aisles at groceries for health-conscious choices, it may be overwhelming to discern between the many products available. Labels on products from beverages to snacks to body lotions promise the benefit of antioxidants, but being informed about antioxidants, what exactly they are, where to find them and how they work in the body can help ensure that one's diet obtains the maximum advantage from them.

"To understand why antioxidants are important, you must first know what free radicals are," said **Stacey Whittle**, a registered dietitian and cofounder of Healthy by Design Nutrition Specialists. "In regard to the human body, free radicals are unstable oxygen molecules that can damage cells and organs. They are responsible for aging, tissue damage and possibly the cause of disease. The chemical reactions responsible for breathing and eating create free radicals."

Environmental causes of free radicals include stress, air pollution, processed foods, prescription and recreational drugs, smoking and industrial chemicals.

She said one's health is at risk when the amount of free radicals is greater than what the body can handle, causing aging and disease. "This sounds grim, but we aren't helpless against free radicals," Whittle said.

The body makes numerous molecules that suppress free radicals, and the body also extracts free-radical fighters from food, she explained. These defenders, often called antioxidants, are phytochemicals (plant chemicals), vitamins, minerals and other nutrients. They can be found in most fruits and vegetables, but culinary herbs and medicinal herbs can also contain high levels of antioxidants.

According to Whittle, the most commonly known antioxidants are:

- **Vitamin A and carotenoids:** Found in brightly colored fruits and vegetables, such as apricots,

broccoli, cantaloupe, carrots, collards, kale, sweet potatoes, tomatoes, etc.

- **Vitamin C:** Found in fruits, such as oranges, tangerines and other citrus fruits, blueberries, strawberries, kiwi, tomatoes, bell peppers, green leafy vegetables and tomatoes.

- **Vitamin E:** Found in nuts and seeds, whole grains and green leafy vegetables.

- **Selenium:** Found in fish and shellfish, red meat, grains, eggs, chicken and garlic.

- **Coenzyme Q10 (CoQ10):** Found in fish, meat, soybean oil, sesame oil and canola oil.

Whittle said antioxidants came to public attention in the 1990s, when scientists began understanding that free radical damage was involved in the early stages of artery-clogging atherosclerosis and may contribute to cancer, vision loss and several other chronic conditions.

Some studies show people with low intakes of antioxidant-rich fruits and vegetables were at greater risk for developing these chronic conditions than were people who ate plenty of these foods. Clinical trials began testing the impact of single substances, especially beta-carotene and vitamin E, as deterrents against heart disease, cancer and other diseases.







Understanding what antioxidants can do for your body is important to your overall health.

"We have to eat a variety of fruits, vegetables, grains, beans and nuts every day," said **Marion Alvarez, M.D.**, health coach and plant-

because most antioxidants can be affected when cooked at high temperatures," Alvarez added. Also, "it has been said that dairy can cancel out the

based nutrition counselor. "There's no need to take antioxidant supplements; just add a few of these to your diet every day:

**Beans**  
**Blueberries**  
**Artichokes**  
**Raspberries**  
**Apples**  
**Pecans**  
**Broccoli**  
**Squash**  
**Carrots**  
**Leafy greens**  
**Whole grains**  
**Cocoa beans**  
**Green tea**

When incorporating antioxidants into one's diet, "it is best to consume raw fruits and vegetables

antioxidants' positive effects, so it's better to avoid eating dairy with fruit and vegetables."

In addition to being an important part of a balanced diet for overall health and well being, antioxidants are available in a variety of beauty products marketed as anti-aging. Dermatologist **Dr. Molly Griffin** said the most effective ones are vitamin C, idebenone and the fruit extract CoffeeBerry. These help with "all the components of sun damage: tone, texture and discoloration in the skin," Griffin said.

So while antioxidants aid in disease prevention, they may also preserve and improve physical appearance. According to Alvarez, consuming antioxidants in food can also "prevent premature aging and increase collagen production, which helps skin to be firmer," she said. "It also reverses sun damage and can reduce the appearance of wrinkles. The most important information I can give about antioxidants is that it is best to consume them from fresh fruits and vegetables. There are a lot of supplements claiming to be as helpful, if not more, than the actual foods, but this has not yet been proven. Remember, eat healthy ... be happy!" ■



**T.J. Health Pavilion** Glasgow, Ky.



**ARH MRI & Rehab** Harlan, Ky.



**Mountain Manor** Paintsville, Ky.



*Builders & Managers*

For 38 years, Alliance Corporation has partnered with hospitals, pharmacies, health departments, long-term care facilities, and other healthcare organizations to build impressive and professional facilities that enhance healthcare delivery and medical services to the communities they serve.

Alliance Corporation understands the distinctive standards required in building a medical facility. Healthcare construction presents a unique set of challenges that Alliance has experience in solving.

**Contact us today to learn how we can transform the plans for your new facility into reality.**

*Join us this summer for a healthcare construction symposium with a behind-the-scenes tour of the new T.J. Health Pavilion.*

*More information & registration at [alliancecorporation.com](http://alliancecorporation.com) or call 270.651.8848*

# Plyometric Training

## Jump, squat and twist your way to power and strength



One of the big trends in fitness training this year is plyometrics, which registered dietitian and personal trainer **Tina Marinaccio** described as “any exercise that involves jumping, punching and medicine ball work to improve the body’s ability to perform dynamic moves.” For example, a golfer’s swing needs to be a dynamic, explosive movement to achieve the desired distance and aim. Marinaccio said that “explosive movement” is the key phrase for plyometrics, which is why athletes incorporate plyometric moves such as jumping, squatting and twisting with a medicine ball to add power to their needed performance.

Plyometrics increase the stretch-and-spring reflex in the legs, and one of the key exercises in this fitness regime involves jumping up and down in place or onto a box. Upon each landing, the leg muscles stretch and contract for your next jump. Another form of the jumping exercise is to stand on a platform, jump down to the floor and then jump up onto a higher platform. Jumping rope is also a plyometric exercise.

Medicine ball exercises may involve catching and throwing a weighted ball for plyometric results to the upper body, waist, back, abs and lower body.

This style of exercise may be a favorite of athletes, but it’s also being employed in gentler trainer-guided workouts for all exercisers. Baby boomers are enjoying the benefits of these “softer” workouts – under the supervision of a trainer and with physician clearance – as are less-conditioned adults. In addition to delivering “explosive performance” ability, plyometrics also provide:

- Increased muscle strength.
- Improved flexibility.
- Greater agility.
- Joint stability and flexibility.
- Lower-body power.
- Cardiovascular workout benefits, for heart health.
- Strength training benefits.
- Endurance for everyday tasks, such as yard work.
- Improved metabolism.
- Variety in your workouts keeps you challenged.
- Improved calorie burning during your workouts.
- A good-for-your-brain benefit of a new skill.
- A new workout to share with a spouse or friend.

### Important precautions

Marinaccio said, “Any exercise can pose some kind of risk (of injury), so always be sure to first consult with your doctor for medical clearance, especially if you have arthritis, osteoporosis” or any other condition that could pose a risk to your health.

Working with a qualified and licensed professional trainer affords the dual benefits of having safer plyometric moves chosen for your fitness ability and being carefully monitored as you’re working out. Because this fitness regime incorporates a lot of



1795 Alysheba Way, Unit 2102-2103, Lexington, KY 40509  
(800) 773-4040, WWW.ElderlawLexington.com

### Kentucky's Elder Care Firm

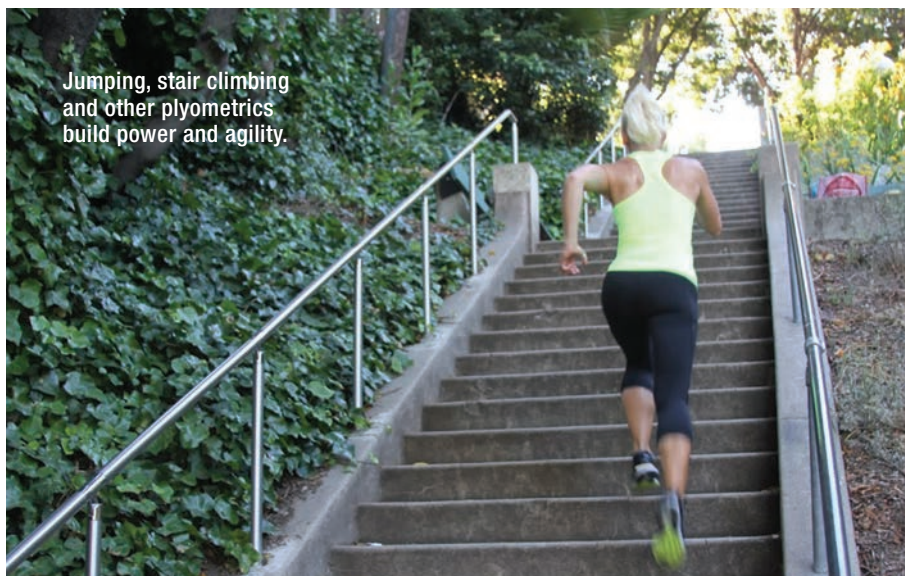
Long Term Care Counseling, Medicaid Planning,  
Veteran's Benefits and Appeals, Probate and Estate Administration  
Special Needs Planning and Trust Administration, Guardianship  
with Case Management, Conservatorship and Curator services.

Members of the Kentucky Bar Association, Elder Law Section,  
Kentucky Guardianship Association, VA Accredited Attorneys  
National Academy of Elder Law Attorneys, Special Needs Alliance, Inc.



McClelland & Associates Team





Jumping, stair climbing and other plyometrics build power and agility.

jumping, landing and other weight-bearing moves, your trainer would watch your every move, correct your form so that you are landing correctly with “soft joints” and not stiff legs, and end the repetitions if the move is too challenging for you. That’s much safer than popping in a workout DVD and trying plyometric moves that are not tailored to, nor safe for, your physical abilities.

Plyometrics are considered an advanced, high-impact exercise, so avoid them if you have chronic joint pain or injuries, previously injured knees, or other health challenges. Strength and endurance are required for this workout, which is designed to improve your existing fitness level, so consider plyometrics only if you’re already a regular and

healthy exerciser. Your trainer may decide to start you with simple in-place jumps rather than jumps from platform to floor.

Marinaccio said plyometrics should be done only when you’re fresh and not already fatigued from a workout, and only after you’ve thoroughly warmed up to both protect and get maximum results from your muscles and joints. Other smart tips for preparing to do plyometric exercises:

- **Plan to do them only once or twice a week.**

As it is an intense workout, it’s best to practice moderation, allowing yourself a day of rest after these exercises.

- **Wear quality athletic shoes.** Never do plyometrics barefoot. You need well-constructed, shock-absorbing fitness shoes to minimize the impact on your body.

- **Exercise on the right surface.** Use a well-cushioned gym floor with adequate bounce. Never use a concrete floor.

It can’t be emphasized enough: Plyometrics are to be undertaken only with medical clearance and with a professional trainer’s guidance. As you gradually incorporate these exercises into your regular fitness routine, you’ll enjoy the strength and health benefits they deliver. ■



## PROMISES MADE, PROMISES KEPT

16 years ago we promised to help improve our members’ health and quality of life.

Today, we’re helping Kentuckians live healthier lives.

Passport Health Plan is the right Medicaid plan for Kentucky – **We promise.**

**PASSPORT**  
HEALTH ★ PLAN



# Lane List of Kentucky Hospitals Ranked by certificate of need

Hospital Name	City/County	# of Beds	Hospital Name	City/County	# of Beds
UK HealthCare	Lexington/Fayette	791	T. J. Samson Community Hospital	Glasgow/Barren	196
Norton Hospital	Louisville/Jefferson	690	Jennie Stuart Medical Center	Hopkinsville/Christian	194
UK Chandler Medical Center	Lexington/Fayette	569	Central State Hospital	Louisville/Jefferson	192
Baptist Health Louisville	Louisville/Jefferson	519	Methodist Hospital	Henderson/Henderson	192
Western State Hospital	Hopkinsville/Christian	495	St. Elizabeth Florence	Florence/Boone	177
St. Elizabeth Edgewood	Edgewood/Kenton	480	Frankfort Regional Medical Center	Frankfort/Franklin	173
King's Daughters Medical Center	Ashland/Boyd	465	Highlands Regional Medical Center	Prestonsburg/Floyd	166
Owensboro Medical Health System, Inc.	Owensboro/Daviess	447	Saint Joseph East	Lexington/Fayette	166
Saint Joseph Hospital	Lexington/Fayette	446	St. Claire Regional Medical Center	Morehead/Rowan	159
Jewish Hospital	Louisville/Jefferson	442	Murray-Calloway County Hospital	Murray/Calloway	152
Norton Audubon Hospital	Louisville/Jefferson	432	Harlan ARH Hospital	Harlan/Harlan	150
University of Louisville Hospital	Louisville/Jefferson	404	Cardinal Hill Rehabilitation Hospital	Lexington/Fayette	145
Our Lady of Peace	Louisville/Jefferson	396	Lincoln Trail Behavioral Health System	Radcliff/Hardin	140
Baptist Health Madisonville	Madisonville/Hopkins	390	Norton Brownsboro Hospital	Louisville/Jefferson	127
Baptist Health Lexington	Lexington/Fayette	383	Rivendell Behavioral Health Services	Bowling Green/Warren	125
Norton Suburban Hospital	Louisville/Jefferson	373	Baptist Health La Grange	La Grange/Oldham	120
Lourdes	Paducah/McCracken	359	Pineville Community Hospital	Pineville/Bel	120
Baptist Health Paducah	Paducah/McCracken	349	Saint Joseph London	London/Laurel	120
Kindred Hospital - Louisville	Louisville/Jefferson	337	Williamson ARH Hospital	South Williamson/Pike	113
The Medical Center at Bowling Green	Bowling Green/Warren	337	The Brook Hospital - KMI	Louisville/Jefferson	110
Eastern State Hospital	Lexington/Fayette	323	The Ridge Behavioral Health System	Lexington/Fayette	110
Hazard ARH Regional Medical Center	Hazard/Perry	308	Baptist Health Richmond	Richmond/Madison	105
Sts. Mary & Elizabeth Hospital	Louisville/Jefferson	298	Meadowview Regional Medical Center	Maysville/Mason	100
Hardin Memorial Health	Elizabethtown/Hardin	285	Cumberland Hall Hospital	Hopkinsville/Christian	97
St. Elizabeth Fort Thomas	Fort Thomas/Campbell	284	Middlesboro ARH Hospital	Middlesboro/Bell	96
Baptist Health Corbin	Corbin/Whitley	273	Frazier Rehab Institute	Louisville/Jefferson	95
Kosair Children's Hospital	Louisville/Jefferson	263	Jackson Purchase Medical Center	Mayfield/Graves	93
Pikeville Medical Center	Pikeville/Pike	261	Muhlenberg Community Hospital	Greenville/Muhlenberg	90
Lake Cumberland Regional Hospital	Somerset/Pulaski	247	Taylor Regional Hospital	Campbellsville/Taylor	90
UK HealthCare Good Samaritan Hospital	Lexington/Fayette	222	Three Rivers Medical Center	Louis/Lawrence	90
Our Lady of Bellefonte Hospital	Ashland/Greenup	214	Whitesburg ARH Hospital	Whitesburg/Letcher	90
TriStar Greenview Regional Hospital	Bowling Green/Warren	211	The Brook Hospital - DuPont	Louisville/Jefferson	88
Ephraim McDowell Regional Medical Center	Danville/Boyle	197	River Valley Behavioral Health Hospital	Owensboro/Daviess	80



Central Baptist Emergency Entrance



Saint Joseph Lexington



Good Samaritan



Lourdes Hospital Paducah



UofL Cancer Center and Hospital



Hospital Name	City/County	# of Beds
Clark Regional Medical Center	Winchester/Clark	75
Georgetown Community Hospital	Georgetown/Scott	75
Logan Memorial Hospital	Russellville/Logan	75
Spring View Hospital	Lebanon/Marion	75
Twin Lakes Regional Medical Center	Leitchfield/Grayson	75
Westlake Regional Hospital	Columbia/Adair	74
Paul B. Hall Regional Medical Center	Paintsville/Johnson	72
Jewish Hospital - Shelbyville	Shelbyville/Shelby	70
Parkway Regional Hospital	Fulton/Fulton	70
Manchester Memorial Hospital	Manchester/Clay	63
Harrison Memorial Hospital	Cynthiana/Harrison	61
Southern Kentucky Rehabilitation Hospital	Bowling Green/Warren	60
Bourbon Community Hospital	Paris/Bourbon	58
NorthKey Community Care	Covington/Kenton	57
Kentucky River Medical Center	Jackson/Breathitt	55
Fleming County Hospital	Flemingsburg/Fleming	52
Shriners Hospitals for Children - Lexington	Lexington/Fayette	50
Monroe County Medical Center	Tompkinsville/Monroe	49
Crittenden Health Systems	Marion/Crittenden	48
Continuing Care Hospital	Lexington/Fayette	45
Clinton County Hospital	Albany/Clinton	42
Saint Joseph Mount Sterling	Mount Sterling/Montgomery	42
Select Specialty Hospital Lexington	Lexington/Fayette	41
Flaget Memorial Hospital	Bardstown/Nelson	40
Gateway Rehabilitation Hospital	Florence/Boone	40
HEALTHSOUTH Rehabilitation Lakeview	Elizabethtown/Hardin	40
HEALTHSOUTH Rehabilitation Northern KY	Edgewood/Kenton	40
Jane Todd Crawford Hospital	Greensburg/Green	35
Select Specialty Hospital - Northern KY	Fort Thomas/Campbell	33
Oak Tree Hospital	Corbin/Whitley	32
Ireland Army Community Hospital	Fort Knox/Hardin	31
Commonwealth Regional Specialty Hospital	Bowling Green/Warren	28
Rockcastle Regional Hospital & RCC	Mount Vernon/Rockcastle	26

Hospital Name	City/County	# of Beds
Bluegrass Community Hospital	Versailles/Woodford	25
Breckinridge Memorial Hospital	Hardinsburg/Breckinridge	25
Caldwell Medical Center	Princeton/Caldwell	25
Carroll County Memorial Hospital	Carrollton/Carroll	25
Caverna Memorial Hospital Inc.	Horse Cave/Hart	25
Cumberland County Hospital	Burkesville/Cumberland	25
Ephraim McDowell Fort Logan Hospital	Stanford/Lincoln	25
Knox County Hospital	Barbourville/Knox	25
Livingston Hospital & Healthcare Services	Salem/Livingston	25
Marcum & Wallace Memorial Hospital	Irvine/Estill	25
Marshall County Hospital	Benton/Marshall	25
Mary Breckinridge ARH Hospital	Hyden/Leslie	25
McDowell ARH Hospital	McDowell/Floyd	25
Methodist Hospital Union County	Morganfield/Union	25
Morgan County ARH Hospital	West Liberty/Morgan	25
New Horizons Health Systems, Inc.	Owenton/Owen	25
Ohio County Hospital	Hartford/Ohio	25
Russell County Hospital	Russell Springs/Russell	25
Saint Joseph Berea	Berea/Madison	25
Saint Joseph Martin	Martin/Floyd	25
St. Elizabeth Grant	Williamstown/Grant	25
The James B. Haggin Memorial Hospital	Harrodsburg/Mercer	25
The Medical Center at Franklin	Franklin/Simpson	25
The Medical Center at Scottsville	Scottsville/Allen	25
Trigg County Hospital Inc.	Cadiz/Trigg	25
Wayne County Hospital, Inc.	Monticello/Wayne	25
Casey County Hospital	Liberty/Casey	24
Nicholas County Hospital	Carlisle/Nicholas	18
Robley Rex VA Medical Center	Louisville/Jefferson	0
VA Medical Center - Lexington	Lexington/Fayette	0

Source: Kentucky Hospital Association, 2013

*Editor's note: due to recent name changes and/or affiliations, a hospital's listing may have been modified or changed since these data were compiled.*



UK Hospital



Norton Hospital



Brown Cancer Center UofL



Kosair



MCC Combs Building



## Up to \$50,000 per location. Now that's a healthy rebate program.

**Earn substantial rebates for energy upgrades.** When you make your healthcare facility more energy efficient, you can save energy and reduce costs. In fact, healthcare providers across Kentucky have already earned more than \$300,000 in rebates for upgrades in areas like lighting and air conditioning. If you're considering energy improvements, let us help you feel even better about the results. Apply for our Commercial Rebates today at [lge-ku.com/rebate](http://lge-ku.com/rebate).

