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REFLECTION | A TIME TO CELEBRATE

Welcome to Arkansas Heart Hospital's 2017 Year in Review. This year marks a special milestone as we celebrate 20 years of providing quality care.

These pages reflect our culture, passion for patient care and tremendous human resources. They also introduce you to our award-winning cardiac and peripheral vascular programs, our mature structural heart success and our bariatric launch. We are pleased to present this information and more. Visit arheart.com for additional details.

Arkansas Heart Hospital is a world-class facility built for patient-focused care. Here, patients have access to advanced technology and surgical techniques in a hospital specially designed for their treatment and recovery. From admission until discharge, we demonstrate patient commitment by valuing personal needs, comfort and convenience.

While this level of care helps contribute to Arkansas Heart Hospital's success, patient experiences and outcomes are built on our strong foundation of values:

- Highest expectations in quality
- Excellence through innovation
- Accountability through ownership
- Resilience without compromise
- Teamwork with results

In the end, we are a family of professionals who treat each other – and our patients – as family. Arkansas Heart Hospital is a family hospital. Please help us celebrate our proud accomplishments.

I leave you with our new vision statement: To be a regional pioneer accomplished through disruptive motivations and successes that have changed the entire health care landscape and delivery for the good of our family and friends.

Sincerely,

Dr. Bruce E. Murphy, Chief Executive

Suce & Mughy





On April 14 & 15, Arkansas Heart Hospital celebrated our 20 year anniversary. On Friday afternoon, employees were recognized at a ceremony in our hospital lobby. Over 100 team members received awards for 15 or more years of service, and an astounding 26 team members were recognized for serving with us the entire 20 years. On Saturday night, we collectively paused and recounted two decades worth of mountains climbed, victories achieved and milestones reached. Through video and live presentations, we saw and experienced the many people and events that shaped our history and have made us who we are today. We capped the night with dinner, dancing and live music from E-Train.



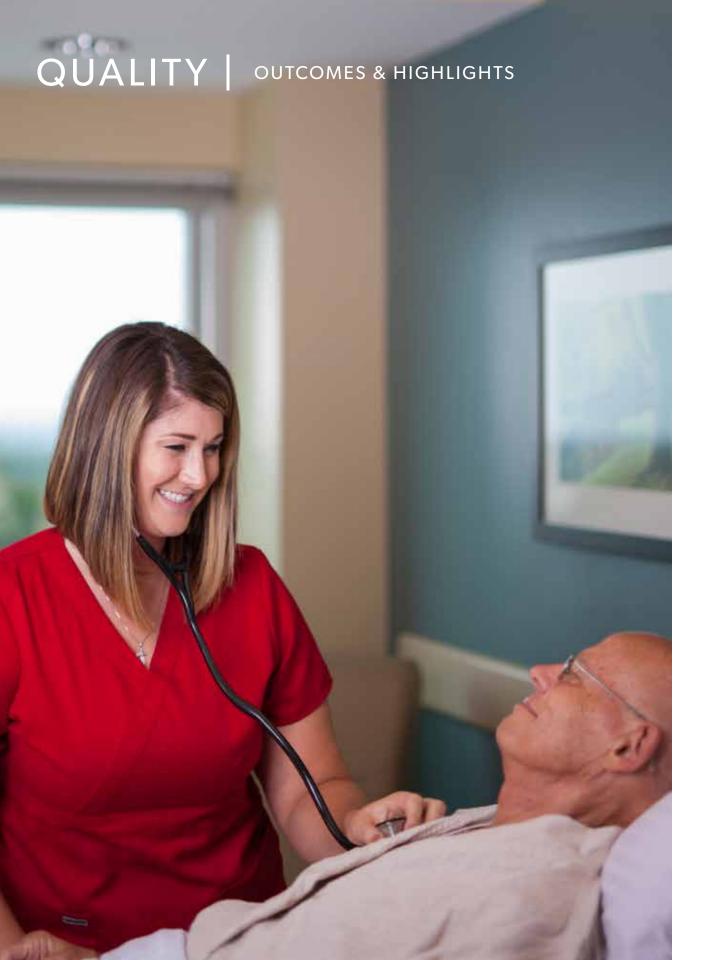










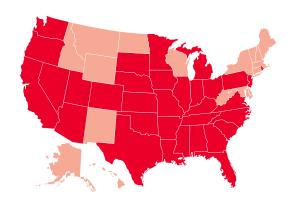


2017 BY THE NUMBERS

Since opening our doors 20 years ago, Arkansas Heart Hospital has earned a reputation for outstanding quality, expertise and care. Patients recognize us as cardiac leaders in Little Rock and far beyond. We take their trust very seriously, continually evaluating and expanding our services. The result of those efforts? More patients. More procedures. More growth. And more success stories.

WE TREATED PATIENTS FROM **33 STATES IN 2017**

WE'RE SERVING MORE **HEART PATIENTS THAN** EVER BEFORE.



OVER 100,000 OFFICE VISITS

UP 11%

ER VISITS

UP 11%

DISCHARGES

UP 7%

VALVES (NOT INCLUDING TAVR)

+200

COMPLEX ABLATIONS 2017 VS. 2016

20%

NEW PATIENT GROWTH

SPOTLIGHT | CLINIC NETWORK

Arkansas Heart Hospital is committed to providing quality cardiac care throughout the state. With 29 convenient locations, Arkansas Heart Clinic Network has met the goal of assembling the newest facilities, most advanced equipment and most highly skilled health care professionals to serve patients.

The Clinic Network proudly brings our internationally renowned cardiologists to local communities, so patients don't have to travel far for the best care. Hot Springs is a great example. The clinic there recently moved to a new location to offer better convenience and accommodate our growing patient base in Garland County.

Each clinic is designed to offer cardiac services and testing. While services can vary by location, patients rely on our local clinics for early screenings, heart disease testing, vascular care and more.

HEALTHY GROWTH IN CONWAY

In addition to serving cardiovascular needs, our new clinic in Conway has strong ties to the community. The clinic is involved with Toad Suck Daze, 5K runs and the Conway Chamber of Commerce, plus Beth Crowder, APN – a Conway local – provides care in her own backyard.

Clinic

• Opened spring 2015

Wound Care Center

- Opened spring 2016
- Treated 600 patients with super oxygenated air in the hyperbaric chamber

Services Include

- Cath Lab diagnostic and interventions
- TEE (Transesophageal Echocardiography)
- Vein and vascular ultrasound
- EP (Electrophysiology)
- CardioMEMSTM Heart Failure System
- Nuclear stress test
- Echo



29 CLINIC LOCATIONS

THROUGHOUT THE STATE





ABOVE Our Conway Clinic offers Interventional and General Cardiology, Internal Medicine, Cardiac Electrophysiology and Wound Care services.

OPPOSITE Our Little Rock Clinic is home to the StrongHearts Rehabilitation Center, Vein & Vascular Institute, Bariatric & Metabolic Institute and Keep the Beat Screenings.



SPOTLIGHT | FRO

FROM LITTLE ROCK TO LATVIA

In July, Dr. Vijay Raja participated in a PQ Bypass procedure at Pauls Stradiņš Clinical University Hospital in Riga, Latvia. He worked with other physicians, including Dr. Dainis Krievins, on this minimally invasive procedure, which is currently in the investigative trial stages in Europe and not yet available in the United States. The procedure was one of our featured live cases at the 2017 Heart Summit.

The PQ Bypass is a novel approach that creates a nonsurgical bypass around a totally occluded artery in the leg. The spectacular part? It uses the open vein next to the occluded artery as the passageway for the insertion of covered stents under X-ray guidance. The real trick is to open a hole from the artery to the vein for one part of the procedure, then finish the conduit with placement of another hole from the vein to the artery. This method uses the body's own open vessel for a new artificial bypass to complete the artery-to-vein, then vein-to-artery transformation. Arkansas Heart Hospital will be a principle investigative and training site for the upcoming U.S. trial.



5,098 MILES

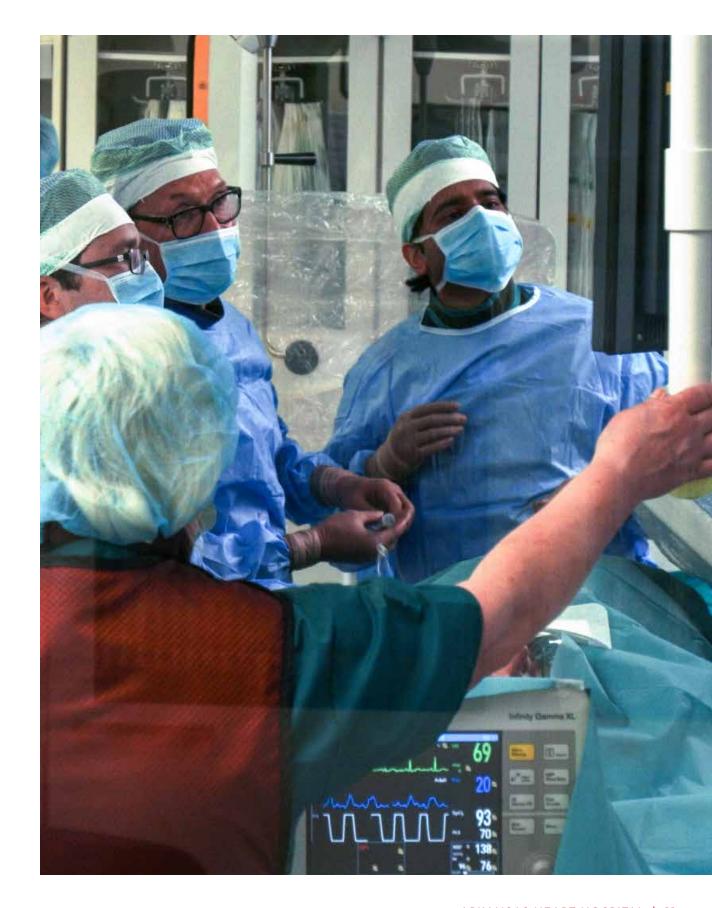
LITTLE ROCK, AR TO RIGA, LATVIA







Dr. Raja participated in the PQ Bypass procedure at Pauls Stradiņš Clinical University Hospital in Riga, Latvia. PSCUH, which was founded in 1910, is a leading center in its field of specialization in Latvia and has well-developed medical, scientific and educational services. The hospital combines clinical research and treatment in all areas of contemporary medicine. It also cooperates in international scientific research around the world.



SPOTLIGHT | HEART SUMMIT

We have offered the Heart Summit – Arkansas' premier cardiovascular educational event – for the past 18 years. Why? Aside from having a heart for investing in the health care community, Arkansas Heart Hospital is never satisfied with the status quo. Our team is always envisioning and researching, bringing innovative technologies, procedures and strategies to deliver unparalleled cardiovascular care.

The Heart Summit was born from a need in the provider community for communication and education regarding these cutting-edge components. It has grown exponentially to an annual event providing CME/CEU education for health care providers from all over Arkansas, as well as some surrounding states.

370 PRACTITIONERS

IN ATTENDANCE

A few years ago, we introduced "live cases" into the mix. They are now the most talked about and sought-after portions of our Heart Summit event, providing a unique opportunity for health care providers to see procedures and cases that they have never seen before: an open heart surgery, an aneurysm repair, a complicated coronary catheterization, a simple coronary catheterization and a peripheral vascular procedure, just to name a few.

Nationally known speakers have also been brought in to share their expertise. By providing relevant, engaging and entertaining content for our attendees, Heart Summit continues to serve the Arkansas health care provider community with a superior educational opportunity that enhances and supports their ongoing medical practices and disciplines.

Heart Summit 2017 boasted an attendance of 370 practitioners, including physicians, APRNs, RN, LPNs, dietitians, pharmacists, coders, radiology techs, respiratory techs, administrators and more.





ABOVE Dr. Ken Kamler has practiced medicine in some of the most remote regions on Earth. He spoke with the Friday crowd about his six Everest adventures as expedition doctor and climber. On Saturday morning, live cases were fed to the Summit via satellite from the Arkansas Heart Hospital OR and Cath Lab.

OPPOSITE Dr. Mark Hyman, Functional Medicine Specialist from the Cleveland Center for Functional Medicine, gave an inspiring presentation on functional medicine and his dedication to tackling the root causes of chronic disease.



SPOTLIGHT | CARDIAC CLASSIC

The Cardiac Classic bike ride began with 157 riders at its inaugural ride in April of 2012. Since that time, the event has enjoyed terrific growth in both riders and reputation as one of the newest rides in Central Arkansas. Our 2017 ride on April 22 boasted 356 riders from all over Arkansas, as well as riders from Oklahoma, Texas and Kansas.

Arkansas Heart Hospital has been the major Cardiac Classic supporter since its inception. The ride's goals are to increase awareness of cardiovascular disease and spotlight the value of physical activity to overall cardiovascular health. We have received great support from local cycling clubs. Mello Velo, Revrock, Carve and Heels on Wheels have been part of the fun in "hosting" our route stops (we have three along the ride routes), offering rest, refreshment, encouragement and entertainment to riders out on the course.

127% INCREASE

2017 RIDERS VS 2012 RIDERS

The typical ride lasts from 2 to 4 hours depending on the route chosen and the physical ability of the rider. Riders return to a heart-healthy meal prepared by Executive Chef Coby Smith, drawings for door prizes and some good ol' ride camaraderie. We continue to receive wonderful feedback from those who choose to ride with us each year. As many of our riders say, "This is our favorite ride of the season!"







The Cardiac Classic bike ride begins at Burns Park in North Little Rock and stretches out to the Roland and Wye communities by way of the Big Dam Bridge and Two Rivers Bridge and Park, past Pinnacle Mountain. The event features three rides – 20 miles, 50 miles or the 100K (63 miles). Riders find a great balance of flats, climbs and curves to challenge their cycling skills.



SPOTLIGHT | CORPORATE HEALTH

Corporate Health is nearing its first full year of operations, actively marketing to businesses, corporations, municipalities, education institutions and federal employees. The department's goal is to bring wellness to work. Their approach is to educate through collateral, meaningful lunch and learns, and lifesaving, on-site heart screenings and wellness laboratories.

OVER 1,900 ARKANSAS EMPLOYEES

IN KEEP THE BEAT OUTREACH

To date, Corporate Health has provided lunch and learns to nearly 100 professions from central to south Arkansas, including industries ranging from law enforcement, primary and secondary educators, and blue- and white-collar workers.

More than 1,900 Arkansas employees participated in our Keep The Beat Outreach program. This heart screening, brought to the workplace, is a 20-minute ultrasound version of Keep The Beat. Employees receive their results in a timely manner and are also given a calculated Framingham Score. Dr. Gary Nash reads each scan and communicates with employees when necessary.

Additionally, over 1,700 wellness laboratories were drawn. These comprehensive labs are performed at the workplace. They include cholesterol and a comprehensive metabolic panel, and blood is also tested for thyroid and PSA. These results have helped identify health issues in individuals who did not know their numbers were high.





Corporate Health provides valuable biometric and diagnostic information to human resource directors, which can be used to help lower insurance claims. Our clients include FIS, Nabholz, Acxiom, University of Arkansas Little Rock, Nashville School District, Arkansas State Police, Arkansas Department of Transportation, University of Central Arkansas, and the Bill and Hillary Clinton National Airport.



SPOTLIGHT CULINARY SERVICES

Named by Arkansas Times as one of the "20 Places to Eat in 2016," Arkansas Heart Hospital defies the typical hospital food experience associated with so many health care institutions. Whereas in most hospital settings 90 percent of meals are prepared by tearing open a bag of pre-processed ingredients, mixing them with other processed ingredients and serving it up in either the local cafeteria or on a patient tray, Arkansas Heart Hospital has removed status quo with a butcher knife.

The Hospital's cooking team orders and receives raw ingredients every week, ranging from wild-caught fish to fresh vegetables, and trained staff slice and dice, mix and stir to create masterful food experiences. Whether you're dining as a patient, as a family member in our local restaurant "Coby's," or as a patient or family member in the StrongHearts Rehabilitation Center Kitchen, the desire is the same – to provide freshly prepared food with healthy options and flavors that make you forget you're in a health care setting.









Our culinary services team provides patients and their families with healthy food experiences not found in other hospital settings. Coby's cafe, renovated in 2015, has also become a lunch destination for central Arkansas foodies. Coby's authentic Japanese ramen has been a huge success and provides a unique dining experience for visitors. On ramen days, it's not uncommon for the line to stretch around the corner. But the service is fast, the staff is friendly and the ramen is worth the wait. Chef Coby and his team also provide workshops and cooking demonstrations for patients, staff and Corporate Health outreach efforts.



MEDICAL STAFF | PHYSICIANS



Scott Archer ER Physician



Brian Baird ER Physician



Amy Beard StrongHearts Rehab Center

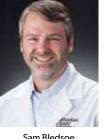


Scott L. Beau MD, FACC Medical Director





Greg Bledsoe ER Physician



Sam Bledsoe MD. FACS, FASMBS Bariatric Surgery



Jim Box ER Physician



lan M. Cawich Interventional Cardiology



Mehmet Cilingiroglu MD, FSCAI, FACC, FESC Interventional Cardiology



Scott Darnell ER Physician



Loretta DePalo Hyperbaric / Wound Care / ER Physician



Jerry Dixon General Surgery



Earl Feurtado Hyperbaric / Wound Care



Patrick J. Flaherty III DO, FACC Interventional Cardiology



Joe Forney MD, FACC General Cardiology



Kristofer Freeland Cardiothoracic Surgery



Michael David Huber D. Andrew Henry MD, FACC MD, FACC Interventional Cardiology General Cardiology



James J. Kane Jr. MD, FACC General Cardiology



Carl Leding MD, FACC Interventional Cardiology



Vasili Lendel Interventional Cardiology



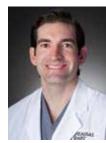
Monica Lo MD, FACC, FHRS Electrophysiology



David Mego MD, FACC, FACP, FSCAI Interventional Cardiology



Mark Myers Hyperbaric / Wound Care



Gary Nash Interventional Cardiology



Michael T. Nolen Cardiothoracic Surgery



Andre Paixao Interventional Cardiology



Dan Pritchett ER Physician



Vijay Raja Interventional Cardiology



MD, Ph.D., FACC, FESC Interventional Cardiology



MD. FACC Interventional Cardiology



Interventional Cardiology



Electrophysiology



ER Physician



Cardiothoracic Surgery



MD. FACC Electrophysiology



NOT PICTURED:

Amy Pittman ER Physician

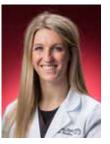




MEDICAL STAFF | APRNs & PAS



ane Atwell



Karli Bradley



Lindsay Chalmers DNP, APRN



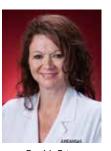
Eran L. Cochran PA-C. MS. RD



Beth Crowder Ph.D., APRN



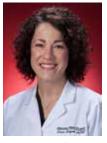
Donna Davis APRN, MNSC, AGACNP-BC



Cassidy Estes APRN, DNP, FNP-BC



Jessica Fi



Susan Griffeth



Bernard (Barry) Hall



Kelly Hall APRN



Annabeth Hazlewood



Susan Hernandez



Lisa Ivy



Sarah Jones APRN



Michelle Kennedy



Cymber McMurry PA-C



Hannah Mitchell



Amanda Mullins APRN, MSN, RN, NP-C



Robin Nuss APRN, MNSC, ACNP-BC



Shea Oxford APRN, MSN, FNP-C



Krysten Pilkington APRN, MNSC, ACNP-BC



Julia Ponder APRN



Callie Reynolds APRN



Janine Rutherford



Angela Simmons APRN, FNP-BC



Patrick Stage APRN, MSN



Sara Thompson APRN



Brandi Tucker



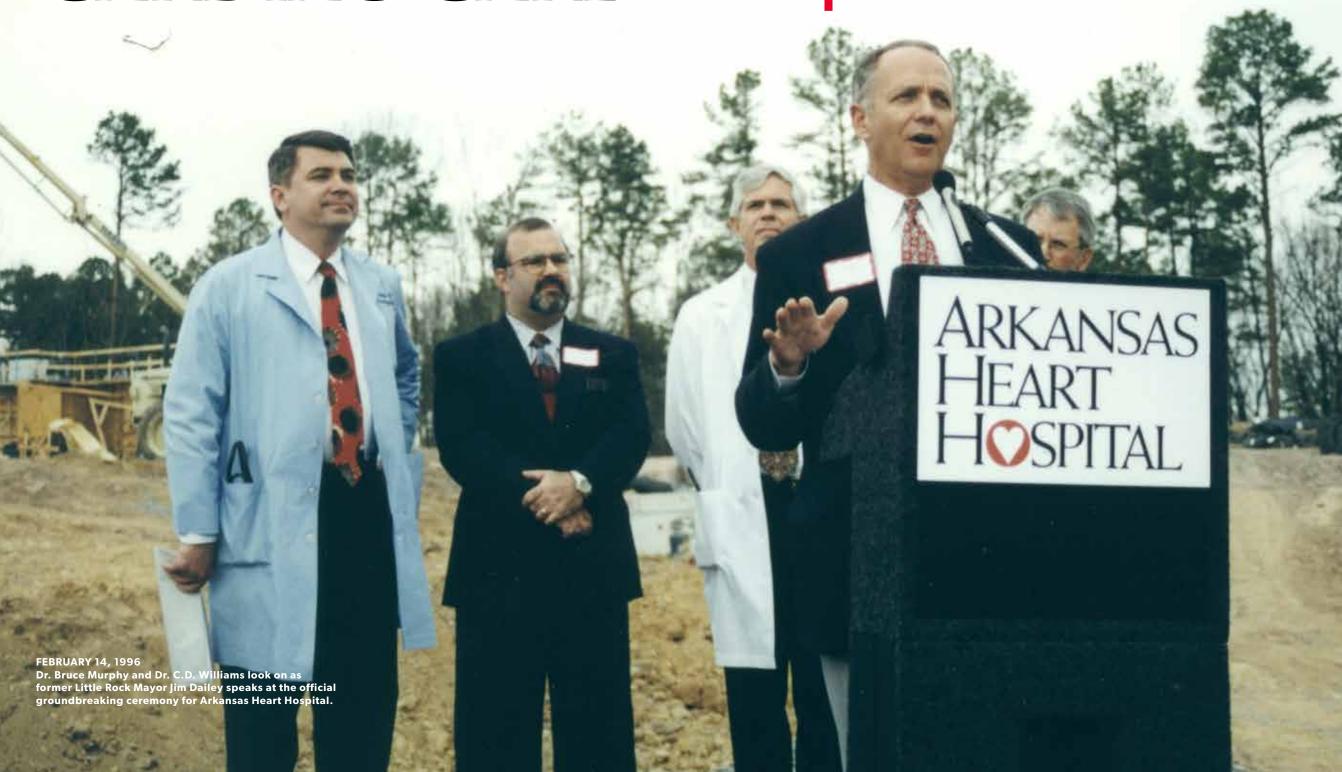
Dee White DNP, APRN



Rebecca Young APRN, MNSC

GROUNDBREAKING CARDIAC CARE

It started as a dream. Twenty years later, it's a well-established reality. See how a small group of visionaries beat the odds and founded Arkansas' undisputed leader in cardiac care.



BY DR. BRUCE MURPHY PHOTOGRAPHS FROM AHH ARCHIVES

driven cardiologists – some called them cowboys - stood together one night on what would become 1701 South Shack-• leford Road and laughed together at the thought of building a hospital right in the center of Arkansas, completely dedicated to the heart. Led by Dr. Bruce Murphy, they shared a clear and distinct

t started as a dream. A small group of than a lot of places would have," remembers Dr. C.D. Williams. "But at the same time, there were some misgivings about whether we could financially make it or not." "It was a challenge," says Dr. William Rollefson. "There were lots of people that didn't want this place to succeed." Despite the misgivings and obvious challenges, our founders forged on. Fanning out all over the state from the

"WE NEEDED ANOTHER HOSPITAL. A HOSPITAL DEDICATED TO HEART CARE TO FILL THAT NEED, THAT VOID FOR CRITICAL CARE BEDS. AND THUS WAS BORN THE HEART HOSPITAL." - DR. SCOTT BEAU

vision to provide patient care in an institution that would serve people all over the state, but rival in quality those universally well-known names like Cleveland Clinic, Mayo and Lennox Hill.

"Absolutely delighting patients." That was Dr. Murphy's intent as these bold physicians partnered with MedCath Corporation to fund the building project of what would become Arkansas Heart Hospital in 1997. However, many said after its grand opening that this new Little Rock-based hospital wouldn't last a year. "We probably started faster delta to the river valley, they brought unparalleled cardiac care to patients in their own hometowns. In the meantime, a strong clinical team carried out a unique and powerful patient care strategy of taking services directly to the bedside. Status quo was not in the vocabulary of Arkansas Heart Hospital's earliest team members.

Procedures would be innovative. Care at the bedside would be immediate. Cleanliness would be expected. Food would be unsurpassed in a hospital setting. The experience would feel like family.







The construction of Arkansas Heart Hospital officially began in December of 1995, with the doors opening on the 21-bed facility on March 3, 1997. Less than 90 days later, 100 heart surgeries had been performed. Ten years later, the hospital expanded to its current capacity of 112 beds.

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"All of this, you know, led to the decision that we think we're in the right place here," says Dr. David Mego.

Our story begins in May of 1995, when conversations with MedCath began, creating Arkansas' first and only Heart Hospital. Thirty days later an agreement was reached and, by that December, construction was underway. The official groundbreaking ceremony was held in February of 1996. It would still be a year before the brand-new hospital in West Little Rock would open for business.

On March 3,1997, the doors officially opened on the 21-bed facility. In less than 90 days, the first of many milestones was reached: the 100th heart surgery took place in May. Arkansas Heart Hospital was the first in the state to use the Excimer Laser System – using light to break down, vaporize and remove plaque in heart arteries.

In July of 1998, the 1,000th heart surgery was performed. That same year, Arkansas Heart Hospital was the first in the state to use the laser in peripheral.

While the country was preparing for Y2K in 1999, Heart Hospital cardiologists were setting the mark nationally by being the first in the United States to use the retrograde tibial approach to chronic total occlusion superficial femoral artery.

The new millennium brought further milestones, including the 5,000th OR case in 2001; Arkansas' first freestanding cardiac cath lab in February of 2003; and 5,000th heart surgery performed in November that year.

In February of 2005, Arkansas Heart Hospital was the first in the state to utilize a 64-slice CT scanner in patient care. In May, surgeons had their 10,000th OR case. Also that year, we were the first in Arkansas to open a Peripheral Vascular Clinic.

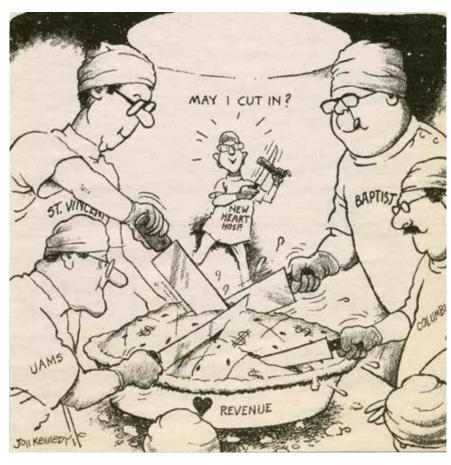
Another year of growth came in 2007. Arkansas Heart Hospital added 28 more beds, bringing the total to 112. In the meantime, the hospital continued to lead by using a video camera to visualize anatomy, thus using less surgical cuts (also known as endoscopic vein harvest), and being the first for PFO/ASD closures.

In 2008 the hospital opened its first stand-alone Wound Care & Hyperbaric Clinic. The following year brought recognition as the Arkansas Heart Hospital was recognized for being in the Top 1% in the United States for Patient Satisfaction.

"WE DECIDED IF WE WERE GOING TO HAVE ANY PLAN FOR A FUTURE THAT WE HAD ANY CONTROL OVER, WE WOULD HAVE TO DO IT OURSELVES." – DR. BRIAN BARLOW

A brief moment of uncertainty came in 2010 when MedCath decided to sell all hospital assets. For most hospitals, this would just mean transitioning to another – likely unfamiliar – outside owner. But not Arkansas Heart Hospital. Once again, Dr. Bruce Murphy's vision transcended the typical fate. Self-lessly, and at the peak of his career as a world-renowned interventional cardiologist, he surrendered his medical license to allow Arkansas Heart Hospital to become a fully locally owned institution. Patient-centered culture would remain, protected from unacquainted outside influences. Innovation would be allowed to thrive and many more souls than ever before would have the opportunity for state-of-theart care.





AHH Founders, "The Cowboys," shared a vision for a new frontier in cardiac care. However, Little Rock's other leading hospitals saw Arkansas Heart Hospital as a big risk and a major competitor for revenue. (Illustration by Jon Kennedy, Arkansas Business, April 29, 1996)

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"July 29th of 2011 was the last time I got to do a procedure," he says. "I remember going around the corner after I'd just done my last procedure and not realizing how radically my life was going to change. It was clearly the right thing to do, and is clearly a wonderful transition for me. I'm hoping and praying that people recognize that it was a good transition for our hospital, as well. Twenty years goes by so fast. I think that we had the immediate vision to improve patient care – that was our immediate vision - and medicine is moving so fast right now, but you know in retrospect, thinking that we would be where we are right now, I couldn't have imagined that. Maybe I was thinking too small again. But I think I learned some of my lessons about thinking small. I think that there's this tremendous opportunity for us to have a broader impact on the health of Arkansans, and maybe even other areas in our region. We don't compete locally. We compete with ourselves internally to be the best place we can. And that, I hope, is the same vision we have twenty years from now because, if that is, then our success is assured."

enough to receive many. No, our reward is continuing to serve patients in a place that can be depended on for the right diagnosis, a superior outcome and an incredible experience along the way. Our patients are family."

Still, awards and recognition have been a continuous part of Arkansas Heart Hospital's history, including:

- Top 1% in Patient Satisfaction in the Nation since 1997
- 2013 Consumer Reports Top 5 in the Nation in Coronary Angioplasty
- Named by Medicare as Top 2% in the Nation for Quality and Patient Experience four years in a row, two of those years being named #1 in the Nation
- One of two 5-Star Rated Hospitals in the State

And the list goes on.

"We don't compete locally," said Dr. Murphy. "If

"WE'RE TRYING TO PUT FORTH A BETTER VERSION OF HEALTH CARE, WHICH I THINK WE'VE DONE." – DR. JAMES KANE JR.

Fast-forward to today and we get to celebrate a locally owned and operated health care phenomenon that does not subscribe to health care by population, living instead by a personal pledge of greatness to each patient we serve. A mid-sized hospital by bed count standards, Arkansas Heart Hospital now serves patients from all 75 counties in Arkansas and beyond, with 29 satellite clinic locations throughout the state.

When it comes to awards, Dr. Murphy says, "We don't strive for awards, though we've been fortunate

we're not pushing the boundaries of innovation in health care, of personalized medicine, we aren't doing our jobs."

It's a commitment that has proven successful time and time again. In fact, many of those early vocal critics, both near and far, have chosen to get their care at Arkansas Heart Hospital.

Patient choice. Physician choice. That's what Arkansas Heart Hospital is all about. •





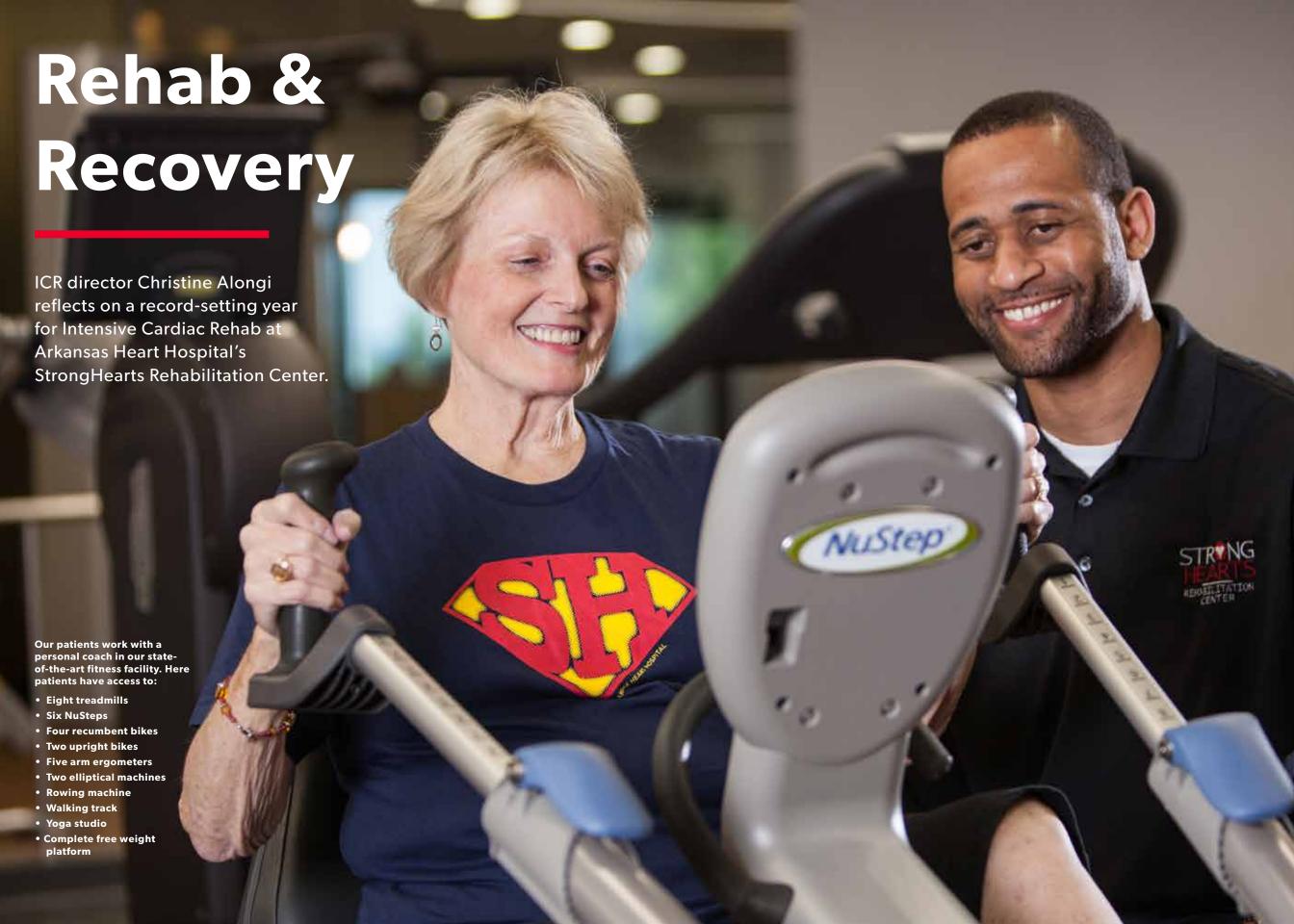


TOP Our first MedFlight patient, 1997.

MIDDLE Dr. William Rollefson in clinic, early 2000s.

BOTTOM AHH team members partner with Louisiana Heart Hospital, the Heart Hospital of Austin and others during Hurricane Katrina relief efforts, 2005.

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BY CHRISTINE ALONGI PHOTOGRAPHS BY JUSTIN KING

Leon Cornet was the first graduate of StrongHearts Rehabilitation Program and set a great example for all of the graduates that followed. He lost 13 pounds in 14 weeks, got off his blood pressure medications and is healthier and stronger than he was before.

trongHearts hit the ground running when the doors opened in March 2016 and quickly became the highest-volume intensive cardiac rehabilitation center in the country. As a matter of fact, StrongHearts is the only intensive cardiac rehab in Central Arkansas. What makes our program unique? We offer patients a comprehensive lifestyle change opportunity to improve quality of life and decrease the chance of having another cardiac event or procedure.

While traditional cardiac rehab programs focus primarily on exercise, our program takes on a more holistic approach, addressing three key quality of life areas: case-managed exercise sessions coupled with hands-on nutrition education and healthy minds behavior modification. And all of this is done in a state-of-the-art fitness facility and culinary kitchen that compares to none other in the state.

StrongHearts treated 1,600 patients through 24,400 education sessions, 26,600 exercise sessions and 417 one-on-one consultations with the registered dietitian.

If the modern, all-inclusive facility doesn't keep patients coming back, the StrongHearts family does.

Our team of clinical exercise physiologists, registered dietitians, critical care nurses, mental health professionals, culinary experts and oth1,600 PATIENTS

TREATED SINCE PROGRAM BEGAN

er supporting roles provides patients with a personalized program tailored to their current condition and health goals. And our family would not be complete without all of our graduates – past patients are welcome to continue coming to "the gym" after they complete the program. They trickle in all day long, getting their exercise in between catching up with each other, sipping on soup and showing new patients the ropes.

Cecil Ward graduated from StrongHearts earlier this year. "As soon as I stepped off the elevator, I knew that this was not your typical cardiac rehab place – the education workshops, the hands-on cooking classes, the exercise equipment, the weight rooms, the yoga classes and the fact that once I started the cardiac rehab program I would always be a "member" and could come back after my cardiac sessions are over. I thought, 'this is too good to be true,' but it's not . . . StrongHearts is everything I was promised it was and more." Mr. Ward's accomplishments



include a self-proclaimed changed lifestyle along with increased strength, endurance and motivation.

Many of our patients enter the program unsure, unhopeful, scared, intimidated, depressed and simply overall not feeling well. When they finish, most say "I have my life back." Some don't need their canes or walkers anymore. Some are back to gardening and participating in hobbies that they haven't had the physical stamina to do in years. Others are back to work and even improve their health enough to get their CDL license back. One patient's physical condition was so weak she could only stand for five minutes at a time. After completion of the program, she was standing for 45 minutes and able to prepare her meals and clean up after herself.

Not only does quality of life improve but also clinical measures such as blood pressure, weight, cholesterol and blood sugar. Typically, after the first two weeks of participating in the program, the patient does not require as much blood pressure medication and diabetic medication. Most patients lose weight and improve their cholesterol by completion of the program.

When Dr. Leding referred Susan King to Strong-Hearts, she was having chest pain with uncontrolled high blood pressure and her blood sugar was not controlled. Susan committed to the program and diligently worked with her coach. By the time she graduated, her blood pressure improved from 246/140 to 132/84, A1C improved from 10.4 to 7.5, her total cholesterol decreased 24 points and LDL 34 points. She could walk faster and 300 feet further in a 6-minute time span, and she also lost eight pounds. Susan's advice to other patients? "Don't give up!"

And many do not. We have had over 450 patients walk our red carpet on graduation day. Graduation, however, is no easy task. To benefit from the entire program, patients attend two to three times per week



38 | REHAB AND RECOVERY ARKANSAS HEART HOSPITAL | 39



for two hours each visit, and it usually takes 12-18 weeks from beginning to end. Every visit consists of an education session followed by a variety of exercises, such as resistance training, balance and stretching, as well as cardiovascular endurance training. There are 72 total sessions: 36 each of education and exercise.

We "case manage," meaning each patient is designated a specific coach that rehabilitates them throughout the entire program. This allows the coach to get to know the patient inside and out. All sessions are monitored, meaning patients are hooked up to an ECG monitor so the coach can evaluate their heart rhythm and heart rate while they exercise, which allows the coach to become familiar with the patient's

vitals and exercise tolerance. If there is a change in any of these areas, the coach quickly recognizes it and can treat the patient appropriately. We consider ourselves "the eyes and ears" for the physician.

"THIS PROGRAM HAS CHANGED MY LIFE FOR THE BETTER AND I AM A COMPLETELY CHANGED PERSON. THE BEST PART WAS MY WIFE COULD GO THROUGH THE PROGRAM FOR FREE WITH ME."

along with his recipes. The Friday cooking and nutrition class was the 'cherry on top' (diet cherry that is!) of a fantastic cardiac rehab week."

Another factor that makes our program unique is that the patient's caregiver is welcome to attend and participate along with their loved one. We not only want the patient to recover and gain a better quality of life, but also want the entire home environment to change so living "heart healthy" will become the lifestyle.

Barron Fitts joined Intensive Cardiac Rehab after having a stent placed and having issues controlling his diabetes. Mr. Fitts graduated from the ICR program in only three months and has continued his healthy lifestyle. "This program has changed my life

> for the better," he said, "and I am a completely changed person." Presently, Mr. Fitts has lost 57 pounds, no longer requires insulin and is working a manual labor job. He has gone from a pants size 40 to 32 and feels great. "The best part was my wife could

go through the program for free with me."

Mrs. Fitts has also reaped health benefits from the program. "My blood pressure is at a normal range," she said, "and my cholesterol has gone down all because we cook healthier."

Here is the bottom line, according to Cecil: "There are many cardiac rehab facilities to choose from, and then there is StrongHearts. The place, the people and the product is the most modern, educated, personalized, fun and impressive heart disease prevention program in the industry. It was an experience I will never forget, and I will always be an ambassador for your program." O

Along with the exercise,

we provide 36 educational sessions consisting of healthy mind workshops that focus on decreasing depression and coping with heart disease and recovery, videos on smoking cessation, and nutrition workshops such as label reading and how to make the best choices when eating out. We even have live cooking demonstrations by our very own chef.

"Most people look forward to Fridays because the weekend is coming," said Cecil Ward. "I looked forward to Fridays because I was going to learn a fun and easy idea about hands-on healthy cooking and eating, and how to buy the right food to eat or what to expect when eating out. I have many of Chef Mark's helpful hints in my Patient Resource Binder,



BY DR. MEHMET CILINGIROGLU PHOTOGRAPHS BY JUSTIN KING

"I WAS SYMPTOM-FREE AND BACK TO WORK IN A MATTER OF DAYS."

The well-established structural heart program is leading the way in Arkansas, and has been recognized as one of the leading structural heart disease programs in the nation. Our team is proud to have achieved the following benchmarks as the leading structural heart program in the region:

- Performed the first TAVR in our state and already completed our 300th TAVR case this year
- First to adopt doing TAVR procedures under moderate conscious sedation, which has been more comfortable for our patients with quicker recovery
- Performed the first Mitraclip in Arkansas and have completed our 85th case already
- Top implanter of the Watchman device for percutaneous closure of left atrial appendage in patients who have atrial brillation and can not take chronic oral anticoagulation because of their increased risk of bleeding
- Performed the first parachute left ventricular partitioning (remodeling) device in the U.S. in patients with congestive heart failure and apical left ventricular aneurysm after heart attack, under the FDA-approved clinical study, with significant improvement in symptoms

Excellent care is a team effort involving a dedicated structural heart interventionist, imaging cardiologist, CT surgeons, CRNAs and SHD coordinators, all with very strong administrative



BRENDA GILMORE

MITRACLIP® - OCTOBER 2017

After a major heart attack with shock, Brenda developed a leaky mitral valve with symptoms of congestive heart failure. She was on continuous nasal oxygen and couldn't do anything without experiencing shortness of breath. Because she was at high risk for conventional open heart surgery, she underwent a successful MitraClip® procedure to repair her leaky mitral valve. She was discharged the following day, has experienced a quick recovery and couldn't be happier with her procedure and the care shown by her doctors and nurses. She's experienced significant improvement in her energy levels, relief from shortness of breath and is off her oxygen.

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support. Patients are initially evaluated by a structural heart interventionist, and separately by our CT surgeons. Ultimately, each case is reviewed comprehensively in our weekly meetings, and the best treatment option is determined for each patient.

We are very unique, not only for bringing the FDA-approved percutaneous minimally invasive technologies, but also for being one of the few centers in the country bringing newly developed treatment options – under FDA-approved clinical studies – for patients with complex structural heart disease who are at high surgical risk for conventional open heart surgery. Some of the promising new technologies that we are involved in are:

- Corvia creating a small intracardiac shunt in patients with diastolic CHF to help unload the increased left atrial volume and pressure
- Tendyne a novel percutaneous mitral valve replacement using transapical access in patients with severe mitral regurgitation
- Amulet a novel percutaneous left atrial appendage closure device as another alternative to the currently FDA-approved Watchman device

Lastly, our CT surgery program also has expertise in minimally invasive surgical treatment options like mini MVR (minimally invasive mitral valve repair) and mini AVR (minimally invasive aortic valve replacement), allowing a minimal incision in the chest wall instead of conventional full sternotomy. These options offer a much quicker recovery and reduced mortality. Most of our patients with these complex procedures come on the same day of their procedure and leave the hospital walking the next day, resuming their regular routine in just a few days. \mathbf{O}



ALICE HUMPHRIES

TAVR - APRIL 2017

Before her TAVR procedure, Mrs. Humphries had trouble getting around and was reliant on others to help her with simple daily tasks. After her procedure, everything changed. She was on her feet and celebrating at our structural heart celebration only three days after her procedure. And in addition to a quick recovery and improved strength, she also regained her independence. She doesn't drive, but she now walks to the bus stop and uses public transportation to get around town, go shopping and buy groceries. She's also a proud graduate of the StrongHearts Rehabilitation Program. As she says, "Everything is different. I'm 100 percent different."

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JOHN MASON ANDRES

WATCHMAN - OCT. 2017

When Dr. Mehmet asked us to photograph Mr. Andres for this project only hours after his Watchman procedure was performed, we thought there must have been a mistake. That was not the case. When we arrived three hours after his procedure, Mr. Andres was out of bed, dressed and ready for his closeup. He was in great spirits, fully alert and visiting with friends and family. His condition, only hours after this procedure, is a great example of the benefits of our structural heart procedures. Our structural patients require shorter hospital stays, reduced recovery time and feel less pain than with open heart surgery. Most resume normal activities in just a few days.

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BY DR. SAM BLEDSOE PHOTOGRAPHS BY JUSTIN KING

Although the majority of our patients are female, the male demographic is growing rapidly. The average age is 51 years old and the average presurgical BMI is 47. Our patients have experienced dramatic improvement in their comorbid conditions. Most notably, 100% of diabetics have seen an improvement in their disease with 80% of them being able to get off all preoperative medications and going into complete remission.

ccording to statistics released in August of 2017, Arkansas ranks third in the country for obesity, fourth in the country for diabetes and fourth in the country for hypertension. These realities affect the health, longevity, quality of life and financial security of the citizens of our state. The Bariatric & Metabolic Institute at Arkansas Heart Hospital began in January of 2017 with the goal of addressing this pattern of deteriorating health for the average Arkansan.

Since opening our doors on January 18, we have consulted on hundreds of patients. Our first surgery was completed on February 16, and we finished our 100th case on September 21. Our patients routinely lose in excess of 100 pounds. Every diabetic that we have operated on to date has had their disease either go into complete or partial remission. Our complication rate of < 3% is about half the national average in spite of operating on an older and sicker population, and our 30-day readmission rate is between 1-2% – which is about one-quarter the national average. We are proud of these numbers and attribute the success to our outstanding clinical team.

BMI is a true multi-disciplinary bariatric practice with in-house dietary, exercise and psychology support. We can bring these resources to the patient very quickly, sometimes immediately, if the need arises. The ability to discuss proper diet with a dietician, appropriate exercise with an exercise physiologist and effective mindset with a psychologist is invaluable for the patient, both before



DURING FIRST YEAR OF BARIATRICS

and after surgery. These resources result in a highly educated and motivated patient who knows what to do on a day-to-day basis and who to contact when questions arise.

Of course, the education begins before they even reach our offices. With 25+ physician partners at Arkansas Heart Hospital, we certainly have the wind at our backs when it comes to accessible, knowledgeable and helpful referring providers. The hospital's reputation for quality care has allowed us to leap over many of the hurdles that starting bariatric surgery practices often have to navigate. These relationships have been developed over the years and



have given us access to innumerable primary care for the uncontrolled diabetic with a BMI of greatproviders around the state.

Through online education, the Heart Summit, lunch and learns, and in-person visits, we are able to get providers the most up-to-date information related to bariatric and metabolic surgery. With medicine constantly changing, we are always trying to give our referring providers relevant information. Most realize that patients qualify for bariatric surgery if the BMI is 40 or greater. They also qualify if the BMI is 35 or greater and the patient has medical conditions associated with obesity. However, many don't realize the unbelievable affect that bariatric and metabolic surgery can have on diabetics.

These effects are so profound that the American Diabetes Association recently changed its treatment algorithm for the obese diabetic. Today, metabolic surgery is recommended for the diabetic with a BMI of greater than 40 and also recommended

er than 35. The effect of surgery for a diabetic can oftentimes be immediate, and the patient may go home on no medications – and never get back on

Updating physicians on bariatric surgery is an easy task compared to our other job: educating potential patients. For too long, bariatric surgery has been seen as a cosmetic procedure by the general population. Educating the public on the medical necessity for surgical intervention for morbid obesity and its related comorbid conditions is a demanding task. We have been able to leverage technology to educate people by placing informational seminars online and attracting attention with targeted marketing. This allows us to give accurate and timely information to potential patients.

It's also common for the people to see bariatric surgery as a sign of personal failing, and that patients who have bariatric surgery have "taken the easy way out." Certainly, surgery isn't for everyone and shouldn't be taken lightly. But sustained weight loss has been shown to be extraordinarily difficult. How difficult? One chance in 1,290 for men and one chance in 677 for women with a BMI of 40-45, according to a United Kingdom study that included over 170,000 obese patients who were followed for nearly a decade. Potential patients need to understand that it's not a personal or moral failing on their part if they can't lose the weight and keep it off. They have simply run up against the limitations of human physiology, and they need additional resources in order to succeed in their health-related goals.

One of the most fulfilling aspects of our work in bariatric surgery is that we are able to help our patients achieve those health-related goals. Patients who have been diabetic are now able to live their life without any medications. People who have had

sleep apnea for decades now have stored the CPAP in their closet. Patients who have been denied the needed knee replacements due to their morbid obesity have now been able to have those procedures since their significant weight loss following bariatric surgery.

As exciting as their newfound health, patients are now experiencing an improved quality of life that they haven't experienced in a very long time. A mother can now take her son to an Arkansas Travelers baseball game and sit in the seats. Businessmen can now sit in the airline seats and not request a seatbelt extension. Hunters can now get back in the deer stand. Grandparents can now get on the floor to play with their grandchildren. Roller coaster enthusiasts can get back on those rides. Stairs aren't as intimidating. Basic activities like tying shoes and checking the mailbox aren't painful situations. These improvements help make life exciting, engaging and fulfilling.

DIETITIAN CONSULTS At BMI, patient success is more than surgical outcomes. Our registered dietitian, Jennifer Burnett, helps each patient navigate personalized nutrition plans for before and after surgery.



SUPPORT GROUPS Our clinical psychologist, Dr. Urmi Jani, leads three support group meetings every month. Preoperative and postoperative patients and their families are welcome to attend.

54 | THE BARIATRIC BREAKTHROUGH ARKANSAS HEART HOSPITAL | 55 In order to achieve those results, the BMI is offering three procedures, although patients almost exclusively choose between the Laparoscopic Sleeve Gastrectomy (LSG) and the Laparoscopic Rouxen-Y Gastric Bypass (LRYGB). Both of these procedures are remarkably safe. In fact, studies have shown that these procedures are as safe, or safer, than gallbladder surgery. Other studies have shown that it is far safer to have a bariatric procedure than for patients to continue to be morbidly obese with the associated comorbidities.

While safety is of paramount concern, patients are also concerned about the effectiveness of the procedures. If you compare surgical intervention to the traditional means of weight loss (diet, exercise and behavior modification), there is simply no comparison. Innumerable studies have compared bariatric surgery to traditional weight loss methods, and all of the studies show that surgery is vastly superior. To date, there have been around 20 head-to-head trials comparing bariatric surgery to intensive medical therapy in obese patients with diabetes. Again, every study has shown that bariatric surgery results in better weight loss and greater improvements in glycemic control, resulting in fewer medications and better HgbA1Cs when compared to intensive medical therapy.

If patients are struggling between the LSG and the LRYGB, that is often a personal choice. Some patients come in with a desire for a particular procedure based on the good (or bad) experiences of someone they know. Most of the time, those personal desires can be accommodated. We do try to bend people with diabetes or severe reflux toward a LRYGB. The bypass can resolve diabetes in 83% of cases versus a 66% resolution for the sleeve. Also, the LRYGB is almost 100% curative for reflux. Even in cases of diabetes and reflux, an LSG is still an indicated and excellent procedure, so we can nearly always work with patient preferences.

At the BMI, we believe a safe and effective procedure is the beginning of our relationship. We want to follow patients over the long term as their weight and health continue to improve, and we want to be there for them to assist when life throws its inevitable challenges their way. As part of our commitment to our patients, we now have three support groups per month that are led by our clinical psychologist. Patients, both preoperative and postoperative, and their families are welcome to attend. In 2018, we anticipate adding virtual support groups to help those with busy schedules get the assistance they need at a time that is convenient for them.

Even though our program is young, we are already receiving national attention. The BMI was one of only a dozen programs in the country to be invited by the Obesity Action Coalition to participate in their 2017 Obesity Week campaign. The OAC is the nation's largest nonprofit dedicated to advocating for people affected by the disease of obesity. With more than 58,000 members, the OAC launched a national campaign designed to raise awareness of obesity, the seriousness of the condition and the various available treatment options. As part of this effort, we provided a morbidly obese patient with an LSG and are in the process of documenting her recovery and progress. We are honored to be chosen to be a part of this national movement and anticipate many more opportunities in the future.

Overall, we are very pleased with where we find ourselves after just a few short months. The BMI has seen explosive growth with no end in sight. Currently, we are seeing 15-20 new patients every week, and we are working hard to get them medically cleared and obtain insurance approvals. We appreciate the outpouring of support we have received from everybody - administration, nursing and referring providers. We will continue to do our best to provide our patients with the best experience and the best outcomes possible. •





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This project would not have been possible without the contributions, commitment and expertise of our dedicated staff. Thank you.







