DEAR COLLEAGUES AND COMMUNITY MEMBERS

I’m proud to serve as Medical Director of one of the largest cardiovascular institutes in the United States. I joined Florida Hospital in 2015 to create a world-class cardiac center in Central Florida that would rival world-renowned medical centers. In my first year, we laid the foundation to make that possible — adding critical treatment options that enable Central Floridians with any type of cardiac disease to be treated close to home. Then, we recruited surgeons and physicians at the top of their field.

The final piece in the foundation was patient outcomes that are comparable to national, cardiac-care leaders. I’m happy to say that just one and a half years into our growth plan, we can report outcomes that surpass national benchmarks. Florida Hospital Cardiovascular Institute is now in the top decile nationally for PCI outcomes and in the top quartile for STEMI outcomes. We also increased positive patient-mortality by 50 percent, while growing total number of surgeries across our broader treatment spectrum.

We grew our heart transplant program into the largest in Florida, reinstated our lung transplant program and began offering other new treatments, including WATCHMAN™ mitral valve clip and ventricular assist device technology currently in clinical trial. All these programs are growing rapidly and many are reporting patient outcomes that surpass national benchmarks. The number of patients treated with transcatheter aortic valve replacements and extracorporeal membrane oxygenations increased 16 percent and 300 percent respectively.

Part of our success has been the relationships we’ve built with referring hospitals and physicians. They trust us to provide the specialized care they do not offer, and we understand patients often feel most comfortable receiving follow-up care from their primary doctors and hospitals. That’s why we work together with referring physicians to develop a coordinated treatment plan that best meets a patient’s needs.

The future at Florida Hospital Cardiovascular Institutes includes continued, aggressive growth. Florida Hospital Celebration Health will add an open-heart surgery program, and Florida Hospital Waterman plans to expand its cardiac program. We’ll strengthen Florida Hospital’s linked Care Network, so no matter where patients are, they’ll benefit from the entire spectrum of cardiac services.

Our unique approach to healing the body, mind and spirit propels us to continually improve and grow and has set our course to bring globally recognized cardiac care to Central Florida. That’s our vision and our promise.

Thank You.

Best Regards,

Duane Davis, MD
Medical Director
Florida Hospital Cardiovascular Institute
Last year, we launched an initiative to ensure our entire service network was providing a consistent level of care for every cardiac patient treated by Florida Hospital. We identified key contributors to patient recovery and created seven physician-led quality committees in the following treatment areas: coronary artery bypass and valve surgery, heart attack and PCI, heart failure, vascular, ICD/pacemakers, ablations and non-invasive cardiology. In this report, we share the results of those physician-led teams and evidence-based care practices. Complications and mortality continue to improve, demonstrating our day-to-day commitment to delivering the best in cardiac care.

But what about tomorrow?

How are we preparing for new therapies that will advance patient care? Well, we’re not waiting for the change. We’re creating it. We’re identifying early-stage technologies, investing in them and exploring the causes of illness — not generic factors like diet and exercise, but personal contributors such as genetic codes. At Florida Hospital, we envision a day when cardiac disease is a forgotten illness — one that is eradicated early in childhood much like polio was.

It’s possible and achievable. It’s our commitment and our vision.

For today and tomorrow, I commit the resources and talent of our entire Florida Hospital Cardiovascular Institute team to support every patient we treat.

Respectfully,

Kim Bell
Executive Director
Florida Hospital Cardiovascular Institute
Contents

5 About Florida Hospital Cardiovascular Institute
7 Interventional Cardiology
10 Arrhythmia and Ablation Center of Excellence
12 Cardiovascular Surgery
14 Valve Center of Excellence
17 Vascular Center of Excellence
18 Advanced Heart Failure
19 Advanced Therapies
19 Pulmonary Hypertension
20 The Future of Healthcare
Florida Hospital Cardiovascular Institute treats more cardiology patients than any other medical facility in the United States. From around the world, patients seek out our specialists for treatment of a wide range of cardiac conditions. Increasingly, other hospitals and physicians are referring their most challenging cardiac cases to us because they know our highly skilled specialists — using the latest technologies — will provide quality care. Treating highly complex cases means patients are inherently at higher risk. Through evidence-based, care practices and comprehensive treatment, Florida Hospital Cardiovascular Institute is committed to providing quality cardiac care to all patients, at each stage of their disease. The Heart Success Center and Trina Hidalgo Heart Care Center help recovering patients adopt a heart-healthy lifestyle — promoting long-term health and life changes.

A Leading Medical Center

**Florida Hospital**

MORE THAN 9,000 PHYSICIANS
with privileges and 36,000 employees serving patients from around the world

MORE THAN 4,800 BEDS
IN A CARE NETWORK
that extends across Central Florida

**Florida Hospital Locations**

Florida Hospital Altamonte
Florida Hospital Apopka
Florida Hospital Celebration Health
Florida Hospital East Orlando
Florida Hospital for Children
Florida Hospital for Women
Florida Hospital Kissimmee
Florida Hospital Lake Mary ER
Florida Hospital Orlando
Florida Hospital Winter Garden
Winter Park Memorial Hospital

**Florida Hospital**

HAS BEEN RECOGNIZED AS THE
#1 HOSPITAL IN
ORLANDO 17 TIMES.
Leading in Cardiac Care  
**Florida Hospital Cardiovascular Institute**  
Serving Central Florida since 1967  
Treating more than 72,000 patients annually  
Performing almost 2,000 cardiac surgeries annually  
Supported by more than 160 board-certified cardiologists and cardiovascular surgeons, and 1,000 specially trained nurses and technicians  
#1 in cardiology case volume (nationally)  
#1 in vascular surgery case volume (nationally)  
#1 in heart transplant case volume (Southeast)  
#1 in open-heart surgery case volume (statewide)  
#1 in thoracic surgery case volume (statewide)

Cardiovascular Procedures  
Florida Hospital Cardiovascular Institute performed more than 18,600 cardiac procedures in 2016 – more than any other medical center in the United States.

Source: Florida Hospital Cardiovascular Institute Data, 2016
Skilled interventional cardiologists equipped with state-of-the-art technologies often make the difference between life and death. That’s why Florida Hospital Cardiovascular Institute invests in the latest interventional technologies and offers a full range of therapies, from traditional procedures such as cardiac catheterization and stents, to laser angioplasty.

Cardiogenic shock is the leading cause of death among patients suffering an acute myocardial infarction, with mortality ranging nationally between 70 - 90 percent. But in 2017, 50 percent of patients survived after aggressive, targeted treatment by the acute cardiogenic shock team. The group, which was recently created to address the unique needs of acute cardiogenic shock patients, includes an intensivist MD, advanced heart-therapy surgeons and perfusion group. It can be extended to other specialists. In addition to saving lives, the team prevents serious complications often associated with acute cardiogenic shock, including liver and kidney damage.

Interventional cardiology is part of our commitment to comprehensive, state-of-the-art cardiac care.

**PCI Patient Mortality**

The mortality rate for PCI patients at Florida Hospital Cardiovascular Institute was far below the 2016 average of the American College of Cardiology National Cardiovascular Data Registry and represented a significant improvement year over year due to evidence-based care practices implemented by physician-led teams.

**PCI Complications**

The number of PCI patients experiencing complications at Florida Hospital Cardiovascular Institute declined more than 40 percent after the introduction of quality committees and evidence-based care practices. In 2016, PCI-patient complications were significantly lower than the national registry average.
Code STEMI Program

The Code STEMI team at Florida Hospital Cardiovascular Institute is ready to respond quickly and comprehensively to a STEMI heart attack.

- Dedicated interventional cardiologists on call 24/7
- 24/7 onsite catheterization lab staff
- Coordination with EMS to perform 12-lead electrocardiograms before patients arrive at emergency room
- Code STEMI beepers enabling EMS to alert Florida Hospital emergency room that a STEMI patient is en route
- Florida Flight 1 helicopter to transport patients from outlying areas to the closest Florida Hospital Code STEMI team

Code STEMI Response Time

In 2016 and 2015, cardiac patients in need of a STEMI procedure received that treatment more rapidly at Florida Hospital Cardiovascular Institute than other U.S. hospitals in the top 50th percentile.

Source: ACC NCDR CathPCI Registry Data, 2016
Chart reflects median response time and a rolling four-quarter average.
ACC/AHA guidelines recommend a response time of 90 minutes from arrival to procedure

Source: ACC NCDR CathPCI Registry Data, 2016
Chart reflects median response time and a rolling four-quarter average.
ACC/AHA guidelines recommend a response time of 90 minutes from arrival to procedure
**Patients Receiving STEMI Treatment within 90 minutes**

- **Florida Hospital**: 2016: 96.2%

**50th percentile US hospitals**

- 2016: 93.8%

*Source: ACC NCDR CathPCI Registry Data, 2016*

*Chart reflects rolling four-quarter average.*

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**STEMI Patient Mortality**

- **Florida Hospital (2016)**: 0%
- **ACC-NCDR PCI Registry Mean (2016)**: 1%

*Source: American College of Cardiology – National Cardiovascular Data Registry, 2016*

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**National Quality Achievement Awards**

Awarded by the American Heart Association for Florida Hospital Cardiovascular Institute’s Code STEMI Program.

Partnering with the American Heart Association Florida Hospital and the American Heart Association collaborate on community initiatives that bring awareness to preventative heart care, heart attack and stroke warning signs, and healthy lifestyle education. Florida Hospital is also an authorized provider of American Heart Association certification courses.
ARRHYTHMIA AND ABLATION CENTER OF EXCELLENCE

At the Florida Hospital Cardiovascular Institute Arrhythmia and Ablation Center of Excellence, a team of physicians and nurses skilled in the highly specialized field of electrophysiology offers patients the latest in diagnostics and treatment for atrial fibrillation and other heart arrhythmias.

The center is one of the first comprehensive treatment facilities in Florida and among few to use stereotaxis — a remote controlled robotic catheter system that allows more accurate mapping of the location of the arrhythmia — increasing accuracy and safety while reducing surgery time.

Throughout the United States, doctors refer their most difficult cases to the Arrhythmia and Ablation Center of Excellence because they know patients will receive a comprehensive treatment plan with outcomes supported by evidence-based care. Treatment strategies include pre-team and post-team assessment and the application of sophisticated technologies.

Clinical trials at Florida Hospital Cardiovascular Institute are continuously exploring safer and more effective methods of screening, preventing, diagnosing and treating cardiac arrhythmias.

EPS Case Volumes

In 2016, physicians continued to refer their most complex cases to Florida Hospital Cardiovascular Institute, and the EPS program grew significantly as our electrophysiologists treated more patients using a full range of therapy options. About 40 percent more patients were evaluated compared to the previous year, and an additional 300 procedures were performed including almost 700 pacemakers. Improved diagnostics have helped mitigate risk for patients with multiple co-morbid conditions.
**Laser Lead Extraction**

Florida Hospital Cardiovascular Institute offers a minimally invasive procedure called laser lead extraction, which is used to remove a pacemaker lead after wire damage or infection occurs. Recovery time is quicker, and the surgical incision is smaller than with traditional surgery. Our renowned electrophysiologists treat patients from around the world using this advanced procedure.

**WATCHMAN™**

Florida Hospital Cardiovascular Institute now offers WATCHMAN™ — a new, first-of-its-kind implant to help prevent stroke among patients with non-valvular atrial fibrillation. The implant closes off the left atrial appendage, preventing blood clots from entering the bloodstream and causing a stroke after atrial fibrillation. The minimally invasive WATCHMAN™ device offers an alternative to traditional blood-thinning medications such as warfarin. In 2016, the first full year Florida Hospital offered WATCHMAN™, surgeons implanted 24 devices.

Source: Florida Hospital Cardiovascular Institute Data, 2016

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**EPS Surgery Volumes**

- **ICD Implants:** 2015 Florida Hospital: 504, 2016 Florida Hospital: 588
- **Pacemakers:** 2015 Florida Hospital: 603, 2016 Florida Hospital: 668
- **Ablation:** 2015 Florida Hospital: 776, 2016 Florida Hospital: 865

**Source:** Florida Hospital Cardiovascular Institute Data, 2016
CARDIOVASCULAR SURGERY

The cardiovascular and thoracic surgeons at Florida Hospital Cardiovascular Institute offer expertise and options that few other hospitals in the region can. The medical center was specifically designed to serve the unique needs of cardiovascular patients and is staffed with highly skilled intensive-care teams that provide the level of care needed by patients with complex medical conditions.

Surgical interventions include:
- High-risk coronary artery bypass
- Aortic aneurysm and dissection surgery
- Atrial fibrillation surgery
- Less invasive approaches to conventional surgery
- Heart transplantation
- Ventricular assist devices for end-stage heart failure
- Complex valve repair and replacement
- Hybrid procedures in partnership with interventional cardiologists
- Adult congenital heart surgery
- Comprehensive lead management, laser lead extraction
- Thoracic surgery including video-assisted and robotic procedures, as well as lung cancer surgery
- Complex hematological issues surgery
Cardiovascular Surgery Patient Case Growth

In 2016, the renowned team at Florida Hospital Cardiovascular Institute performed more than 3,600 cardiac surgeries, representing an increase in all types of procedures. The greatest growth was in mitral valve repair and replacement, which increased 23 percent due to a larger number of referrals from small hospitals and physicians.

Coronary Artery Bypass Graft (CABG)

Florida Hospital Cardiovascular Institute has performed more open-heart surgeries than any other medical center in Florida. Because of that experience, physicians from around the world refer their most complex cases to Florida Hospital, meaning some patients are inherently at higher risk.

But despite those higher risks, the mortality rate for patients undergoing coronary artery bypass graft (CABG) at Florida Hospital was better than expectations set by the Society of Thoracic Surgeons.

CABG Patient Mortality

The mortality rate for patients undergoing open-heart surgery, or CABG, at Florida Hospital Cardiovascular Institute decreased through each quarter of 2016, surpassing expectations* set by the Society of Thoracic Surgeons for the second half of the year.

Observed/Expected (O/E) Ratio for Isolated CABG

*The Society of Thoracic Surgeons (STS) calculates expected mortality based on O/E Ratio, which is the ratio of a participant’s number (or percent) of observed outcome events relative to the number (or percent) of outcome events that is expected (predicted) by the STS risk-adjustment model, based on the participant’s case mix.
At Florida Hospital Cardiovascular Institute, patients who are unable to undergo traditional open-heart surgery may be treated safely with minimally invasive surgeries including transcatheter aortic valve replacement and mitral valve clip. Our surgeons were the first to perform these advanced surgeries in Central Florida.

Each patient is supported by a multidisciplinary team of specialists that explores all treatment options. This may include one of our innovative clinical trials: Transform, Magna Mitral Valve, Magna 23, Portico, Cardiovascular Outcomes Assessment for the MitraClip® Percutaneous (COAPT) and Partner 3. These unique trials — limited to just a few medical facilities — may one day transform cardiac care for all patients.

**Valve Surgery Patient Outcomes**

Mortality rates for patients treated for valve repair or replacement at Florida Hospital Cardiovascular Institute exceeded expectations* set by the Society of Thoracic Surgeons (STS).

*Source: Society of Thoracic Surgeons Registry, 2016, and Florida Hospital Cardiovascular Institute Data, 2016*
Transcatheter Aortic Valve Replacement (TAVR)

Surgeons at Florida Hospital Cardiovascular Institute were some of the first in the state to perform the minimally invasive TAVR surgery and have since implanted three generations of TAVR valve technology. The institute’s program has grown to become one of the largest in the Southeast, and despite the complexity of cases treated at Florida Hospital Cardiovascular Institute, patients experience lower mortality and complications than expected by the NCDR TVT Registry. A physician-led team identified evidence-based care practices that helped reduce the mortality rate for TAVR patients to nearly half that of the national average.

TAVR Patient Case Growth

TAVR is expanding treatment options for more cardiac patients. The device, initially available only to those at high risk of complications from traditional surgeries, was recently approved by the Food and Drug Administration for use in moderate-risk patients. Florida Hospital Cardiovascular Institute is currently participating in a clinical trial that is assessing the benefits in low-risk situations. In 2016, Florida Hospital Cardiovascular Institute treated 30 percent more patients using TAVR surgery and anticipates 50 percent more patients will benefit in 2017.

TAVR Patient Mortality

Despite these patients being at higher risk for conventional valve replacement surgery, our TAVR patients had a mortality rate below the national experience.

Source: American College of Cardiology-Society of Thoracic Surgeons Registry, 2016; and Transcatheter Valve Therapy Registry, 2016
Mitral Valve Clip

Florida Hospital Cardiovascular Institute was one of the first hospitals to perform mitral valve clip, a new and advanced surgical procedure for patients unable to safely undergo open-heart surgery for mitral valve repair. A mitral clip connects areas of the mitral valve and enables real-time positioning. The catheter-based surgery greatly decreases the risk of heart failure, improves overall quality of life and reduces mitral regurgitation.

Mitral Valve Clip Surgery Patient Case Growth

Cardiac patients are increasingly benefiting from mitral valve clip surgery since it was introduced at Florida Hospital Cardiovascular Institute in 2014. The procedure offers a safer and effective treatment option for patients who cannot undergo traditional open-heart surgery. Last year, surgeons performed 40 percent more mitral valve clip surgeries than in 2015.

Source: Florida Hospital Cardiovascular Institute Data, 2016
Florida Hospital Cardiovascular Institute is the only medical center in Central Florida with an entire floor dedicated to diagnosing and treating patients with arterial and venous conditions. In 2016, vascular surgeons performed nearly 3,000 minimally invasive and traditional surgeries for aortic occlusive, aneurysmal disease, carotid artery disease, leg artery blockage and varicose veins.

**VASCULAR CENTER OF EXCELLENCE**

### Vascular Surgery Patient Case Volume

![Graph showing Vascular Surgery Patient Case Volume]

**Vascular Surgery Patient Mortality**

In 2016, mortality for patients undergoing abdominal aortic aneurysm repair and carotid endarterectomies at Florida Hospital Cardiovascular Institute was zero. The collaborative effort of a multidisciplinary team of nurses, anesthesiologists, cardiac vascular surgeons and ICU staff ensures personalized, high quality care for every patient.

**ZERO MORTALITIES**

- **ABDOMINAL AORTIC ANEURYSM REPAIR**
- **CAROTID ENDARTERECTOMY**
ADVANCED HEART FAILURE

The heart transplant program at Florida Hospital Cardiovascular Institute is the largest in the Southeast and the only one in Central Florida. Increasingly, our cardiovascular surgeons are treating more complex, high-risk patients. Their physicians refer them to the highly skilled, aggressive team at Florida Hospital, knowing they will have access to the most advanced treatment options. But, despite the complexity of cases, survival rates for Florida Hospital heart-transplant patients exceeded the 2016 national benchmark of the Scientific Registry of Transplant Recipients.

Heart-Failure Patient Admissions
Each year, more people rely on Florida Hospital Cardiovascular Institute for their most severe, cardiac health problems, and more doctors and hospitals refer their patients. The institute treated 13 percent more patients since the program began in 2014.

Advanced Heart-Failure Therapies
In 2016, surgeons at Florida Hospital Cardiovascular Institute performed 52 heart transplants, more than any other medical center in the Southeast. They also transplanted 18 lungs and implanted 57 ventricular-assist devices to maintain heart function until a donor heart became available. Florida Hospital transplant surgeons partner with cardiologists across the state by returning patients home post-operatively for follow-up care. In 2016, Florida Hospital ranked sixth in the nation for enrollment in the Heartmate 3 trial, making our program one of the most experienced with the new gold standard in VAD technology.
Heart and Lung Transplant-Patient Survival

The survival rate for patients undergoing heart transplants at Florida Hospital Cardiovascular Institute exceeded the benchmark of the Scientific Registry of Transplant Recipients by more than four percentage points in 2016. The survival rate for lung-transplant patients was 100 percent, exceeding the benchmarks by more than 13 percentage points.

ECMO Patient Case Growth

Florida Hospital has offered extracorporeal membrane oxygenation (ECMO) as an advanced therapy for critically ill patients since 2014. Now, other hospitals throughout the state are relying on the highly skilled medical and clinical professionals at Florida Hospital Cardiovascular Institute to help care for their most critically ill patients using this therapy.

PULMONARY HYPERTENSION

Florida Hospital Cardiovascular Institute is home to Central Florida’s only pulmonary hypertension program, which is on track to become the state’s second, fully accredited, pulmonary-hypertension program by 2018. Effective treatment of pulmonary hypertension requires a highly specialized, multidisciplinary team not often found in even large medical centers, meaning patients may go undiagnosed for years. The renowned specialists at Florida Hospital Cardiovascular Institute focus on education, clinical care, comprehensive evaluation, research principles and therapies, offering highly specialized care for this rare disease.
Recovery needs can vary greatly, so the Heart Success Center takes a highly personalized approach, meeting with each patient and even family and friends who will influence recovery. This could mean teaching a spouse about healthy shopping and cooking, arranging for prescriptions to be filled on time or establishing a fail-safe method to ensure medications are taken. The Center’s multidisciplinary team includes pharmacists, case workers, nurse practitioners and nutritionists – all finding livable solutions and serving people in their own communities.

Our goal is to improve care, reduce hospital readmissions and lower healthcare costs.

**Women’s Heart Health**

Because women experience heart disease differently than men, Florida Hospital Cardiovascular Institute introduced the Women’s Heart Health Program in 2012, which has quickly become world renowned for contributions to women’s cardiac health. A cardio-oncology team explored the link between breast-cancer therapy and heart disease, and was recognized by the American Oncology Association and the American Society of Echocardiography for protocol to prevent heart disease in high-risk cancer patients. And by assessing markers for hypertension during pregnancy, a team discovered that early pregnancy is the ideal time in a woman’s life to begin testing for heart conditions.

Through education, our team is changing the way gynecologists and primary-care physicians talk to their female patients about heart health. We are also promoting early evaluation through community online and mobile screening tools.

**Trina Hidalgo Heart Care Center**

More than 10 years ago, Florida Hospital started a clinic for people who have heart conditions but no means of paying for medical care. Since 2010, The clinic has served almost 2,000 patients. No one has been turned away due to inability to pay for treatment, and today the Trina Hidalgo Heart Care Center remains the only option in Central Florida for many of these patients. Studies clearly show that uninsured and underinsured people are more likely to die from heart failure and suffer more complications. Timely, high quality, medical care is essential to survival, so the Trina Hidalgo Heart Care Center is needed now more than ever. But the Center goes beyond initial care and proactively helps patients overcome many other obstacles that interfere with recover including transportation to follow-up doctor appointments and prescription planning. If someone qualifies for Medicaid, we’ll help them apply. This long-term, comprehensive approach to care prevents hospital readmissions and reduces the cost of healthcare.

**Heart Success Center**

Florida Hospital opened the Heart Success Center in 2016 to support healthy living for heart-failure patients. The goal is simple: keep people out of the hospital by providing the resources needed to prevent readmissions.