Facing Crisis with COURAGE & COMPASSION

Report to Our Community 2021 >>





Our Mission

Heal the body, mind and spirit of those we touch.

Our Vision

To be a premier clinically integrated delivery system providing access to exceptional patient- and familycentered care, medical education, research and innovation for the benefit of the community we serve.

Our Service Vision

Memorial Healthcare System is where deeper caring creates smarter healthcare.



Aurelio M. Fernandez III, FACHE President and Chief Executive Officer

Looking Back, Moving Ahead

Dear Friend of Memorial Healthcare System,

Greetings from all of us at Memorial — our board, our medical staff and our thousands of Memorial caregivers. For the second consecutive year, our Annual Report (May 1, 2020, through April 30, 2021) is in a different format than you may remember from the years before COVID-19. We're continuing to face the pandemic's challenges — and we're also marking some important milestones in Moving Health Forward for our patients, their families and our community. This report is the result.

By August of 2020, we thought COVID-19 had leveled off, only to experience the resurgence of January 2021 (and then of course the onslaught of the Delta variant later this year). Which means that for 19 months, our Memorial family has been answering the call of the pandemic without letup. Rest assured that their efforts will remain unflagging as long as the pandemic continues to test us.

At the same time, as one of Florida's largest healthcare systems, Memorial has had to continue laying the groundwork for healthcare of the future. Long after COVID-19 is in the rearview mirror, South Floridians — and people from all over the country — will require the kind of highquality, patient- and family-centered care Memorial is known for. You'll be pleased to know that we've remained focused on making Memorial a destination center for the broad range of services.

Our ability to deliver comprehensive cardiac care is just one example. All the elements of a destination TotalHeart Care provider — the tools, the technology and the expertise — already exist at Memorial Cardiac and Vascular Institute, which means we can provide medical, interventional and surgical treatment for all cardiac diseases. We have:



- » A continuum of cardiac care not found elsewhere in South Florida – Memorial's outstanding cardiac team offers congenital heart patients comprehensive treatments from childhood through adulthood. This prevents the need to seek specialized treatments elsewhere, because the expertise for a lifetime of cardiac care is right here in their own backyard.
- » The most innovative care that cardiac patients need – More than 70% of cardiac catheterizations and angioplasty procedures at Memorial are radial (using the wrist artery, not the groin), which reduces patient risk and improves outcomes. Since 2010, we've performed nearly 70 pediatric heart transplants at Joe DiMaggio Children's Hospital and over 70 adult hearts since 2014.

» Experts of today training the experts of tomorrow – Memorial Graduate Medical

Education program has welcomed its first class in its Cardiovascular Disease Fellowship Program, which trains fellows in all aspects of cardiac care.

- » Leading-edge technology From heart transplant to ECMO and electrophysiology and more, Memorial Cardiac and Vascular Institute has the technology and expertise that heart patients used to have to travel hundreds of miles for.
- » High ratings in heart surgery care Memorial Cardiac and Vascular Institute has earned a threestar rating, the highest category of quality, from The Society of Thoracic Surgeons for coronary artery bypass grafting, aortic valve replacement, and mitral valve replacement and repair for the period ending December 2020. It's a distinction that places Memorial among the elite heart surgery programs in the U.S. and Canada.

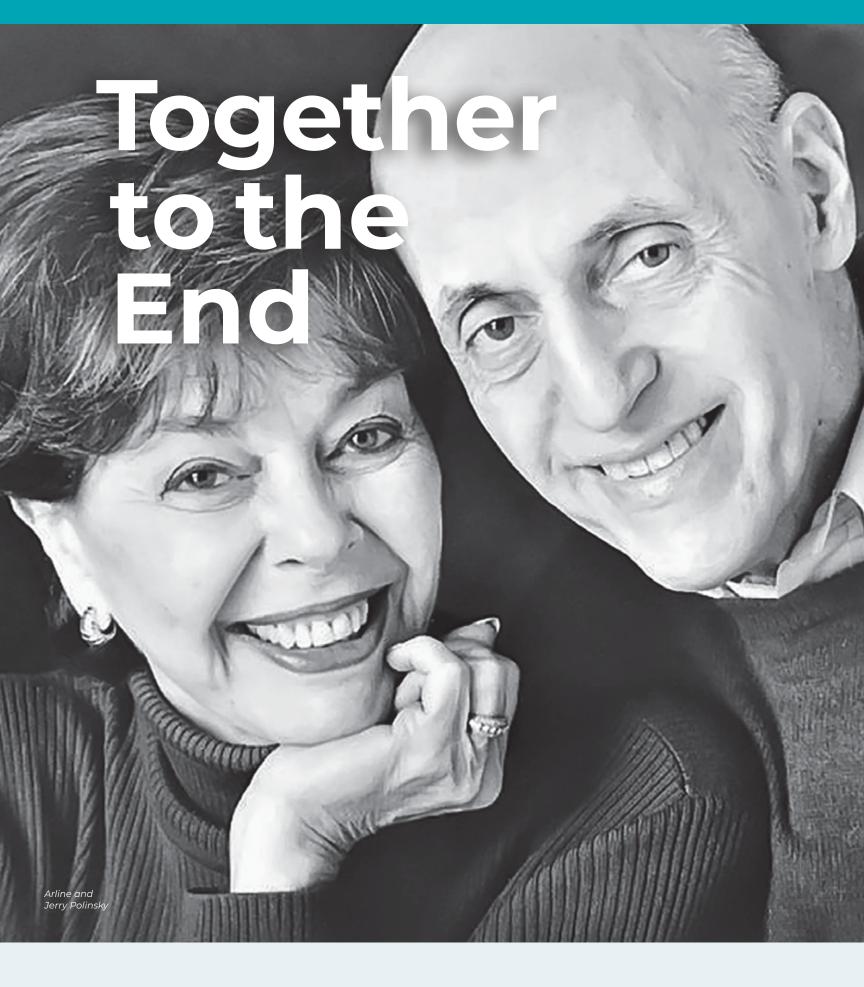
Why shouldn't Memorial be a destination center for providing outstanding healthcare? From our beginnings as a single community hospital in 1953, we've grown to become a regional academic medical center. And we know that, pandemic or no pandemic, the coming years promise us even more exciting opportunities to **Move Health Forward.**

On behalf of all of us at Memorial, thank you for your continued support. You give us energy and confidence to face what we know will be a great future — for ourselves, and for those we're proud to serve.

Aurelio M. Fernandez III, FACHE President and Chief Executive Office

Douv ar .

Douglas A. Harrison Chairman of the Board



Compassionate Care Eases Longtime Couple's Passing»

It was by chance that Emilian Cristea, MD, a Memorial medical staff member, came to be Gerald "Jerry" Polinsky's physician in April 2020. The 89-year-old Hollywood, Florida, man was among the first wave of patients admitted to Memorial Regional Hospital with COVID-19.

Dr. Cristea, now a nephrologist, didn't know his patient had worked until he was 83. He didn't know Jerry was devoted to his daughters and grandsons, that he adored and doted on his wife, that the couple had been married for $64\frac{1}{2}$ years.

But Dr. Cristea knew that Jerry was struggling to breathe with COVID-19 pneumonia — and that there was nothing more that could be done.

"Despite doing the best medical management that we knew of, there was just this gradual decline," said Dr. Cristea, a native of Romania who joined the Memorial Healthcare System in 2019.

What gives him some peace of mind is knowing that Jerry died with his beloved wife, Arline, by his side — because of the compassion and heroic efforts of Memorial Regional's care team.

Continued pg 6



It takes a whole team. We all come together to deliver excellent care, and I find that simply amazing."

Emilian Cristea, MD



It Was the Right Thing to Do

More than a week before, Jerry had fallen and been found on the bedroom floor in the assisted-living apartment he and Arline shared. It was the senior living center's protocol that he go by ambulance to the hospital.

"It never entered my mind that this was COVID," said daughter Joanna Berens of Hollywood.

At Memorial Regional Hospital, the emergency room team found no sign of injury, and Jerry's vital signs were good. He would be going home. Because of COVID-19 safety measures, Berens was waiting outside to pick him up when she got a call. ER nurses doing a routine, pre-discharge temperature check discovered that Jerry had spiked a fever. "That was truly the beginning of the end," Berens said.

A pneumonia diagnosis came first. By the next morning, Berens and her sister, Nancy Polinsky Johnson, learned their father had COVID-19. Berens was terrified.

Nine days after Jerry was admitted to Memorial Regional Hospital, Arline, 86, also fell in their apartment. While she was making the one-mile ambulance ride to the hospital, Berens was on the phone, pleading with an ER nurse: If her mother tested positive for COVID-19, please put her in the same room with her husband.

"

They had been together for 64¹/₂ years. My mother was lost without him for those nine days. Bringing them together was the first thing that popped into my head. It was a no-brainer."

Joanna Berens, daughter

When the nursing staff brought the request to Dr. Cristea, he said yes without hesitation.

"The nursing team did all the thinking," he said. "I embraced it, but I want to give them full credit. It sounded like the right thing to do."

After Arline tested positive for COVID-19 and was admitted to the hospital, nursing staff wheeled Jerry's bed to Arline's room at the other end of the COVID-19 floor. They pushed the couple's beds together, letting each know the other was there. The nurses took the extra step of lowering the bed rails, so Jerry and Arline could hold hands.

When Arline, who was more alert than Jerry at the time, said, "I love you," a nurse leaned in and delivered the message to Jerry. He mouthed back, "I love you."

The nursing staff also arranged for Berens and Johnson to have a video conference call with their parents. They held up an iPad so the sisters could see their mother and father in their side-by-side hospital beds and then tilted it so they could see their parents holding hands. Jerry was stroking Arline's manicured hand with his thumb, just as he had always done. The daughters were able to tell their parents that they loved them, and Arline mouthed back, "I love you."

The couple had one full Sunday together before Jerry died on April 13. Arline seemed aware that he was gone. "Together, Jerry," she said as he was wheeled out of the room. Arline died just four and a half hours later, on April 14.

The Polinskys are believed to be the first couple in Broward County to die together, Dr. Cristea said.

"With every patient you lose, it takes a small toll on you," he said. "Although the outcome was not the one we wanted, I did feel relieved that they were able to be together."

The sisters will be forever grateful that Memorial Regional Hospital staff went the extra mile to make sure their parents were side by side in death, just as they were in life. They have kept a video image of their parents holding hands.

"My parents were in the right place at the right time with the right people," said Johnson. "It was so comforting to know that they were in such good hands with professionals who had hearts of gold."

Continued pg 8





Devoted to Each Other and Their Family

Jerry was a gentle soul, his daughters said.

"Everybody who met him would say, 'Oh, he was such a gentleman. He was so kind. He was so thoughtful,' " Johnson said.

He also adored their mother, the sisters added. Despite battling chronic leukemia, Jerry still did all he could for Arline, who had Alzheimer's disease. It was only within the year before they died that they had to move from independent living to assisted living at their senior complex.

The couple met in January 1951. Arline, who was 17 at the time, went to visit cousins in St. Louis. Determined to show her a good time, the cousins arranged for several young men to accompany her to various events during her visit. One of them was Jerry, then a senior at Washington University who took her to a Wash U basketball game.

"We talked and talked," Arline wrote in her diary. "Boy, can he talk!"

Jerry and Arline kept in touch after she went home, and they would marry on Dec. 26, 1955.

Their daughters said Arline and Jerry were devoted to one another, their family (including three grandsons), and their Jewish faith. Most of the trips they took were to visit family or to attend family weddings, bar and bat mitzvahs, and family reunions. "Family made them both very happy," Johnson said.

Jerry worked as a college history professor and then on the administrative and management side of higher education. Arline had worked as an interior designer and later as a real estate agent.

While their mother's medical history "could fill a phone book," their father was remarkably healthy. Jerry was never hospitalized until he was admitted for COVID-19, the daughters said.

In summer 2014, Jerry and Arline moved to the senior living residence in Hollywood from their longtime home in Columbia, South Carolina. Berens said she took comfort in knowing the hospital was less than a mile away from her parents' home.

It was Memorial's Dr. Fernando Diaz-Calderon, Arline's endocrinologist, who expressed concern about Jerry's declining health and encouraged the elderly couple to make the move from independent to assisted living. And Memorial oncologists Dr. Jennifer Zikria and Dr. Jose Sandoval-Sus were treating Jerry's leukemia.

Dr. Charles Stone, Memorial medical staff member and Arline's primary care physician, "was incredible through the preliminary COVID process," Berens said. He fast-tracked COVID-19 tests at a time when rapid tests were unheard of, she said.



Compassionate Care in Action

It was a dedication to compassionate and empathetic care that spurred quick action on Berens' request to bring Jerry and Arline together.

"The nurses at Memorial are great," Dr. Cristea said. "In the case of Gerald and Arline, they understood the situation very well and felt what was needed from a spiritual standpoint, what would bring the most meaning. I think this said a lot about Memorial — that we're treating the patient as a whole, not just treating this disease."

He also praises the nurses for keeping the family informed and making sure the daughters had an opportunity to say goodbye to their parents.

"When they saw them together, I think they had a little bit of closure," Dr. Cristea said.

Johnson remembers marveling at how the nursing staff made time for their concerned calls.

"We were hearing on the news about what healthcare workers were going through and how the rooms were filling up with COVID patients and there weren't enough ventilators," Johnson said. "We would call, and it wasn't easy to get through, but when we did, the nurse would say, 'I'm going to be suiting up and going in their room shortly. I'll call you back when I'm in there.' She would hold the phone up to Daddy, and I was so grateful and, simultaneously, so astonished, thinking every other family is asking for the same thing."

Dr. Cristea and the nursing staff were "very patient and very compassionate," Berens added.

"The nurses who were with them in their final moments — as frustrating as it was for me to not be able to be there — I couldn't believe they had to handle it, and they did it in as graceful a way as possible," she said.

Though Berens and Johnson are still grieving the loss of their parents and Berens is coping with the sudden death of her husband, Eli, from a suspected heart attack less than five months later they hold on to the positives.

"We saw silver linings immediately," Berens said. "The fact that they went together was the largest one. The fact that one of them didn't have to mourn the other."

The care Memorial took with their parents — and with the family — is another silver lining.

"I want to be able to thank them in person one day," Berens said. "I want to give those nurses who were with our parents at the end a hug. Just to be able to say thank you would mean a lot to me."

"

With every patient you lose, it takes a small toll on you. Although the outcome was not the one we wanted, I did feel relieved that Jerry and Arline were able to be together."

Emilian Cristea, MD



Aharon Sareli, MD, Chief of Critical Care Medicine, gets his first dose of the Pfizer COVID-19 vaccine on Dec. 14, 2020. Sareli was the first clinician in South Florida to be vaccinated.



Miami Herald





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Memorial Takes a Lead in Florida Vaccine Rollout»

When the medical miracle of a **COVID-19 vaccine arrived in December** 2020, Memorial caregivers were relieved: Now they would have an effective weapon to help them in a war that they'd been waging since early March.

"The vaccine was liquid gold to all of us," said Dorinda Segovia, PharmD, MBA, Vice President and Chief Pharmacy Officer.

Like everything else about the COVID-19 pandemic, the process of distributing it was a fast-paced and daunting one.

Memorial was one of just five Florida health systems that the state identified to receive and distribute the first doses of the Pfizer-BioNTech vaccine. Additionally, in Broward, Memorial was designated as the central distributor of the vaccine for five area healthcare providers: Cleveland Clinic Florida, Broward Health Medical Center, Westside Regional Medical Center, Florida Medical Center and Holy Cross Health.



UP FIRST: Front-Line Workers

So once news broke on Friday, Dec. 11, that the FDA had issued the first Emergency Use Authorization for the vaccine, Memorial raced to prepare for the arrival of 19,500 doses the following Monday. The plan: to give the first round of vaccinations to front-line workers in the emergency departments and critical care areas - medical staff, nursing staff and any clinician at risk for contracting the virus.

To anyone watching the first vaccinations at Memorial Specialty Pharmacy on the afternoon of Dec. 14, it was a smooth and even joyous event. What wasn't readily apparent: the complicated pre-planning that was necessary to make it all happen. Memorial was responsible for a dizzying array of logistics, all of which had to happen before the first shots could go into arms.

"We left work that Friday not knowing when we'd get the vaccines," Dr. Segovia said. "But that same evening, we received notice of approval through media channels, plus shipping information from Pfizer with an estimated arrival time. Over the weekend we set up our vaccination site to be ready for Monday."

The pharmacy team had to determine how to receive the vaccine, store it in special subzero freezers, defrost it, manage its dating requirements and safely prepare each syringe. (They even had to measure the dimensions of the individual Pfizer vials and packages to calculate how much refrigerator space they would need for storage.)

They had already worked with colleagues across the system to develop criteria for eligibility and to create an IT infrastructure to support the operation — all of which would need multiple updates as new information became available.

Then, with the news that the FDA had issued Emergency Use Authorization for the Moderna vaccine, Team Memorial had to do it all over again — determine its preparation, dosage and storage as separate inventory. (At the time, the FDA did not consider the two vaccines to be interchangeable.) Special labels had to be made to safely barcode and document the Moderna vaccine's administration.

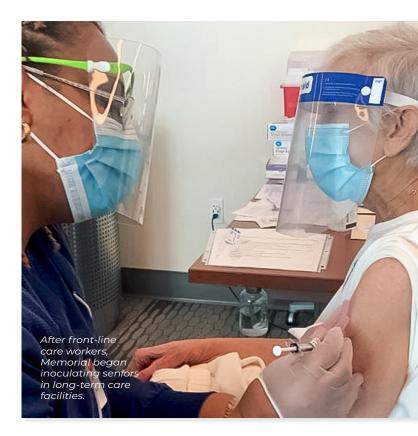
The work continued through the rest of December and into the New Year. Once its front-line healthcare workers were inoculated in the first phase, Memorial turned to vaccinating other area providers and, finally, people age 65 and older when Florida expanded the eligible recipient population.

NEXT: Long-Term Care Facilities

The Florida Department of Health selected Broward and Pinellas counties to enact a pilot program for vaccinating patients and caregivers in 112 long-term care facilities. By January, Memorial had opened its second vaccination center at Memorial Regional Hospital's Conference Center and began inoculating at its nursing home, Memorial Manor — going room to room to give shots to its 120 residents and setting up a clinic in one of its conference rooms for staff.

In all the phases of the vaccination rollout, Memorial had to move nimbly in response to changing information. Employees pitched in, working around the clock even after 10 difficult months on the front lines. And a 2020 holiday season already upended by the pandemic became even more so. To thank people for giving so selflessly of their time and energies, Dr. Segovia made Christmas ornaments out of empty vaccine vials - souvenirs of a remarkable effort in an unforgettable year.

"No matter what holiday you celebrated, if you were part of the team that made this miracle happen, you got an ornament," she said.







Board of Commissioners* South Broward Hospital District

*FY2021 May 1, 2020 - April 30, 2021



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Aharon Sareli, MD Chief Physician Executive Memorial Physician Group and Chief of Critical Care Medicine



Jeffrey S. Sturman Senior Vice President and Chief Digital Officer



Leadership Team

Memorial Healthcare System

Vedner Guerrier Chief Executive Officer Memorial Hospital West



Marc L. Napp, MD, MS, FACS Executive Vice President and Chief Medical Officer



David Smith Executive Vice President and Chief Financial Officer



Margie Vargas Senior Vice President and Chief Human Resources Officer



Maggie Hansen, MHSc, RN, BSN Senior Vice President and Chief Nurse Executive



Peter Powers, FACHE Chief Executive Officer Memorial Regional Hospital



Caitlin Stella, MPH Chief Executive Officer Joe DiMaggio Children's Hospital and Pediatric Services



Douglas A. Zaren, FACHE Chief Executive Officer Memorial Regional Hospital South

Memorial Physician Group Memorial Physician Leadership Council



Aharon Sareli, MD





Brian Cauff, MD



Daniel Chan, MD

Jennifer Goldman, DO

Michael Jofe, MD



Brett Cohen, MD



Iftikhar Hanif, MD



Diana Martinez, MD



Luis E. Raez, MD



Michael Cortelli, MD



Sarah Hart-Unger, MD



Juan Martinez, MD



Dean Hertzler, MD



Holly Neville, MD

James Salerno, MD



Samuel Ostrower, MD



Frank Scholl, MD



Jorge Luis Sotelo, MD





Moving the Health of Our Community Forward

Memorial Physician Group is the collective body of all employed physicians at Memorial Healthcare System. At inception in 1999, there were only

seven practices and 31 physicians. Today, Memorial Physician Group consists of more than 300 highly skilled, nationally recognized, adult and pediatric specialists who provide leading-edge, patient- and family-centered care.

The growing multi-specialty practice comprises 80 adult and pediatric specialties and subspecialties across Broward, Miami-Dade and Palm Beach counties.

Over the course of the pandemic, our physicians took the lead to ensure patients continued to receive quality care — creating protocols for testing at C.B. Smith Park and embracing the use of telehealth visits. In some cases, physicians and their clinical teams redeployed to other care areas as needed. In the last year, Memorial has grown by adding more physician office locations across South Florida and offering new services at existing locations.

Midtown Miami is one of Memorial's newest physician office locations. It offers adult neurology services including diagnoses, treatments and compassionate care for complex neurological conditions. The other location in Fort Lauderdale is Memorial Orthopaedic Surgery and Sports Medicine Center.

Memorial Physician Group's leadership model has further developed this year. Our subcommittees have continued to champion projects that are aligned with Memorial's goals and which have resulted in improvements in both quality and operational efficiencies.

Learn more about the new Orthopaedic Surgery and Sports Medicine Center in Fort Lauderdale, *pg* 57.

Dr. Napp Named Executive VP and Chief Medical Officer »

Marc L. Napp, MD, MS, FACS, joined Memorial Healthcare System in March 2021. In his role as Executive Vice President and Chief Medical Officer, Dr. Napp oversees quality and safety programs and provides oversight and leadership for all medical staff and clinical areas.

Prior to joining Memorial, Dr. Napp was deputy chief medical officer at Mount Sinai Health System in New York, where he also served as leader of Mount Sinai's emergency management program, including its COVID-19 response.

He succeeded Stanley Marks, MD, FACS, who retired in October 2020.

Memorial Health Network Physician Board Members



Howard Berlin, MD



Kenneth J. Budowsky, MD



Benjamin Freedman, MD



Marc Greenstein, MD



Fred Keroff, MD



William Pena, MD



Rocky Slonaker, MD



Nigel Spier, MD



David Weiss, MD

Memorial Health Network negotiates value-based agreements with health plans to try and lower the total cost of care for a specific population by deploying strategies to improve efficiency, communication between providers and sites of service, and improve quality. We make sure individuals get the right care, at the right site-of-service, at the right time.

Physicians Providing High-Quality Care



Covered Participants 140,000+

Outperformed Targets and Lowered Costs by

\$29.5 million

Earned in Shared Savings

Honored for Commitment to Quality

Memorial Healthcare System was recognized for its leadership and innovation in quality and performance improvement as a finalist for the American Hospital Association's Quest for Quality Prize.

The Quest for Quality Prize was first awarded in 2002. The finalists are honored at the annual American Hospital Association Leadership Summit. This year, in addition to Memorial, Yale New Haven Health and Yuma Regional Medical Center were honored.

Memorial Healthcare System has taken a leadership role not only in pandemic response efforts in Florida, but in addressing patient and family needs and other societal factors that influence the community's health.



American Hospital Association Quest for Quality Prize[®]



14,000 Memorial Heroes Honored with Joe DiMaggio American Icon Award

In a virtual celebration featuring multiple celebrities, the Joe DiMaggio American Icon Award was awarded to all 14,000 Memorial caregivers and heroes for their selfless dedication in facing the COVID-19 pandemic.

Special guests included past award recipients author James Patterson, sportscaster Bob Costas and music legends Emilio and Gloria Estefan as well as DiMaggio's granddaughters Kathie DiMaggio Stein and Paula DiMaggio Hamra.

Modern Healthcare Best Places to Work 2020

Memorial Named a Best Place to Work for 11 Years

Memorial Healthcare System was selected by Modern Healthcare as one of the 2020 Best Places to Work in Healthcare, a national recognition that identifies outstanding employers in the healthcare field. Memorial ranked highest in Florida and was the only healthcare system in South Florida to receive this recognition in 2020.



All 4 Memorial Adult Hospitals with ICUs Earned A's for Patient Safety

Memorial Regional Hospital, Memorial Hospital West, Memorial Hospital Miramar and Memorial Hospital Pembroke all were awarded an A in the Leapfrog Group's Spring 2021 Hospital Safety Grade, a national distinction recognizing Memorial's efforts in protecting patients from harm and meeting the highest safety standards in the United States.

Memorial Hospital Miramar was the only South Florida facility recognized as a straight A hospital — and one of only 27 hospitals in the United States to be awarded an A in every grading cycle since 2012.

In addition, in December 2020 Joe DiMaggio Children's Hospital was the only South Florida pediatric hospital named as a Top Children's Hospital nationally by the Leapfrog Group.

Adapting to the Pandemic

Innovation and quick pivots by Memorial staff accelerated new services and re-imagined some of the old.

An example of this ingenuity was employing the molecular lab at Memorial **Regional Hospital South** to perform COVID-19 testing. The lab already was outfitted to perform the polymerase chain reaction test for COVID-19. With a few modifications and effective planning, the facility not only met the System's growing need for fast, accurate lab work, but also became the first in the area to offer SARS-CoV-2 testing.

The molecular lab at Memorial Regional Hospital South became the first in the area to offer SARS-CoV-2 testing. "We were able to ramp up in a month. Some of the instrumentation was already here, and we were able to add instruments," said Julie Poveda, Director of Laboratory Services at Memorial Regional Hospital South. "As soon as the CDC approved the method, we had already ordered the kits. Our medical director and clinical scientists already had an action plan in place.

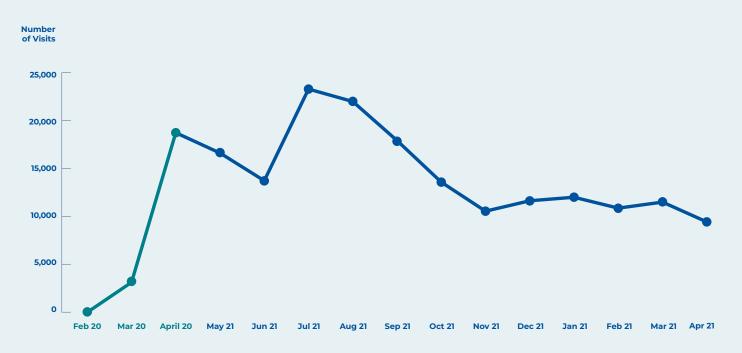
The molecular lab at Memorial Regional Hospital South increased from 30 tests a day to 1,500 a day doing COVID-19 testing. That's a 4,900% increase!

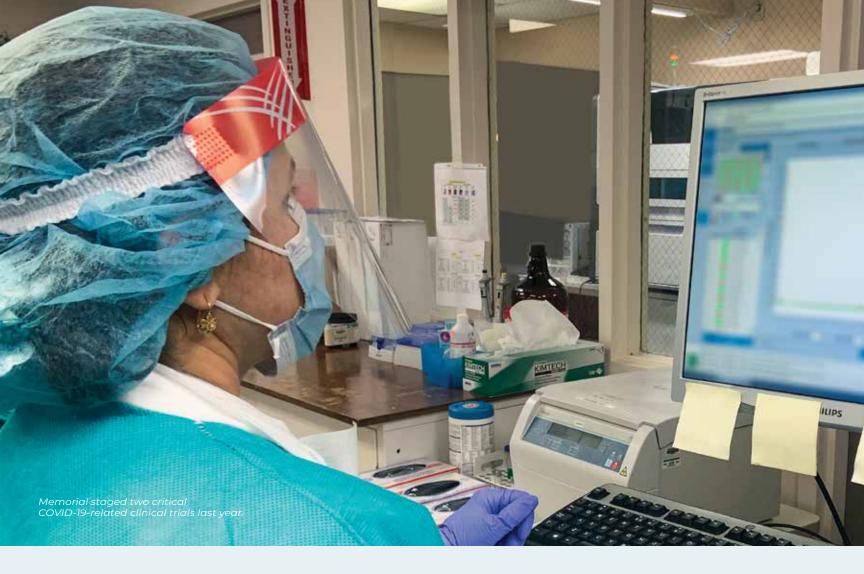
From MyChart telehealth visits to iPads at the bedsides of COVID-19 patients, technology has been an invaluable tool for connecting patients and Memorial providers and for keeping services and programs active during COVID-19.

Using hardware and software advances in creative ways has increased communication and participation across disciplines and enhanced patient care beyond expectations.









Clinical Trials Provide Patients with Access to New Therapies»

Memorial Healthcare System's Office of Human Research continues to provide hope to our community by providing access to cutting-edge drug and technology therapies.

Despite the pandemic, Memorial supported more than 150 open to accrual studies, enrolled 1,725 patients onto trials and staged two critical COVID-19-related clinical trials over the course of 2020.

A trial in partnership with the Mayo Clinic studied the effects of convalescent plasma on COVID-19 patients. Memorial was one of the highest-enrolling sites in the United States, enrolling 1,175 patients who were transfused with convalescent plasma during the summer surge. This required a systemwide collaboration of front-line ICU, infectious disease and internal medicine physicians and nurses, researchers, lab staff and Memorial's plasma partner, OneBlood.

"Every front-line staff member was involved, including our residents, Memorial's lab and our research team. It was a true example of the teamwork and system-ness that we strive for," said Candice Sareli, MD, Vice President and Chief Medical Research Officer.



Monoclonal Antibodies Offered for High-Risk COVID-19 Patients»

As part of Memorial Healthcare System's response to the COVID-19 pandemic — and in an effort to stop or halt progression to severe disease — Memorial began providing monoclonal antibodies in January 2021 to qualifying COVID-19 patients.

To date, over 600 patients at high risk for developing severe COVID-19-related symptoms have received infusions of monoclonal antibodies. Nurses and doctors have been administering the new drugs at a temporary outpatient center located near Memorial Hospital Pembroke. Monoclonal antibody therapy works by mimicking antibodies, or proteins, that the body naturally produces to fight viruses. The lab-made monoclonal antibodies bind to the virus' spike protein and help block the virus' entrance into human cells.

Previous clinical trials have shown that investigational therapies can significantly reduce progression to severe disease and, subsequently, the need for emergency room visits or hospitalization.



"

We were able to realize our vision of being able to offer all of our patients a research option and access to novel therapies during this critical time."

Candice Sareli, MD Vice President and Chief Medical Research Officer



Residents Remain on the Front Lines of COVID-19

DR. DELIA WIETECHA

Memorial's Graduate Medical Education program continues to grow and expand into additional specialties, while residents support care on the front lines of

the COVID-19 pandemic.

When the pandemic began in March 2020, Memorial had seven training programs in operation and two more set to start in June. This meant Memorial had 122 residents on hand to assist with caring for patients.

Internal Medicine residents were greatly impacted, as they were often redeployed throughout the system to where their help was most needed. This included ICU care for the most critically ill patients and the drivethrough testing site at C.B. Smith Park, where residents

Graduate Medical Education residents served a significant role on the COVID-19 front lines.

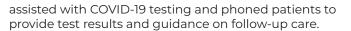
Naming Honors Former Executive»

In 2020, the GME White Coat Ceremony was named in honor of Stanley Marks, MD, FACS, who retired in October 2020 after 42 years with Memorial Healthcare System.

Dr. Marks, who was Senior Vice President and Chief Medical Officer at the time of his retirement, began his Memorial career in 1978 as a general and vascular surgeon. Over the following four decades, he built a legacy of leadership as both a physician and an executive.

He created the Graduate Medical Education program and Memorial's Office of Human Research, spearheaded the development of unified bylaws and a centralized credentialing system for medical staff and served as Memorial incident commander in the early days of the pandemic.

"We have been able to truly put Memorial on the map in terms of education and training," Dr. Marks said.



"We responded both from a direct patient care standpoint and also with a public health response," said Ahmed Shoreibah, MD, Program Director of the Internal Medicine Residency Program. "Both were very demanding, and it was very stressful and a lot of work. We are very proud of how our residents stepped up and responded in conjunction with the rest of the Memorial system."

All Memorial training programs transitioned to virtual platforms, and residents began using telehealth to provide care along with the rest of the healthcare system.

Stanley Marks, MD, FAC with Saima Chaudhry, N FACP. Chief Academic C

"

It was really incumbent on us to guide them through this period while maintaining their safety, their training and making sure they were able to step up and meet the needs of the community."

Ahmed Shoreibah, MD **Director**, Internal Medicine **Residency Program**

RESIDENTS CARED FOR:

0%

MORE THAN of all COVID-19 patients throughout Memorial Healthcare System and

MORE THAN of all COVID-19 patients in the ICU at Memorial **Hospital West**

Helping Nurses Expand their Horizons»

Memorial Healthcare System continues to expand its nurse education programs to help new graduates launch their careers and help experienced nurses get additional training in specialized areas.

The programs also create a pipeline of experienced and passionate professionals at a time when the national nursing shortage has been further exacerbated by the effects of a global pandemic.

"From the inception of Memorial's Nurse Residency Program in late 2018, we have helped launch the careers of more than 1,000 nurse graduates. This has been more of an advantage than we'd originally anticipated as more experienced Baby Boomer nurses are exiting the workforce, accelerated by the pandemic," said Maggie Hansen, MHSc, RN, Senior Vice President and Chief Nurse Executive at Memorial.

"And the group's propensity for innovation has proven valuable in overcoming additional patient care challenges posed by the pandemic," Hansen added.



NURSE RESIDENCY PROGRAM



Nurse Residency Program

Memorial's Nurse Residency Program was created to support nurse graduates transitioning from the classroom to professional practice. In July 2021, Memorial welcomed its ninth cohort of nurses. Each cohort has approximately 100+ nurses.

"The residency program helps novice nurses build on what they learn at the bedside by developing their clinical reasoning skills, as well as provide opportunities to connect and learn from one another," said Anthony G. Gonzalez, MSN, RN, CCRN-K, Director of the Nurse Residency Program.

While the COVID-19 pandemic forced the program to pivot and transition to a virtual teaching environment, Gonzalez said online platforms offered new ways for nurses to participate, connect with and support their peers.

"Our goal is to give them the knowledge and training to become leaders at the bedside, while providing a strong support system that can endure well beyond their time in the program," Gonzalez said.

Nurse Fellowship Program

Memorial's Nurse Fellowship Program offers nurses with at least one year of experience the opportunity to transition to new nursing specialty practice areas. This helps nurses learn the skills needed for more complex nursing care, while also filling needs in Memorial's specialty areas.

"We hire them into these specialties and give them a really robust training and group support to help them grow in their new practice area," said Valarie Grumme, PhD, RN, CCRN-K, Director of the Nurse Fellowship Program.

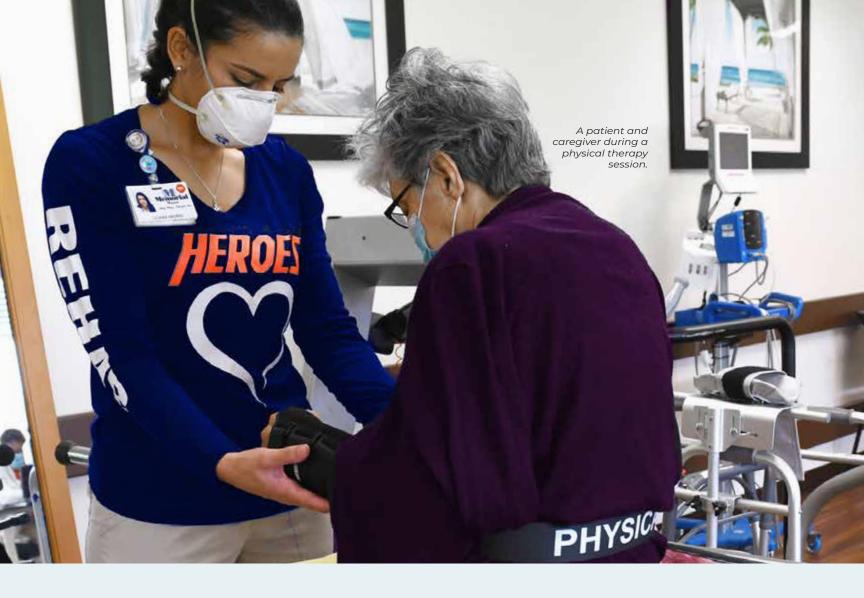
So far, the program has focused on critical care, emergency and oncology nursing and is expanding to surgical services, cardiovascular services, interventional radiology, and labor and delivery services.

"The sky's the limit," Grumme said. "It's a great opportunity for nurses to learn and grow, and for the healthcare system to meet its workforce needs."

NURSE FELLOWSHIP PROGRAM







Improving Health Through Value-Based Care»

Memorial Healthcare System has continued to advance its transformation to a value-based care model over a fee-for-service platform.

"The year 2020 was a very busy year for us in valuebased care, improving health outcomes across well over 100,000 lives that we covered and helping our physicians transform and build muscle in moving toward value-based care," said Matthew Muhart, Executive Vice President and Chief Strategy Officer.

In May 2020, Memorial acquired 100% of Broward Guardian, a Medicare Shared Savings Program ACO, or Accountable Care Organization. Memorial leadership sees this acquisition as a positive and important step to expand its current portfolio of value-based care arrangements. In particular, this acquisition enabled Memorial to extend to Broward Guardian its substantial and high-performing value-based care infrastructure, which supports its commercial ACO, Memorial Health Network, and the several bundle payment programs it participates in. This enhanced the care and efficiency outcomes for Medicare beneficiaries in Broward Guardian.

Medicare ACOs consist of doctors, hospitals and other healthcare providers that have joined forces to improve the overall care delivery to Medicare patients. According to the Centers for Medicare and Medicaid Services, "coordinated care helps ensure that patients, especially the chronically ill, get the right care at the right time, with the goal of avoiding unnecessary duplication of services and preventing medical errors."

Continued pg 26



Redefining the Care Model

Building on Memorial Health Network and the bundle payment program aligns with Memorial's outlook for healthcare's inevitable transformation.

The old paradigm begins with an isolated patient visit, followed by days, if not weeks, before a follow-up appointment. Safeguards aren't necessarily in place to intervene if a patient's condition worsens before the next doctor's visit.

Under the new model, the patient's health is monitored over time to catch problems before they become critical. The long-term benefits are lower healthcare costs, higher quality of care and improved quality of life, especially for patients with chronic illnesses.

Memorial also expanded participation in Medicare's Bundled Payments for Care Improvement programs, moving from five to 19 bundles. This bundled payment program sets a spend target for all services rendered to a patient for an episode of care over a 90-day period. Memorial's value-based care team coordinates and monitors the patient's healthcare needs across the care continuum during that period, lowering the risk of readmission and making sure the patient receives care when and where they need it.

Lastly, Memorial entered into a collaboration with Oscar Insurance and Holy Cross Health, bringing a co-branded Medicare Advantage Plan to Broward County residents. *(See related story on pg 27)*

"We have proven, through working closely with the physicians and other care partners, that we can enhance health outcomes and efficiencies," said Muhart. "The developments we accomplished this year provide a larger scale that sets us up very well for continued growth and success, which will positively affect the health of the community we serve."

Launching a Co-Branded Medicare Advantage Plan with Oscar»

Memorial Healthcare System announced a partnership with Oscar, the first tech-driven health insurance company, and Holy Cross Health, a top-rated health, teaching and research institution, to bring a comprehensive Medicare Advantage plan to Broward County residents.

The co-branded healthcare plan merges Memorial's and Holy Cross Health's extensive physician network with Oscar's state-of-the-art technological resources.

"Oscar and Holy Cross share our vision of using technology to improve the medical experience for patients and families in South Florida. This Medicare Advantage plan, and our collective partnership, is providing tools and resources for patients to take a more active role in their healthcare journey something we've long advocated in our approach to value-based care and population health," said Aurelio M. Fernandez III, Memorial President and CEO. Enrollment for the individualized plan began in October and became active in January 2021.

Members enjoy convenient, easy access to the top doctors at both Memorial Healthcare System and Holy Cross Health. A connected care team helps members navigate the plan and maximize in-network resources. The new plan also includes 24/7 virtual urgent care, which utilizes Oscar's technology to allow members unlimited visits with providers for diagnoses, care instructions and prescription assistance from the comfort of home.

The partnership is a game changer for Broward County's Medicare recipients, as it maximizes the quality and delivery of patient-centered care. The plan itself marries the best practices of Memorial Healthcare System, Holy Cross Health and Oscar to meet the current healthcare needs of every member.



Memorial Helps Healthcare District of Palm Beach Make Epic Connection»

Epic is one of the world's largest integrated and clinically safe software systems for storing electronic health records (EHR). The Healthcare District of Palm Beach County didn't have the resources or organizational scale to support direct contracting through Epic for its EHR. However, Memorial's status as a leader in healthcare has allowed it not only to purchase Epic, but to sublet the product to other healthcare systems.

"The Healthcare District of Palm Beach approached us and asked if we would be willing to extend our Epic EHR to them. They know that we've really achieved pretty stellar performance, both clinically and financially, because of our electronic health record," said Jeffrey Sturman, Senior Vice President and Chief Digital Officer.

Memorial agreed to share its Epic EHR program through Community Connect with Palm Beach under two conditions. First, Memorial would monetize the platform and make a small profit to offset costs. Second, the connection between Memorial and an external healthcare system eventually would manifest in patient sharing and providers helping each other. The value to Palm Beach is acquiring use of an otherwise inaccessible Epic EHR system that will improve healthcare in that community.

After nearly 18 months of planning, Memorial's implementation of Epic's Community Connect with the Healthcare District of Palm Beach County went live on July 1, 2021. This mutually beneficial collaboration and integration sets the foundation for the strategic overlap of population health activities in Broward County and beyond.

"We're looking at this collaboration with the Healthcare District of Palm Beach as of strategic significance. We know we may not see immediate sharing of patient populations or potential efficiencies to be gained," said Sturman. "But the vision is that, between our two organizations, we not only leverage a best in class electronic health record, but also create opportunities to share more comprehensively in operational excellence and even the delivery of care settings."

Partnership of Excellence

The state of Florida designated the partnership of Memorial Cancer Institute with Florida Atlantic University as a Cancer Center of Excellence. The research partnership combines Memorial's clinical expertise with the university's precision research to provide patients access to clinical trials, leading to advances in cancer care and treatment.

"We have achieved this designation because we are a comprehensive center for quality research and deliver a very high level of cancer care for our patients," said Luis E. Raez, MD, Medical Director and Chief Scientific Officer, Memorial Cancer Institute, and Co-Director for the Cancer Center of Excellence. "We have been working very hard for several years to achieve this level of care."

Memorial's groundbreaking partnership with Florida Atlantic University has been recognized as a Cancer Center of Excellence. Here, FAU nursing students provide bedside care. (Florida Atlantic University photo) The Center of Excellence designation was created to encourage preeminence in cancer care, to attract and retain the best cancer care providers, and to help Florida hospitals like Memorial be recognized nationally as a preferred destination for quality cancer care.

Florida has more than 80 oncology centers, but the Memorial-FAU partnership is one of just five designated Cancer Centers of Excellence in the state. The distinction further solidifies Memorial's presence as a leading cancer treatment provider.





"

Memorial Cancer Institute has achieved state and national recognition for leadership and innovation in cancer. As one of only five cancer centers in the state of Florida to merit designation as a Cancer Center of Excellence and as one of 12 nationally selected by the American Society for Clinical Oncology to pilot a new Oncology Medical Home value-based care model, Memorial Cancer Institute continues to set high standards for cancer care and demonstrate leadership in clinical research, treatment, outreach and education."

Meredith Feinberg, MBA, FACHE Vice President Oncology Services

Research PACT Drives Innovation

The partnership started in November 2020 when Memorial formed a Research Partnership to Advance Clinical Trials, or Research PACT, with Florida Atlantic University.

The PACT combines the organizations' expertise and resources in clinical research, clinical trials, basic research and translational biomedical research. Its mission is to facilitate clinical trials that lead to advances in patient care and treatment for all types of disease, including cancers such as melanoma, lung, breast, colorectal, pancreas, prostate, blood and other cancers.

The research affiliation also leverages the two organizations' state-of-the-art facilities, as well as proficiency in various areas, from cancer to cardiology and biomedical engineering to big data analytics and artificial intelligence.

The scope of the agreement, limited to research and research-related education, is designed to enable clinicians and researchers from each institution to collaborate with their peers and access available resources at each partner institution. "This is a giant step forward," said Candice Sareli, MD, Vice President and Chief Medical Research Officer. "Through this research partnership, we will continue to expand Memorial's academic infrastructure and research portfolio and offer hope to our community and patients."

This Research PACT is the foundational element that led to Cancer Center of Excellence designation.

Ever forward thinking, the center has big plans to develop new drugs, medical devices, software applications and other novel treatments for diseases that affect both children and adults.

Having earned the state's endorsement, the Cancer Center of Excellence stands apart as a facility that is well-equipped, provides advanced training for personnel and moves health forward with leading cancer care.

For more information on clinical trials at Memorial, see *pg 20*.



'Hot Chemo' Offers Renewed Hope for Abdominal Cancer Patients»

Memorial Cancer Institute has added Hyperthermic Intraperitoneal Chemotherapy — known as "hot chemo" — to its arsenal for treating abdominal cancers. The procedure has proven to be an effective alternative when all other treatment options fail.

"The prior chemo was tearing me down," said Eddie, 51, whose cancer spread from his colon to his abdomen. "I was doing chemo every other week. When I'd get off it, I wouldn't eat for at least three or four days. By the time I built up a little strength, I'd be right back to start chemo again. When they told me there was something else I could do, I was ecstatic."

The treatment is the latest breakthrough in targeting gastrointestinal tumors that have spread to the

lining of the abdominal cavity and surrounding areas, including the colon, appendix, rectum and ovaries.

The procedure involves filling the abdomen for 90 minutes with a chemotherapy solution heated to 104-plus degrees Fahrenheit. The aggressive technique bypasses healthy highways in the body to target the cancer cells directly and deeply, thereby reducing the side effects often seen with traditional chemotherapy, said Omar Llaguna, MD, Surgical Oncologist.

To date, Memorial Cancer Institute has treated nearly 20 patients using hot chemo, including Eddie.

"I walked out of there feeling like my old self, like there was something better than what I was going through. I believed there were better days coming," Eddie said.

"

I walked out of there feeling like my old self, like there was something better than what I was going through. I believed there were better days coming."

Eddie, who had cancer



Telehealth Becomes Viable Cancer Care Solution During Pandemic»

Memorial Cancer Institute has remained fully operational since the onset of

COVID-19. Even with a shift in care delivery with the increased use of telehealth, patients undergoing cancer treatment continued to receive chemotherapy and radiation therapy or undergo surgical procedures.

Cancer patients receiving treatment require frequent medical visits, which usually are in person. Because of the pandemic, Memorial's oncology team turned to telehealth to remain connected to patients in the safety of their own homes.

In addition, enhancements to Memorial MyChart, our patient portal and electronic health record, also helped the team to stay connected with patients throughout the pandemic, said Meredith Feinberg, MBA, FACHE, Vice President Oncology Services. And when patients did come to the hospital or medical offices, highly enhanced safety precautions were in place at all times.

First seen as a quick fix, telehealth actually proved to be a long-term solution for creating a better model for cancer care.

"Memorial Cancer Institute is recognized as a leader of innovative cancer care delivery and continues to set high standards, demonstrating leadership in clinical research, outreach and education," said Feinberg.

Whether virtually or in person, the oncology team continued to provide Memorial-quality care and compassion.



Trouble Ahead?

While the pandemic did not impede ongoing cancer care, it did interrupt screenings and diagnoses, presenting an altogether different and frightening prospect.

"We did see a definite decline of new diagnoses over the last 18 months with COVID," said Kim Blandon, Administrative Director of Oncology Clinical Services. "That might present a bigger problem with later disease diagnosis and progression, putting us in a more challenging position with our cancer patients since we'd have to deliver that care to a sicker, more complex patient."

EP Innovation Continues Despite Pandemic

Memorial Cardiac and Vascular Institute's electrophysiology team has continued to enhance the patient experience despite challenges brought on by the COVID-19 pandemic.

They now send more than 90% of their patients home on the same day following their procedure and have nearly eliminated the radiation that patients experience during heart ablation procedures thanks to new technology.

Electrophysiologists diagnose and treat heart arrhythmias and other kinds of heart electrical problems. Memorial's electrophysiology labs are some of the most active in the region — more than 1,500 procedures are performed each year.

The team began sending patients home on the same day of their procedure when it became imperative to have fewer patients remain in the hospital overnight because of the pandemic. After elective procedures were postponed due to an influx of COVID-19 patients, electrophysiology procedures were one of the first to be reinstated, partly due to the reduced overnight stays.

Danielle, seen here with her son, sought care from the EP team after her smart watch alerted her to an irregular heartbeat.

Multi-specialty Team Performs Broward's 1st TCAR Procedure»

The carotid artery in 81-year-old Reynold's neck was nearly completely blocked with plaque, impeding the flow of blood to his brain and significantly increasing the odds that the Southwest Ranches resident would suffer a stroke.

A carotid endarterectomy has traditionally been the recommended intervention, but Reynold's age and bout with COVID-19 meant he wasn't a realistic candidate for the surgical procedure.

The news, however, was far from bleak for Reynold, since specialists at Memorial Cardiac and Vascular Institute and Memorial Neuroscience Institute were ready to perform their first TransCarotid Artery Revascularization (TCAR), an innovative and minimally invasive procedure designed to prevent strokes in highrisk surgical patients with advanced coronary disease.

"This approach is unique in that blood flow is temporarily reversed during the procedure, ensuring any small bits of plaque that break off while the obstruction is overcome are diverted away from the brain, preventing a potential stroke," said Sean O'Donnell, MD, Medical Director of Vascular and Endovascular Surgery at Memorial Cardiac and Vascular Institute. "We then place stents inside the artery to stabilize the remaining plaque and minimize the risk of a future stroke."



The TCAR procedure is performed by directly accessing the carotid artery through a small incision at the neckline, just above the clavicle.

"I had a 99% blockage and was very lucky not to have had a stroke," said Reynold, a longtime Memorial patient. "To be able to have this procedure, walk immediately after and go home the next day was a blessing."

Memorial's vascular and neurointerventional surgical teams collaborated on the procedure.

"The value of this multidisciplinary approach was in reviewing the clinical information and imaging studies as a team to decide the most appropriate strategy for opening up the carotid artery," said Brijesh Mehta, MD, Medical Director of the Comprehensive Stroke Program and Neurointerventional Surgery at Memorial Neuroscience Institute.

"We've had minimal readmissions and have seen great success," said John Cogan, MD, Chief of the Electrophysiology Program at Memorial. "Patients love it, too, because they love sleeping at home."

Memorial also opened a new, state-of-the-art electrophysiology lab where doctors are using the latest technology to deliver enhanced care.

"The room is beautiful and filled with all of the latest and greatest technology — two different mapping systems, wireless technology, headsets for communication for the team in and outside the lab and more," Dr. Cogan said.

Memorial is a referral center for complex ablation procedures and is now performing them without fluoroscopy, which is an imaging technique that exposes patients and staff to radiation.



"The less radiation we all receive the better," Dr. Cogan said. "We now have other technology that can replace this technique, which is safer for us all."

Memorial specialists are also using the latest model of the WATCHMAN FLX[™] Left Atrial Appendage Closure Device, which reduces the risk of stroke in those with atrial fibrillation by preventing blood clots from entering the bloodstream. The newer device can be used on more patients with different anatomies.

Beyond all the technological improvements, Dr. Cogan said the team is still what sets the program apart from others.

"You can have all the machines and technology you want, but you need the right people," he said. "It's a great feeling to have amazing partners who you would send your mom to in a second and knowing that the quality of care we are providing is par to none."





Combating Cardiac Complications Caused by COVID-19»

The experts at Memorial Cardiac and Vascular Institute are managing the direct and indirect impacts of the COVID-19 virus on heart health and continually evolving care for the South Florida community.

COVID-19 can cause inflammation of the heart muscle, called myocarditis, and affect the rhythm of the heart, causing conditions such as atrial fibrillation. The virus can also lead to the worsening of underlying heart conditions — such as a heart injury, blockage or damage from a previous heart attack that people had before they got sick.

"COVID is such a challenging infection, it's going to challenge your heart," said Ralph Levy, MD, Chief of Cardiac Medical Services.

From the start of the pandemic, Memorial Cardiac and Vascular Institute mobilized specialized cardiac teams to collaborate with doctors from other specialty areas, provide comprehensive care and create protocols to help people battling COVID-19.

"We have specialized teams to take care of these patients, especially as they move into the ICUs or the cardiac intensive care unit," he said. The virus has also affected cardiac care in many indirect ways. Some patients experiencing symptoms of heart conditions have delayed getting treatment — especially at the start of the pandemic and during subsequent surges — because they were afraid to go to a doctor's office or hospital.

Non-emergency heart surgeries have also been delayed periodically throughout the pandemic.

To help keep everyone safe and comfortable, cardiac teams have embraced telehealth and continue to provide care virtually and in person.

Long-Term COVID-19 Care

Institute teams continue to care for additional COVID-19 patients as new variants of the virus arise and to monitor and treat those who have long-term symptoms.

"We recognize that some patients suffer with long-term COVID symptoms," Dr. Levy said. "They experience a variety of lingering symptoms including brain fog, loss of appetite and taste, and some patients even have heart disease going forward that needs to be treated and addressed."

While the pandemic has been challenging, it also brought the cardiac team even closer together.

"The team in a way coalesced with other specialists across Memorial in a very strong fashion because we have a single purpose," Dr. Levy said. "We are here to take care of patients, while keeping us and the community safe."

SURVIVING COVID-19 AND A HEART ATTACK

Larry had recovered from COVID-19 and was in good health — or so he thought.

More nline





Acoustic Shockwave Technology Approved for Coronary Procedures»

Memorial Cardiac and Vascular Institute is now using shockwave technology to break down calcified plaque and buildup in coronary arteries of patients, assisting in the placement of stents and the treatment of heart disease.

The Shockwave Intravascular Lithotripsy System has been used for several years for treatment in the peripheral arteries. Now, it is approved for use on the coronary arteries.

"A lot of our patients who have calcified plaques in their heart arteries are difficult to treat because the regular balloons and the regular stents don't break the calcium," said Juan Pastor-Cervantes, MD, Medical Director of Cardiac Catheterization at Memorial.

With this technology, physicians use acoustic waves to break up the calcium, allowing

them to place and expand balloons and stents that improve blood flow. The procedure decreases the number of complications and improves outcomes for patients, Dr. Pastor-Cervantes said.

And most patients go home the same day.

"We're looking at the best results with a minimal risk," Dr. Pastor-Cervantes said.

Frank was the first patient to undergo the procedure at Memorial after learning that he had an 80% calcium blockage in his main artery. He wasn't sure whether he should feel excited or concerned about being first. Now, he's hoping the procedure becomes available for others around the country.

"This is as close to a miracle as I've ever been associated with," he said. "It was a great experience, and the results were amazing."

"

[With the Shockwave Intravascular Lithotripsy System] we're looking at the best results with a minimal risk."

Juan Pastor-Cervantes, MD

Medical Director of the Cardiac Catheterization Lab, Memorial Regional Hospital

Young Hero Saves His Mom's Life

LANCE TO THE RESCUE

Watch the amazing story of how young Lance's courage saved his mom's life.



Time is of the essence in the world of stroke intervention. Roughly 1.9 million brain cells die every minute that passes without medical intervention. Case in point: If it hadn't been for the quick action of 10-yearold Lance, his mother, Linda, may not have recovered as well or as fast as she did after suffering a stroke.

"Her speech was very off," recalled Lance. "I couldn't understand one word. She was getting up and she fell, and I ran. I got my phone and I called 911."

The paramedics rushed Linda to Memorial, where she underwent a lifesaving procedure under the care of Norman Ajiboye, MD, Neuro-Interventional Surgeon at Memorial Neuroscience Institute.

"I activated the stroke team to come in for a thrombectomy. She also received the clot-busting medication called IV tPA. We were able to get to the clot in the brain and, within a few minutes, she was speaking better and her weakness had improved on the right side," said Dr. Ajiboye. Soon after the procedure, however, Linda learned she had COVID-19. While she didn't have any symptoms, it's likely that the virus contributed to her stroke.

"She had a defect in the inner wall of the carotid artery at the neck level. COVID has been shown to attack the blood vessel wall, and you can have an increased formation of clots and thrombus," said Dr. Ajiboye. "That could have increased her risk of formation of clots at that deformation in the neck."

Linda was back home with Lance three days later. Her son doesn't call himself a hero, but he knows he was the catalyst for saving his mom's life. Linda credits him and the Memorial stroke team's outstanding mobilization, evaluation and treatment for saving her life.

"I'm just so happy, because I gave my son life and now he gave me my life back," said Linda.

Memorial Performs Its 1st Essential Tremor Procedure»

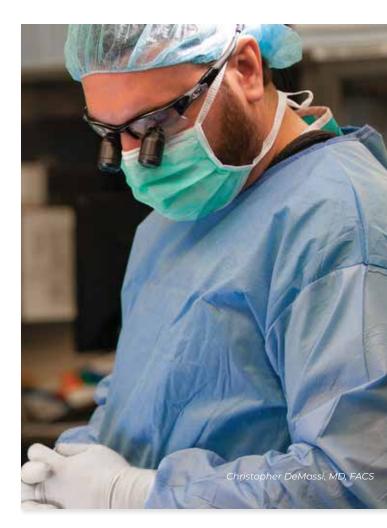
In April 2021, Memorial Neuroscience Institute specialists performed their first deep brain stimulation on a patient with essential tremor.

Christopher DeMassi, MD, FACS, Chief of the Institute and Chief of Neurosurgery, performed the surgery. The patient was a highway patrol officer who retired from the force due to her condition.

Howard Kreger, MD, Neurologist, had been treating her for less than a decade when she agreed to try the procedure. Until then, it had been used at Memorial only to address the symptoms of Parkinson's disease.

Essential tremor, or intentional tremor, is a movement disorder in which the patient experiences uncontrollable shaking while trying to perform a task. Similarly, Parkinson's patients suffer tremors but usually only while sitting still.

Medication is initially used to treat essential tremor. However, the disease progresses to the point where medicine is no longer effective. This is when deep brain stimulation becomes a viable option.



How It Works

Deep brain stimulation involves surgically inserting a thin wire lead attached to electrodes into the part of the brain that causes tremor.

With essential tremor, that would be the thalamus. In a separate surgery, a pulse generator, or battery, is placed into the chest wall and connected to those electrodes.

Following surgery, a team directs the battery with a remote control to send electrical impulses to the electrodes. Ongoing stimulation regulates the abnormal impulses that cause tremor.

The stimulation starts conservatively and then voltage is increased, cut back and fine-tuned until physicians find something that's working. Symptoms generally improve a couple of weeks after programming.

Deep brain stimulation presents a lower risk of side effects than medications. It also protects the brain's integrity better than older procedures, which burn and permanently destroy the affected tissue. Settings, frequency, amplitude and direction of the current can all be controlled with long-lasting precision. "The goal is to reduce, if not eliminate, the use of medication. Every patient is different, however, so immediate and future outcomes are unpredictable," Dr. DeMassi said.

The problem with both Parkinson's and essential tremor is they slowly worsen over time. We don't have a treatment for that. We can't slow it down. We can't stop it. All we can do is treat the symptoms, whether it's medication, exercise or deep brain stimulation."

Christopher DeMassi, MD, FACS Chief, Neuroscience Institute and Neurosurgery

So far, the procedure has proven dramatically effective for Memorial's first recipient. She is now able to hold a cup and a spoon without hitting her face or spilling scalding liquid on her hand.



Epilepsy Program Continues to Innovate»

Memorial Neuroscience Institute's Comprehensive Epilepsy Program has seen tremendous gains in several key areas over the past year.

First, the National Association of Epilepsy Centers recertified the program's Level 4 ranking a designation for programs that offer the highest level of comprehensive and specialized care.

And to further the program's growth, the epilepsy program brought on board fellowship-trained epileptologist Donald Barr, MD. Dr. Barr will expand the program to Memorial Hospital West and into the West Broward region. Dr. Barr has special interest in brain modulation and brain responsiveness stimulation as a treatment option for patients with intractable epilepsy.

"We have a multidisciplinary team that now consists of adult epileptologists, pediatric epileptologists, neuropsychologists, neuroradiologists, neurosurgeons and psychologists," said Tarek Zakaria, MD, Medical Director, Comprehensive Epilepsy Program and Adult Neurology. "We meet every month to discuss individual patients and their treatment options. This is very important communication to be sure that we are providing the best care to our patients."

Innovative Technology

Over the past year, the program also has implemented some of the most advanced technology-based protocols to diagnose and treat patients with epilepsy. One example is ROSA, or Robotized Surgical Assistant, a non-invasive diagnostic tool that allows neurosurgeons to localize the seizure onset without opening the skull and exposing the brain.

Patients tend to tolerate the procedure very well and go home the next day."

Tarek Zakaria, MD

Medical Director, Comprehensive Epilepsy Program and Adult Neurology

This specific procedure opens the door for multiple treatment options, including surgery to remove the onset zone or implementing a NeuroPace. Memorial's epilepsy program was the first center in South Florida to use this small, battery-powered "pacemaker of the brain" that is implanted in the skull to record electrical activity and send electrical impulses to the brain to prevent seizures.

Dedicated Stroke Clinic Helps Patients Avoid Additional Strokes»

Memorial Stroke Clinic opened in 2020 to provide follow-up care and guidance for patients and help reduce their chances of suffering another stroke.

The dedicated stroke clinic is part of the Comprehensive Stroke Program at Memorial Neuroscience Institute, where approximately 1,900 patients are treated every year. Combining initial high-quality, acute treatment with a thorough diagnostic workup on potential etiologies, or causes, is key to secondary stroke prevention.

"Our goal is to review the patient's history for any modifiable stroke risk factors, such as high cholesterol, smoking, diabetes and high blood pressure. We want to make sure that patients are on the right medications to address these risk factors," said Brijesh Mehta, MD, Medical Director, Comprehensive Stroke Program and Neuro-Interventional Surgery.

He added: "Beyond the medical issues, we also want to make sure that if a patient needs ongoing speech, occupational or physical therapy, they're receiving care at Memorial Rehabilitation Institute following discharge. We've seen that this plays such an important role in getting patients back to their prior neurological function and quality of life."

The clinic is also an educational platform for physicians to observe and practice the continuity of care that is so important in stroke recovery. Neurology residents work closely with neurologists from the Memorial Neuroscience Institute to learn all aspects of the patient's experience, from the initial acute treatment to rehab and recovery.



AN UNUSUAL DAY AT THE GYM

Eric was healthy and in good shape when a stroke suddenly struck.

More nline

Making Miracles During a Pandemic

While some medical centers postponed transplants indefinitely during the pandemic, Memorial resumed performing procedures and saving lives through organ transplantation.

During fiscal year 2021, they made miracles happen for 64 people through heart and kidney transplants. This included

Juan Arenas, MD, (right) and team perform a kidney transplant.

STERIS

Teen Scores Big with New Kidney

17-year-old Freddy gets a new kidney and becomes Memorial's 100th kidney transplant recipient.

See Freddy's story at AnnualReport.MHS.net

Renewed Energy for Life

Nancy came to Memorial for a second opinion. Later, a heart transplant gave her a second chance at life. See Nancy's story at AnnualReport.MHS.net



A Rainbow Moment After the Storm

There were many dark days before teenager Terique's new heart gave him a brighter future.

See Terique's story at AnnualReport.MHS.net



performing two pediatric heart transplants within 24 hours — twice — and performing four kidney transplants within 48 hours.

"I'm very proud of our team for believing and doing the right thing for our patients, each other and the community," said Juan Arenas, MD, Chief of Memorial Transplant Institute. "They have been flexible and also extremely compliant with additional safety precautions to protect themselves and our patients. Everyone continues to be resilient." One of the challenges during the pandemic, Dr. Arenas said, was ensuring everyone involved — from staff to patients and their families — were willing to comply with additional safety precautions that were critical for transplant patients because of their weakened immune systems.

Despite the risks, surgeons knew many transplants were urgently needed.



10 Years of Pediatric Heart Transplants

In December, the Joe DiMaggio Children's Hospital Pediatric Heart Transplant Program celebrated 10 years of providing new hearts and second chances to children and teens suffering from heart failure.

"It has been a really joyous ride," said Maryanne Chrisant, MD, medical director of Heart Transplant, Heart Failure and Cardiomyopathy at Joe DiMaggio Children's Hospital Heart Institute. Dr. Chrisant was brought on board in 2010 to develop and grow the program.

"Even last year with COVID, we left our doors open, and we were able to do transplants for a lot of children," she said.

Frank Scholl, MD, Chief, Joe DiMaggio Children's Hospital Heart Institute, said that transplant patients may have been at a slightly higher risk for COVID-19, but they were at a much higher risk of dying due to their heart failure. So the transplant team worked hard to overcome the challenges and kept transplants going.

"It comes down to leadership and discipline with the whole team to make organization out of chaos," Dr. Scholl said. "We kept the patients' best interests at heart, and we figured out a way to make it work."

The pediatric heart transplant team has grown as cardiac experts were recruited from around the country. The team's expertise spans multiple disciplines, including congenital heart care, cardiomyopathy, advanced heart failure, critical care and mechanical circulatory support. "This team cares about the patients, the families and each other in a very special way," said Dr. Scholl, who performed the first pediatric heart transplant in Broward County at the hospital.

Data from the program shows that patients do exceptionally well, even beyond the critical three-year post-transplant survival rate and despite the fact that they often have complex cases.

"Our outcomes are as good as or better than any other program in the country," Dr. Scholl said.

Dr. Chrisant said the support of Memorial's leadership and the entire team has a huge influence.

"So much of what contributes to our success is the care and support our patients and families get before, during and after their transplant from everyone here at Memorial," she said.



Maintaining Focus and Flexibility

When the COVID-19 pandemic hit, elective and non-emergency surgeries were suspended at Joe DiMaggio Children's Hospital. The number of patients quickly diminished. And many team members were redeployed to the front lines, caring for adult patients in other Memorial hospitals, emergency departments and the COVID-19 drive-through testing site in C.B. Smith Park.

Visitors and family members had to be restricted like never before — a stark and distressing change for a children's hospital that has always involved families and caregivers in all aspects of care and operations.

Instead of focusing on the obstacles at hand, team members put their attention and energy into supporting their colleagues serving adult patients, preparing for how COVID-19 might affect children and teens, and perfecting the children's hospital's quality and safety protocols to enhance care.

"One of the most remarkable things to me was how far we have been able to advance our quality and safety programs during the pandemic," said Ronald Ford, MD, MBA, Chief Medical Officer. "We have always had this culture of safety, but we made tremendous advances in expanding our programs during the pandemic. There was such a high level of engagement from our physicians and staff." Joe DiMaggio Children's Hospital is part of the Solutions for Patient Safety (SPS), a group of more than 150 children's hospitals working together in an all-teach, all-learn format to improve hospital processes and outcomes. While quality and safety data at Joe DiMaggio Children's Hospital have always been impressive, the Heroes for Zero initiative is always striving for a zero-harm environment.

At the same time, teams also prepared for how COVID-19 might affect children and adolescents. The focus was on multisystem inflammatory syndrome, also known as MIS-C, which became apparent in some children with COVID-19.

"Even before we saw the first case, we set up a multidisciplinary team that had connected with other experts from around the world including Italy and the U.K. — to learn from their experience. We created a plan for how to best care for and treat these patients," Dr. Ford said. "So when we had our first patients present with this, we were ready."

That multidisciplinary team included specialists from cardiology, infectious disease, critical care, immunology and others.

"Throughout it all, everyone, despite everything that was coming at them every day, was so resilient and nimble. I am so astounded by their resiliency," Dr. Ford said.



COVID-19 Effect on Children

To date, Joe DiMaggio Children's Hospital has cared for 74 children with COVID-19 who developed MIS-C, or multisystem inflammatory syndrome. The multidisciplinary care team also is participating in a national study with other medical centers. The study will follow these children over the next few years to examine possible long-term effects of the virus and to improve treatment plans.

Serving Families Close to Home

Joe DiMaggio Children's Health Specialty Center in Wellington continues to expand its services and programs to meet the needs of children and adolescents in Palm Beach County.

The 33,000-square-foot facility is a specialty clinic where patients can access doctors with expertise in a broad range of specialties. Within recent months, the center added a Cystic Fibrosis Clinic, and services include therapy/ rehabilitation, imaging including MRI and ultrasound, and an outpatient surgical center.

"Our overall goal for this location, and one of the reasons we opened it, was to keep the care

A rehabilitation session at Joe DiMaggio Children's Health Specialty Center in Wellington.

20 Years of Caring for Children with Facial Differences

Since opening its doors in 2001, Joe DiMaggio Children's Hospital Cleft and Craniofacial Center has been improving the lives of children with facial differences.

The center has become a leading craniofacial center in the nation. The team cares for children with cleft lip, cleft palate, craniosynostosis and other conditions involving the face and head. Since the start of the coronavirus pandemic, the team reorganized the clinic without significant disruption to continue providing care through telehealth and inperson visits. It continues to provide comprehensive, multi-specialty in-person care to about 50% of its patients each week.

The center also expanded services to Joe DiMaggio Children's Health Specialty Center in Wellington, where it runs a monthly clinic that allows families living in Palm Beach and surrounding areas to access the same great care closer to their home.

"We provide comprehensive care not only to our patients but to the entire family who has to deal with a patient's special needs," said Roman Yusupov, MD, Medical Director and pediatric genetics specialist.





closer to home for as many kids as possible," said Dawn Quaranta, Vice President of Regional Operations for Joe DiMaggio Children's Hospital.

The center also helps to coordinate care for children with complex and chronic conditions, allowing them to see multiple specialists at the center.

"We're listening to the community — families, local pediatricians and providers — to find out what services are needed and what needs aren't being met, and work to bring those services to our families," Quaranta said. "We also coordinate and partner with local pediatricians, specialists and providers to connect patients to other services that we may not have at our Wellington facility. In the end, our goal is to work together to care for our community."





Catch the Love Campaign on Its Way to \$56M Goal

The nonprofit Joe DiMaggio Children's Hospital Foundation has established a \$56 million capital campaign goal to help support the vertical expansion of Joe DiMaggio Children's Hospital from four to eight floors. By May 2021, the organization raised more than \$35 million through the Catch the Love campaign.

The number 56 is symbolic, as it reflects Joe DiMaggio's hitting streak across 56 consecutive games in 1941. The Yankees player's record remains unbroken.

"It was important to us that philanthropy significantly contribute to the estimated \$170 million cost of the children's hospital expansion, since donors have made it clear they are committed to having the space and resources to be the finest pediatric facility in America," said Andrew Greenfield, MD, board chairman of the Joe DiMaggio Children's Hospital Foundation.

Construction at the children's hospital is ongoing, with estimated completion in late 2022. The additional floors will feature 72 new patient rooms, two cardiac hybrid operating rooms, two surgical suites, intensive care and cardiac intensive care units, an intraoperative MRI, play zones, rehabilitation and family support areas.

"This project will ensure that Joe DiMaggio Children's Hospital remains uniquely qualified to treat the most complex and critical conditions, so that South Florida kids and families won't have to travel elsewhere to receive quality medical care," said Brett Rose, campaign chairman. "By making a gift toward our goal, donors are ensuring the future of a critically important resource and personally making a difference in our community."

Joe DiMaggio Children's Hospital is one of the nation's leading pediatric hospitals and is ranked by U.S. News and World Report. The children's hospital offers a comprehensive scope of healthcare services and programs in a caring, compassionate setting designed specifically for children.

"They do a remarkable job of making the hospital not feel like a hospital," said Jeff Conine, a former major league ballplayer who knew Joe DiMaggio and has been a philanthropic supporter of the children's hospital for more than 25 years. "They treat you like family, and Catch the Love embodies the belief that together we can create something even more special."

Will you help us meet the healthcare needs of South Florida's children and their families? Donate at JDCH.com/Give.

JOE DIMAGGIO CHILDREN'S HOSPITAL EXPANSION

Adds 4 floors, for 8 total **Adds 156,000 sq/ft,** for 300,000+ sq/ft total

\$170 million total cost

Construction is underway, with estimated completion in late 2022.



Orthopedic Center Expands Reach and Services

Joe DiMaggio Children's Hospital Orthopedic Center continues to enhance and expand its services, resulting in the hospital being ranked the top children's hospital in Florida for orthopedics by U.S. News & World Report for the third year in a row.

The center has the largest group of fellowship-trained pediatric orthopedic specialists in South Florida. The team has grown from one physician to 10 over the past three decades and has about 60 employees with six locations, stretching from southern Broward to Palm Beach counties. "All of the members of our team are trained at the leading children's hospitals in the nation, and our department is now equal to any of them," said Michael Jofe, MD, Surgeon-In-Chief at Joe DiMaggio Children's Hospital and Chief of the Department of Pediatric Orthopedics. "We are now one of the busiest and most comprehensive programs in the country."

"At Joe DiMaggio Children's Hospital, patients and families can receive world-class care in one location," he said. "Memorial and Joe DiMaggio have the best medical specialists and staff to cover all patient needs and enable us to collaborate and deliver comprehensive care across all specialties."



"

I am proud of the way we have been able to provide world-class care while being safe for our patients, staff and the community throughout the COVID-19 pandemic."

Michael Jofe, MD, Surgeon-In-Chief, Joe DiMaggio Children's Hospital, Chief, Pediatric Orthopedics



Orthopedic Program Growth

The Orthopedic Center is home to several specialized programs including spinal deformity, sports medicine, hip preservation, limb lengthening, performing arts and dance medicine, and a concussion clinic.

"With every new physician who joins our practice, we are able to expand our services and specialties," said Melissa Vale, Director of the Orthopedic Center.

The two newest members of the orthopedic surgery team — Michael Aversano, MD, and Andrew S. Gupta, MD — have created a new Hand and Upper Extremity Program to provide specialized care for children and adolescents with traumatic and congenital conditions. *(See related story on pg 50.)*

The Center for Hip Preservation is a nationally recognized resource for patients from infancy to young adulthood for the care and treatment of congenital and acquired hip conditions, hip dysplasia and femoroacetabular impingement. It is one of the few comprehensive programs in the



country, due to the specialized training and expertise required to perform the complex procedures and the resources necessary for pre- and post-operative care.

The concussion program also continues to expand as the community's needs grow. Specialists now consistently see several patients every day with sports-related concussion injuries.

"Having so many subspecialists within the orthopedic department and at Joe DiMaggio Children's Hospital elevates the experience for patients and providers alike," Dr. Gupta said.



Michael Aversano, MD Orthopedic Surgeon Hand and Upper Extremity



Andrew S. Gupta, MD Orthopedic Surgeon Sports Medicine

[U18] Sports Medicine Program Expansion

The [U18] Sports Medicine Program continues to flourish. It expanded its school sports outreach program, making it one of the largest school-based athletic training programs in the country.

Twelve schools joined the program, bringing the total number of public high schools covered to 41, spanning Broward and Palm Beach counties.

"Our team has a vision of being able to provide best-practice services to athletes even beyond the scope of our own program," said Matthew Fazekas, MD, FAAP, CAQSM, Medical Director of the Pediatric Sports Medicine Program. "Despite COVID, despite school districts modifying athletics and school itself, we've still grown to provide Certified Athletic Trainers for about half of Palm Beach County. This is not something you see happening in a lot of other communities."

The program also offers student athletes guidance on injury prevention, injury assessment and evaluation, connections to pediatric orthopedic specialists and rehab services at Joe DiMaggio Children's Hospital and return to play evaluations at their schools.

medicine care includes specialized services for performance arts and dance.

COVID-19 Response

The orthopedic team also had to overcome many challenges due to the COVID-19 pandemic throughout the year. The cancellation of elective and nonessential surgeries affected many programs.

"For the past year, inpatient and elective surgeries have been severely limited," said Dr. Eric Eisner, a pediatric orthopedic surgeon who specializes in hip preservation. "We've utilized the excellent physical therapists in the [U18] Rehabilitation Center, in addition to expanding our telehealth services, to help with the management of symptoms while waiting to do surgery on patients."

Leaders from the Orthopedic Center also provided pandemic guidance for local schools. They served with other community healthcare organizations on the Broward County Public Schools Sports Medicine and Student Wellness Advisory Committee and provided guidance on COVID-19 mitigation protocols throughout the pandemic, helping students return safely to sports activities.

"During the pandemic, we helped the Broward County District Schools develop screening processes, manage positive cases and exposures, gave guidance on how to safely get sports off the ground and shared best practices provided by national medical organizations," Dr. Fazekas said. "We were able to get athletes back to doing what they love safely and even participate in a tri-county championship."

The practice also embraced telehealth and continued to see patients virtually, if possible, based on the injury or concern.

Advocating for Athletes in Florida and Beyond

Members of the orthopedic and sports medicine team are advocating and providing care for athletes on a state, national and international level. In addition to working with Broward County schools, Dr. Fazekas serves as a board member for the Florida Alliance for Sports Medicine and as a consulting physician for USA Figure Skating.

Michael Dressing, MD, is a consulting physician for USA Soccer and is an affiliate team physician for the Washington Nationals major league baseball team.

This past year, Jeremy Frank, MD, has continued to travel internationally with the United States National Wrestling Team, serving as a team physician. He's been working with the team for more than 14 years, and this year traveled to both France for the French Grand Prix and Norway for the World Wrestling Championships.

"My specialty is taking care of pediatric, adolescent and young adult athletes who get injured and either surgically or non-surgically help them get back to full function," Dr. Frank said. "It's an honor to take care of people who represent the United States and to represent Memorial and Joe DiMaggio Children's Hospital while doing so."

Any family with a child with orthopedic needs can feel secure in knowing that they will get worldclass care at the Joe DiMaggio Children's Hospital Orthopedic Center.

Joe DiMaggio Children's Hospital Hand and Upper Extremity Program continued to expand in its first year, growing its staff of highly specialized experts who care for children, adolescents and teens.

The program, which started in 2020, is part of the hospital's Orthopedic Center — the largest group of fellowship-trained pediatric orthopedic surgeons in South Florida.

The Hand and Upper Extremity team — led by pediatric orthopedic surgeons Michael Aversano, MD, and Andrew S. Gupta, MD — cares for children with sports-related and traumatic injuries, as well as those with neurological and congenital conditions that affect the hand, wrist, forearm, elbow and shoulder.

Drs. Aversano and Gupta have both completed several

Hand and Upper Extremity Program Grows

Matthew, who had shoulder surgery

specialized fellowship training programs to become experts in the care of children and adolescents with hand and upper extremity needs.

"I think that an essential part of the growth of the program and a big part of its success comes from the support of the entire Joe DiMaggio Children's Hospital community. We're growing a very specialized team with an emphasis on providing a complete continuity of care experience for our patients," Dr. Aversano said.

This year, the team welcomed a pediatric interventional radiologist for upper extremity diagnostic and procedural studies.



"We have our support staff, physicians, radiologists, occupational and physical therapists all in one place," he said. "This environment not only results in better outcomes, but also helps build a better relationship with our patients and families."

An Evolving Field

The field of pediatric hand and upper extremity surgery is constantly evolving and continues to expand as technology and innovation unite. The children's hospital team constantly seeks to enhance methods of treatment through evidence-based practice and connect with physicians across the globe to learn new and exciting treatments for hand and upper extremity conditions.

Children and adults have different orthopedic needs that should be considered during care and treatment.

"Kids are still growing, and our treatment must take into account what will happen as they develop," Dr. Aversano said.

He added: "Medicine is changing and evolving. Everything is becoming more and more specialized, and treatments are becoming more complex as we learn new and exciting things. It is our goal at Joe DiMaggio Children's Hospital to be at the forefront of high-quality and life-changing care both locally in South Florida and nationally."

Children's Hospital Receives Highest Surgical Verification

Joe DiMaggio Children's Hospital received Level I Children's Surgery Verification from the American College of Surgeons Children's Surgery Verification **Program.** The hospital is one of only two in the state with Level I verification and joins an elite list of only 33 hospitals nationwide with this honor.

"Achieving Level I speaks to the caliber of the surgical team at Joe DiMaggio Children's Hospital and attests to our capability for meeting the most complex surgical needs of our pediatric community," said Jill Whitehouse, MD, Vice-Chief of Pediatric General Surgery. "It also demonstrates our team's passion for excellence and our dedication to safety and quality that extends to every patient we touch."

The verification is given to centers that show a commitment to quality care, have highly trained staff, participate in cutting-edge research and have surgeon leaders who review outcomes throughout the year.



Food Pantry Opens to Help Nourish Hospital Patients and Families

Joe DiMaggio Children's Hospital is doing its part to stamp out hunger in South Florida. In February 2021, the hospital opened a food pantry for patients and their families to provide healthy, nutritious foods they can take home and that will help in their healing and recovery. Created in partnership with Lions Club International and Feeding South Florida, the Food Pantry is expected to benefit about 750 families in 2021.

Learn more about the Food Pantry's launch and purpose on *pg 60*.

OB and NICU Collaborate on Care Delivery

Collaboration between pediatric specialists at Joe DiMaggio Children's Hospital and obstetrical teams at Memorial Healthcare System enables the delivery of highly personalized care to mothers and their babies born with complex medical conditions.

In December 2020, the teams collaborated to successfully perform an ex-utero intrapartum treatment procedure also called an EXIT procedure — in which doctors provided care to a newborn during birth via cesarean section.

"The entire team invested months of preparation to get it right," said Holly Neville, MD, Chief of Pediatric General Surgery and Associate Program Director of the Surgical Residency Program.

NICU nurse Jodi Tidwell, RN, and respiratory therapist Rosa Gallego with baby Emma Elizabeth

Coordinated Care for Complex Pregnancies

When a woman has a pregnancy that is considered high risk or other maternal and/or fetal complications arise, they are referred to Memorial's Maternal-Fetal Medicine program run by Laurie Scott, MD.

The program coordinates care between Memorial OB specialists and pediatric specialists at Joe DiMaggio Children's Hospital — including those from the Wasie Neonatal Intensive Care Unit, which provides Level II and Level III neonatal intensive care services for about 850 babies a year. Together, they provide seamless, expert care for both mother and baby throughout the pregnancy, birth and beyond.

Pediatric specialists also meet with the mom-to-be and family prior to the delivery to answer questions about the treatment and care that may be required for their child once the baby is born.

"We meet monthly with perinatology, nurse navigators, neonatology, pediatric cardiology and pediatric surgery to create and refine care plans," said Lester Mc Intyre, MD, Chief of Neonatology. "The key is anticipation, so you know what you're dealing with and you have all of the necessary resources available." Nurse navigators arrange care throughout the process and alert all doctors, nurses and specialists involved with the patient as the pregnancy progresses and when a mom is set to deliver.

"Everyone knows the plan of care; all of the subspecialists and providers are kept in the loop. We all have the plan and know what will happen the second the baby is born," said Janessa Alonso, MSN, MHA, RNC-NIC, Director of Nursing in the NICU.

If unknown complications arise during a delivery, the NICU team is notified immediately and on hand to provide the emergency care needed.

"There is an established relationship between the OB and NICU teams," said Barbara Glassman, MSN, Clinical Project Manager in the NICU. "On the nursing side, we are in constant communication throughout our shifts, so when something arises, collaboration is natural."

Once a baby is delivered, mom and baby both have access to the specialty care they need in one place.

"Since the care plans are refined each month, there is a seamless handover that happens at the time of delivery," Dr. Mc Intyre said.



After the C-section, the baby was brought to the NICU and is now being followed by Dr. Shah.

Dr. Neville said this is a perfect example of the collaborative care delivered at Memorial. "Everyone went above and beyond for that baby."

FAMILY BIRTHPLACE DELIVERIES

4,764 Memorial Regional Hospital

said Dr. Neville.

EXIT Procedure

These collaborative processes were critical when teams came together to perform the first EXIT procedure at Memorial. The procedure was performed to successfully deliver a baby with a mass on the tongue that would interfere with the baby's ability to breathe. Pediatric ENT and head and neck surgeon Sweeti Shah, DO, was able to intubate the baby during the C-section, while the baby was still attached to mom via the placenta for support. Since the procedure was a first at Memorial,

the team prepared for months, doing research,

"Everyone brought their knowledge and practical

experience together for the benefit of these patients,"

planning and performing run-throughs.

3,607 Memorial Hospital West 3,523 Memorial Hospital



WEIGHT LOSS FOR BETTER HEALTH

Ryan's bariatric surgery as a teen helped resolve serious health issues and increased his confidence.

More **Inline**

Ryan, who had weight-loss surgery as a teen, and Brett Cohen<u>, MD</u>

Weight-Loss Surgery Program for Teens

The new Joe DiMaggio Children's Hospital Adolescent Weight-Loss Surgery program is helping teens and young adults lose weight and gain confidence with specialized programs tailored to meet their unique needs.

While surgeons at Memorial have performed weightloss procedures on adolescents in the past, they realized that teens have different needs from adults and had nowhere to turn for specialized services and support.

"Young adults are in a different place in their life and have different needs than adults," said Brett Cohen, MD, Chief of Adult General Surgery and Bariatric Surgery at Memorial. "And there aren't many programs out there tailored to meet their emotional, psychological and physical needs, as well as the support that can help them achieve their long-term health and weight-loss goals."

Since the program's inception in 2020, surgeons have helped more than 30 young adults lose weight via sleeve gastrectomy, a type of bariatric surgery in which part of the stomach is removed, limiting food intake. Others have utilized our medical weight-loss programs for patients who do not qualify for or want to undergo surgery.

The program has been successful thanks to the collaborative team approach by the surgical teams and pediatric specialists, including Lital Reitblat, MD, Pediatric Endocrinologist, who works with teens and young adults before and after surgery.

"I promise them that I'm going to be with them throughout this journey," Dr. Reitblat said. "We take into consideration the multiple things that adolescents need. We provide that sort of wraparound care."

All patients must go through a four-to-six-month program before undergoing surgery. They work with a mental health specialist and nutritionist, both of whom are experienced in working with young adults.

"The program is about much more than an operation. It's about making changes, and the surgery makes these changes easier to be successful with," Dr. Cohen said.

"

It's a dramatic change for these young adults. It's changing their overall view of themselves and their approach to life in general. They are much happier in their own shoes. You feel like you've helped them make a change that will affect them for many years to come."

Brett Cohen, MD. Chief, Adult General Surgery and Bariatric Surgery

Memorial Welcomes Female Surgeons to General Surgery Team»

Two female surgeons have joined Memorial Healthcare System's general surgery team. Mia Shapiro, MD, joined Memorial in 2019 and Kristina C. Khazeni, MD, in 2020.

While the number of female medical students and doctors continues to rise, women have remained underrepresented in many surgical fields. That is changing.

"The trends in representation in the field of surgery have changed dramatically across the United States," said Dr. Shapiro. "I went to school in New York, and in my graduating general surgical residency class, I was one of eight female chiefs in an all-female class. While the hospital surgical department was predominantly male, there were women represented in each specialty and plenty of female mentorship."

"I think that as a whole, the surgical fields have become more family-friendly, which has led to an increase in the number of female surgeons," said Dr. Khazeni.

As general surgeons, Drs. Khazeni and Shapiro join the Memorial team in caring for patients with a wide variety of conditions and ailments.

Dr. Khazeni specializes in intra-abdominal pathologies and hernias, and cancer.

Dr. Shapiro treats soft tissue conditions and performs hernia, gastrointestinal and weight-loss procedures.

"I am lucky to be in a place that takes a collaborative approach to patient care. We strive to do things with the most minimally invasive approach possible so that patients can recover quicker," Dr. Khazeni said.

Now both are looking forward to working with patients, medical students and the community.

"We are looking forward to continuing to grow Memorial's general surgery practices in South Florida. We will also be opening up a bariatric surgery office in the Midtown Miami area, and I am looking forward to increasing access to what I believe is life-altering surgery," Dr. Shapiro said.



Mia Shapiro, MD General Surgeon



Kristina C. Khazeni, MD General Surgeon

A Leader for Hernia Surgery»

Memorial Healthcare System Hernia Program is working toward becoming a Center of Excellence and continues to offer specialized and personalized care for patients.

The center is home to surgeons with expertise in hernia treatment using standardized procedures and offering a unified approach to care. While the COVID-19 pandemic slowed the certification process, the team hopes to become a Center of Excellence by the end of 2021.

The initial program was a pilot out of Memorial Hospital Pembroke with four surgeons but now includes surgeons at other Memorial hospitals as well.

"This program has enhanced our ability to work together using the latest, evidence-based protocols, helped us improve services as we track our results and provided patients with education and support as they heal," said Joe Stuczynski, CEO of Memorial Hospital Pembroke. The center will enable patients to come to one place and find an experienced surgeon who specializes in their specific type of hernia, which is important as hernia procedures become more complex.

"Hernia treatment has evolved immensely, from the tools available to the techniques that we use," said Jeremy Gallego Eckstein, MD, Medical Director of the Hernia Program and Associate Medical Director of Bariatric Surgery.

The Hernia Program will also be providing a unique, minimally invasive procedure pioneered by Dr. Eckstein at Memorial Hospital Pembroke called Rectus Abdominis Minimization (RAM) that fixes hernias and stretched stomachs in women after pregnancy.

"We don't box ourselves into one particular technique or technology," Dr. Eckstein said. "We use everything that is available so that we can create a customized treatment plan for each patient."

> **Jeremy Gallego Eckstein, MD** Medical Director, Hernia Program



Embracing
Virtual
Solutions

Memorial Rehabilitation Institute found digital technology and virtual connections to be invaluable during the pandemic.

Digital technology and virtual connections proved especially useful to the team at Memorial Rehabilitation Institute during the pandemic. These tools allowed physicians, therapists and nurses to connect with patient families in order to provide virtual training to caregivers and to keep the patient safe after discharge.

"Adaptive sports and recreation activities have continued and are being offered virtually," said Dawn Broksch, Associate Administrator, Memorial Regional Hospital South.

"These online groups help participants feel less isolated while encouraging them to remain active by considering activities like gardening. These are not necessarily group activities, but things people can do at home to stay active."

Digital tools also aided professional development and knowledge sharing. Rehabilitation Grand Rounds, Multidisciplinary rounds and Memorial Sports Medicine Journal Club and Lecture series were held virtually to allow multiple locations across Memorial Healthcare System and our community to participate in education.

The virtual Memorial Sports Medicine Journal Club and Lecture Series was established as a means for surgeons, physicians and therapists to exchange ideas and knowledge about the latest clinical evidencebased research and practice in orthopaedics and rehabilitation.

The Memorial Graduate Medical Education Physical Medicine and Rehabilitation Residency Program at the institute remained connected as well. In February, participants "attended" the first virtual conference for the Academy of Academic Physiatrists.

"Although the pandemic has changed some workflows, Memorial Rehabilitation Institute is still able to offer quality programs to our community," said Douglas A. Zaren, FACHE, Administrator and Chief Executive Officer, Memorial Regional Hospital South, Memorial Rehabilitation Institute and Memorial Post-Acute Care Network.

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Orthopaedic Surgery and Sports Medicine Center Opens in Fort Lauderdale»

Fort Lauderdale and North Broward County hailed the grand opening of Memorial Orthopaedic Surgery and Sports Medicine Center at the Cypress Creek Medical Pavilion. The virtual opening and ribbon-cutting ceremony took place in March 2021 via Facebook Live.

Centrally located near the Fort Lauderdale Executive Airport, the center is the first of its kind in the area to offer joint replacement surgery in an outpatient surgical facility.

The 9,000-square-foot center is unique since patients can receive evaluations, scans, procedures and physical therapy all under one roof. The multidisciplinary team includes board-certified, fellowship-trained surgeons, physicians and therapists who specialize in sports medicine, joint replacement, fracture care, image-guided injections and physical therapy. They use the latest medical advances to realize individualized treatment plans and to produce quality patient outcome, regardless of age or activity level.

Daniel B. Chan, MD, Chief, Orthopaedic Surgery and Sports Medicine at Memorial Healthcare System is the center's medical director. He works closely with Marvin Smith, MD, Sports Medicine Orthopaedic Surgeon, and Geden Franck, MD, Sports Medicine Primary Care, who are also part of the center's topnotch medical team.



"Our outpatient anterior hip replacement surgery has been a game changer for patients. Patients are literally walking within 30 minutes of surgery," said Dr. Chan. "We're sending total hip and total knee patients home the same day."

The new Fort Lauderdale facility follows in the footsteps of the Hollywood-based center at Memorial Regional Hospital South. With the opening of the new center, Memorial's services and care will reach even more residents in South Florida.

"This facility is very special," said Dr. Smith. "It allows us to branch out and serve even more of our community and really bring that top-flight orthopaedic care and sports medicine that we've been providing for many of our South Broward and Miami-Dade County residents."





Strong and Steady

As the pandemic pushed healthcare systems to their limit, Memorial employees pushed back, both on the job and off. Their "call to arms" during one of the most trying times in modern history resulted in an employee volunteer program that is stronger than ever.

"Our volunteers are asking us what they can do for the community," said Tim Curtin, Executive Director of Community Services at Memorial Healthcare System.

COVID-19 hasn't stopped Memorial's H.E.R.O.s (Healthcare Employees Reaching Out) volunteers from giving back. If anything, the crisis spurred them to action.

For the annual Back to School Supply Drive, they collected 774 backpacks stuffed with school supplies and personal hygiene products. The bags are distributed to students whose families cannot afford these items.

"Typically, we'd get around 500 backpacks donated. Last year, it went up to about 600," said Curtin. "Our employees really dug deep, especially this past year during COVID. We have extremely benevolent employees here."

H.E.R.O.s began communicating virtually with local seniors who were isolating. They have continued using a virtual platform to stay connected.

"Our Memorial employee volunteers 'adopt,' for lack of a better word, a senior and have conversations with them to see how they're doing and if there are any needs we can help fulfill," said Curtin.

Volunteers also provided "front porch supports," he said, to safely drop off food, cleaning supplies, masks and other needed items.

"We're keeping them active, and our volunteers love being active," said Curtin.







Fundraising Flourishes Despite Pandemic»

The pandemic created some unique challenges for the field of fundraising, and yet, Memorial donors stepped up to the plate.

Joe DiMaggio Children's Hospital Foundation launched a \$56 million capital campaign called Catch the Love to support the expansion of the children's hospital. Donors to the nonprofit foundation are funding a third of the \$170 million project that will expand the facility by four floors, thereby doubling its current size.

In March 2021, the Joe DiMaggio Children's Hospital Foundation presented a \$20 million check from their donors to the South Broward Hospital District's Board of Commissioners. During the presentation, Andrew Greenfield, MD, foundation board chair, said this was the first of several forthcoming campaign-generated donations.

"The donors are energized," Dr. Greenfield said in March. "They recognize Joe DiMaggio Children's Hospital for what it is: a jewel in South Florida that takes excellent care of our children."

Learn more about the Joe DiMaggio Children's Hospital expansion, currently under construction, pg 46.

One special campaign donation is earmarked for creating and naming a kosher family lounge on the hospital's new 8th floor. The Jewish Federation of Broward County, Dorit and Ben J. Genet, and Healing Hearts jointly contributed \$350,000 to build an area dedicated to kosher prep and storage, relaxation and prayer.

An estimated 7,000 patients treated at the children's hospital identified as Jewish. The addition of a kosher lounge addresses the dietary and spiritual needs of patients and families, especially for those spending an extended period at the hospital.

The foundation also successfully raised funds by converting several of its signature special events to virtual formats.

The 2021 ANF Tour de Broward, for example, raised more than \$453,000. The 12th annual event was held virtually via a mobile app that participants could download and access during the month of February. The online platform allowed 1,300 walkers, runners and riders to participate in their own time and pace while adhering to COVID-19 safety protocols. On Feb. 28, 2021, a drive-thru celebration was held at Miramar Regional Park, where participants received their 2021 Tour de Broward shirt, PNC Bank participant medal and goodie bag.

To date, the ANF Tour de Broward has raised nearly \$6 million for the programs, services and facilities at Joe DiMaggio Children's Hospital.





Memorial Foundation

Memorial Foundation has launched a fundraising campaign to assist with funding for a new Memorial Cancer Institute facility that will serve as a comprehensive outpatient center on the campus of Memorial Hospital West.

In addition to providing support for the new building, the campaign will raise funds for cancer research, education and oncology patient support services.

Several community partners have already committed to the campaign, including a \$1 million gift from AutoNation.

Hospital Food Pantry Helps Nourish

To combat the food insecurities so many Floridians face every day, Joe DiMaggio Children's Hospital has established a Food Pantry. The grand opening was held Feb. 22, 2021.

With a grant from Feeding South Florida and support from the Lions Club International, the children's hospital now offers nutritious takeaway food for patients and their families. Upon discharge, patients or family members can stop at the pantry and fill a reusable grocery bag with healthy foods of their choosing.

"The partnership between Feeding South Florida and Joe DiMaggio Children's Hospital is incredibly important to us," said Sari Vatski, Executive Vice President of Feeding South Florida. "Not only are we providing

DONATIONS OF PPE: ~ 1 million donated items

583,950 Gloves

319,227 Masks

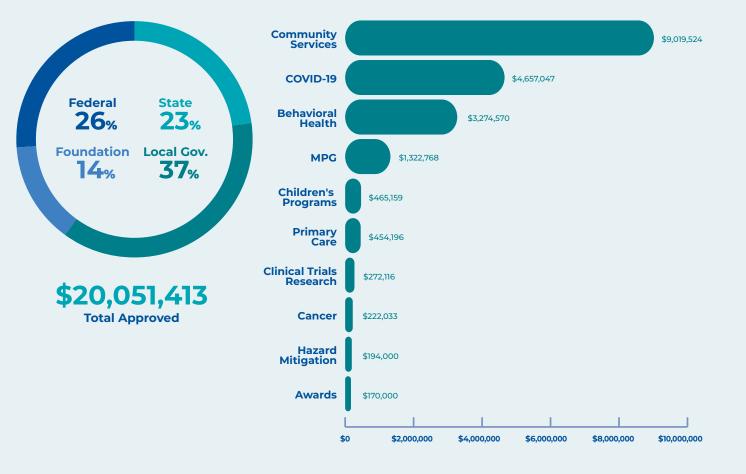






SOURCES OF FUNDING

GRANTS BY PROGRAMS



immediate access to nutritious food, we are also nourishing lives."

This alliance facilitates the goals of Lions Club International as well, which prioritizes serving in the areas of pediatric cancer, diabetes and hunger.

"We're really excited for this partnership going forward. It's going to help so many people in our area," said Adita Vazquez, Immediate Past District Governor of Lion's Club International.

For recovering patients, it is especially important not just to eat, but to maintain a nutrient-dense diet to promote healing. The Food Pantry meets that need.

"We want to encourage patients and families to have the fresh fruits and vegetables, the protein sources, the dairy sources, because for any type of healing, you need good vitamins and minerals," said Meghean Feidelman, Director of Food and Nutrition Services for the hospital.



More than 18% of Broward County children — or nearly 74,000 — don't have regular access to food, healthy or otherwise.

Rising Up to Meet Pandemic's Financial Challenges»

The pandemic's far-reaching influence presented a host of financial challenges for Memorial Healthcare System in fiscal 2021.

"Our finances followed the waves of COVID," said David Smith, Executive Vice President and Chief Financial Officer, who explained that operating margins dipped with each surge and improved as waves receded.

"We remain financially strong," Mr. Smith stressed. "But overall, results were less than we expected from operations for the year."

A large factor in that was the significant increase in operating costs. In a surge month, he said, total expenses increased by 15% to 20% over the previous year.

Consider PPE. Memorial caregivers and cleaning staff needed a large amount of N95 masks, gowns, gloves and face shields — all of these items had to be changed between every patient. The sheer amount of PPE is expensive, and when supply chain issues made items scarce, the costs got even higher.

For example, Smith said, when the world's largest medical glove manufacturer in Malaysia shut down its largest factory because of COVID-19, the cost of gloves nearly quadrupled. And Memorial uses "hundreds of thousands of gloves on a daily basis," he said.

Staffing costs increased as well. Memorial offered caregivers well-deserved hazard pay and incentives for extra shifts. As stress and burnout built, however, employees needed a break. Some even left healthcare altogether. For the first time in years, Memorial supplemented its workforce with agency labor — and agency rates increased by 300%.



Where many Florida businesses were forced to furlough employees, Memorial took steps to prevent this drastic measure. Mandatory flex days were instituted at the height of the surge, matching contributions to employee retirement accounts were temporarily suspended, a hiring freeze was temporarily mandated to protect existing employees and leadership merit increases were temporarily deferred.

Of course, discretionary spending was paused and significantly tightened up as well.

As a financially sound healthcare system, "we try to make sound decisions. We do the things we need to do to maintain financial stability," Smith said. He credits strong leadership and support from the board to spend the funds necessary to provide quality healthcare for patients and to protect employees.

"We're here for our patients, our community and our employees," Smith said. "We will continue to look for ways to do the right thing for all of them."

Strong Bond Rating

Despite the challenging year, Memorial Healthcare System remains one of only three health systems in Florida with an AA bond rating. Factors such as strong cash flow and a strong balance sheet influence this rating.

VIP 2.0

The Value Improvement Program, which hit its first cost-savings goal ahead of schedule in 2020, has reached about \$40 million of a new \$100 million goal. Progress continues at a slower pace as COVID-19 remains the priority.

COVID-19 EXPENSES: ~ \$20 million on COVID-19-specific supplies alone

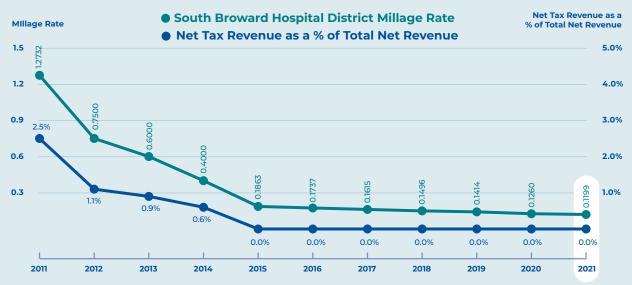


\$1,019,344 EVS: Sanitizers / Disinfectants / Cleaners \$7,536,581

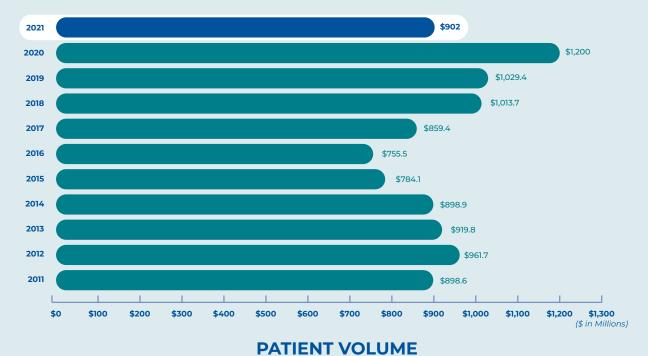
COVID-19 Lab Testing Supplies

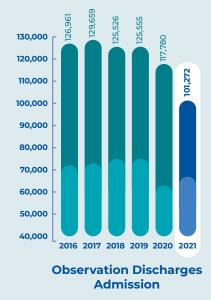
\$1,244,212 Respiratory Products

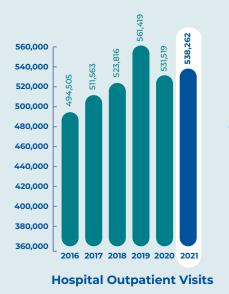
MILLAGE RATE

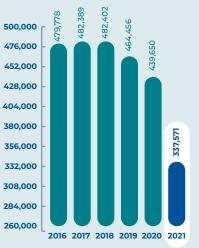


UNCOMPENSATED CARE









Emergency Department Visits (Includes 24/7 Care Center Visits)

Main Facilities

Memorial Regional Hospital

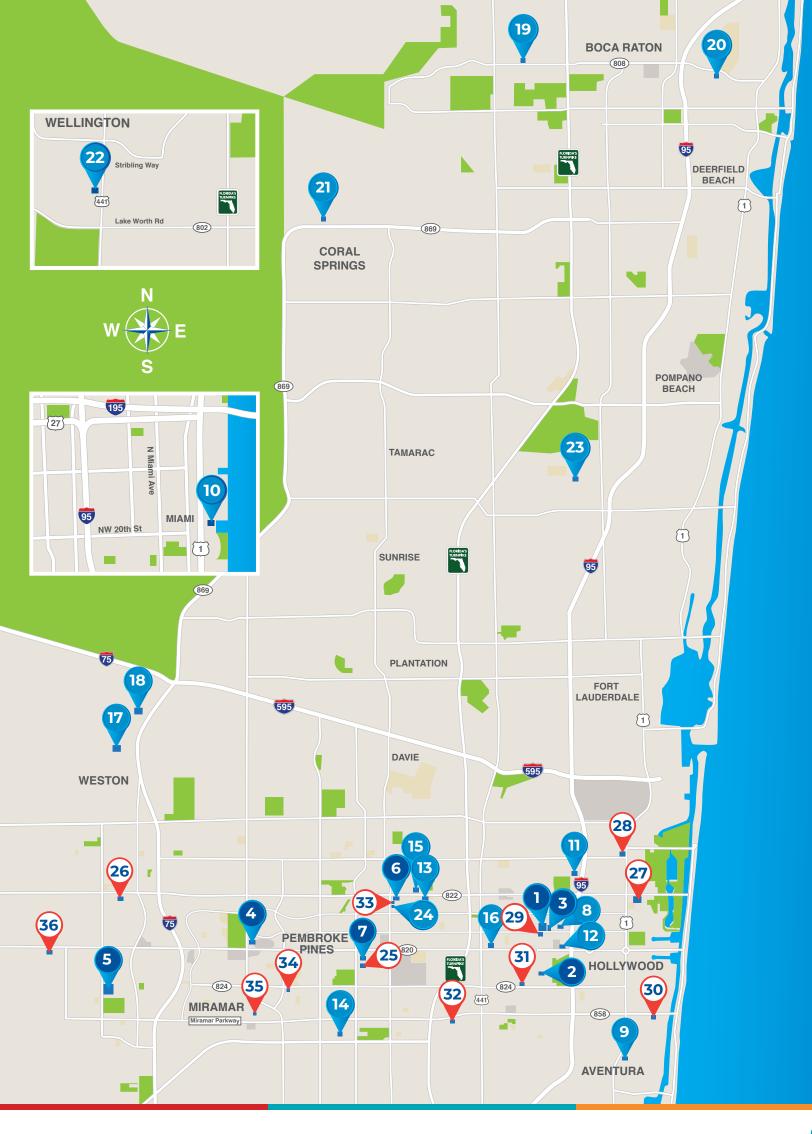
3 Joe DiMaggio Children's Hospital

4 Memorial Hospital West 5 Memorial Hospital Miramar 6 Memorial Hospital Pembroke 7 Memorial Manor Nursing Home **Ancillary Facilities** B Conine Clubhouse 9 Memorial Specialty Services – Aventura Memorial Specialty Services – Midtown Miami Memorial Center for Behavioral Health – Outpatient Pediatric and Adult Outpatient Rehabilitation Center – Hollywood ¹³ Memorial Home Health Services Memorial Home Infusion/Memorial Specialty Pharmacy – Miramar 15 Adult Pulmonology and Sleep Medicine Center – Hollywood Memorial Infectious Disease – Hollywood Memorial Specialty Services – Weston 18 Pediatric Specialty Center – Weston Pediatric Specialty Center – West Boca Raton 20 Pediatric and Adult Specialty Center – East Boca Raton 21 Pediatric Specialty Center – Coral Springs 22 Joe DiMaggio Children's Health Specialty Center – Wellington 23 Memorial Orthopaedic Surgery & Sports Medicine Center – Fort Lauderdale 24 Memorial Weight-Loss Surgery (25) Memorial Pembroke 24/7 Emergency Care Center ²⁶ Memorial Urgent Care Center – Pembroke Pines Memorial Urgent Care Center – Hollywood ⁽²⁸⁾ Memorial Primary Care – Dania Beach ⁽²⁹⁾ Memorial Primary Care – East Hollywood (30) Memorial Primary Care – Hallandale Beach (31) Memorial Primary Care – Hollywood (32) Memorial Primary Care – Miramar ⁽³³⁾ Memorial Primary Care – Pembroke Pines (34) Memorial Primary Care – West Miramar 35 Memorial Primary Care – Monarch Lakes

2 Memorial Regional Hospital South/Memorial Rehabilitation Institute

36 Memorial Primary Care – Silver Lakes

For a complete list of all our Memorial locations, visit MHS.net. For a complete list of all our pediatric locations, visit JDCH.com.





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- **MHSHospital**
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