CROSCOPE aring for our Community 2019 Exceptional People. Exceptional Care.

Fiscal Year 2019 was an exciting year for WakeMed – one where we made tremendous improvements in quality and safety, expanded our services, improved and opened facilities and found new ways to deliver on our mission of improving the health and well-being of those we serve. In this annual year-in-review issue of Microscope, we take a look back to celebrate our many successes and say THANK YOU to everyone who helps make WakeMed the incredible organization it is!

A Look at Our Enterprises



Raleigh Campus saw another busy year in 2019, with high volumes across the board – including higher-than-expected OR volumes and a record-setting summer in the Emergency Department. To improve the experience of our patients and families, major renovations were undertaken in the Heart Center lobby, 5A MIC and Adult Emergency Department, which also added 23 beds and an 8-bed Rapid Care Area. As we continue to expand on the services available to our community, Neurosciences was an area of focus this year, with great effort underway to bring clinical partners together with a goal of increasing access to high-level care. As a result of hard work happening across our system, Raleigh Campus saw great improvements related to behavioral health – including a significant reduction in involuntary commitments, avoidable bed days cut in half, and a 50 percent improvement in the first-visit average follow up rate. Additionally, Raleigh Campus was named the first-ever Cardiac ERAS Center of Excellence in the U.S.



2019 was a year of change at North Hospital as the facility continues to grow and meet the needs of the North Wake County community. Deliveries increased dramatically this year, thanks to two new OB practices delivering at the facility and continued growth of our own OB practices. As a result, the fourth floor was opened to accommodate medical/surgical patients, freeing up the third floor for new moms and babies. The hospital also expanded the internal medicine hospitalist service and began taking some admissions from the Brier Creek Emergency Department. The facility also added lymphedema services, provided by WakeMed Rehab, and continued to build on the interventional pain program introduced last year. We also added a certified breast patient navigator, full breast surgical services and enhanced diagnostic services, including a nuclear medicine hot lab, echo and doppler studies. Renovations were conducted in Day Surgery while the Operating Room hours and sterile processing services were expanded. The Emergency Department triage area was relocated to accommodate increased volumes and plans are underway to expand the department.



It was an eventful year at Cary Hospital, where we saw continued high volumes and several new services introduced. In the spring, Cary Hospital received official Level III Trauma Center designation from the N.C. Office of Emergency Medical Services. Additionally, the facility opened an Advanced Gastrointestinal Center in partnership with community physicians, offering advanced treatments for the entire digestive system. With the goal of expanding the scope and complexity of services that WakeMed is able to offer to patients who reside in western and southwestern Wake County, Cary Hospital introduced elective PCI services, vascular surgery procedures, two new high-tech robots and new urogynecologic specialty procedures. Physical growth was another theme for the facility, as construction got underway to add two new floors, including 40 patient beds and an operating room. Nearby, two medical office buildings are under construction and WakeMed will be the primary tenant of both when they are completed. Cary Hospital also received a certificate of need to develop an Ambulatory Surgery Center.



It was a remarkable year for WakeMed Physician Practices, which welcomed 56 new physicians and 37 advanced practice providers. To meet growing demand, we opened new practices in all service areas and continued to broaden our specialty offerings. We also launched WakeMed Virtual Urgent Care, connecting people across North Carolina with emergency medicine providers via computer or smartphone, and developed new relationships with providers in our area, including:

- PM Pediatrics to bring dedicated pediatric urgent care to the Morrisville and Cary communities.
- Triangle Sinus Center which opened as an affiliated practice of WakeMed, under a physician services agreement.

Our Healthplexes continue to grow and support our system by providing convenient access to high-quality care throughout Wake County.

- **Apex Healthplex** welcomed a new orthopaedics practice and the Emergency Department averaged 54 patients per day.
- At the Brier Creek Healthplex, the Emergency Department averaged 60 patients per day and, for the 7th year in a row, received a PRC 5-star award.
- It was a busy year at **Garner Healthplex**, where the Emergency Department saw an average of 92 patients per day and the physician practices continued to see high volumes.



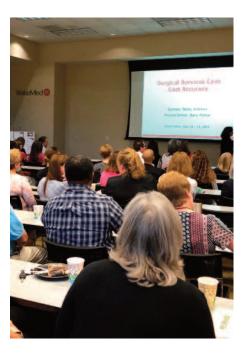
Checking in on Our Aspirational Goals

We made great progress against our Aspirational Goals metrics in FY18. Check out the chart below to see how we fared against our goals for the year.* Results in green indicate we reached or exceeded our target.

oirational Goal	Metric	FY 2019 Target	Result
	Leapfrog Group Safety Scores	Raleigh A; Cary A	Raleigh C; Cary C
	Leapfrog Survey Score	75.00%	73.50%
Quality	Serious preventable harm events (rate per 10K adjusted patient days)	0.10	0.09
~	Catheter-Associated Urinary Tract Infections (CAUTI)	66	27
	Central Line-Associated Bloodstream Infections (CLABSI)	29	32
	C. diff infections (cumulative for the fiscal year)*	137	77
	Total operating expense per adjusted discharge	\$13,427	\$12,304
Value Leader	Medicare readmisison rate for acute myocardial infarction (AMI)	8.00%	5.96%
	Medicare readmission rate for total joint replacement (hip and knee)	3.50%	4.63%
	Patient falls with injury	108	101
Culture	Overall perception of safety on AHRQ survey	70.00%	69.00%
of Safety	Lost work days due to workplace injury	60	48
	Lost work days due to workplace injury		40
	Employer of Choice percentile ranking on employee engagement survey	93.50%	93.60%
xtraordinary Team	Employer of Choice percentile ranking on physician engagement survey	90.00%	88.00%
Touri	Staff turnover rate	11.50%	12.07%
	Annual savings tied to Community Case Management program	\$1,500,000	\$847,553
Healthy	Percent of deliveries via C-section	21.00%	18.76%
Community	MyChart activation by patients	35.00%	35.50%
	Healthy Planet populations	8	14
	Community outreach activities*	80	121
	Quality of Doctor rated "Excellent" on PRC survey	84.87%	80.08%
Males Mary	Overall HCAHPS Rating (percent of 9 and 10 scored)	78.00%	75.86%
Wake Way	Departments earning PRC 5-Star Awards	15	27
	Departments earning FRC 3-3tai Awards	13	2/
	Investments in innovation	5	5
	Employees involved in WW2E work	2,200	2,475
Innovation	Staff provided formal training in the WW2E tenets and behaviors	600	584
	Epic dashboard measures (CAUTI, CLABSI, Falls & MyChart		
	activation and utilization) that have been validated	100.00%	100.00%
		4= 000 000	
	Annual donations to the WakeMed Foundation	\$5,000,000	\$2,223,783
Preferred Partner	Annual cash donations to non-profits that support our mission	\$400,000	\$492,673
Partner	Primary care provider market share	28.00%	24.81%
	MDs/APPs who state on engagement survey that administration listens t	o them 87.00%	72.00%
	Operating cash flow margin	6.74%	9.03%
Financial	Cash to total debt ratio	133.00%	123.42%
Health	Operating revenue per adjusted discharge	\$13,529	\$13,526
	operating revenue per augusted discharge	Ψ10,049	ψ13,320
lighest Ethics	Ethical employer rating on physician engagement survey	87.00%	86.47%
& Standards	Ethical employer rating on employee engagement survey	84.00%	83.46%



Now in its fifth year, our Wake Way 2
Excellence journey continues to bring
about positive change and improvements
in efficiency and standard work. We also
streamlined our events, launching Kaizen
Workshops (replacing RPIW & Kaizen
Events) and introducing a monthly
Kaizen Showcase as an opportunity to
share the good work happening systemwide.



WW2E By the Numbers

- 32 improvement events (includes RPIWs and Kaizen Events)
- 104 leaders (manager and above) started WW2E Leader training
- 108 leaders (manager and above) completed WW2E Leader training
- 2,475 staff members have participated in WW2E improvements since FY2015



State-of-the-Art Patient Care

INNOVATION

This year brought numerous innovations and advancements across WakeMed. In March, we began **transporting lab samples by drone** from Raleigh Medical Park to Raleigh Campus. More than 1,000 flights have occurred to-date, and the program is poised to enter a new phase as UPS recently received FAA approval to establish an official drone airline.

A new telepathology collaboration between WakeMed and Raleigh Pathology Laboratory Associates (RPLA) connects pathologists at Raleigh Campus to North Hospital in real time, offering faster more efficient care for patients



In 2017, WakeMed was the first hospital in the U.S. to implement **ERAS for heart surgery** patients and this year, WakeMed was named an ERAS Cardiac Center of Excellence and hosted the first national ERAS Cardiac Surgery Conference.

Throughout the year, many WakeMed physicians, clinical staff and others shared the outstanding and innovative work they are doing through **papers**, **posters and presentations** at conferences nationwide. In November 2018, the Cardiovascular & Thoracic Surgery Research Team enrolled their first patient – the first patient in North Carolina – in the HYBRID clinical trial.

As WakeMed continues to embrace and leverage technology solutions to improve access for our patients, in July, we became first to market in our area with a new wayfinding App. The **WakeMed All Access App**, made possible by the WakeMed Foundation, offers indoor wayfinding in our three hospitals as well as many other features, including finding a doctor, scheduling an appointment and much more. The App was downloaded over 11,000 times in the first three months it was available!

This year, we introduced MyChart Bedside to 25 additional units, allowing patients to receive test

results, information and education using in-room iPads. We also saw tremendous improvement in online scheduling for WakeMed Physician Practices appointments – growing from 5.6 percent at the end of FY18, to 7.4 percent at the end of FY19. Thanks to a team effort from all staff, we also made outstanding improvements in our MyChart activation rate – beating our FY19 goal of 35 percent.





WAKE WAY, EXTRAORDINARY TEAM, HIGHEST ETHICS & STANDARDS

Expanding and building on the Wake Way Behaviors and our WW2E journey, this year we strengthened our **Leader Standard Work** efforts: over 2,000 senior leader rounds were completed with staff, and over 49,000 nurse leader rounds were completed with patients. These programs are an opportunity for our leaders to connect with staff and patients, hear concerns and recognize employees. We also continued offering the **Communication in Healthcare** course – more than 71 percent of physicians, 93 percent of non-physician leaders and 67 percent of nursing staff have completed training to date.

As we continue our efforts to make our patients the center of all we do, a Patient & Family Experience Oversight Committee (PFEOC) was established with subcommittees in areas across the organization reporting to numerous leadership groups. PFEOC is working to enhance communication, improve coordination of care, strengthen patient and family involvement, reduce errors, and increase patient engagement. Major initiatives from this year include enhanced communication about medications and Pearls.

In April we once again celebrated **Diversity & Inclusion Month**, with a focus on generational differences. As in past years, many departments celebrated with pot lucks where team members brought in food representing different cultures.



As part of our commitment to retaining and developing an extraordinary team,
Organizational Development launched a new **Leadership Academy** program. The academy includes six levels of



leadership development, providing opportunities for education and advancement for non-management employees through senior leadership. Over 100 employees were nominated for the first Aspiring Leader cohort and 28 were selected to participate.

As we work to develop and retain our exceptional team, our annual employee and physician **engagement surveys** yielded excellent results and revealed areas of opportunity for continued improvement.

Employee Survey

72.2%

PANKING

Page 5 percentile

of organizations surveyed

by Success Profiles

PARTICIPATION 98.8%





Over the summer, we announced a partnership with **Morrison Healthcare** to provide Food & Nutrition Services throughout the system. With this change, nearly all WakeMed Food & Nutrition Services employees became Morrison Healthcare employees and were offered their same job, at their current rate of pay.

Developing Our Extraordinary Team

WakeMed was proud to continue supporting employees as they pursued their **educational and professional goals** – investing over \$860,000 in tuition reimbursement and over \$50,000 for certification reimbursement. The WakeMed Foundation supported many more with grants and scholarships:

- Helton Scholarship Fund: 11 students received \$45,532
- Helton Awardee Fund: \$19,076 was distributed to 11 departments
- Skills Scholarships: 67 employees received \$96,448 in funding for conferences, seminars and training

To enhance **training and education** across the system, WakeMed transitioned to WakeMedU as our learning management system. The Medical Simulation Center provided education to 5,070 people in 628 educational sessions. We are proud to share that we exceeded our goal of nurses earning advanced degrees (goal: 70.17%; actual 73.18%), but did not quite reach our goal related to national certification (goal: 43.91%; actual: 42.49%). In partnership with Marketing & Communications, Corporate Integrity & Audit Services has trained over 500 employees on the privacy risks created by social media.

Employees showed their commitment to our patients and their families through the annual **WakeMed Gives** campaign, held in October 2018. Over 1,600 employees donated, raising over \$767,000 – including \$265,000 for our Employee Emergency Assistance Fund.

Further supporting our patients and their families, 1,569 dedicated **WakeMed volunteers** contributed more than 172,000 hours of service and raised \$103,328 to support equipment purchases, projects and programs.

Kudos to You!

We were proud to recognize our outstanding employees throughout the year.

Pyramid Society Award Recipients 203
Recognized for 20+ years of service

131
Received Nursing
Excellence Awards

Moving the Needle on Patient Satisfaction

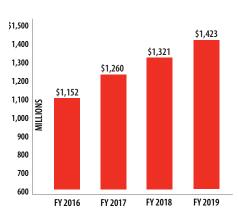
WakeMed is committed to ensuring our patients and their families have an exceptional experience while in our care. HCAHPS is a national, standardized survey that measures discharged patients' perspectives of their recent hospital stay. The HCAHPS survey represents all the things we should be focused on for our patients every day – quality, safe and therapeutic environment, exceptional care, good communication, etc. Our performance reflects the percent of patients who rate us a 9 or 10 on the survey questions.

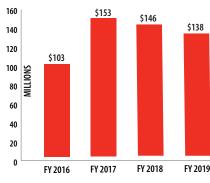
We use this information to gauge how WakeMed performs compared to hospitals across the country, according to standards set by CMS. In addition, our patients can see how we're performing online, and our performance is tied to our Medicare reimbursement. Our goal is to exceed the CMS achievement threshold (which is about the 50th percentile) in all areas, and ideally to exceed the benchmark (roughly 95th percentile). As the chart below shows, we have made improvement in most areas over the past few years, but we still have a long way to go to reach the CMS benchmark.

	2017	2018	2019	CMS Achievement Threshold (50th)	Benchmark (95th)
Nurses	81.85	80.94	80.18	79.08	87.12
Doctors	80.04	79.08	80.09	80.41	88.44
Responsiveness	69.18	68.23	70.70	65.07	80.14
Medicines	63.95	65.07	64.56	63.3	73.86
Environment	60.08	61.11	62.72	65.72	79.42
Discharge Info	86.87	88.60	88.66	87.44	92.11
Care Transitions	52.24	54.93	55.88	51.14	62.5
Overall Rating	73.64	75.35	75.87	71.59	85.12

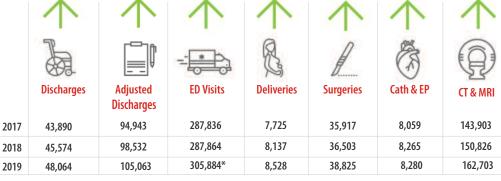
A Strong Bottom Line

In addition to the many successes we saw this year, we ended the year ahead of targets for both cash flow and operating margins. Our strong operating results are thanks in part to greater than anticipated volumes in the majority of service areas.











VALUE LEADER, QUALITY, SAFETY

This year, we continued our Chasing Zero patient safety initiative aimed at achieving zero instances of preventable patient harm within our facilities. The first half of the year was dedicated to hand hygiene and the second half of the year focused on *C. difficile*. Some highlights from these efforts include:

- Hand Hygiene Ambassadors personally trained ~500 employees in correct hand hygiene procedures
- Changes to C. diff testing processes were made in Epic
- WakeMed transitioned to Oxycide for daily cleaning in patient rooms
- Education was shared with providers to reduce unnecessary antibiotics
- System-wide, C. diff decreased 50% between April and June 2019, as compared to the previous quarter

Throughout the year, we recognized 12 departments and units with Chasing Zero **Hero** awards, celebrating their

accomplishments in achieving zero instances of certain preventable harm events (CAUTI, CLABSI, etc.)

In an effort to positively impact outcomes,

length of stay, decision-making, discharge and readmissions, the PeraHealth Rothman Index was rolled out at Cary Hospital. The tool can help quickly identify and prevent clinical deteriorations. This project is in addition to a collaboration with CLEW Medical, with which we are creating a product to predict clinical deterioration in the ICUs.

In August, we submitted our Magnet document to the American Nursing Credentialing Center for consideration for system-wide re-designated as Magnet. The document included hundreds of pieces of



evidence demonstrating nursing excellence across WakeMed.

In our annual Hospital Survey on Patient Safety **Culture**, we saw an increase in our scores across the 12 composite areas and we performed

above the AHRQ 50% benchmark and nearly at the 75% benchmark in many areas. The survey showed our areas of greatest opportunity are "hospital handoffs/transitions" for hospital settings and "information exchange with other settings" for medical offices.

We made continued progress on our journey to providing value-based care. Raleigh Campus ranked "Better than National" for heart failure and hospital-wide 30-day readmission rates, and Cary Hospital ranked "Better than National" for pneumonia readmissions. WakeMed Key Community Care (WKCC), our Accountable Care Organization (ACO), which now serves 220,000 covered lives, had another successful year. WKCC is the 16th largest accountable care organization in the nation and has saved \$61.7 million in shared savings to date.

WakeMed's Non-labor Steering Committee (NLSC) is tasked with managing our supply costs by standardizing and improving care and ensuring our clinicians have access to the best performing, state-ofthe-art supplies and products. In 2019, the NLSC approved 83 separate initiatives that will save over \$2.2





















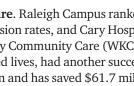












million in annual expenditures.

Partnering for a Healthier Community

HEALTHY COMMUNITY & PREFERRED PARTNER



As we continue striving to make Wake County a healthier place to live, WakeMed found new ways to deliver on our mission, making it easier for community members to be engaged and involved in their own health & well-being. Some examples include:

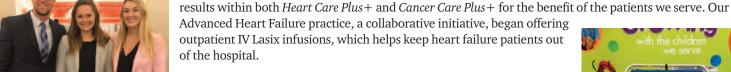
- Health Lives Here, our mobile health vehicle reached 3,325 people at 73 different events throughout the
- The WakeMed Mother's Milk Bank opened a drop-off depot at Raleigh Medical Park to make it more convenient for donors to share their milk.
- During the second full year of the WakeMed Speaker's Bureau, we secured 31 speaking engagements, reaching more than 1,200 people.

FY2019 was also a year of continued growth and development in our collaborations with Duke, with positive

 Thanks to a generous grant from the WakeMed Foundation and our partnership with RelyMD, we are now collaborating with community health partners including Healing Transitions and Oak City Cares to offer telemedicine services (via iPad) to homeless patients.

WakeMed Behavioral Health made significant progress in 2019 and defined its five-year strategic focus in the following areas:

- We launched our Connected Community initiative to connect WakeMed patients who have behavioral health and/or substance use issues with organizations and resources to help them obtain stable housing, a consistent food source, utilities and a safe environment free of domestic violence.
- · WakeMed continues leading the Network for Advancing Behavioral Health, which is working with partners and payors on sustainable funding
- Funded by the WakeMed Foundation, a program to place psychologists in our Emergency Departments has proved to be very successful and beneficial for the behavioral health patients we care for.
- Transitional Care Services, coordinated through social work and peer support, has resulted in a first appointment show rate of 94 percent, well above the national average of 50 to 70 percent.
- Our ED Opioid Program utilizes community databases and provider engagement to identify potential opioid abusers and connect them to treatment options in our behavioral health network.



Our relationships with our **clinical teaching partners** continue to flourish as well, with WakeMed hosting medical students and residents from the Campbell University School of Osteopathic Medicine, University of North Carolina (UNC) School of Medicine and Duke University School

of Medicine. We were pleased to become a clinical research host site for Campbell University School of Medicine's Summer Scholars Program for rising second-year medical students, welcoming eight students who worked on research projects in a variety of areas.

To top it all off, WakeMed was out and about in the community throughout the year hosting and participating in dozens of community events, sharing information about our services with thousands of prospective patients.



Microscope

Microscope is a monthly newsletter written by and for the employees of WakeMed. Our goal is to provide employees and friends of WakeMed with the most up-to-date news on all of the hospital system's activities. The Public Relations department thanks all of the employees who contributed to this publication.

We welcome comments and suggestions on this publication and its content. Call (919) 350-8120, e-mail microscope@wakemed.org, or write Microscope, WakeMed Marketing & Communications Department, 3000 New Bern Avenue, Raleigh, NC 27610.

Kate Wilkes, Editor WakeMed Employees, Photos

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Awards & Accolades

Leapfrog Safety Scores

SpringFallRaleigh CampusBCCary HospitalBC

Harry E. Dascomb, MD, Award

Courtney Mann, MD, (WEPPA)

Triangle Business Journal

- Healthiest Employers
- Health Care Heroes: Jessica Dixon, RN, (Infection Prevention); Stuart Ginn, MD, (ENT Head & Neck Surgery); Judson Williams, MD, (WakeMed Heart & Vascular); Bobby Park, MD, (WEPPA)
- Women in Business: Alden Parsons, MD (WakeMed Heart & Vascular)

Emergency Nurses Association's Hall of Fame

Elizabeth Stone, RN, (Children's ED) was only 1 of 8 inducted in the country

Triangle Chapter of the Association of Fundraising Professionals

Brenda Gibson, long-time WakeMed advocate and most recent past chair of the WakeMed Board of Directors, received the Excellence in Philanthropy Award

Home Health Compare 4-Star Rating for WakeMed Home Health



The Society for Enhanced Recovery After Cardiac Surgery

Raleigh Campus named first-ever ERAS Cardiac Center of Excellence

Society of Thoracic Surgeons (STS)

Raleigh Campus received three-star rating and #1 composite quality score for isolated CABG in NC

National Committee on Quality Assurance

Eight WakeMed Primary Care locations re-designated as Patient-Centered Medical Homes (PCMH)

The Joint Commission

Cary Hospital received re-certification as an Advanced Primary Stroke Center

College of American Pathologists

WakeMed received certification – with fewer than 10 deficiencies noted system-wide

American College of Cardiology

Raleigh Campus received the NCDR Chest Pain – MI Registry Platinum Performance Achievement Award

Raleigh Campus and Cary Hospital were re-certified as Chest Pain Centers

American Heart Association/American Stroke Association

Raleigh Campus

- Stroke: Gold Plus and Target: Elite Honor Roll
- Heart Failure: Gold Plus and Target: Heart Failure

Cary Hospital

- Stroke: Gold Plus and Target: Elite Honor Roll
- Heart Failure: Silver Pus and Target: HF Honor Roll

For a complete list, visit www.wakemed.org/about-us-awards-accolades.



PRC Recognition

Top Performer Department Awards

• Mobile Critical Care Services

Physician Awards

- John Englehardt, MD Electrophysiology
- Michael Klinkner, MD Urgent Care
- Hillary Lockemer, MD Pediatric Endocrinology & Diabetes
- Matthew Sproul, MD Primary Care

5-Star Winners Department Awards

- Brier Creek Healthplex Emergency Department
- Cary Hospital Outpatient Lab
- Cary Hospital Outpatient MRI
- Cary Hospital Outpatient Specialty Rehabilitation
- North Hospital Outpatient Surgery
- North Hospital Medical/Surgical
- North Hospital Women's Pavilion & Birthplace
- North Hospital Outpatient Lab

- Raleigh Campus 6A CVIC
- Raleigh Campus Cardiac Rehabilitation
- Pediatric Cardiology Apex
- Pediatric Endocrinology ApexPediatric Outpatient Minor
- Procedures

 Pediatric Weight Management
- Pediatric Weight Management Apex
- ENT Head & Neck Surgery North
- Heart & Vascular Apex
- Heart & Vascular Cardiovascular & Thoracic Surgery

- Heart & Vascular Cary
- Heart & Vascular Complex Arrhythmia
- Heart & Vascular Heart Center
- Heart & Vascular Advanced Heart Failure
- OB-GYN Brier Creek
- Primary Care Holly Springs
- Primary Care Downtown Raleigh
- Urgent Care Cary
- Urology Raleigh Medical Park
- Plus 30 Individual Physician Awards

