



Inspired **innovation**, remarkable care

2019 annual report



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Transforming care through **innovation**

When you want to improve something, you reform it. But when you want to push beyond mere change to something greater, you don't reform — you *transform*.

That's exactly what we're doing at Novant Health, by harnessing the power of technology, data, artificial intelligence (AI) — and the boundless creativity of a deeply remarkable team — to transform patient care.

Patients and families experience the changes firsthand. They experience it in their ability to communicate even more easily with their care teams digitally, in treatments delivered as the result of groundbreaking research and in lifesaving care provided with the help of AI tools and our expert physician partners, advanced practice providers and entire care teams.

With tools sourced from top vendors, partnerships within our communities and collaborations within our own system, we're transforming care — and the way it is delivered.

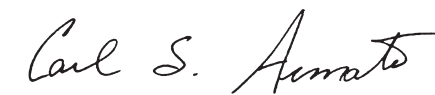
Examples are everywhere: Early intervention for depression. Lifesaving stroke care, even in remote areas. More widespread intervention for the opioid epidemic. Behavioral health services newly available in underserved neighborhoods. Cultural ambassadors, who bridge cultural and linguistic barriers for non-English-speaking patients. Novant Health podcasts, to help patients lead healthier lives and help team members to learn more about each other. New options for neurological disorders and world-class treatment for pediatric epilepsy. The ability to conduct simple checkups at home through a handheld device that talks to your care team. Those are just a very few of the innovations we've made to enhance our expertise and access, and many more are to come.

Our patients, communities and the wider world are responding to our transformative work. In 2019, we reached 1 million users of our online patient portal — a gratifying endorsement by patients, who love easy communication with their care teams and tools that guide them to appropriate tests and treatments. Novant Health was named one of healthcare's "Most Wired" by the College of Healthcare Information Management Executives, one of fewer than 20 systems in the world to get this recognition for the way we use technology to advance safety and quality.

Industry safety watchdog The Leapfrog Group awarded our hospitals A or B letter grades, with the large majority receiving As, and five of our hospitals received Leapfrog's prestigious Top Hospitals designation. *Forbes* named us among the top 40 employers in America for diversity. And Press Ganey chose Novant Health for its annual Culture of Engagement Award, which recognizes our innovative talent management and organizational development strategies in the delivery of safe, high-quality, patient-centered care.

We're proud of the work our entire team is doing to ensure that we are fulfilling our mission of improving the health of our communities, one person at a time. Our physician partnership model is key to making this happen — and to truly transforming the health and well-being of our neighborhoods, cities and region.

Leading-edge technology and exceptionally skilled physicians, nurses and advanced practice providers: That's the formula for transformation. That's the right combination for remarkable.



Carl S. Armato
President and CEO, Novant Health



G. Patrick Phillips
Board chair, Novant Health



Novant Health is using artificial intelligence to treat stroke patients faster and better

Result: Patients go home sooner, with better brain function

60 minutes between onset of stroke and treatment (national average)

N: 38 minutes between stroke and treatment (Novant Health average)

28 minutes between stroke and treatment with **Viz.ai** technology (Novant Health)

9.5B brain cells saved in the first six months of using **Viz.ai** (Novant Health)

32,000 brain cells lost by a stroke victim per second (national average)



Deploying technology for patient care



The stroke victim is rushed to a Novant Health emergency room and gets a CT brain scan. At the same time, the stroke team gets a text alert — with images showing the patient has a suspected large vessel occlusion (LVO) — a blockage of main brain arteries.

An LVO needs immediate, high-level care. This patient can get lifesaving treatment faster because of a new artificial intelligence (AI) technology working behind the scenes.

“Patients lose 1.9 million brain cells every minute during a stroke, so time is critical,” said Eric Eskioglu, MD, executive vice president and chief medical officer for Novant Health.

At Novant Health, we’re using AI to improve patients’ experience — and save lives.

“We’re partnering with innovative AI companies to help people get better and stay healthy. We’re already seeing impressive results,” said Angela Yochem, Novant Health executive vice president and chief digital and technology officer.

In 2019, we launched the Novant Health Institute of Innovation & Artificial Intelligence, led by Eskioglu and Yochem. The institute combines the medical excellence of our physician partners with advanced technologies like the AI software platform used to save the stroke victim.

That software analyzes scans to see if patients have LVOs or another kind of stroke. The stroke team then gets crucial information in real time.

“The study can be done in as little as two minutes after the patient gets in the scanner, and all the data is sent right to our phones,” said Eric Deshaies, MD, system physician executive of the Novant Health Neurosciences & Behavioral Health Institute.

The technology is helping eliminate healthcare disparities. “You have access to the same outstanding stroke treatment whether you live in a rural or metropolitan area,” Eskioglu said.

The software’s accuracy grows as it accumulates patterns in the data. As the first system in the Carolinas to use this technology, Novant Health is saving brain cells — and lives.

Improving patient experience

For older adults with congestive heart failure, repeat hospital readmission is all too common, and so is a diminishing quality of life after each hospitalization.

That’s why we’re using a technology to identify patients at high risk for readmission, taking into account social determinants of health. The technology allows the team to intervene through personalized treatment plans — and prevent readmission.

“Heart failure is a leading cause of hospitalization for older adults,” said Gordon Reeves, MD, Novant Health director for advanced heart failure. “This technology will help us better care for these complex patients.”

In 2019, we partnered with an AI firm to improve the ER experience. Using predictive analytics, the technology will give teams a better picture of incoming patients, their expected length of stay, and which are at risk for readmission. That means our patients will have a better experience and a quicker path home.

“Increasingly, the power of AI is being harnessed to transform health and the patient experience,” said Yochem, “and Novant Health is on the leading edge of this work.”



Growing **data-driven** expertise

Our medical excellence is built on a strong foundation of leading-edge practice, advanced treatments and clinical research. In 2019, we grew our expertise by creating specialized institutes and launching new clinical studies.

Novant Health's new institutes provide research into conditions and treatments, and allow us to apply technology to customize care. The result: Highest-level patient care.

Ed Michaels of Kissimmee, Florida, suffered for decades from a dangerous form of sleep apnea. One test showed he stopped breathing more than 200 times a night. As a car salesman, his job took him out on the road — a potentially deadly situation.

"If I drove more than hour, I would literally fall asleep driving," said Michaels, 64. Conventional treatment did nothing for him. Michaels scoured the internet for solutions, which led him to Novant Health. Our clinical research and expert physician partners offered Michaels a treatment that, he said, saved his life.

Novant Health physicians, including cardiologist Michael Drucker, MD, had been heavily involved in a clinical trial for a new implantable breathing regulation device developed by Respicardia Inc. Michaels traveled to Winston-Salem, North Carolina, to get the device implanted at Novant Health Forsyth Medical Center, the first hospital in the Southeast to offer the surgery. The results were immediate.

"It made a huge difference. I feel so much better," said Michaels. "I can go to sleep and know it's working well. I feel sharp, like a young kid again!"

Novant Health physicians select patient-focused studies, like the one for the breathing device, that are "scientifically relevant and important to them," said Mark King, vice president of research and innovation. "Participating in leading-edge studies enables us to treat disease in its earliest stages." More than 400 patients are currently enrolled in clinical trials.

Just one area of research focus: gynecologic cancers, which strike more than 94,000 U.S. women annually. "Enrolling a patient in a clinical trial, wherever appropriate, is the best option for patients to receive a good outcome," said Janelle Fauci, MD, Novant Health gynecologic oncology specialist. Two of Novant Health's most recent trials include one for women whose ovarian cancer has returned and one for women with relapsed endometrial carcinoma.

"Participation gives a woman access to the most up-to-date treatment — and allows her to help advance the field of medicine," Fauci said.

Research increases patient safety, as well. Doctors have noted that the medical literature doesn't always offer guidance and best strategies to prevent dangerous *C. difficile* infection in high-risk hospitalized patients. This led Steven Johnson, PharmD, infectious disease pharmacist, and David Priest, MD, senior vice president and chief safety, quality and epidemiology officer, to conduct original research on preventing *C. difficile* infection with the use of oral vancomycin in targeted hospitalized patients. Their finding: Giving oral vancomycin once a day to targeted patients reduced the risk of infection. Our study, the first of its kind in the medical literature, has been accepted for publication in the journal *Clinical Infectious Diseases*. It's just one of the ways in which research is improving patient care throughout Novant Health. •

"Participating in leading-edge studies enables us to treat disease in its earliest stages."

- Mark King, vice president of research and innovation



Innovating care delivery

Your baby is crying nonstop and nothing's helping. You suspect she has an ear infection but can't be sure. It's a frustrating situation common to many new parents — but with an innovative new care delivery option from Novant Health, there's a solution that won't require bundling a sick infant into a car. >>

“We’re using creative strategies to make healthcare simpler, more affordable and more effective.” - Hank Capps, MD

With a simple handheld device, you — and your care team, remotely — can conduct a health exam in real time for a diagnosis. Novant Health has partnered with TytoCare, creator of the device, to make it easy to care for patients who have difficulty leaving home.

“Along with advances in medicine and treatment, we’re innovating the way we deliver that care,” said Hank Capps, MD, senior vice president and chief digital health and engagement officer. “We’re using technology like TytoCare and digital health services to help people get better and stay healthy — no matter where they’re located. And we’re using creative strategies to make healthcare simpler, more affordable and more effective.”

Tech-enabled treatment

We’re harnessing technology for care delivery in other ways, too. In 2019, we reached 1 million users of MyChart, patients’ secure, online connection to their health information — and their care team. “Not only do we want to make care more convenient, we want to improve outcomes by engaging patients in their daily health journey,” Capps said.

We launched Care Companion, a tool through our patient portal, to deliver an interactive, individualized plan of care to patients. Care Companion helps us partner with patients to manage chronic conditions, such as type 2 diabetes or systolic heart failure.

Through Care Companion, our expert physician partners can assign tasks for patient education, home monitoring, symptom check-in

questionnaires and medication reminders. Patients receive reminders on their mobile device. If a patient misses tasks or a response to a task indicates a problem, Care Companion notifies us to reach out to that patient.

Simpler, seamless care

The delivery of healthcare nationwide is too often fragmented and frustrating for patients. They ask questions like “Are my doctors talking to each other?” “How much will I have to pay?” and “Why are there so many bills?”

We’ve built a reputation on making the entire experience of healthcare remarkable, and our new work in creating bundled episodes of care is accelerating that. For certain conditions with predictable treatments and outcomes, episodes offer a chance to have an upfront, fixed-price, single bill to pay.

Already, Novant Health team members and dependents with Cigna medical coverage can take advantage of our episode of care for joint replacement, which includes best-practice services like surgical wellness visits. Our maternity episode similarly comes with important education and support throughout pregnancy with an upfront price tag and single bill, so patients can plan and avoid unexpected costs.

Bundling together services for a treatment just makes sense — and it helps ensure patients understand their healthcare journey, so they can focus on what matters most: getting better and staying healthy. •



Developing a leading-edge team

Novant Health's commitment to our team members starts with the way we help them develop their skills and continues with the investments we make in their health and well-being. It rests on a founding certainty that an outstanding organization needs people with a diverse range of talents, beliefs and backgrounds. The result: An outstanding team that consistently delivers truly remarkable care.

In 2019, we expanded our successful Upward Mobility RN Scholarship Program, which provides two years of upfront tuition and fees, the flexibility of working a reduced schedule without a reduction in compensation and access to mentorship for team members who want to become registered nurses and who are enrolled in a community college. Formerly, we offered it to certified nursing assistants; now it's open to team members in any job category and in more locations.

"The scholarship is a saving grace," said Brittany Samuels, formerly a Novant Health certified medical assistant and now an RN. "It made it possible for me to achieve my goal of becoming a nurse."

Training tomorrow's leaders

We're further developing our nurses by offering them clearer paths to advance their careers. The new Nursing Career Pathways program offers direction for nurses who want to transition into leadership, education or advanced practice — suggesting certifications, education, development activities and resources to grow their leadership skills. It's a way to clearly define for team members the steps they can take to grow their knowledge and experience — which they in turn invest in the care of our patients.

We're investing in our organization's success by supporting managers' progress toward broader responsibility. In 2019, we launched Next Level Leadership, a six-month program to offer learning experiences, project work and online learning, along with interaction from senior leaders. The first cohort launched in fall, and quickly began learning everything from emotional intelligence to strategic decision-making.

Investing in the team

We also significantly grew membership in our business resource groups in 2019, providing a conduit for team members not only to learn from people outside their immediate work circles but also to share suggestions. Through our growing business resource groups, each of which is focused on a particular aspect of identity, such as age, ability or ethnicity, team members are providing innovative ideas to leaders — ideas that improve the experience of our teams and our patients.

Team members shared their expertise in other ways last year. Through the systemwide One Ask survey, and President and CEO Carl Armato's regular open forums, they offered suggestions for improvement. Taking those ideas, our physicians partnered with Armato and the executive team to improve the team member experience. Among those changes: enhancements to military leave benefits and the launch of paid parental leave for birth or adoption.

The new benefits, along with all of the other investments in our team members, are just some of the ways in which we're putting into action our people credo, which reminds us that our business is the care of all people, starting with our team members. •

"The scholarship is a saving grace. It made it possible for me to achieve my goal of becoming a nurse." - Brittany Samuels, RN





Pioneering **new paths** to ensure healthcare equity for all

“It’s the commitment to be able to make a difference, to make an impact.” - Michael Jordan

We know our mission is about more than improving people’s health. We’re about treating the whole person — and, with that, whole communities. We’re working with our community physician partners to help make our neighborhoods strong — and to close the health equity gap. It’s simply unacceptable that someone’s address or socioeconomic level should determine his or her health. We’re bringing healthcare to underserved neighborhoods and addressing people’s social needs, from having an affordable place to live to accessing healthy food.

Opening community clinics

In September 2019, we opened Novant Health Michael Jordan Family Medical Clinic in Charlotte, North Carolina, thanks to a donation from the basketball star and his family — longtime partners of Novant Health. Another clinic will open in 2020.

“It’s the commitment to be able to make a difference, to make an impact,” Michael Jordan said at the clinic’s opening. “It starts with us ... I am going to be your partner.”

The family clinic is already making a difference — in a little over three months, the clinic cared for more than 1,000 patients. The team also asks patients questions about social conditions that influence their health — and then connects them to resources.

We know that when people lack food, transportation or a safe place to live, it’s hard for them to stay healthy. “If we don’t help solve the social issues, we’re only scratching the surface of what our patients need,” said Michael Hoben, MD, Novant Health senior physician executive. “Patients may feel better for a short time, but the problems are likely to return.”

The Michael Jordan Family Medical Clinic joins Highland Avenue Primary Care in Winston-Salem, North Carolina, which shares space with a behavioral health outpatient/urgent care facility and a community wellness center, and Movement Family Wellness Center powered by Novant Health in Charlotte, which offers preventive, primary and behavioral health services to an underserved neighborhood.

We saw gaps in care provided to the Latino/Hispanic community in a Winston-Salem area neighborhood with a doctor shortage. We opened Novant Health Waughtown Pediatrics, staffed with bilingual providers, and expanded to include primary care and ob-gyn clinics.

Addressing health gaps

Novant Health’s other innovations in reducing inequities range from opening “food pharmacies” to bringing mobile health units to low-income neighborhoods to building a workforce that reflects the communities we serve.

We partnered with historically black university Johnson C. Smith University to increase the pool of lactation consultants who reflect the mothers of color we serve. This change increased breastfeeding rates not only among mothers of color, but also white women. We established a long-term goal to increase mammogram screening. Two of the fastest growing populations in the Novant Health footprint are Asian and Hispanic — ethnic groups less likely to get the lifesaving scans. We are focused on closing the screening gap, while at the same time improving care for all women.

In all our work, the goal is simple: to make sure everyone has the opportunity to enjoy health and well-being. •





Building the **well-being** of our communities



Free back-to-school immunizations for children in need. Lifesaving health screenings offered at no charge at community centers, festivals and houses of worship. Classes, support groups and community partnerships. They're all part of our creative approaches to fulfilling our mission as a not-for-profit organization that seeks to make every neighborhood and city stronger.

Novant Health's community impact includes hundreds of programs that address the most pressing health needs of the communities we serve. In addition to our health-and-wellness outreach, this includes unreimbursed health services to individuals with Medicaid and Medicare coverage, generous financial assistance for people in need, and participation in medical research and academic health programs.

Improving health in our communities comes in many forms. Consider the Baby Café community program, which recognizes the challenges experienced by some moms with newborns. The program improves health outcomes for newborns and reduces postpartum depression by allowing moms to get help with breastfeeding techniques and share mutual experiences. "It was a pick-me-up that I needed in my life," said one new mother. "And I'm so thankful that this opportunity has been provided for new moms."

We helped active adults lead healthier and more vibrant lives. During the annual Hola Charlotte Festival, we provided free flu shots, free mammograms and free dental screenings for kids through a partnership with Colgate, demonstrating our commitment to the Latino/Hispanic community. We provided mental health screenings in North Carolina's Triad area, along with education to help erase the stigma too often associated with mental illness.

We invested in programs that provide students an insider's look at healthcare careers. High school students in the Exploring program learn about clinical and administrative jobs that could give them a thriving career in healthcare and a ladder to upward mobility.

Daniel Burk, now a physician assistant, completed several rotations at Novant Health Brunswick Medical Center as a health professions education intern. "Medicine was not the only thing I learned," Burk said. "I gained friendships, future colleagues and, most importantly, learned how to treat each patient with the utmost respect and care ... something that I was shown by everyone at Novant Health, day in and day out."

Our own physician partners and team members play an active role in strengthening communities, too, with a spirit of volunteerism and collaboration. From collecting hundreds of pounds of expired and unused drugs in Virginia to assembling toiletry kits in North Carolina's Forsyth County for people who are homeless, to volunteering in food banks in Charlotte and during hurricane cleanup at the coast, team members devote many hours engaging with our communities, especially those that need it most.

At Novant Health, we take healing outside our hospital walls to improve the well-being of individuals, neighborhoods and regions. We do it because it's part of our mission — and because it's simply the right thing to do. •



Our financial summary

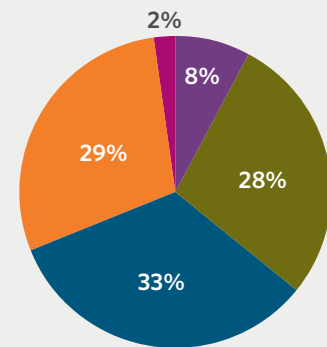
For 2019, Novant Health reported a net income of \$523.5 million on operating revenues of \$5.43 billion. The not-for-profit health system also reported \$993.2 million in total community benefit, including \$152.3 million in financial assistance to members in the communities we serve.

Novant Health's community benefit includes hundreds of programs, such as unreimbursed health services to individuals with Medicaid and Medicare coverage; community health education; support groups; partnerships with other organizations to provide outreach services; community events and screenings; and participation in medical research and academic health programs.

In 2019, capital investments totaled \$413.4 million and, in addition to ongoing investments in technology, key projects included:

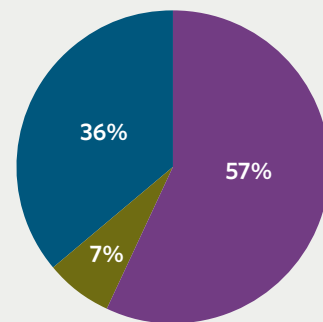
- The opening of Novant Health Huntersville Medical Center's 48-bed tower
- The opening of Novant Health Michael Jordan Family Medical Clinic in Charlotte
- The opening of the Novant Health Neurosciences and Spine Center in Winston-Salem
- The opening of the Novant Health Clemmons Surgical Plaza, which brings orthopedics, sports medicine, surgery, rehabilitation and sports performance under one roof, on the campus of Novant Health Clemmons Medical Center
- The opening of 77 Novant Health Medical Group clinics, including the addition of 206 physicians across the Novant Health system
- Construction on the Novant Health SouthPark Medical Plaza, which includes a women's center with more than six clinics that provide services tailored to meet women's medical needs
- Construction on the Novant Health Wallace Cancer Institute in Salisbury
- Continued construction on the John M. and Claudia W. Belk Heart & Vascular Institute and Edward I. and Agnes B. Weisiger Cancer Institute in Charlotte, scheduled to open in 2020
- A multiphased investment to upgrade Novant Health Forsyth Medical Center, including upgrades to patient rooms; enhancement of the Women's Institute as well as the Children's Institute; kitchen remodel and expansion; a critical care tower and sustainability infrastructure

Sources of revenue



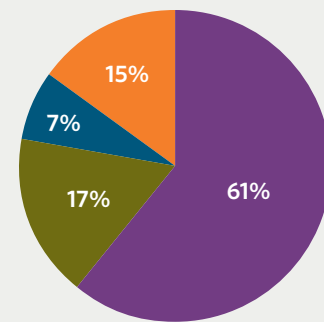
- Inpatient routine services
- Outpatient clinic and emergency services
- Inpatient ancillary and other services
- Outpatient ancillary services
- Other operating revenue

Distribution of expenses



- Labor and benefits
- Depreciation and interest
- Supplies and other

Community benefits



- Unpaid cost of Medicare
- Unpaid cost of Medicaid
- Community benefit programs
- Financial assistance

Summary balance sheet

(in 000s) as of Dec. 31, 2019

Cash and investments	\$3,105,864
Other current assets	928,597
Property, plant and equipment, net	2,320,879
Other assets	1,220,703
Total assets	\$7,576,043
Current liabilities	\$900,531
Long-term debt	1,283,939
Other liabilities	805,051
Total liabilities	\$2,989,521
Net assets	
Unrestricted	\$4,501,790
Restricted	84,732
Total net assets	\$4,586,522
Total liabilities and net assets	\$7,576,043

Summary statement of revenue and expenses

(in 000s) for the year ended Dec. 31, 2019

Operating revenue	\$5,434,945
Operating expenses	
Labor and benefits	\$3,023,877
Supplies and other expenses	1,910,059
Depreciation and interest	345,525
Total operating expenses	\$5,279,461
Operating income	\$155,484
Nonoperating income	367,998
Excess of revenues over expenses	\$523,482

Service volume growth

	2019	2018	2017
Licensed beds	2,671	2,683	2,717
Maintained beds	2,060	1,974	1,884
Inpatient discharges	134,844	130,474	126,326
Adjusted patient days	1,344,716	1,288,445	1,250,454
ER visits	579,279	544,825	538,911
Surgeries	143,533	139,905	133,953
Physician office visits	5,538,001	5,062,818	4,739,636
Newborn deliveries	20,173	20,385	19,994
Employees	30,550	30,238	28,092



Our leadership

Novant Health executive team





- Carl S. Armato**
President and CEO
- Tanya S. Blackmon**
Executive vice president and chief diversity, inclusion and equity officer
- Jesse J. Cureton**
Executive vice president and chief consumer officer
- Frank E. Emory Jr.**
Executive vice president and chief administrative officer
- Eric Eskioglu, MD**
Executive vice president and chief medical officer
- Fred M. Hargett**
Executive vice president and chief financial officer
- Jeffery T. Lindsay**
Executive vice president and chief operating officer
- Denise B. Mihal**
Executive vice president and chief nursing and clinical operations officer
- Pamela A. Oliver, MD**
Executive vice president and president of Novant Health Physician Network
- Angela J. Yochem**
Executive vice president and chief digital and technology officer

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- Vice chairman**
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United Way of Gaston County
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NovantHealth.org    

Making healthcare remarkable