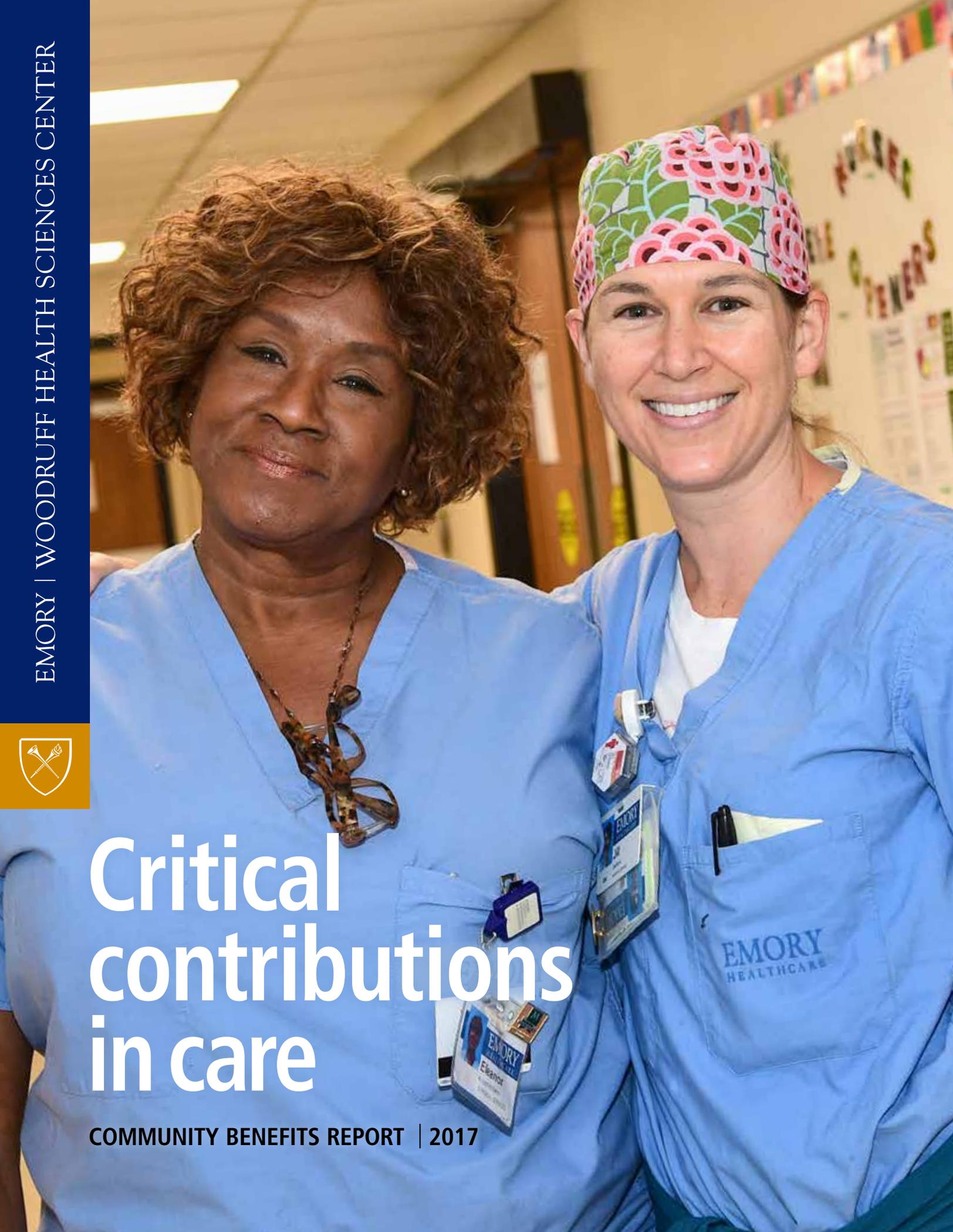




Critical contributions in care

COMMUNITY BENEFITS REPORT | 2017



The focus of attention in Emory's **Woodruff Health Sciences Center**, whether in the classroom, in the research lab, or at the patient bedside, is service to others. Nowhere is this more critical than in helping highly vulnerable patients. Our employees' ordinary duties address extraordinary needs each and every day—keeping patients safe, allaying their fears, offering them hope, and helping them recover.

For identities of those on the cover and throughout this book, please see page 28.



SUSTAINING A VISION
FOR THE COMMUNITY

Robert W. Woodruff—the health sciences center's namesake and longtime leader of The Coca-Cola Company—dedicated his life to supporting the community, and his legacy lives on in work like that described herein.

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Patient stories throughout this book are real, but patients' names and identities have been changed to protect their privacy (except in cases where patients wished to share their identity along with their story).

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Critical contributions

Up front and behind the scenes

If you've ever visited the Woodruff Health Sciences Center, you've probably met a talented doctor, a caring nurse, a kind administrator, or another employee in a highly visible role. But for every person you meet on the front lines, there are hundreds more whose work is equally extraordinary and important. You may never encounter them, but thousands of talented, compassionate people from many professions are working together seamlessly across patient care, research, and education to build a healthier community. I'm proud to introduce you to just a few of them in this report, and I'm deeply honored to represent them every day.

Jonathan S. Lewin, MD

Executive Vice President for Health Affairs, Emory University
Executive Director, Woodruff Health Sciences Center
President, CEO, and Chairman of the Board, Emory Healthcare



Charity care in Emory Healthcare

EMORY HEALTHCARE PROVIDED \$73.5 MILLION IN CHARITY CARE IN FISCAL YEAR 2016-2017. "Charity care" as a definition falls into two categories: (1) indigent care for patients with no health insurance, not even Medicaid or Medicare, and no resources of their own and (2) catastrophic care for patients who may have some coverage but for whom health care bills are so large that paying them would be permanently life-shattering.

The box below details the charity care provided at individual Emory Healthcare facilities. Included elsewhere in this book is information about uncompensated care provided by Emory physicians who practice at Grady Memorial Hospital and at other facilities.

In addition to charity care, Emory Healthcare provides many other services to help improve access to care, advance medical knowledge, and relieve or reduce dependence on taxpayer-funded community efforts. In fiscal year 2016-2017, this total for Emory Healthcare was \$70,385,835. Examples of what this total includes follow:

Charity care totals

Fiscal year 2016–2017

Emory University Hospital and Emory University Orthopaedics & Spine Hospital	\$18,908,604
Emory University Hospital Midtown	18,592,262
Emory Rehabilitation Hospital	2,408,026
Emory Saint Joseph's Hospital	9,079,121
Emory Johns Creek Hospital	2,664,690
Emory Clinic and Emory Specialty Associates	21,675,433
Budd Terrace skilled nursing facility	183,174
Total	\$73,511,310

The \$73.5 million total above represents the unreimbursed cost of providing charity care, based on actual expenses to Emory Healthcare. Cost reporting is standard for calculating charity care totals, as required by the Internal Revenue Service and advocated by the Centers for Medicare and Medicaid Services and the Catholic Health Association.

- **\$11,164,695** from the community benefit inventory for social accountability (CBISA). Significant CBISA dollars include activities such as discounted/free prescription drug programs; programs and contracted services for indigent patients; in-kind donations to organizations such as MedShare; transportation services; flu shots; blood drives; subsidized continuing care, nursing home care, and home care; sponsorship of selected charity health awareness events; and educational programs for the public, future health professionals, and patients
- **\$33,580,847** shortfall between Emory Healthcare's cost to provide care to Medicaid patients and the Medicaid reimbursement
- **\$25,640,293** costs to Emory Healthcare for the Georgia provider tax, which supports the Medicaid budget and helps maintain payment levels for all Medicaid providers

Patient Care Team Station

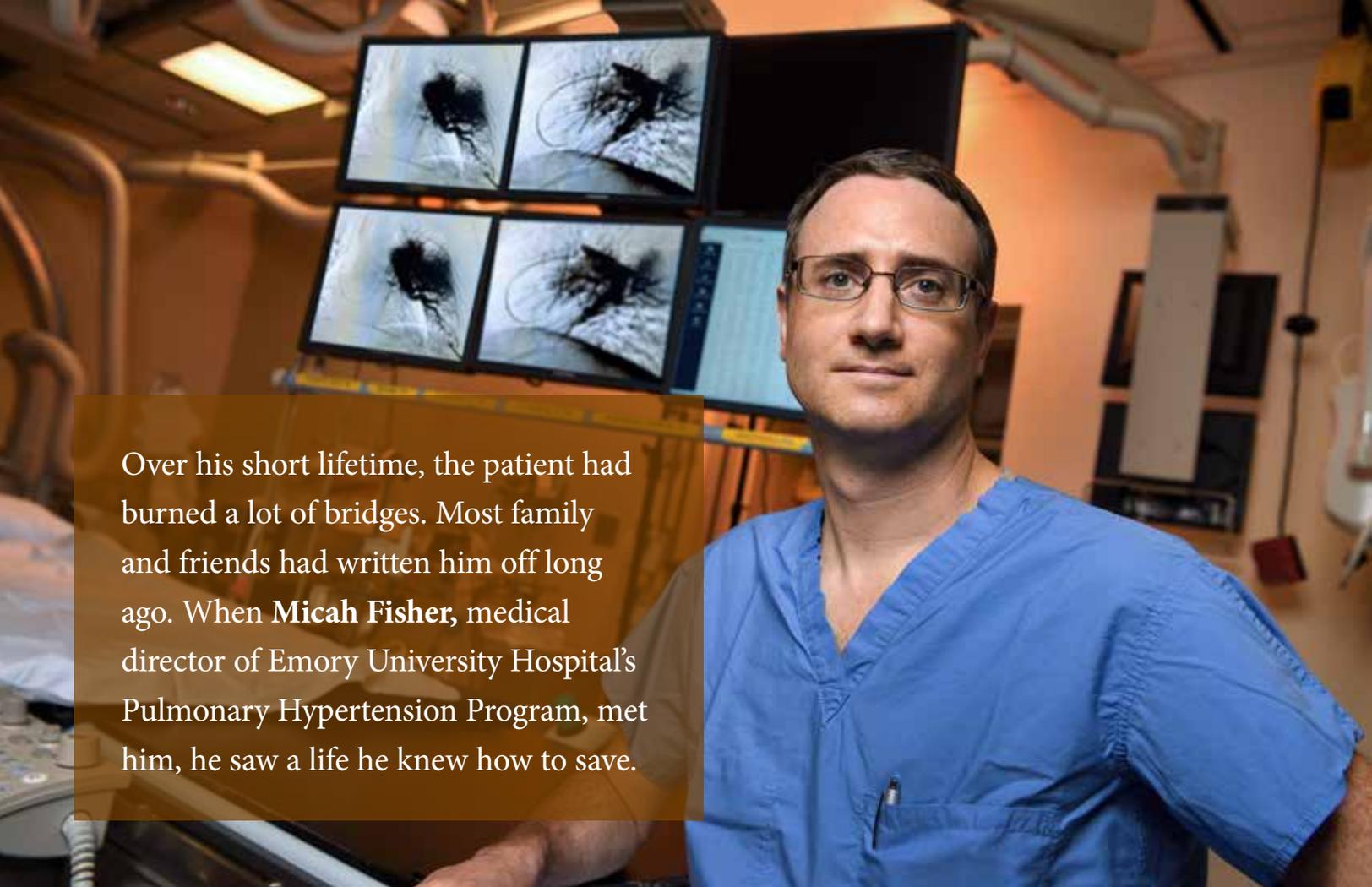












Over his short lifetime, the patient had burned a lot of bridges. Most family and friends had written him off long ago. When **Micah Fisher**, medical director of Emory University Hospital's Pulmonary Hypertension Program, met him, he saw a life he knew how to save.

Fighting for the only solution

EMORY UNIVERSITY HOSPITAL

WHEN 38-YEAR-OLD FRANK CALDWELL ARRIVED AT EMORY UNIVERSITY HOSPITAL'S EMERGENCY ROOM, HE COULD BARELY REMAIN CONSCIOUS. Pulmonologist Micah Fisher quickly diagnosed chronic thromboembolic pulmonary hypertension. Clots had formed in the arteries of Caldwell's lungs, restricting blood flow and causing the blood pressure in his lungs to increase and the right side of his heart to fail.

His rare condition was potentially curable, but only a handful of hospitals in the country—none in Georgia—offered the difficult, high-risk surgery he needed to survive. While the pulmonary hypertension clinical team worked to get him well enough to travel, the social services team worked to get him approved for Georgia Medicaid—and for Georgia Medicaid to approve his treatment at an out-of-state hospital. In the meantime, he remained at Emory University Hospital for more than five months.

The complex surgery was successful, but recovery would

be long. Caldwell remained within the Emory Healthcare system for an additional eight weeks at Budd Terrace, an Emory Healthcare skilled nursing facility for mostly elderly patients. There, Caldwell thrived. He became a regular at bingo and sing-alongs. No longer dependent on oxygen, he had new energy and was noticeably cheered. He repeatedly thanked his medical team for saving his life—and for their kindnesses. He re-established contact with a sister and an estranged daughter, who barely recognized the smiling man.

Social worker Marisa Graziano says, "He was an M&M with a hard shell and soft center, and he won our hearts." But her biggest admiration is for Fisher and fellow pulmonologist Aaron Trammel. "Other people might have written Mr. Caldwell off," she says. "A lot of people did. But Dr. Fisher, Dr. Trammel, and the pulmonary hypertension team advocated for him at every point. They saved his life and sent him back into the world a healthier, happier man."

Making contact in isolation

EMORY UNIVERSITY HOSPITAL MIDTOWN

THE FIRST TIME 40-YEAR-OLD THOMAS GANEY ARRIVED AT THE EMERGENCY DEPARTMENT AT EMORY UNIVERSITY HOSPITAL MIDTOWN, HE HAD A FEVER AND HIS FOOT HURT—“REAL BAD,” AS HE TOLD THE CLINICIANS. They could see why. Like many people with poorly controlled diabetes, Ganey, who was homeless, had foot ulcers, and his foot was badly infected. If the infection spread further, he would need surgery to remove tissue and bone.

To prevent this, the hospital paid for a course of heavy-duty antibiotics, along with his hospital stay, and then, after discharge, for recovery time in a personal care home with regular visits from home health nurses.

Over the following year, Ganey moved in and out of shelters, returning to Emory Midtown more than 20 times, including six times as an inpatient. He had been set to move into a halfway house where he could learn work and social skills to get him off the street and back into the regular world. He was excited.

Then things went wrong again. An irritating pimple on his forehead turned into a large, swollen, painful abscess, and he was diagnosed with MRSA, an antibiotic-resistant superbug.

Back in the hospital, Ganey was placed in isolation. Everyone who cared for him was masked and dressed in disposable gowns, per appropriate infectious disease protocol. Ganey began to realize that he was not leaving isolation anytime soon, and he became depressed and fearful.

Nurse Richard Peterman understood what was behind the patient's intense anxiety. He joked with Ganey and let him vent. He reassured him again and again that there was hope in sight—he would be cured eventually and he would be able to go to the halfway house and the better life it promised.

Peterman was right in his prediction. Before he left the hospital, Ganey thanked everyone. Then he told “Richard,” as he called him, now unmasked, that he was glad he could finally see his face.

Nurse **Richard Peterman** (left) engaged Ganey in conversation and gave him hope for the future. Peterman is pictured with social worker **Delisa Honore**.



Back on both feet

EMORY REHABILITATION HOSPITAL

TREY MORGAN, 52, WAS STUNNED BY THE SUDDEN SEVERE PAIN RADIATING FROM HIS NECK DOWN HIS BACK. He had never even heard of an aortic dissection, but he was in the middle of one. The inner wall of his aorta, the large blood vessel branching off the heart, had suddenly torn away, pushing blood between the layers of the vessel wall and away from its usual paths throughout the body.

Arriving by ambulance at Emory University Hospital, he underwent emergency surgery to repair his torn artery. That was only the beginning, however. He remained hospitalized while an ever-expanding medical team worked to address the damage that had been caused to his organs and extremities by decreased blood supply. Transfusions. A tracheal tube and ventilation for respiratory failure. Dialysis for kidney failure. Medicines for nausea and vomiting. Amputation of toes on both feet.

After a month, it was time to transfer from Emory University Hospital to Emory Rehabilitation Hospital, just across the street. Morgan needed intense daily physical, occupational, and speech therapy to help with recovery.

Crossing the street from one hospital to the other was seamless medically, but there was one big difference: Morgan's insurance had covered everything in the acute care hospital, but his policy did not include rehabilitation. Not the hospital stay, the visits from attending physician Dale Strasser and other clinicians, the hours every day of therapy, the medicines, not even the three-times weekly dialysis the same policy had covered while he was hospitalized across the street.

By the time Morgan left the rehabilitation hospital after three weeks, the charges had mounted to more than \$160,000, an amount hospital administrators wrote off as charity care. For the hospital, this "Emory pay" felt like money well spent. Physical therapist Dinah Farazmand says the team has never had a more grateful patient. "He worked so hard," she says, "and he appreciated everything we did. He could not thank us enough." When he left, Farazmand and several other therapists were there to wave goodbye. Morgan was smiling—and walking on both feet.



Physical therapist **Dinah Farazmand** with a patient at Emory Rehabilitation Hospital, one of the nation's highest "acuity" rehab facilities, meaning it is capable of treating the sickest of patients who also need rehab services.

The patient loved all his caregivers, but he considered dietician **Stephanie Boyea** his guardian angel. She helped him stop fearing his feeding tube. She readied him for his first sip of water by mouth in months. And she answered the question that most tormented him: When could he eat again?



Real food for the holidays

WINSHIP CANCER INSTITUTE

A MONTH BEFORE CHRISTMAS, HECTOR GONZALEZ WAS ALREADY DREAMING ABOUT HOLIDAY FOODS LIKE TAMALES, POZOLE, AND SALTED CODFISH. He was a big man, healthy and hardworking, with an appetite to match. But recently, sores on the roof of his mouth had made eating painful. He had lost almost 20 pounds. He went to a doctor to get medicine to clear things up.

Instead, the doctor sent him to Winship Cancer Institute. Gonzalez was a little overwhelmed, but Winship oncologist Jonathon Cohen patiently explained his diagnosis so he could understand it. He had NK/T-cell lymphoma, a rare cancer that is often seen in the mouth. “We can treat it,” Cohen said firmly. Gonzalez worried because he had just lost his job and also his health insurance, but Cohen and the Winship team were focused only on his need for treatment.

Gonzalez trusted him, but being a patient was harder work than being an auto mechanic had ever been. He endured weeks of chemotherapy, radiation, and tests at

every turn. The worst part was the feeding tube, in which he had to pour liquid formula several times a day. It terrified him—and it hurt. Dietitian Stephanie Boyea was at his side at every hospitalization and every clinic visit. She taught him a more comfortable way to load the tube. With insurance gone, she secured free formula for him. She encouraged him, joked with him, and gave him her direct phone number for consultation.

Boyea says Gonzalez has been immensely grateful, for the months of care Emory provided, without charge, before he gained Medicaid coverage, and for the kindness of Dr. Cohen and his team. He never complained. The only thing he ever asked was when he would be able to eat again. Gonzalez finished radiation this past summer. Boyea promised, “When your mouth heals, you’ll get a prosthesis to seal the holes left in your palate, the tube will come out, and you can eat. Yes, ‘real food.’” He smiled broadly. It would be in time for Christmas.









Social worker **Roxanne Duncombe** secured many types of services for the beleaguered but determined patient and grew close to him in the process.



From loss to gratitude

EMORY SAINT JOSEPH'S HOSPITAL

SOCIAL WORKER ROXANNE DUNCOMBE CALLS TARIK CEJVAN ONE OF THE STRONGEST AND MOST DETERMINED PEOPLE SHE'S EVER KNOWN. He came to the U.S. in the 1990s as a refugee from the war in Bosnia.

Once here, he learned some English, got a job installing carpets, and was working to become a citizen. Then, three years ago, his life began to unravel. He lost a leg because of his diabetes and then lost his job. After his uncle's sudden death, he could not pay rent for the small apartment they had shared.

Wheelchair bound and homeless, he nonetheless remained grateful—for his late uncle's love and for the friend from Bosnia who fed him and let him spend the night on the porch in an already over-crowded apartment. And very grateful, he told everyone who cared for him, for Emory Saint Joseph's Hospital.

In fall of 2016, he arrived at the emergency room by ambulance, panting and clutching his chest. He was found to have cardiomyopathy, renal failure, and a cancerous mass in his lung. An extensive team of nephrologists, hospitalists, internal medicine

and palliative care specialists, oncologists, nurses, physical therapists, and others cared for him during his seven-week stay.

Meanwhile, Duncombe struggled with other challenges: how to arrange for a homeless man, in a wheelchair, with minimal resources, to get to and from outpatient dialysis three times a week and to twice-weekly outpatient appointments at Winship Cancer Institute. He had no family, and his best friend's declining vision meant he couldn't drive him. With winter approaching, the friend's porch was no longer a viable housing option.

Duncombe found him a group home and linked him with the International Rescue Committee, which began the work of applying for citizenship to enable his eligibility for disability benefits. Meanwhile, the hospital covered more than \$2,000 monthly in room, board, transportation, and other unreimbursed costs while he awaited citizenship. Duncombe and the clinical team have done everything they could to make him as well and independent as possible. They could not, says Duncombe, have made him any more grateful than he already was.

From car to care to home

EMORY JOHNS CREEK HOSPITAL

WHEN HIS VERTIGO BECAME UNBEARABLE, STEVE HELMS DROVE HIMSELF TO THE EMERGENCY ROOM AT EMORY JOHNS CREEK HOSPITAL. He seemed embarrassed to mention how debilitating his dizziness had become in recent weeks. With no insurance, he had delayed seeking care, until he no longer could.

Shortly after he was admitted, clinicians diagnosed kidney cancer, and social worker Catherine Crumrine entered Helms's life. Bit by bit, he told her about the emotional problems that had cost him his teaching job and marriage, the early-retirement payments that barely covered food, his efforts to find part-time jobs, and his irregular visits to a sliding-fee health clinic. He was living in his Ford—all that remained of a once comfortable middle-class existence. Being in the hospital was a relief.

Then, after a month, it was time to leave. But where would he go? Crumrine had tried to connect Helms to every possible resource she could find. She had gotten him accepted for low-cost Section 8 housing, but nothing was yet available. She had

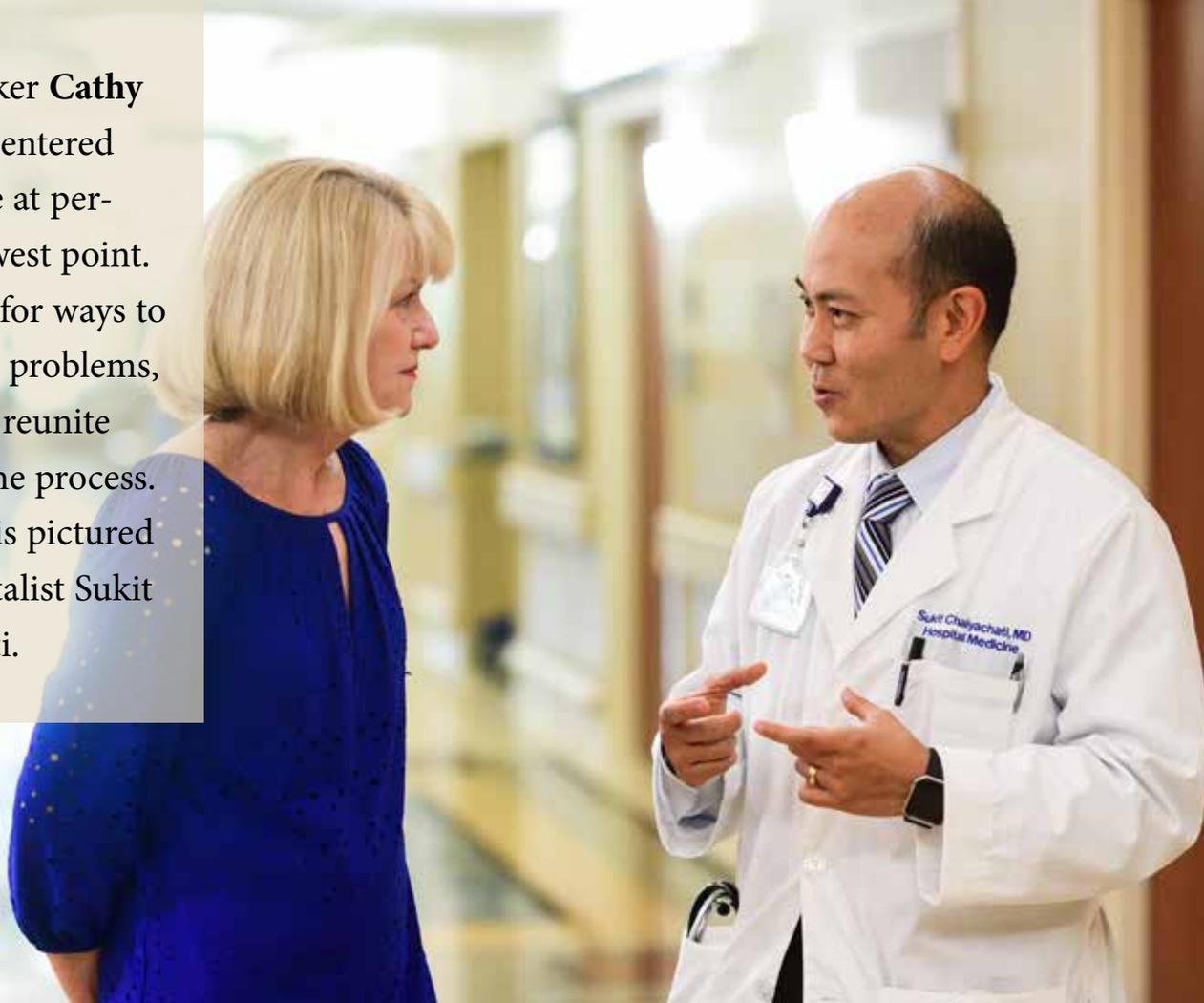
arranged for Medicare, but the beginning date was more than a year away. His request for disability funding was still under review, as was his food stamp application.

When Crumrine asked about family, he shook his head. He didn't want to cause them any more trouble. Finally, he agreed she could call a younger brother he hadn't had contact with in several years. Two days later, the brother called back. Whatever had happened in the past, family won out. Helms could live with the brother and his wife until he got back on his feet.

They were not responsible for his medical costs, however. Emory Johns Creek wrote off more than \$100,000 in charges for the lengthy hospitalization. The hospital also covered Helms's medicines for his first month post-hospitalization. With help from HUGS, a fund established to help with situations like this, the hospital also paid for visits from a home health nurse.

Six months later, Helms is doing remarkably well, thanks to the support provided by the hospital and the family he has regained.

Social worker **Cathy Crumrine** entered Helms's life at perhaps its lowest point. In looking for ways to address his problems, she helped reunite family in the process. Crumrine is pictured with hospitalist **Sukit Chaiyachati**.



Foreseeing risk of blindness

GRADY MEMORIAL HOSPITAL

PORTER REYNOLDS NEVER MUCH LIKED DOCTOR VISITS, BUT HE DID GO TO ONE OF GRADY HOSPITAL'S PRIMARY CARE CLINICS WHENEVER HIS INSULIN RAN OUT. That proved lucky this year, thanks to a new camera and medical record protocol implemented at the instigation of Emory ophthalmologist Yousuf Khalifa, chief of ophthalmology at Grady.

Reynolds had diabetes, and his medical record showed that he had not had an eye exam in more than a year, information that triggered the protocol. A specially trained technologist asked Reynolds if he could take a photo of the inside of his eyes using a special nonmydriatic camera. There was no need to dilate the pupil, he said, and no waiting or discomfort. "I can't pay for that," Reynolds said gruffly. "No problem," said the technologist.

Minutes later, the images were sent for interpretation. When the report came back, Reynolds got a call. He needed to go to Grady's eye clinic as soon as possible. The 47-year-old had end-stage diabetic retinopathy. Small blood vessels creep-

ing across the eye were threatening to detach the retina, tissue that converts light into neural signals that the brain recognizes as images. In his case, the condition could still be treated. Untreated, it would cause permanent blindness.

Since Grady agreed to invest in the special cameras and hired technologists trained to operate them, Khalifa's screening program has been implemented in four of Grady's primary care clinics and the diabetes center where Emory physicians work, with other clinics scheduled for implementation in the coming months. Of more than 6,000 patients screened in the past nine months, roughly 3.5% had end-stage diabetic retinopathy, more than twice the national average.

These high-risk patients were moved to the top of the long waiting list at the Grady eye clinic. Reynolds was among the 67% who kept his appointment for vision-saving treatment, a percentage Khalifa is trying to raise to 100, despite the difficulties in reaching many patients with shifting addresses, lack of phones, and other issues related to homelessness.



Ophthalmologist Yousuf Khalifa initiated a screening program that has been implemented in four of Grady's primary care clinics, with other clinics scheduled for implementation in the coming months.

Emory faculty and residents provide 80% of the care at the publicly funded Grady Hospital, leading programs targeted especially to problems experienced disproportionately by indigent, underserved populations. In 2016-2017, Emory faculty provided \$24.6 million in uncompensated care at Grady. All payments for Emory services for patients who have coverage go to the Emory Medical Care Foundation, which uses this revenue—\$49.6 million last year—to support Emory's mission at Grady.



Physician scientist **Shanthi Srinivasan** heads a research lab at the VAMC to find better treatments for irritable bowel syndrome.

Emory and the Atlanta VA Medical Center have been affiliated since 1946. They share a back yard and connecting footbridge, and shuttles run between campus and the hospital every 20 minutes. Emory provides physician care at the facility and has made it one of the nation's most successful VA centers for research to improve care for veterans. Emory investigators attracted more than \$15 million in VA funding and \$10.2 million in non-VA funding for such research last year.



Understanding digestive disease

ATLANTA VETERANS AFFAIRS MEDICAL CENTER

CORPORAL JENNY STRATON PERFORMED ADMIRABLY DURING HER TOUR OF DUTY IN AFGHANISTAN, EVEN AFTER A ROADSIDE EXPLOSION KILLED HER BEST FRIEND. But shortly after she returned home, she experienced frequent diarrhea and abdominal pain so severe she headed to the Atlanta VA Medical Center. Because of the prevalence of digestive problems among veterans, the gastrointestinal clinic headed by Shanthi Srinivasan includes five full-time and five part-time GI specialists, who every week see some 200 outpatients and perform roughly 100 endoscopies.

A complete workup of Straton ruled out cancer, intestinal blockages, and ulcers. Based on her symptoms, she was diagnosed with irritable bowel syndrome (IBS), a condition she shares with one in five American adults and even more fellow veterans, especially women.

Srinivasan advised the young woman to make some dietary changes, including eliminating certain foods. She also started her on antidiarrheal medications, which help some patients. When

that didn't work for Straton, the doctor added probiotics to stimulate growth of helpful bacteria and other microorganisms in the gut. Straton's symptoms slowly faded. She told the medical team she was getting her life back.

Good for Straton, but not good enough for Srinivasan. She wants to know why IBS develops and how it can be treated with greater precision. Based on her clinical observations and detailed studies involving mice, she believes changes in the intestinal microbiota damage the enteric nervous system, which governs the function of the GI tract.

Factors that can lead to worsening IBS symptoms include stress and diet. Different diets can lead to changes in microbiota and worsening of symptoms. This can explain why probiotics are effective in some IBS patients. With a more precise understanding of how the microbiota affects the enteric nervous system, Srinivasan's research team is now closing in on a new target for drugs that could restore the damaged brain-gut communication pathway and help alleviate IBS symptoms.



EMORY
UNIVERSITY
HOSPITAL

NEW HOSPITAL TOWER:

Expanding capacity for caring

THE NEW EMORY UNIVERSITY HOSPITAL TOWER OPENED IN SUMMER 2017, ACROSS CLIFTON ROAD FROM THE ORIGINAL EUH BUILDING. The new tower has 232 beds (including 40 for critical care) and 450,000 square feet of space on nine levels, plus 500 underground parking spaces and a pedestrian bridge concourse connecting both EUH buildings, Emory Clinic, and Winship Cancer Institute. The tower houses a pharmacy, a boutique for cancer patients with special product needs, and Clifton Cafe, with healthy food choices and a demonstration kitchen where patients and families can learn tips on healthy cooking for their specific condition.

The tower is both high tech and energy efficient. Emergency generators trigger within nine seconds of a power outage and can keep the building fully operational for days. The building also heats and cools its own water and consumes 20% less energy than a typical hospital.

The tower was designed and built to minimize environmental impact and is expected to earn Silver LEED certification. Trees removed at tower construction were replaced by approximately three times that number planted at various Emory locations, and the wood removed from trees was salvaged for lumber and other building elements inside the tower. Dirt displaced by the building was hauled to the Fugees Academy in Clarkston to build a soccer field for young refugees.



Helping one another

Partnering with the community is fundamental to the missions of teaching, learning, discovery, and care in the Woodruff Health Sciences Center at Emory.



ROLLINS SCHOOL OF PUBLIC HEALTH The school's HERCULES Exposome Research Center worked with a neighborhood program in west Atlanta to help residents plant food gardens in their yards, teach them about nutrition, and foster a sense of community.



SCHOOL OF MEDICINE Emory ophthalmologists Rebecca Neustein (left) and Phoebe Lenhart (right) and orthoptist Marla Shainberg support Respectacle, a program in which volunteers clean and inventory donated glasses and then log details about each pair to a website listing more than 21,000 pairs of glasses. Patients or providers can search for a prescription and see what's available. Once they choose a pair, the glasses are shipped to the patient for free, with grant funding covering the cost.



EMORY HEALTHCARE Emory Healthcare graduated its first class of 140 nurses in a new Faith Community Nursing program designed to help nurses support health and healing in partnership with communities of all faith traditions.



SCHOOL OF NURSING Nursing students at Emory learn by providing screening and other services in a variety of community settings, including a free clinic in Clarkston, which includes a large refugee population among its clientele.



YERKES NATIONAL PRIMATE RESEARCH CENTER High school student Precious Smith (foreground) was one of five participants at Yerkes last summer in a program offered with Georgia State to help high school students and middle and high school teachers gain firsthand exposure to neuroscience research.



SCHOOL OF NURSING In the past year, a record number of Emory nursing students worked at clinical sites in the Dominican Republic, Jamaica, the Bahamas, Puerto Rico, and other locations. Four midwifery students, including Molly Job (pictured) trained midwives in rural Guatemala in a project piloted by nursing faculty in partnership with the Guatemala Ministry of Health and with a birthing center founded by a retired Presbyterian minister.



WINSHIP CANCER INSTITUTE Each summer, the Winship Summer Scholars program, now in its 16th year, gives 10 Georgia high school students a chance to spend six weeks at Winship in a lab or clinic shadowing a Winship physician-researcher. Participants also hear lectures, take field trips to the CDC and Grady Hospital, and visit the medical school simulation lab and health sciences library.



ROLLINS SCHOOL OF PUBLIC HEALTH Thomas Clasen, an environmental health professor, leads efforts to reduce indoor air pollution in developing countries where some 3 billion people still use stoves or open fires with coal, wood, or animal dung as fuel. Such pollution contributes to low birthweight, stunted growth, and increases in heart, lung, and other diseases.



SCHOOL OF MEDICINE Emory medical faculty provide medical support at the annual Fourth of July Peachtree Road Race and Publix Georgia Marathon. Pictured: Emergency medicine faculty member Lekshmi Kumar.



WINSHIP CANCER INSTITUTE The annual Winship Win the Fight 5K brings cancer survivors and supporters together as a community to celebrate living and raise funds for fighting cancer.



Four of seven of the nursing school's first DNP graduates, with faculty member Carolyn Clevenger in the center.

Emory's medical school provides more than half of the residency training positions in Georgia, serving as a critical recruiting base for Georgia's physician workforce.

- **Emory Healthcare provided \$125.2 million to support teaching and research missions in the Woodruff Health Sciences Center in fiscal year 2016-2017.**
- **The Woodruff Health Sciences Center invested 24.2% of its tuition income last year in financial aid for its students, an amount totaling \$27.9 million.**

Emory University School of Medicine

- 568 medical students, including 92 MD/PhD students
- 1,292 residents and fellows
- 524 students in allied health training, such as physical therapy and physician assistant program

Rollins School of Public Health

- 1,172 master's and 183 PhD students

Nell Hodgson Woodruff School of Nursing

- 443 bachelor's, 269 master's, 30 PhD students, 52 DNP students

EDUCATION

Teaching the health professions

THE WOODRUFF HEALTH SCIENCES CENTER'S THREE SCHOOLS RESPOND CONTINUALLY TO HELP TOMORROW'S PHYSICIANS, NURSES, PUBLIC HEALTH PRACTITIONERS, PHYSICIAN ASSISTANTS, PHYSICAL THERAPISTS, GENETIC COUNSELORS, AND OTHER ALLIED HEALTH PROFESSIONALS MEET CURRENT AND FUTURE NEEDS.

In addition to its curricula for medical and allied health students, Emory School of Medicine has the country's seventh-largest residency training program (also called graduate medical education, or GME), with responsibility for licensing close to 1,300 residents and keeping up with 14 affiliated training institutions, including Grady Hospital, Atlanta VA Medical Center, Children's Healthcare of Atlanta, Shepherd Center, and many remote clinics. GME leadership at Emory served recently on a task force of the national Accreditation Council for GME to refine work hour requirements that maintain weekly duty hour caps for residents and give residents time for self-care. The medi-

cal school's most recent annual Medical Education Day, featuring workshops from colleagues from medicine, nursing, public health, and Emory Healthcare, likewise focused on cultivating wellness and balance and reducing stress.

The Nell Hodgson Woodruff School of Nursing currently has the largest student body in its history and recently welcomed the first students in its Doctor of Nursing Practice Nurse Anesthesia track, preparing students to ensure patient safety and comfort from pre-operative assessment through recovery after surgery.

The Rollins School of Public Health recently established an Office of Evidence-Based Learning to foster scholarship on effective teaching techniques and disseminate best practices in instructional methods to faculty and doctoral students. In response to inquiries, the school also began offering an accelerated joint degree program, in which students pursuing doctoral-level professional education outside Emory can enroll in Rollins on a dual-degree format.

RESEARCH

Providing a home for research

RESEARCHERS IN THE WOODRUFF HEALTH SCIENCES CENTER (WHSC) WERE AWARDED MORE THAN \$584 MILLION IN RESEARCH GRANTS FROM THE NIH AND OTHER ORGANIZATIONS IN FISCAL YEAR 2016-2017. This includes funds accompanying designation of Winship Cancer Institute as a comprehensive cancer center by the National Cancer Institute, placing Winship in the top 1% of all cancer centers in the country. It includes grants to renew funding for existing major centers—Emory’s Center for AIDS Research, the HERCULES Exposome Research Center (studying environmental exposures and biological effects on health over the course of a lifetime), the Atlanta Clinical and Translational Science Institute (now renamed the Georgia Clinical and Translational Science

Alliance), and NIH re-designation of the Marcus Autism Center as a center of excellence. It also includes funds to expand the National Ebola Training and Education Center and funds to investigate improved post-transplant drug regimens, using a class of drugs discovered at Emory.

Research grants and contracts such as these benefit the community at large through new understanding of disease, new treatments, and creation of literally thousands of jobs. But doing research requires considerable co-investment from institutions like Emory, which cover many infrastructure costs for facilities, maintenance, and administration of the research enterprise. Last year, for example, the WHSC invested \$125 million in research-support costs unrecovered from sponsors.

The Woodruff Health Sciences Center invested a total of **\$125 million** in research costs unrecovered from sponsors in fiscal year 2016-2017.



Program associate Priya D’Souza (public health) analyzes environmental samples.



Based on expenditures of \$4.2 billion in FY 17, the WHSC has an estimated economic impact on the metro area of \$8.2 billion.

FINANCIAL IMPACT

Stimulating the economy

WITH AN \$8.2 BILLION ECONOMIC IMPACT ON METRO ATLANTA, THE WOODRUFF HEALTH SCIENCES CENTER (WHSC) BOOSTS THE ECONOMY THROUGH JOBS, CONSTRUCTION, COLLABORATIONS, AND MORE. Opening of the new Emory University Hospital tower in 2017, for example, is creating 500-plus new jobs in nursing, radiology, surgical technology, and other areas. This is in addition to more than 24,000 existing jobs in the WHSC, which make Emory the largest employer in DeKalb County and the second largest in metro Atlanta.

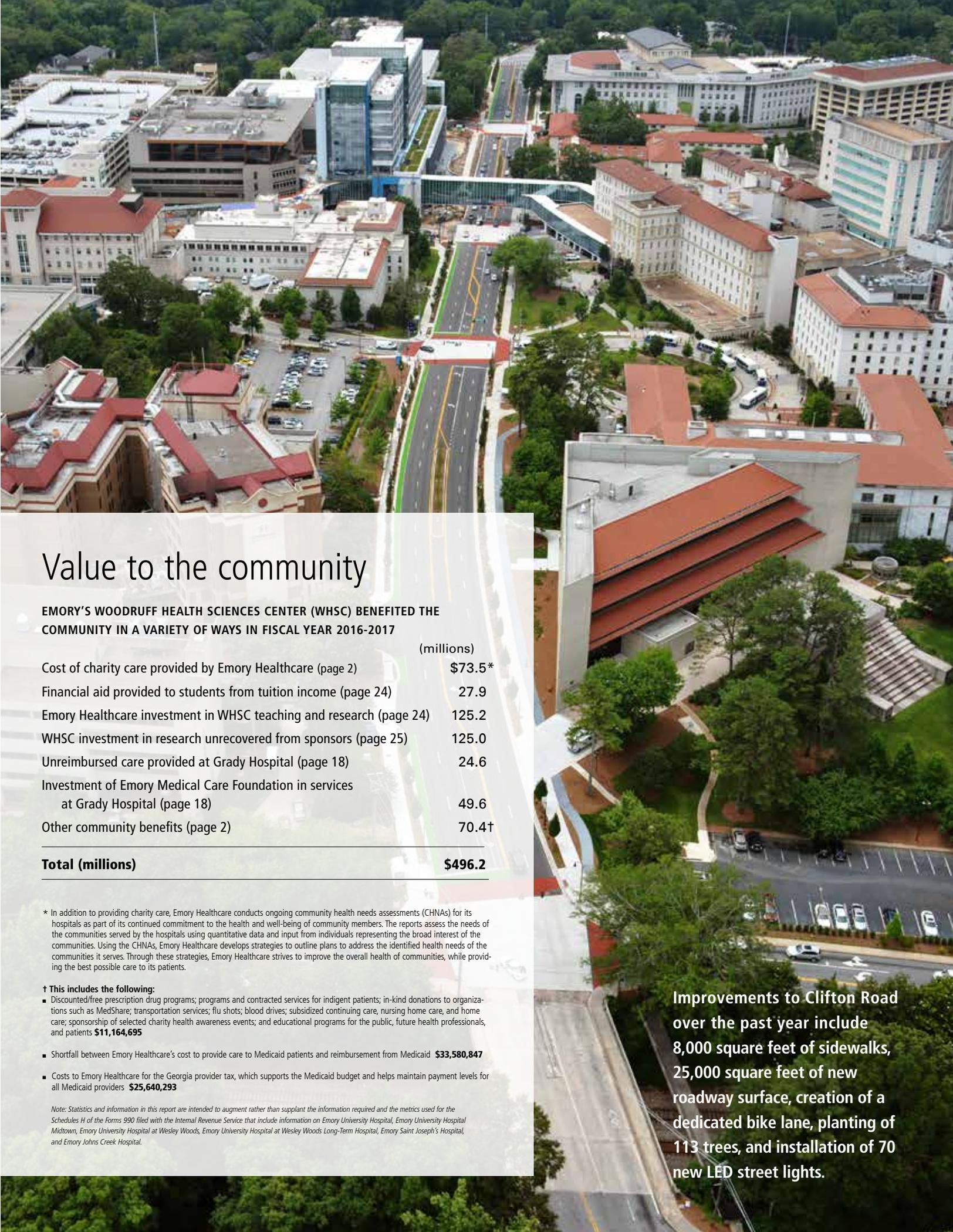
In conjunction with construction of the new hospital tower, a large portion of Clifton Road recently underwent major changes to improve access, pedestrian safety, and aesthetics, with road and sidewalks widened, trees planted, LED lights installed, and crosswalks redesigned.

Emory also is a partner in a number of major projects throughout Atlanta: Emory's Winship Cancer Institute will provide patient services in the new \$200 million Emory Proton Therapy Center, being constructed by the Georgia Proton Treatment Center. Emory is partnering with the Atlanta Hawks to build a 90,000-square-foot Emory Sports Medicine Complex

in Brookhaven, slated to open in fall 2017. Emory is the official health care provider for the Atlanta Braves and recently opened a new outpatient orthopaedic clinic in Smyrna, giving Braves players and staff easy access to care. Emory also will have a multispecialty clinic and will anchor a sports medicine pavilion in a new sports and entertainment complex to be built by Atlanta Sports City in Stonecrest.

Emory Healthcare is also expanding its footprint throughout the state, thanks to a growing number of network affiliations with hospitals and health systems, including Meadows Regional in Vidalia, Coffee Regional in Douglas, Navicent Health in Macon, and St. Francis Hospital in Columbus. Emory is the most comprehensive health system in Georgia, with seven hospitals and outpatient locations in 26 counties and regional hospital affiliates in another 19 counties.

In addition to seven hospitals and outpatient locations in 26 counties, Emory has regional hospital affiliates in another 19 counties throughout the state.



Value to the community

EMORY'S WOODRUFF HEALTH SCIENCES CENTER (WHSC) BENEFITED THE COMMUNITY IN A VARIETY OF WAYS IN FISCAL YEAR 2016-2017

	(millions)
Cost of charity care provided by Emory Healthcare (page 2)	\$73.5*
Financial aid provided to students from tuition income (page 24)	27.9
Emory Healthcare investment in WHSC teaching and research (page 24)	125.2
WHSC investment in research unrecovered from sponsors (page 25)	125.0
Unreimbursed care provided at Grady Hospital (page 18)	24.6
Investment of Emory Medical Care Foundation in services at Grady Hospital (page 18)	49.6
Other community benefits (page 2)	70.4†
Total (millions)	\$496.2

* In addition to providing charity care, Emory Healthcare conducts ongoing community health needs assessments (CHNAs) for its hospitals as part of its continued commitment to the health and well-being of community members. The reports assess the needs of the communities served by the hospitals using quantitative data and input from individuals representing the broad interest of the communities. Using the CHNAs, Emory Healthcare develops strategies to outline plans to address the identified health needs of the communities it serves. Through these strategies, Emory Healthcare strives to improve the overall health of communities, while providing the best possible care to its patients.

† This includes the following:

- Discounted/free prescription drug programs; programs and contracted services for indigent patients; in-kind donations to organizations such as MedShare; transportation services; flu shots; blood drives; subsidized continuing care, nursing home care, and home care; sponsorship of selected charity health awareness events; and educational programs for the public, future health professionals, and patients **\$11,164,695**
- Shortfall between Emory Healthcare's cost to provide care to Medicaid patients and reimbursement from Medicaid **\$33,580,847**
- Costs to Emory Healthcare for the Georgia provider tax, which supports the Medicaid budget and helps maintain payment levels for all Medicaid providers **\$25,640,293**

Note: Statistics and information in this report are intended to augment rather than supplant the information required and the metrics used for the Schedules H of the Forms 990 filed with the Internal Revenue Service that include information on Emory University Hospital, Emory University Hospital Midtown, Emory University Hospital at Wesley Woods, Emory University Hospital at Wesley Woods Long-Term Hospital, Emory Saint Joseph's Hospital, and Emory Johns Creek Hospital.

Improvements to Clifton Road over the past year include 8,000 square feet of sidewalks, 25,000 square feet of new roadway surface, creation of a dedicated bike lane, planting of 113 trees, and installation of 70 new LED street lights.

WHO'S WHO IN THESE PAGES

Cover:

Eleanor Knight-Williams, manager, materials management, and Jill DeHihns, advanced nurse clinician, both in surgical services, EUOSH



Page 1:

Nurse clinician Nakia Gilliam and nursing technologist Kerry-Ann Wright, both in oncology, EUH



Page 3:

Clinical research supervisor Tiffany Banks, unit charge nurse Shantell James, nephrologist Stephen Pastan, and other members of the kidney transplant team, EUH



Page 4:

Hospitalist Mohamed Seedahmed, ESJH



Patient care assistant Dina Boyce, EUH at WW



Nurse clinician Jenna Del Carlo and unit nurse educator Nida Reynolds, both in oncology, EUH



Page 5:

Public safety officer James Cain and nurse clinician Sheron Rose, EUH



Urologist Mehrdad Alemozaffar and anesthesiologist Colette Curtis, EUH



Page 6:

Thoracic oncology surgeon Seth Force, EUH and Winship



Page 6:

Nurse clinician Mike Redden, EUOSH



Materials handlers Justin Stephens and Antonio Cammon, EUH



Page 7:

Care initiation nurse Lanisa Frierson, EUH



Page 12:

Resident Dhruv Amratia, nurse Angela Ward, resident Bradley Mathers, physicians Tanvi Dhere and Andrew McCue, and resident Shani Woolard, digestive diseases team meeting, EUH



Nadine Watson, David Wilson, Marcia Coleman, Luddy Andrews, Mary Coln, Felizitas Hybl, Takisha McCain, endoscopy unit with physician Field Willingham (center), EUH



Page 13:

Occupational therapist Kim Bloodworth, ERH



Food and nutrition lead Condell Martin-Allison and nutrition assistant Vivian Stovall, EUH



Page 14:

Surgical team including surgical oncologist Maria Russell and surgical trainees Karan Desai, Salila Hashmi, and Heather Short, EUH



Pharmacy technician Pearlina Ledbetter, infusion center, Winship Cancer Institute, EUH Midtown



Page 15:

Environmental services technician Cynthia Hannah, EUH



Andrew Pendley, medical director, emergency medicine, EUH, with medical/public health student (now alumna) Shirin Kasturia



Inside back cover:

Guest services associate Latoya Henderson, EUH



Back cover:

Electrician William (Bucky) Gilley, EUH



Key

ERH: Emory Rehabilitation Hospital

ESJH: Emory Saint Joseph's Hospital

EUH: Emory University Hospital

EUH at WW: Emory University Hospital at Wesley Woods

EUH Midtown: Emory University Hospital Midtown

EUOSH: Emory University Orthopaedics & Spine Hospital

RSPH: Rollins School of Public Health

Winship: Winship Cancer Institute



Woodruff Health Sciences Center of Emory University

Emory University School of Medicine

Nell Hodgson Woodruff School of Nursing

Rollins School of Public Health

Yerkes National Primate Research Center

Winship Cancer Institute of Emory University

Emory Healthcare, the most comprehensive health care system in Georgia

- Emory University Hospital, 733 beds
- Emory University Hospital Midtown, 529 beds
- Emory University Orthopaedics & Spine Hospital, 120 beds
- Emory Rehabilitation Hospital, in partnership with Select Medical, 56 beds*
- Emory Saint Joseph's Hospital, 410 beds
- Emory Johns Creek Hospital, 110 beds
- Emory University Hospital Smyrna, 88 beds
- Emory Clinic, 2,000 physicians, nurse practitioners, physician assistants, and other providers, with offices throughout the city and state
- Emory Specialty Associates, outreach physician group practice organization with locations throughout the city and state
- Emory Wesley Woods Campus (includes Emory University Hospital at Wesley Woods and Budd Terrace, a 250-bed skilled nursing care facility)
- Emory Healthcare Network, network of physicians and hospitals formed to improve care coordination and quality outcomes and to control costs for patients and the community

**Emory Healthcare is a majority partner in a joint venture with Select Medical for rehabilitation medicine and a minority partner with Select for long-term acute care.*

HOSPITAL AFFILIATES

Grady Memorial Hospital, 953 licensed beds, staffed by Emory faculty, residents, and fellows, in collaboration with Morehouse School of Medicine, with Emory providing 80% of care

Children's Healthcare of Atlanta

- **Children's at Egleston**, 278 beds, Emory campus, staffed by Emory and private practice physicians
- **Children's at Hughes Spalding**, 24 beds, Grady Hospital campus, staffed by Emory, Morehouse, and private practice physicians
- **Children's at Scottish Rite**, 273 beds, staffed by Emory and private practice physicians

Atlanta Veterans Affairs Medical Center, 466 hospital beds, including a 120-bed community living center, 40-bed domiciliary, and 21-bed residential treatment program. Staffed by 325 Emory physicians.



EMORY
UNIVERSITY

**Woodruff Health
Sciences Center**

For more information, please contact Health Sciences Communications: 404-727-5686 ■ whsc.emory.edu

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