

Caring all the time

# EIGHT DAYS A WEEK

COMMUNITY BENEFITS REPORT | 2016



**EMORY**  
UNIVERSITY

**Woodruff Health  
Sciences Center**

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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, at Emory, in Atlanta, in Georgia, and beyond.*

This report includes community contributions of faculty, staff, and students throughout Emory's Woodruff Health Sciences Center (WHSC). WHSC encompasses Emory School of Medicine, Nell Hodgson Woodruff School of Nursing, Rollins School of Public Health, Emory Healthcare, Winship Cancer Institute, and Yerkes National Primate Research Center. See page 29.

*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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## Always on our mind. . .



**You've probably said it yourself: "If only I had more time. . ." Here at Emory's Woodruff Health Sciences Center, we feel much the same way.** We're working 24 hours a day, seven days a week toward a healthier world through research, education, and patient care.

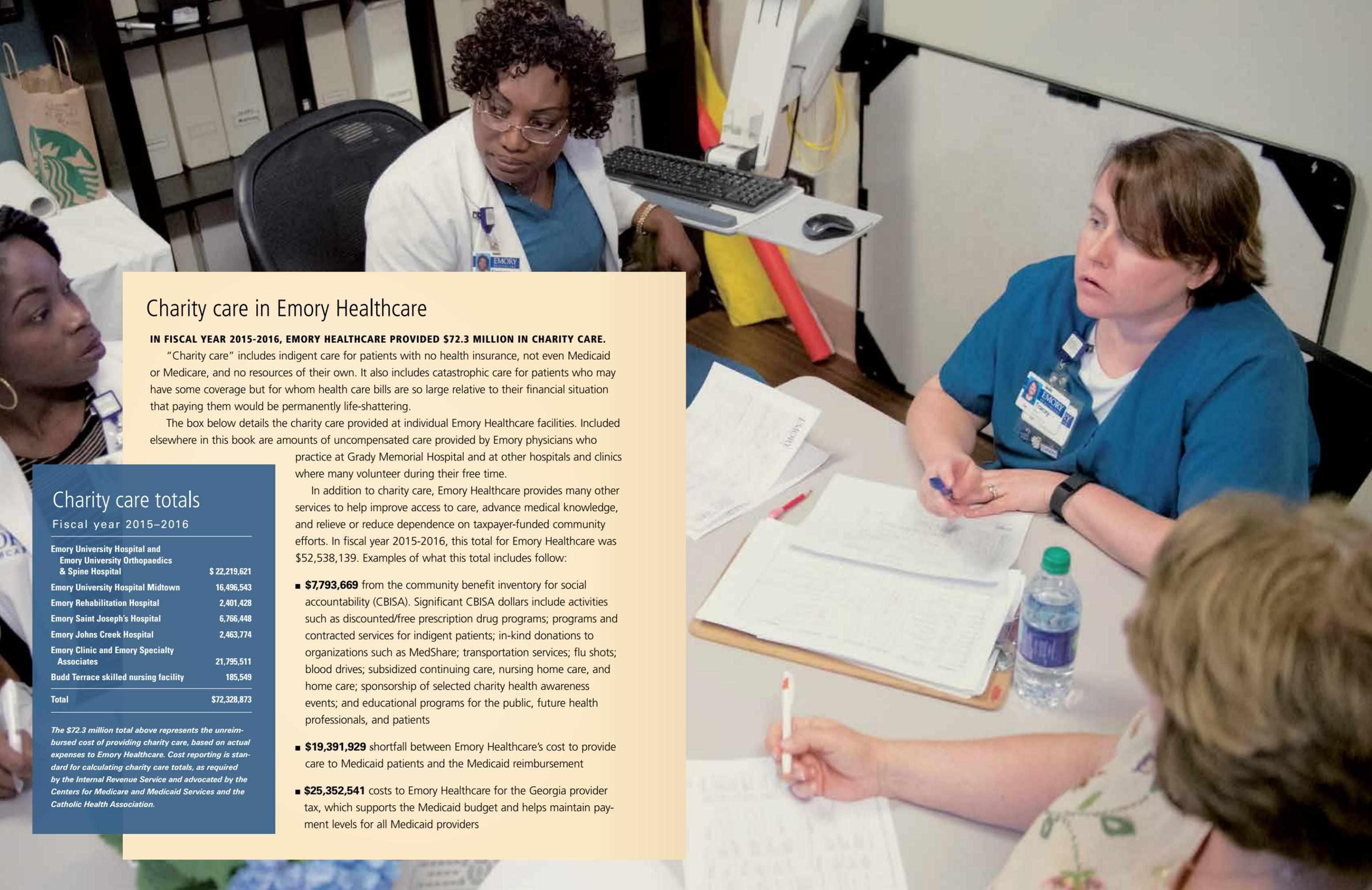
But if there were more hours in a day, more days in a week, we could do even more—because the fact is, there's nothing we'd rather be doing. Making and keeping people healthy is both our vocation and our passion.

From the health professionals who work tirelessly to heal the sick and to keep the rest healthy, to the educators who create innovative programs across the breadth of the health sciences, to the trail-blazing scientists who work to prevent disease before it even starts, the Woodruff Health Sciences Center is dedicated—all day, every day—to the people we serve.

The stories in this year's Community Benefits Report represent just a few examples among the thousands we see each year. If only we could have eight days a week to do even more we gladly would, because making people healthy is always on our mind.

### **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

**IN FISCAL YEAR 2015-2016, EMORY HEALTHCARE PROVIDED \$72.3 MILLION IN CHARITY CARE.**

“Charity care” includes indigent care for patients with no health insurance, not even Medicaid or Medicare, and no resources of their own. It also includes catastrophic care for patients who may have some coverage but for whom health care bills are so large relative to their financial situation 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 are amounts of uncompensated care provided by Emory physicians who practice at Grady Memorial Hospital and at other hospitals and clinics where many volunteer during their free time.

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 2015-2016, this total for Emory Healthcare was \$52,538,139. Examples of what this total includes follow:

- **\$7,793,669** 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
- **\$19,391,929** shortfall between Emory Healthcare’s cost to provide care to Medicaid patients and the Medicaid reimbursement
- **\$25,352,541** costs to Emory Healthcare for the Georgia provider tax, which supports the Medicaid budget and helps maintain payment levels for all Medicaid providers

### Charity care totals

Fiscal year 2015–2016

Emory University Hospital and Emory University Orthopaedics & Spine Hospital	\$ 22,219,621
Emory University Hospital Midtown	16,496,543
Emory Rehabilitation Hospital	2,401,428
Emory Saint Joseph’s Hospital	6,766,448
Emory Johns Creek Hospital	2,463,774
Emory Clinic and Emory Specialty Associates	21,795,511
Budd Terrace skilled nursing facility	185,549
<b>Total</b>	<b>\$72,328,873</b>

*The \$72.3 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.*

# A good start

## Day 1: EMORY UNIVERSITY HOSPITAL

**WHEN HIS BROTHER GOT SICK, 52-YEAR-OLD HAROLD FRENCH CAME TO ATLANTA TO HELP OUT FOR A FEW WEEKS. THEN, WHILE MOWING HIS BROTHER'S LAWN, HE SUFFERED A MASSIVE STROKE.**

At Emory University Hospital, neurosurgeon Jon Willie removed a piece of French's skull to give his damaged brain more room to heal. Once he was medically stable, French was moved to the neuroscience floor.

Stroke patients need to begin rehab as soon as possible, but French was unusually uncooperative. When therapists arrived, he turned his head to the wall or shook his fist and shouted incoherently.

Neuroscience social worker Hannah Hamby held multiple conference calls with French's family to discuss long-term placement in a skilled nursing facility closer to their home, as they wanted. Some facilities expressed interest—until they learned of French's unwillingness to participate in his care.

Neurosurgeon Willie recognized what was happening. Absence of the piece of skull removed to relieve swelling was now causing the brain and scalp to sink, resulting in further mental deterioration. When French was well enough, Willie took the bone flap from the freezer where it had been stored and fused it back into French's skull, restoring the original contour of the head.

The change in French was quick and positive, and he began to work with his therapists. After four weeks, he made enough gains to be transferred to Emory Rehabilitation Hospital. After three more weeks of rehab, he was able to feed himself and perform other tasks of daily living. Now, instead of going to a long-term care facility, he could head home with his family.

As French prepared to leave, Hamby helped arrange transportation, a medical escort, and donation of a specialized wheelchair. Emory provided enough medicines to cover him until his family enrolled in Medicaid. French still has a long way to go, but four months of uncompensated care have given him a good start.

**French was stuck. He wouldn't accept rehab, and he couldn't remain indefinitely on the neuroscience floor.**

Neurosurgeon **Jon Willie** recognized the cause of French's inability to participate in his own recovery. →





# Making plans for the future

## Day 2: EMORY UNIVERSITY HOSPITAL MIDTOWN

**CLEANING THE FAMILY'S SECOND-STORY GUTTERS, EARPHONES BLASTING, TEENAGER TERRY SMITH MISSED THE LADDER RUNG AND LANDED HARD ON A METAL FENCE BELOW.** The damage caused inflammation across his spinal cord, first weakening and then paralyzing his legs. It also caused an infection that refused to respond to antibiotic infusions. Surgeons cut away bone and tissue around the affected area, but the infection was relentless. Stopping it would require more specialized expertise. Smith was referred to Emory University Hospital Midtown and orthopaedic oncology surgeon Nickolas Reimer.

Reimer performed a hemipelvectomy, which required removing the affected pelvic bones and one leg. He used the patient's thigh tissue as a pedicle flap to cover the defect created by the infection and sealed the wound with a vacuum-assisted closure device that drew out fluid, irrigated the wound with antibiotics, and encouraged blood flow and healing.

After three weeks in the hospital, Smith was eager to go home. Planning for his discharge, social worker Alyssa Mellor helped connect the family with local home health care nurses and a local infusion doctor to continue antibiotics for five more weeks. But there was a problem. Medicaid wouldn't cover the more expensive of the two antibiotics that his doctors insisted he needed. Having spent almost every night at the hospital with her son, his mother had lost her job and the family's health insurance. With her husband disabled, paying her son's medical bills was impossible. The hospital used its charity funds to cover the needed medicine.

Before his aggressive surgery and antibiotic treatment, Smith had been mostly confined to his home after his injury. At his most recent return visit to Emory Midtown, he told doctors proudly that he was making plans to go back to school. There was a diploma in his future, he said, and maybe even a party or two with old friends.

In his experience with damage caused by tumors in the musculoskeletal system, the surgeon had dealt with problems like this teenager's before.

← Orthopaedic social worker **Alyssa Mellor** helped work out a plan when one of the needed antibiotics was not covered by Medicaid.

# Hard work that pays off

**Day 3:** EMORY REHABILITATION HOSPITAL 10

**TASHA JORDAN-DENNIS REMEMBERS TELLING HER HUSBAND HER NOSE WAS SO STUFFY THAT IT HURT. HE HAD SMILED, GIVEN HER A HUG, AND TOOK OVER GETTING FIVE-YEAR OLD DAUGHTER ZARIA READY FOR SCHOOL. THEN JORDAN-DENNIS**

**COLLAPSED.** The first ambulance got her to a nearby hospital, where doctors recognized that blood was hemorrhaging into her brain, destroying vital tissue. She was airlifted to Emory University Hospital and its experts in aneurysms.

Following brain surgery, Jordan-Dennis remained unconscious in Emory's neuro-ICU for more than a month. When she came to, she tried to say, "I want to go home," but no words came out. She was moved across the street to Emory Rehabilitation Hospital.

Over the next days, as her mind cleared, she grew determined. Her own mother had suffered an aneurysm in her early 30s, leaving Jordan-Dennis motherless at the same age as Zaria. I'm not going to do that to my little girl, she thought. I'll do whatever it takes to go home.

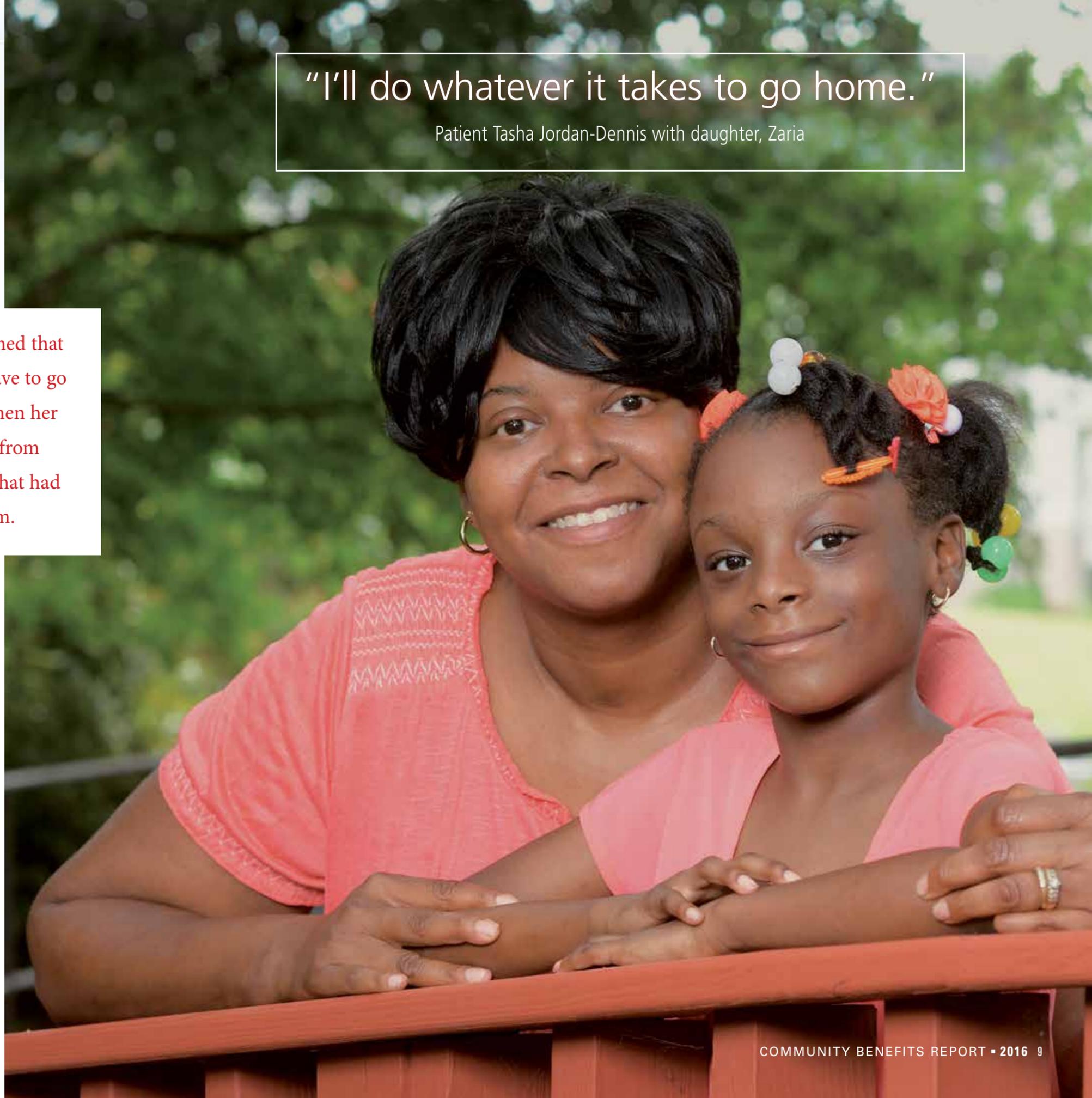
And she did. For more than a month, she met daily with physiatrist Samuel Milton. Therapists—physical, occupational, speech, and recreational—each worked with her for at least an hour six days a week.

Although both she and husband Letron had full-time jobs, she in prekindergarten, he as a forklift operator, they had no insurance. Emory Rehabilitation Hospital, like Emory University Hospital, wrote off tens of thousands of dollars in costs. Two months after her collapse, Jordan-Dennis was able to go home, returning to Emory Rehab's outpatient center several days a week, her father, husband, and sister changing their work schedules to bring her. One day before she was discharged from care in April, she brought her daughter with her. Zaria told friends she went to see the place where her mother "worked."

It's hard work that is paying off.

The patient was determined that her daughter wouldn't have to go through what she had when her own mother died young from the same malformation that had caused her own aneurysm.

"I'll do whatever it takes to go home."  
Patient Tasha Jordan-Dennis with daughter, Zaria





# Responding to desperate need

## Day 4: WINSHIP CANCER INSTITUTE

**THE WOMAN WITH THE CARIBBEAN CADENCE IN HER SPEECH APPEARED AGAIN AND AGAIN AT WINSHIP'S FRONT DESK, EACH TIME ASKING FOR MELANIE WATSON, THE NURSE IN THE MULTIPLE MYELOMA CLINIC.** She wanted Winship to get a medical visa for her brother, Jacques Bonnell, who lived in Haiti. When told that Emory would see him once he

arrived but could do no more without records, she always began weeping.

Then, somehow, months later, she appeared with her brother. True to Watson's word, Winship saw him immediately. Blood tests confirmed the diagnosis. Multiple myeloma cells were crowding out healthy blood-forming cells in his bone marrow. The thin, drawn man in his mid-30s was exhausted from frequent infections, nausea, and bone pain.

A cancer of the plasma cells, multiple myeloma can't be cured. But the right medical care, provided at the right time, can relieve symptoms and slow its progress. Sagar Lonial and his colleagues at Winship see more than 1,600 multiple myeloma patients every year, following many for years. They knew this man, as sick as he was, had a chance for remission. There was no discussion of how the family would pay for the care.

Because the disease was so advanced, Lonial decided the best option was a stem cell transplant. Bonnell's own stem cells would be removed from his blood and returned after high doses of chemotherapy had killed his cancer cells.

The transplant worked to decrease the myeloma cells, but the man faced other problems, likely caused by treatment received before coming to the states: congestive heart failure, spinal fracture, and kidney failure necessitating dialysis. Time and time again, he returned to Emory's ICU, sometimes for weeks. Although a pharmaceutical company provides his medicines, Winship so far has absorbed more than \$1 million in other costs for care.

Despite what they've been through, says Watson, Bonnell and his sister's determination and courage have never failed. They continue to radiate joy and gratitude for the care he has received from Winship.

The distraught woman knew it would take a miracle to help her brother, whose cancer had advanced beyond any care available in Haiti.

← Myeloma specialist **Sagar Lonial** with Winship myeloma nurse **Melanie Watson**.

Because the disease was so advanced, Lonial decided the best option was a stem cell transplant.



# Taking extra steps

**Day 5:** EMORY SAINT JOSEPH'S HOSPITAL

**WHEN THE PATIENT NAMED SALIM FIRST APPEARED IN THE EMERGENCY ROOM AT EMORY SAINT JOSEPH'S HOSPITAL, HE HAD A TERRIBLE SORE ON HIS SCALP AND EAR. IT HAD TO BE PAINFUL, BUT HE SEEMED NOT TO NOTICE.**

Gradually, the health care team pieced together his medical history. He had been treated at Grady Hospital for AIDS but had stopped taking his medicines, his condition deteriorating rapidly. With no one to turn to, he had simply given up. Over the next few weeks at Emory Saint Joseph's, however, he emerged Lazarus-like from his debility and despondency.

Part of the credit belongs to the array of medicines prescribed by infectious disease physician Ronald Tribble. But the emotional support he received was also a big factor. When Salim was at his lowest, social worker Lindsey Parrish and physician Sherika Newman provided palliative care—and lots of personal attention. In fact, the hospital paid for around-the-clock sitters to ease his sense of isolation. As the patient recovered, Tribble spent time asking about life in Salim's native Senegal. When Salim only picked at his food, staff began to cook dishes similar to what he described so nostalgically.

When he was well enough to leave hospital care, case manager Mary Looney worked on a discharge plan. Salim had no money, and an expired tourist visa meant he was ineligible for Medicaid. Having covered six weeks of hospital care, the hospital now paid for another two months at Emory's Budd Terrace for rehabilitation, and Looney organized wheelchair and walker donations as well as appointments at Grady's Ponce Center for AIDS patients. Eventually, he was well enough to move to the Living Room, a nonprofit that works to prevent homelessness for people with HIV/AIDS. There, another case manager helped him find permanent housing and work to support himself. He wants it. He has rediscovered the will to live.

Salim seemingly had no one to turn to until he arrived at the hospital, where good medicine and loving care helped him regain the will to live.

When Salim only picked at his food, staff began to cook dishes similar to what he described so nostalgically.



Physician **Sherika Newman** and social worker **Lindsay Parrish** were among an army of people who showered the despondent patient with kindness and attention.



# Filling in the gaps

**Day 6:** EMORY JOHNS CREEK HOSPITAL

**ARNOLD BROWN ARRIVED AT EMORY JOHNS CREEK HOSPITAL'S EMERGENCY DEPARTMENT BY POLICE CAR, AFTER GEORGIA ADULT PROTECTIVE SERVICES REPORTED CONCERNS ABOUT HIS HEALTH AND SAFETY AT HOME.**

For more than two years since his stroke, his wife had been doing her best to care for him, but she had serious issues of her own. Brown was not in good shape. His thinking was confused, his body weak. He had a large, painful bedsore and a staph infection (MRSA) resistant to most antibiotics. Adult Protective Services would not allow him to return home. Soon there was no home he could have gone to, with utilities shut down, furniture on the street, and his wife dealing with her own exacerbated problems and completely out of his life.

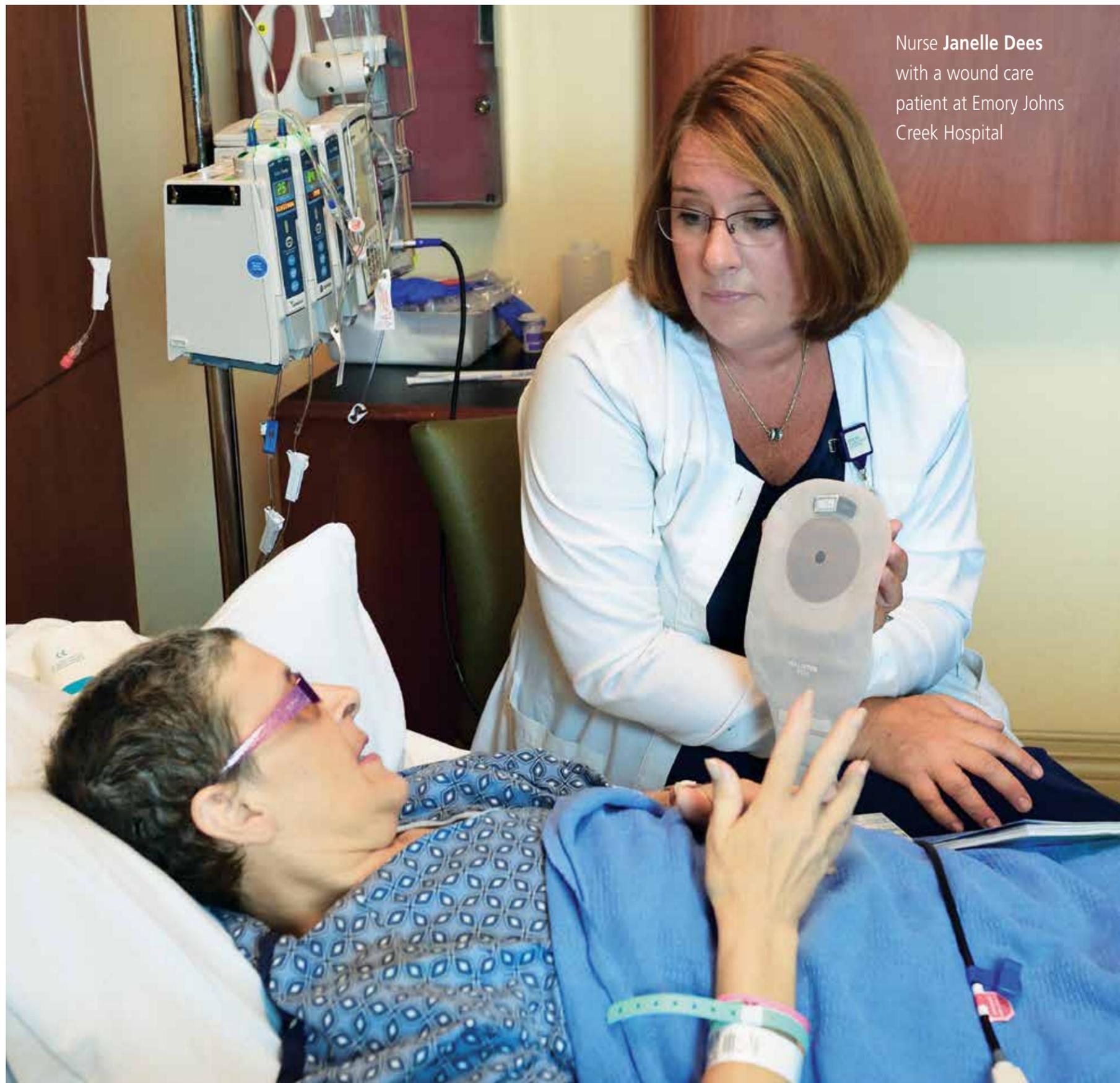
Emory Johns Creek's infectious disease specialists quickly got the staph infection under control. Under the care of the wound care team, the bedsore began to shrink. Other general health issues also resolved. The more difficult work was tracking down documents that had scattered to the wind after Brown's stroke and his wife's eviction. Friends from his religious community said the Caribbean native had become a citizen in the 1970s and served in the U.S. military. The Veterans Administration paid for his initial hospital stay, but a small minority of soldiers serve with green cards, and documentation of citizenship has to come from the

State Department. Unable to get results on their own, hospital administrators paid for a state-appointed financial conservator to try, but she was unsuccessful.

The VA stopped paying his costs when hospitalization was deemed no longer medically necessary. His doctors agreed, but where would he go? Without proof of citizenship, he was ineligible for Medicaid or Medicare, and no long-term care facility would accept him without some kind of reimbursement. Brown had become the hospital's responsibility, both physically and financially. With the exception of the short period covered by the VA, Emory Johns Creek covered all costs of his hospitalization for more than a year. Last spring, the hospital made arrangements—and agreed to pay the cost—for him to be cared for at Budd Terrace, Emory Healthcare's 250-bed facility for skilled nursing care. There he continues to get care, still without reimbursement, and new caregivers have joined his adoptive family.

As Brown's stay stretched on, staff adopted him as family, taking him outside for fresh air, cutting his hair, and bringing him audio books.

Nurse **Janelle Dees** (at right with a patient) was one of a large team of caregivers and social services staff who helped resolve Brown's life-threatening conditions and took steps to help lift his spirits as well.



Nurse **Janelle Dees** with a wound care patient at Emory Johns Creek Hospital

# Repairing debilitating injury

## Day 7: GRADY MEMORIAL HOSPITAL

Emory faculty and residents provide 85% of the care at the publicly funded Grady Hospital, where patients receive extraordinary care, often in Emory-led programs not widely available elsewhere in the region, including poison control, high-risk pregnancy, burns, HIV/AIDS, stroke, cancer, diabetes, and sickle cell disease.

Emory faculty provided \$27.1 million in uncompensated care at Grady in fiscal year 2015-2016. All payments for Emory services for patients who do have some coverage go to the Emory Medical Care Foundation, which uses this revenue—\$46 million last year—to support Emory's mission at Grady.

The surgeon explained he would do everything possible to save her knee, which would make wearing a prosthesis much easier.

**THE FOUR COLLEGE STUDENTS WERE SINGING WHEN THEY STEPPED OFF THE SIDEWALK AT 3:00 AM, RIGHT INTO THE PATH OF A SPEEDING CAR.** Only Kara was hit. By the time orthopaedic surgeon William Reisman arrived at the Grady ER two hours later, the young woman had been stabilized by general surgeons. They stepped back from the table to let Reisman assess the damage. The impact had fractured Kara's tibia and pulled her pelvis apart like a turkey wishbone. The surgeons had cleaned the large open wound and performed a temporary colostomy to prevent bowel contamination.

Reisman began work. He fitted pins into the young woman's shin and pelvic bones, then connected them to an external frame. This would hold the bones in

position until the following day when he would rebuild the shattered pelvis with metal rods, plates, and screws.

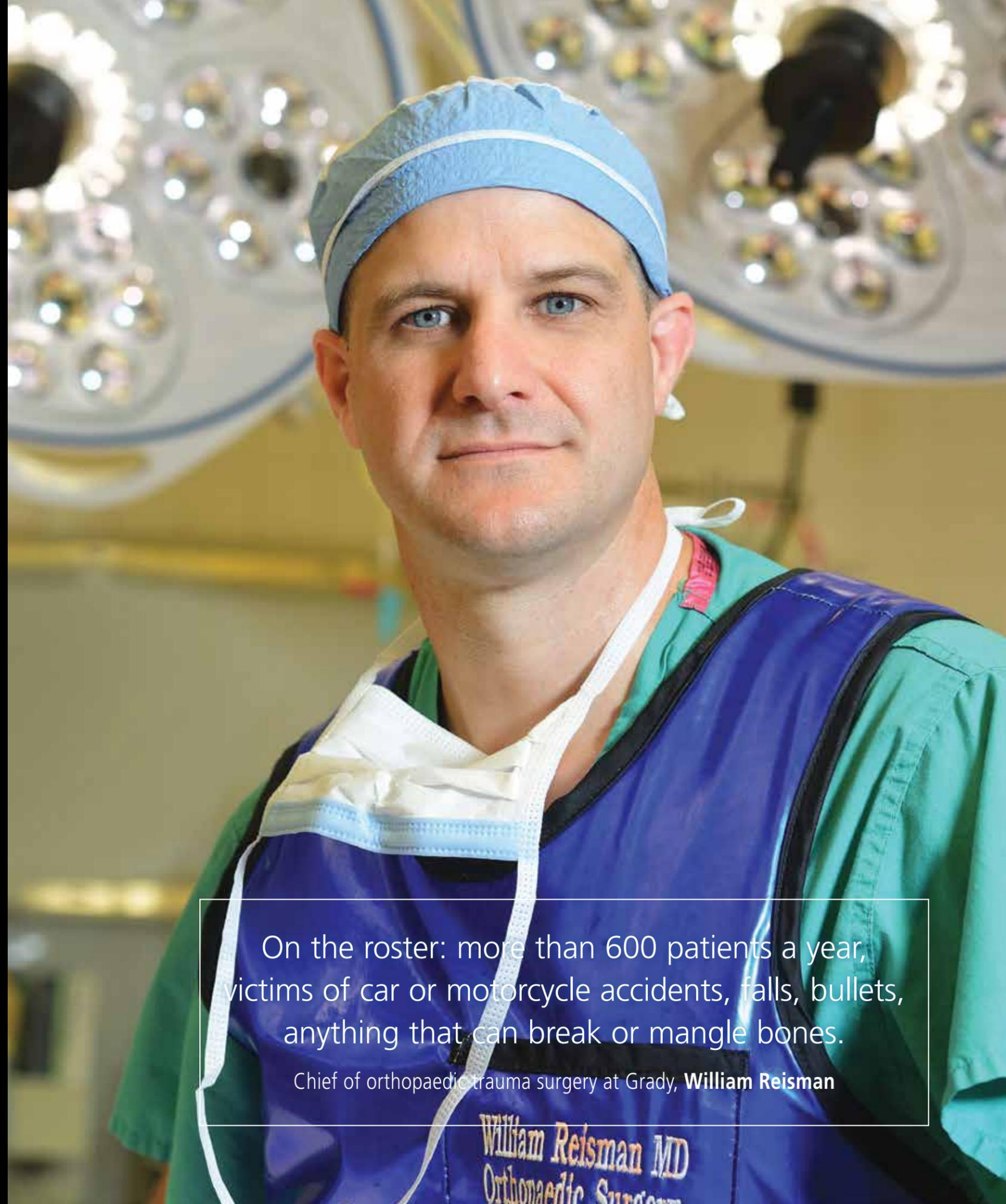
Two days after this second surgery, a clot developed in a blood vessel severely damaged by the impact. Reisman called in his vascular surgery colleagues to remove the clot, but the vessel was too damaged. The surgeons looked at each

other over their masks. Without blood carrying oxygen to the lower leg, tissue would die. Reisman had feared this. He would have to amputate.

He waited until Kara was conscious to explain what he needed to do—and to promise he would do everything he could to save her knee. That would make using a prosthesis much easier.

A week later, after three surgeries to remove the tissue that died each night, Reisman was able to close the gaping wound with a skin graft.

Two weeks later, Kara left Grady in a wheelchair. Reisman never knew if he, his colleagues, or the hospital were paid. He only knew, because she told him, that she couldn't get her prosthesis until her application for Medicaid was approved. He saw her regularly over the next year, checking how her bones were healing and changing hardware as needed. In these visits, still ongoing, a smiling Kara keeps him updated on her life. After finishing college, she found a job in health care. She got interested, she said, because of her own firsthand experience.



On the roster: more than 600 patients a year, victims of car or motorcycle accidents, falls, bullets, anything that can break or mangle bones.

Chief of orthopaedic trauma surgery at Grady, **William Reisman**

# Fighting hidden challenges

**Day 8:** ATLANTA VETERANS AFFAIRS MEDICAL CENTER

**WHEN LAMAR JENKINS, 42, WALKED INTO WILLIAM TYOR'S OFFICE AT THE ATLANTA VETERANS AFFAIRS MEDICAL CENTER (VAMC), THE NEUROLOGIST ALREADY HAD A PRETTY GOOD IDEA OF WHAT THE MAN'S PARTNER WAS ABOUT TO DESCRIBE.**

Fogginess, confusion, forgetting to turn off the stove. Tyor had seen it too many times before.

The number of cases of HIV-associated dementia dropped markedly with the arrival of powerful antiretroviral drugs that reduce viral load, restore immune response, and result in longer, healthier lives. But these drugs don't halt neurocognitive impairment found in 40% or more of people living with HIV. Jenkins's disorder had progressed to the point where he could no longer be left alone.

For the past 30 years, since AIDS first appeared on the scene, Tyor has investigated what causes these problems.

In the body, HIV destroys infection-fighting white blood cells and thus lowers the immune response. When the virus enters the brain, however, HIV infects microglial cells that fight infections in the brain, distorting the cells in a way that raises

the immune response. This results in inflammation, which can destroy neurons essential to cognition and memory.

The usual antiretroviral drugs don't eradicate the virus from the brain and thus don't fight the inflammation. Different medicines are needed for that.

After developing a genetically altered mouse model of the HIV-related cognition dysfunction seen in humans, Tyor began testing numerous com-

pounds until he found one that reduces inflammation and slows disease progression. In fact, it seemed to reverse memory problems in mice that received the compound early in the disease process, perhaps before too many neurons died.

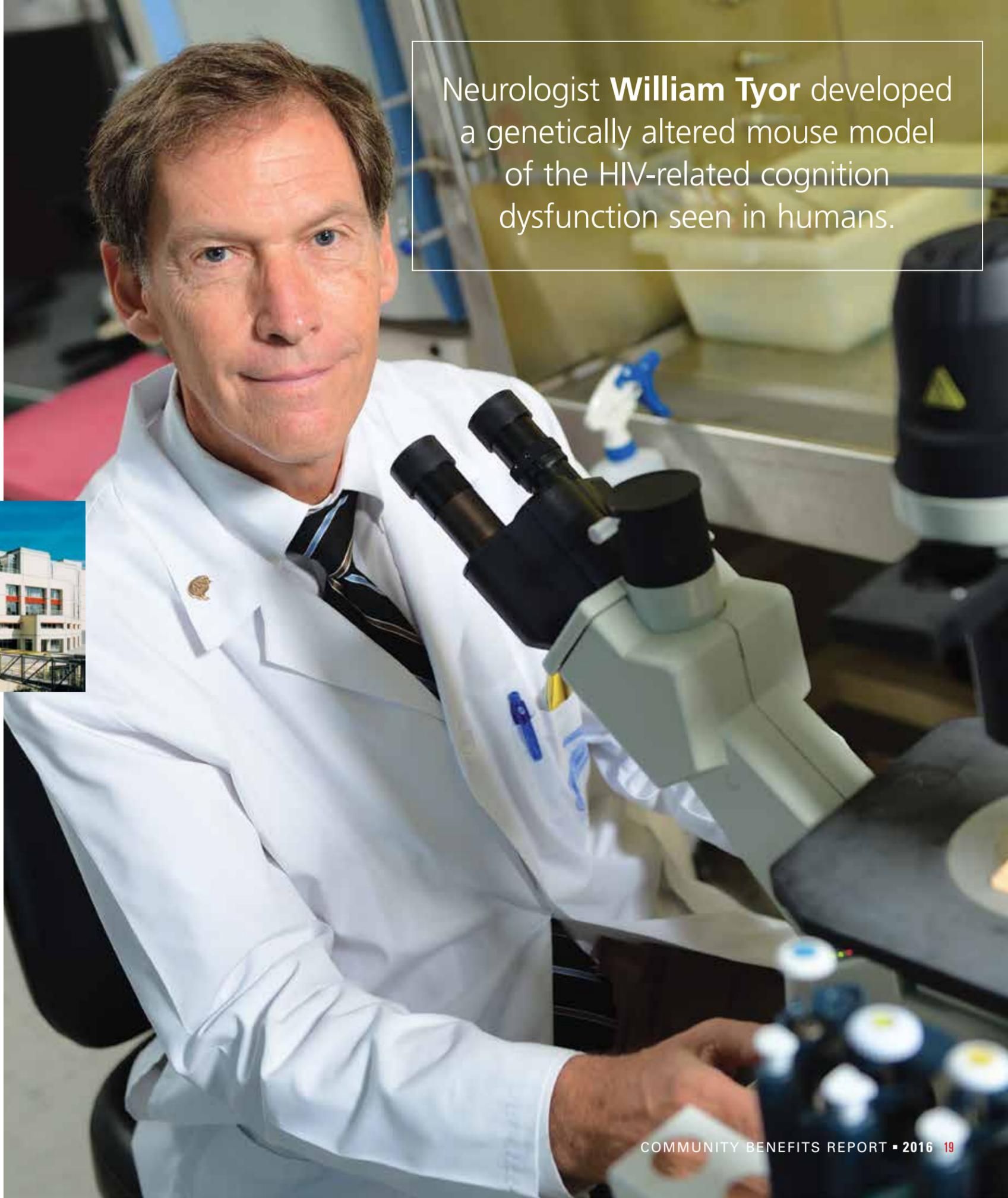
Tyor hopes patients like Jenkins might benefit from the new compound. He and Emory colleagues are preparing for a clinical trial in humans. With the largest population of HIV/AIDS patients of any VAMC in the country, the Atlanta facility is a great research partner for this effort, and its patients will be the first to potentially benefit.

**Research is about to take a big step forward in the battle against memory and thinking problems experienced by so many patients with HIV.**

**Last spring, Emory's Veterans Program formally opened a new intensive outpatient treatment program for post-9/11 veterans, which aims to reduce symptoms of post-traumatic stress disorder, while helping veterans re-engage in daily life.**



The partnership between Emory and the Atlanta VA Medical Center dates back to 1946. Emory provides virtually all physician care at the facility and has made it one of the nation's most successful VA centers for research to continually improve care. Emory investigators contribute to a diverse spectrum of research at the Atlanta VA that brought in more than \$14 million in VA and \$12.5 million in non-VA funding last year.



Neurologist **William Tyor** developed a genetically altered mouse model of the HIV-related cognition dysfunction seen in humans.

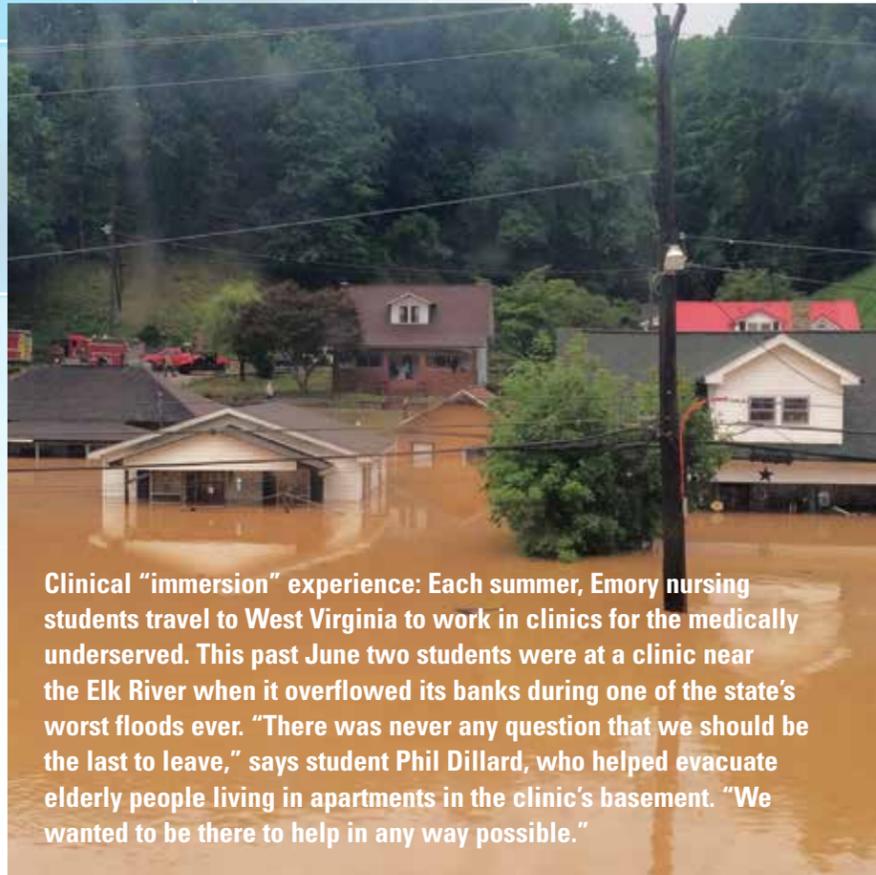
LOCAL AND GLOBAL COMMUNITY

# Making each day count

Serving those in need is part of the DNA of faculty, staff, and students in the Woodruff Health Sciences Center.



**ZIKA RESEARCH:** Faculty in Rollins School of Public Health are contributing expertise in the race to mitigate the effects of Zika virus. Uriel Kitron (above), an expert in vector-borne diseases, was among the first to document the outbreak in Brazil, where he was studying dengue when Zika first appeared. He and his Brazilian colleagues continue to monitor and study the epidemic. The CDC is also sending funding through the school's Center for Humanitarian Emergencies to assess vector surveillance and control capacities of South and Central American countries and provide customized training.



**Clinical "immersion" experience:** Each summer, Emory nursing students travel to West Virginia to work in clinics for the medically underserved. This past June two students were at a clinic near the Elk River when it overflowed its banks during one of the state's worst floods ever. "There was never any question that we should be the last to leave," says student Phil Dillard, who helped evacuate elderly people living in apartments in the clinic's basement. "We wanted to be there to help in any way possible."



**CARDIAC REHAB IN CHINA:** Above left: Emory specialists in cardiology and rehabilitation recently worked with Xiaoping Meng, a Chinese cardiologist and former Emory research postdoc in cardiology, to develop the first-ever cardiac rehabilitation system in the Jilin Province of northeast China.



**HELPING LOCAL REFUGEES:** Above right: Heval Kelli, an Emory cardiology resident and medical school alumnus who is also a former Kurdish Syrian refugee, helped a group of Emory medical students who planned and hosted a refugee health week for incoming first-year medical students. The students met refugees and learned about their experiences, the resettlement process, and their health care issues.



**SLOWING DIABETES:** Venkat Narayan (above, far right), a physician researcher in public health, heads the Emory Global Diabetes Research Center (EGDRC), whose members study causes of diabetes in low-resource countries like India, which may differ from causes in high-income nations. Here he cuts the ribbon on a vehicle being used by the EGDRC in India. Narayan also is principal investigator on a major new grant to collaborate with Georgia Tech and Morehouse School of Medicine to close remaining gaps in diabetes detection, prevention, and care in the U.S. population.



**SEEING WHAT IT'S LIKE TO DO WORLD-CLASS RESEARCH:** Top left: High school student Abhiramgopal Akella spent this past summer getting lab experience with Parkinson's researcher Yoland Smith and postdoc Valerie Joers. Akella participated in the Institute on Neuroscience (ION) offered by Emory's Yerkes National Primate Research Center in collaboration with Georgia State University. The six-week ION offers students and middle and high school teachers exposure to neuroscience research.

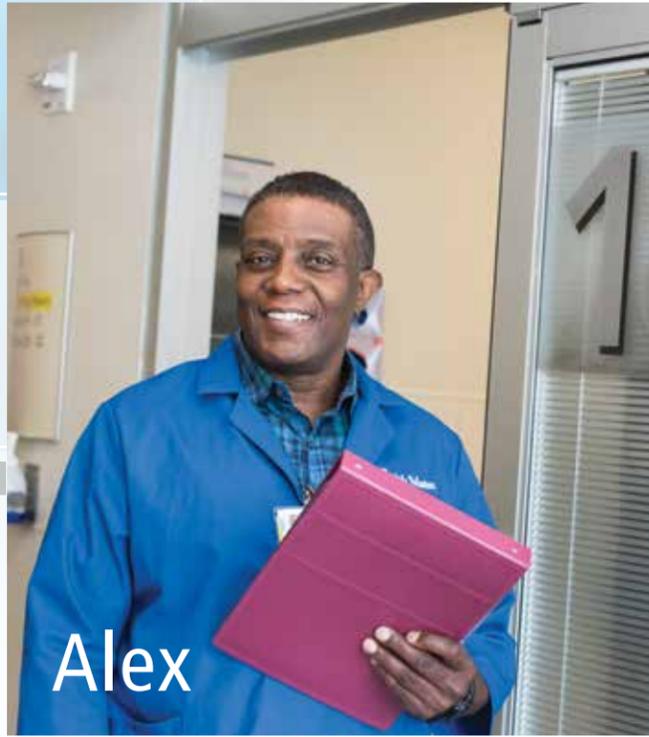
**CREATING CAREER OPPORTUNITIES FOR THE DISADVANTAGED:** Top center: Photo of the 2016 "Pipeline" class. Started by two medical students almost 10 years ago, the Emory Pipeline program got a boost this past year from a \$1.8 million grant to create the Emory Pipeline Collaborative (EPIC). The grant gives the medical school and its collaborators support to do more of what they have been doing since two pre-med students created Project Pipeline in 2007. EPIC prepares students from five Atlanta high schools for entry into health professions by increasing academic achievement, improving college readiness, strengthening social support, and broadening student awareness of pathways to health professions.

**FUN(D) RUNS:** Top center: Each year, Emory Johns Creek Hospital hosts a 5K Scrub Run and Health Festival, offering free health screenings for cholesterol, glucose, blood pressure, bone density, and body mass index calculations. This past year, Emory Saint Joseph's Hospital hosted its inaugural Run for Mercy 5K, with all proceeds supporting services to the poor and marginalized.

**Service learning is a major, ongoing focus in Emory's schools of medicine, nursing, and public health. Medical students and residents spend much of their clinical training at the publicly funded Grady Hospital, where many patients are indigent. Nursing students spend spring or winter break in clinics for the poor in Caribbean countries. And students in Rollins School of Public Health spend their first day at Emory as "Rollinsteers," preparing meals for people with AIDS, repairing homes for the elderly, and cleaning streams and parks.**



Judith



Alex



Lex

OUR VOLUNTEERS:

Showing how they care each and every day

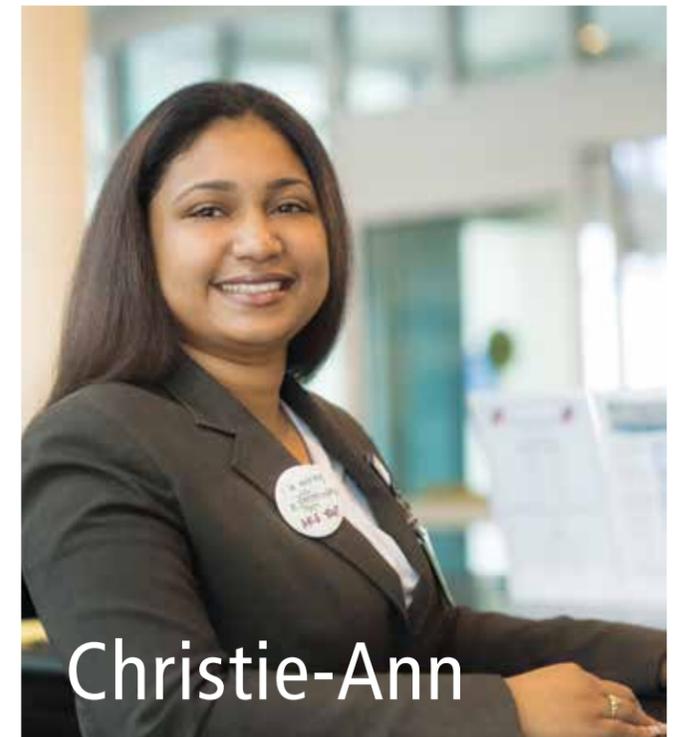
Special thanks to our volunteers, who generously donate their time to assist patients in Emory's inpatient and outpatient settings: **Judith Haase**, 75, volunteers two days a week at Winship Cancer Institute at Emory Saint Joseph's Hospital, where she received her own chemo and radiation for breast cancer. **Alex Spencer** volunteers every Tuesday in the surgery waiting room on the third floor at Emory University Hospital. **Sally Angevine** volunteers in the Emergency Department at Emory University Hospital. **Lex Gilbert** volunteers at Winship Cancer Institute on the Emory campus. **Julie Whitehead** says she is one of Winship's "original" volunteers—she has been helping there for the past 13 years. **Christie-Ann Bissoon** volunteers in Emory University Hospital's "motor lobby" where she directs patients and family members who enter from valet drop-off.



Sally



Julie



Christie-Ann

RESEARCH

# Providing the infrastructure for research

The Woodruff Health Sciences Center invested a total of \$112.8 million in research costs unrecovered from sponsors last year.

### Some Emory research highlights from the past year:

- Launched an antibiotic resistance center to identify and consolidate expertise on this increasingly urgent issue
- Assembled teams to study Zika and develop a vaccine and drugs against it
- Launched largest-ever clinical research study in Atlanta, on brain health
- Partnered with Georgia Tech and others to create a new Regional Big Data Hub to address regional challenges in health care and other areas
- Offered patients access to more than 900 clinical research studies of new drugs and devices

**INVESTIGATORS IN MEDICINE, NURSING, PUBLIC HEALTH, AND YERKES NATIONAL PRIMATE RESEARCH CENTER GARNERED MORE THAN \$540 MILLION IN RESEARCH AWARDS IN FISCAL YEAR 2015-2016**, many of these with international, national, and local partners, such as Georgia Tech and University of Georgia. This research total included a \$35.6 million grant to lead a multidisciplinary consortium focused on HIV vaccine and cure research; \$9.7 million to develop drugs to treat emerging and man-made viral threats; \$8.9 million to explore strategies to prevent atherosclerosis and aortic aneurysms; \$8.3 million to establish a laboratory in a national network of laboratories to measure the impact of environmental chemicals on children's health; \$6.4 million to develop better treatments for malaria; \$5.2 million to study links between blood pressure regulation and Alzheimer's; \$5 million to study interactions between toxicant exposures and the microbiome and their impact on preterm birth, infant health, and neurodevelopment among African American mothers and babies; \$2.8 million to develop nanoparticles to treat pancreatic cancer; \$2.4 million to develop a breast cancer vaccine; and \$2.2 million to prevent the spread of infectious disease in health care facilities, among others.

These grants and contracts move research forward to benefit society and create thousands of jobs. This research would not be possible, however, without facilities and other infrastructure support provided by the Woodruff Health Sciences Center. In fiscal year 2016, for example, the WHSC invested \$112.8 million in research-support costs unrecovered from sponsors.



EDUCATION

# Training for today and tomorrow



### Students and trainees in health sciences:

**Emory University School of Medicine**

- 575 medical students, including 93 MD/PhD students
- 1,266 residents and fellows
- 509 students in allied health training, such as physical therapy and physician assistant programs

**Rollins School of Public Health**

- 1,140 master's and 189 PhD students

**Nell Hodgson Woodruff School of Nursing**

- 374 bachelor's, 236 master's, 34 PhD students, 21 DNP students

### THE THREE SCHOOLS IN THE WOODRUFF HEALTH SCIENCES CENTER WORK CONTINUALLY TO ADAPT TO CURRENT AND FUTURE NEEDS IN THE HEALTH PROFESSIONS.

For example, faculty in Emory School of Medicine are partnering with faculty at Georgia Tech to create new bachelor's, master's, and doctoral degree programs and concentrations in health care robotics—the first degree programs in this area in the United States. They are supported in this effort by a five-year grant from the National Science Foundation. In addition, the school's emergency medicine department received funding through the federal Ebola Biosafety and Infectious Disease Response Training program to help train first responders and other workers at risk for exposure to infectious disease to protect themselves and prevent disease spread.

The Nell Hodgson Woodruff School of Nursing recently revised its curricula for both bachelor's and master's students to focus on continuum of care across the lifespan, from childhood to old age, with a new emphasis on palliative care. The school also introduced executive online courses for MSN degrees in several acute care specialties, including the Neonatal Nurse Practitioner program, the only such program in Georgia.

At the Rollins School of Public Health, students are out in front of the increasing need for mobile health applications, leading the Rollins mHealth Collaboration to teach fellow students how to develop mobile applications with a variety of uses, ranging from acquisition of data for research to disseminating education and interventional outreach to at-risk populations. The school also recently added Genetic and Molecular Epidemiology to its growing list of certification programs, and the enrollment cap for the prerequisite course for the new program had to be increased twice to accommodate student demand.



Emory's nursing curricula focuses on the continuum of care across the lifespan, from birth to old age.

→ **Emory Healthcare provided \$62.7 million to support teaching and research missions in the Woodruff Health Sciences Center in fiscal year 2015-2016.**

→ **The Woodruff Health Sciences Center invested 24.9% of its tuition income last year in financial aid for its students, an amount totaling \$26.4 million.**



The WHSC has an estimated economic impact on the metro area of \$7.5 billion, based on \$3.8 billion in expenditures for FY 2015-2016.

## FINANCIAL IMPACT

# Boosting the economy

**WITH MORE THAN 24,000 EMPLOYEES IN THREE SCHOOLS, A PRIMATE RESEARCH CENTER, AND THE MOST COMPREHENSIVE HEALTH SYSTEM IN GEORGIA,** the Woodruff Health Sciences Center (WHSC) makes Emory University the largest employer in DeKalb County and the second largest in metro Atlanta. The WHSC also fuels thousands of additional jobs locally through millions of dollars each year in research grants (see page 24), new construction, and partnerships with collaborators in research, teaching, and patient care.

For example, Emory recently purchased 60 acres of property at Executive Park, which

is already home to Emory's Orthopaedics & Spine Clinic and Brain Health Center. Soon after, Emory Healthcare and the Atlanta Hawks announced plans to partner and build a privately funded, 90,000-square-foot sports medicine and training facility, which broke ground this past summer.

Emory Healthcare also held a recent "topping out" ceremony for a \$400 million, 450,000-square-foot addition to Emory University Hospital. The building will add more than 500 new jobs for nursing staff, radiologic and surgical technologists, and many other hospital staff once it opens in 2017.

Top: New bridge connecting Emory University Hospital with a new hospital tower opening in 2017. Left, top: **Ineathea Jones**, assistant nurse manager in emergency services at Emory University Hospital; left, middle: rendering of new sports medicine and training facility being built by the Atlanta Hawks; left, bottom: **Mark Lozynsky** is a senior mechanic in Emory Healthcare facilities management.



## Value to the community

EMORY'S WOODRUFF HEALTH SCIENCES CENTER (WHSC) BENEFITED THE COMMUNITY IN A VARIETY OF WAYS IN FISCAL YEAR 2015-2016

	<i>(millions)</i>
Cost of charity care provided by Emory Healthcare (page 2)	<b>\$72.3*</b>
Financial aid provided to students from tuition income (page 25)	<b>26.4</b>
Emory Healthcare investment in WHSC teaching and research (page 25)	<b>62.7</b>
WHSC investment in research unrecovered from sponsors (page 24)	<b>112.8</b>
Unreimbursed care provided at Grady Hospital (page 16)	<b>27.1</b>
Investment of Emory Medical Care Foundation in services at Grady Hospital (page 16)	<b>46.0</b>
Other community benefits (page 2)	<b>52.5†</b>
<b>Total (millions)</b>	<b>\$399.8</b>

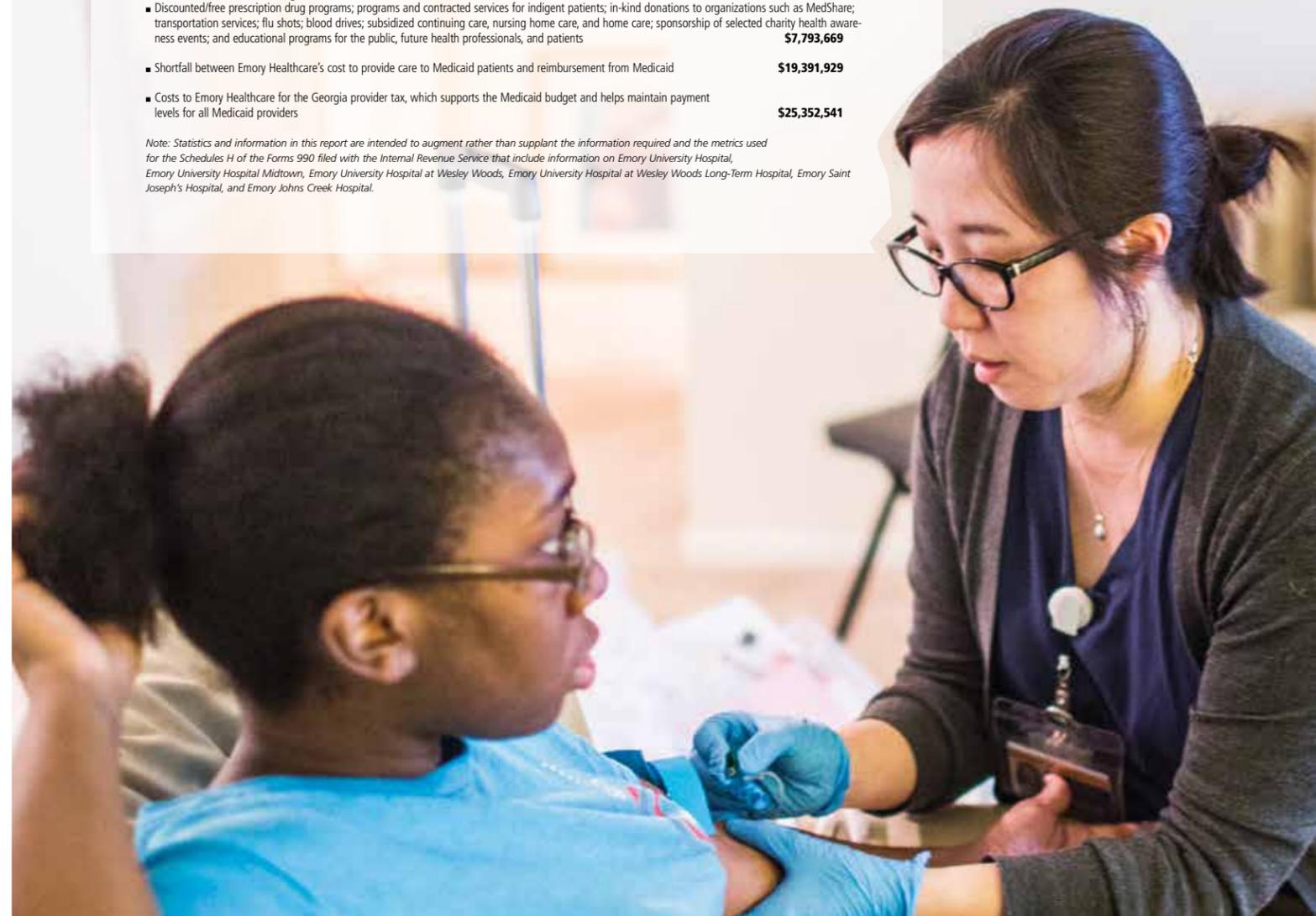
\* In addition to providing charity care, Emory Healthcare conducts ongoing community health needs assessments (CHNAs) for its hospitals as part of its continued commitment to the health and well-being of community members. The reports assess the needs of the communities served by the hospitals using 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 **\$7,793,669**
- Shortfall between Emory Healthcare's cost to provide care to Medicaid patients and reimbursement from Medicaid **\$19,391,929**
- Costs to Emory Healthcare for the Georgia provider tax, which supports the Medicaid budget and helps maintain payment levels for all Medicaid providers **\$25,352,541**

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.

Nursing faculty member Irene Yang with a patient.





## 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, 605 beds (bed count will increase by 128 with the opening of a new tower in 2017)**
  - **Emory University Hospital Midtown, 529 beds (includes 30 LTAC 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 Wesley Woods Campus (includes Emory University Hospital at Wesley Woods and Budd Terrace, a 250-bed skilled nursing care facility)**
  - **Emory Specialty Associates, outreach physician group practice organization with locations throughout the city and state**
  - **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 in a joint venture with Select Medical for long-term acute care (LTAC), with 88 LTAC beds in three hospitals.*

### 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 85% of care**
- **Children's Healthcare of Atlanta**
  - **Children's at Egleston, 278 beds, Emory campus, staffed by Emory and private practice physicians, with Emory providing 95% of care**
  - **Children's at Hughes Spalding, 24 beds, Grady Hospital campus, staffed by Emory, Morehouse, and private practice physicians, with Emory providing 75% of care**
  - **Children's at Scottish Rite, 273 beds, staffed by Emory and private practice physicians**
- **Atlanta Veterans Affairs Medical Center, 445 hospital beds, including 120 nursing home beds, 12 psychiatric residential rehab beds, and 40 domiciliary beds; staffed by 300 Emory physicians, who provide the majority of physician care**



EMORY  
UNIVERSITY

Woodruff Health  
Sciences Center

**CARING EVERY DAY: LAST YEAR, EMORY HEALTHCARE CLINICIANS SAW MORE THAN 600,000 PATIENTS AND PROVIDED \$72.3 MILLION IN CHARITY CARE.**



For more information, please contact Health Sciences Communications: 404-727-5686 ■ [emoryhealthsciences.org](http://emoryhealthsciences.org)

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