

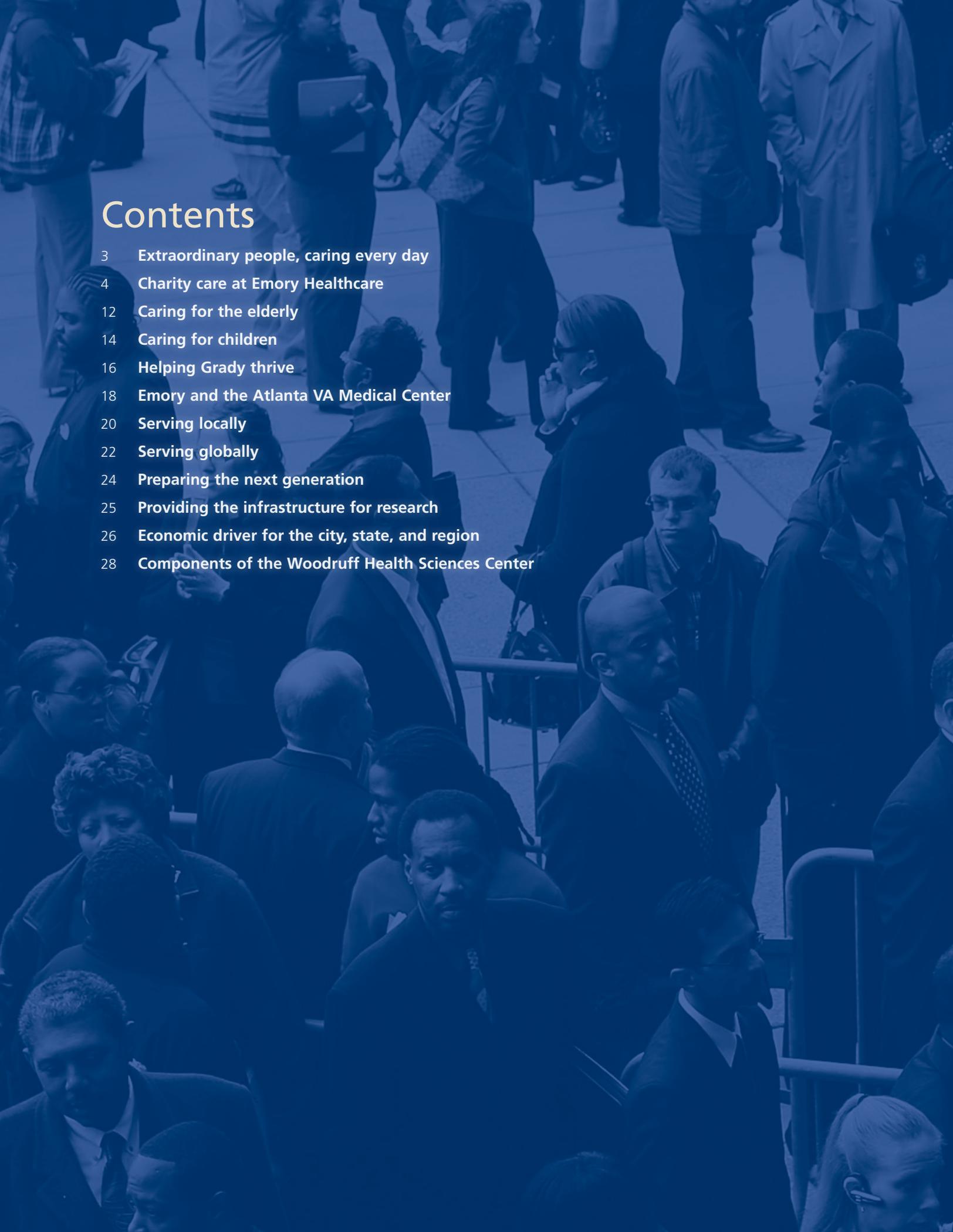
COMMUNITY BENEFITS REPORT | 2011

Extraordinary people *Caring every day*



EMORY
UNIVERSITY

Woodruff Health
Sciences Center



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When it comes to jobs and health insurance, the news for Georgians has not been good. The state's unemployment rate hovers around 10%. As more people have lost jobs, more have found themselves without health coverage. In fact, Georgia now ranks fifth in the nation for the number of uninsured: 19% of Georgians 65 or younger, compared with 17% nationally. Long-term unemployment (27 weeks or longer) accounts for a record high percentage of the uninsured. Lack of coverage among Georgia's so-called "young invincibles," aged 18 to 24, also continues to rise. What's more, these numbers are expected to worsen in subsequent reporting,* which means that the number of uninsured is likely to climb even higher.

Virtually every hospital in Georgia has been affected by the growing number of uninsured patients. But Emory Healthcare serves a disproportionate number of patients with extremely complex conditions, many of whom have exhausted family resources and any coverage that may once have existed. At Emory, such patients find clinicians determined to provide the best, most compassionate care possible regardless of these patients' ability to pay.

*Figures here are from a Georgia State University study released in February 2010.



Extraordinary people, caring every day



Being sick is an incredible challenge for anyone—physically, emotionally, and spiritually.

When you're faced with the added burden of financial hardship, the challenge can seem almost insurmountable. That's where the extraordinary people of Emory's Woodruff Health Sciences Center come in, providing help and hope to people in their most critical hour of need.

As you can imagine, the need has never been greater. The economic downturn of the past few years has caused unemployment and the ranks of the uninsured to skyrocket, and Georgia has been one of the hardest hit states in the nation. That

means that more people than ever before have turned to Emory in the past year. They know they can count on our care team to provide high-quality, cutting-edge, and compassionate care, no matter how complex their condition and regardless of their ability to pay.

The interaction of these two groups—people facing their darkest hours and the professionals who are so committed to helping them—leads to the inspirational stories of hope you'll read about in this year's community benefits report. There's the story of the recently unemployed single mother and the Emory case worker who helped eliminate her hospital bill to prevent a life-shattering hardship for her new family. There's the husband and father diagnosed with cancer soon after losing his job and his insurance, and the doctors and nurses who gave him the lifesaving care he needed, even though they knew he would never be able to pay. And there's the elderly man with dementia, living on the streets until the staff of Emory's Wesley Woods Hospital gave him care, attention, and ultimately the identity he needed to receive long-term care.

The stories in this year's report—which represent just a few examples among thousands we see each year—are about people facing hardship with extraordinary courage and the people who provide them with extraordinary care.

S. Wright Caughman, MD

Executive Vice President for Health Affairs, Emory University
CEO, Woodruff Health Sciences Center
Chairman, Emory Healthcare

FOUNDING LEGACY IN COMMUNITY SUPPORT

Robert W. Woodruff—the health sciences center's namesake and legendary leader of The Coca-Cola Company—dedicated his life to supporting the community, at Emory, in Atlanta, in Georgia, and beyond.



Charity care in Emory Healthcare

Uninsured patients, some among the recently or not so recently unemployed, some working two or more jobs, continue to arrive at Emory's doors.

In fiscal year 2010-2011, Emory Healthcare physicians provided \$68.7 mil-

lion in charity care. This was an increase of 8% over the previous year, and there is every indication that the number of patients in desperate need of such help will continue to rise. This dollar amount does not include millions of dollars of uncompensated care provided by Emory physicians practicing in affiliate facilities, such as the publicly funded Grady Memorial Hospital (see page 16). Nor does it count the value of care they provided in free or sliding-scale clinics in the community.

What charity care does include is (1) indigent care provided to patients with no health insurance, not even Medicare or Medicaid, and (2) catastrophic care provided to patients whose medical bills are so large, relative to their situation, that paying these bills would be permanently life-shattering.

In addition to charity care, Emory Healthcare provides numerous other community services whose goal is to improve access to care,

advance medical knowledge, and relieve or reduce the burden of government or other community efforts. In fiscal year 2010-2011, this total for Emory Healthcare was **\$109,251,988**. Following are examples of what this total includes:

- **\$5,449,299** for activities such as the following: discounted/free prescription drug programs; programs for indigent patients; in-kind donations to organizations such as MedShare (see page 22); transportation services; flu shots; blood drives; subsidized continuing care, nursing home care, and home care; American Heart Association fundraising walk; and educational programs for the public, future health professionals, and patients
- **\$87,382,287** shortfall between Emory Healthcare's cost to provide care to Medicaid patients and Medicaid reimbursement
- **\$16,420,402** costs to Emory Healthcare for the Georgia provider tax

Charity care totals

Fiscal year 2010-2011

| | |
|--|---------------------|
| Emory University Hospital/ Emory University Orthopaedics & Spine Hospital | \$29,338,808 |
| Emory University Hospital Midtown | 18,064,061 |
| Emory Johns Creek Hospital | 1,059,464 |
| The Emory Clinic, Emory- Children's Center, and Emory Specialty Associates* | 19,001,389 |
| Wesley Woods Center | 1,238,517 |
| Total | \$68,702,239 |

The \$68.7 million total above represents the unreimbursed cost of providing charity care, based on actual expenses to Emory Healthcare. Cost reporting is now standard for calculating charity care totals, as required by the Internal Revenue Service and advocated by the Healthcare Financial Management Association and the Catholic Health Association.

*Emory Specialty Associates is an outreach physician practice organization within Emory Healthcare.



Ending the bounce-back

With many social barriers to managing her life and getting to places she needed to go to, 30-year-old Joyce Hampton missed appointments at Emory’s Heart Failure Center and was unable to keep her Medicaid coverage recertified. Without medicines, her condition worsened. Without recertification, Medicaid cancelled her coverage. Once, twice, three times, Emory Healthcare covered the costs of Joyce’s emergency room (ER) visits and the week of hospitalization that followed. Then it did even

more, thanks to a new initiative aimed at helping break the dangerous cycle in which patients fall out of the health care system and then “bounce back” to the ER for rescue.

Joyce had developed debilitating congestive heart failure shortly after giving birth to a healthy baby boy. Her husband then filed for divorce and took the baby with him. Joyce moved in with her mother, who was angry and dysfunctional, frequently “misplacing” her daughter’s medicines and refusing to take her to the doctor.

Heart failure is one of the areas within Emory Healthcare that recently hired transition managers to help outpatients keep up with their medications and avoid such crises. Recognizing that Joyce’s medical condition would never stabilize in her current living situation, heart failure transition manager Denise Lowman-Kedzierski and Emory University Hospital social services supervisor Rasheedah Carkhum found an assisted-living home willing to accept the young

woman. Emory paid the costs, and the staff at We Care Personal Care Home went the extra mile, not only taking Joyce to medical appointments but also accompanying her to the necessary offices to re-establish Medicaid health coverage and obtain the Social Security disability benefits that would allow her to cover her own living costs.

All in all, getting Joyce medically back on track cost Emory University Hospital more than \$30,000 in housing, medications, and unreimbursed emergency department and hospitalization costs. Money well spent, say her doctors. Joyce has not been to the ER since and is well enough to spend some time getting to know her son.

Social services supervisor Rasheedah Carkhum and heart failure transition manager Denise Lowman-Kedzierski helped the patient get back on track with regular doctor appointments, ending the vicious cycle of repeat visits to Emory University Hospital’s ER, followed each time by a week-long hospitalization.

Heart failure is one of the areas within Emory Healthcare that recently hired transition managers to help outpatients keep up with their medications and avoid crises.





The kind of thing a family would do

Ever since she could remember, Shannon had dreamed of family, a husband, Sunday dinner around the table, and doing things for her children that had not always been done for her. But the husband never appeared, and in her early 40s she made the difficult, now-or-never decision to have a baby on her own. She did not have any family to help, but she did have a steady job, insurance, and enough savings for maternity leave.

Then, late in her pregnancy, the human resources manager at her employer called her in. Shannon could not hear all the words she spoke (“good worker, but the economy, you know, so sorry”) for the blood pounding in her head.

Miss Dependability, as her friends called her, applied for unemployment and used her savings to pay for continued insurance from her company to get her through delivery, after which she would find another job.

A week after losing her job she went to Emory University Hospital Midtown in premature labor, likely brought on by stress. She was stabilized and sent home. Insurance paid its part, and Shannon paid the rest. Seven weeks later, she returned to Emory Midtown and gave birth to a healthy girl.

This time the bill was more than \$11,000—and marked self-pay. Her insurance had expired just before she entered the hospital. When Shannon redid the math, she realized to her dismay that she had miscalculated the amount needed to continue coverage through delivery. Now what? Unemployment barely covered her living expenses, there was no credit left on her Visa card, and Hope, her infant daughter, was her only family.

She called the Patient Financial Services office at Emory Midtown to accept responsibility for the bill and to ask, trying to control her voice, if the hospital could work with her on a very long-term payment plan, starting as soon as she could find another job. It did better. After gathering additional information, the hospital determined that Shannon qualified for charity assistance, in recognition of the life-shattering hardship paying this bill would cause. The bill was adjusted to zero. Barely able to talk for her tears, Shannon said she thought this was exactly the kind of thing a family would do.

Elaine Dahl, director of patient financial services at Emory University Hospital Midtown, helped determine that the patient qualified for charity assistance, in recognition of the life-shattering hardship that paying the bill would cause.

Unemployment barely covered the patient’s living expenses, and her Visa card had no credit left. She called to see if the hospital could work with her on a very long-term payment plan.

Looking at the individual

Harry Raines lost his job shortly after his pancreatic cancer was diagnosed. By the time he was sent to Emory, the family was living on what was left of their tax refund and had no health insurance. To Raines' astonishment, Emory surgeon Juan Sarmiento operated anyway. Although the tumor had not spread outside the pancreas, the risk of recurrence was high, and Raines would need months of chemotherapy. Gastrointestinal oncologist Bassel El-Rayes at Emory's Winship Cancer Institute took over.

A whole team of people—specialists, social workers, financial assistance staff, and others—worked to help the patient being treated for pancreatic cancer, including oncologist Bassel El-Rayes,* who directs clinical trials at Emory's Winship Cancer Institute.

"These guys are the cream of the cream," the patient said to his wife. "How are we ever going to pay for this?"

"These guys are the cream of the cream," Raines whispered to his wife. "How are we ever going to pay for this?"

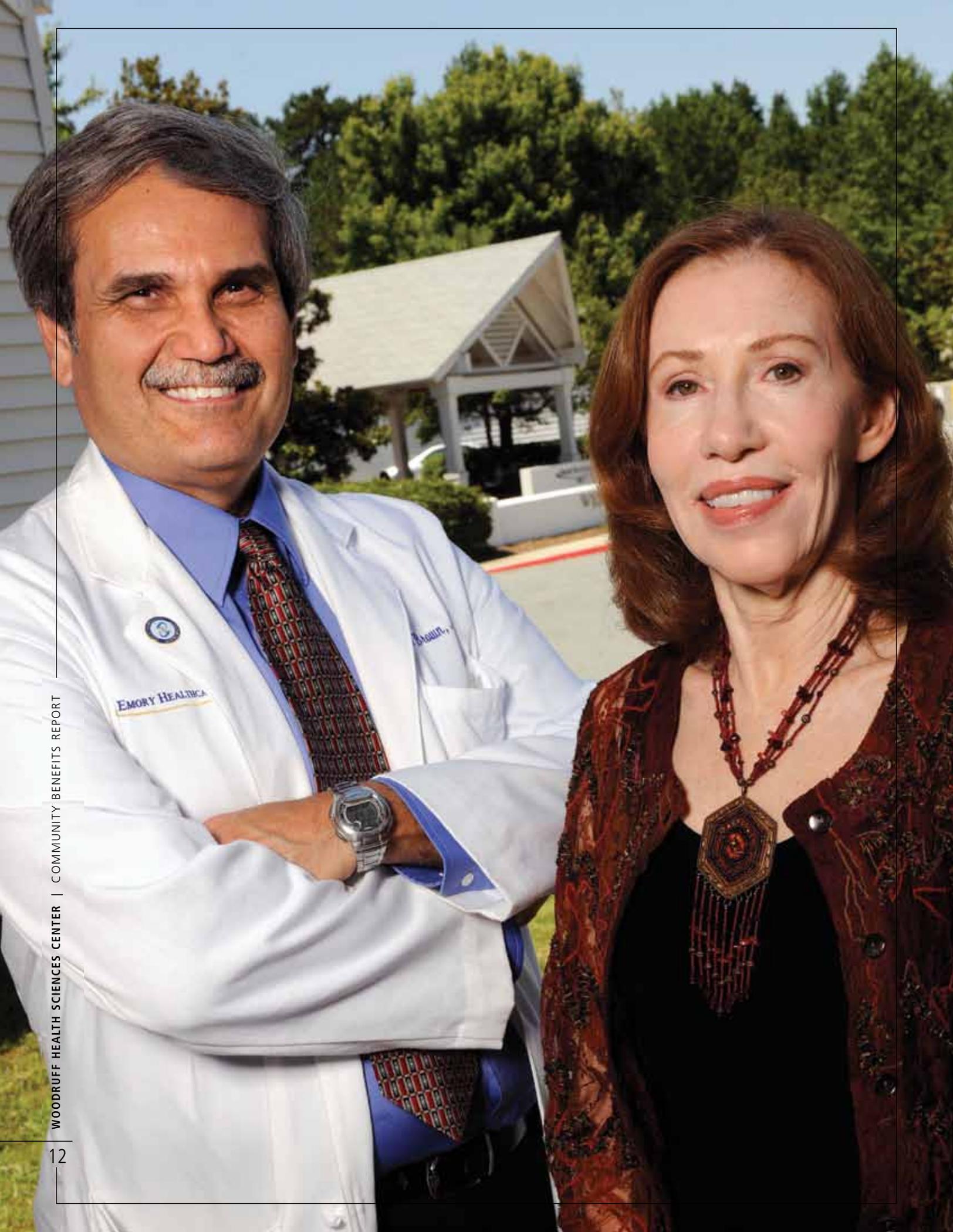
They didn't have to. Emory University Hospital had helped Raines apply for Medicaid. In addition, Emory classified the case as charity care, erasing existing medical bills and co-pays to come. Winship's patient assistance fund covered the costs of prescriptions stocked in the Emory pharmacy. Winship social worker Terri Sexton navigated a paperwork maze to get assistance for the rest from pharmaceutical companies.

Then El-Rayes, who directs clinical trials at Winship, asked Raines if he wanted to enter one of the nearly 150 clinical trials under way at Winship. Chemotherapy after surgery can delay recurrence, improving survival times for this generally lethal cancer. The trial he had in mind looks for specific biomarkers in tumor tissue and personalizes chemotherapy accordingly.

Sign me up, Raines said. Like the costs of surgery, emergency department visits, and follow-up, anything related to standard care was written off by Emory Healthcare until Medicaid kicked in, and Winship's patient assistance fund helped with transportation and other expenses. Anything related to the five-year clinical trial continues to be covered by Winship.

*El-Rayes (standing) is pictured here with Hemchandra Mahaseth, a medical resident in training at Emory.





The man without a number

After about the 40th time the amiable old man appeared in court, the judge threw up his hands. Joe Roberts would hang around a grocery store, asking customers for \$10 so he could buy some fried chicken. Police had little choice but to arrest him for panhandling. Judges then sent him to jail where at least he would be warm, fed, and off the street. Once released, he reappeared at the store, and the cycle began again.

This time, concerned that Joe was developing dementia, the judge ordered that he be taken to Wesley Woods Hospital. There, attending physician Frank Brown told Joe, “No, you can’t leave just yet, but there is fried chicken.” It was clear, given his moderate dementia, that Joe could no longer live on the streets.

But who was he? A social worker went to the address where he said he lived with an aunt. No house had been there for years. Social workers searched every database imaginable. They could find no record of a Joe Roberts matching this man’s description having ever attended school, married, received a salary, or served in the military. Without a social security number, he was ineligible for benefits. Without benefits, no assisted living facility would take him.

As the months rolled on, Joe was happy. The staff bought him clothes, a radio, and Christmas presents. They cut his hair, listened to his elaborate confabulations, and made sure he got seconds when chicken was on the menu. Eventually, a social security number turned up. When he left for a nursing home with his new Medicaid card, the staff gave him a party. Among his presents were 10 new dollar bills from Brown.

The \$400,000 cost for Joe’s 294-day stay, the longest of any in the hospital’s history, will never be reimbursed. Still, say Brown and staff members, it was hard to let him go.

Among those involved in caring for Wesley Woods Hospital’s longest-staying patient in history (294 days) were physician Frank Brown and social worker Linda Gough.

Many of the 30,000 patients seen at Wesley Woods Center each year (those who are elderly and/or need extensive wound care, rehab, or respiratory care) require services that are under- or unreimbursed. During fiscal year 2010-2011, expenses at Wesley Woods exceeded revenue by \$5.6 million. But patients needed the services Wesley Woods provided, and the facility had the skill and compassion to make sure they got them.

Emory facilities at Wesley Woods Center

- **Wesley Woods Hospital**, a 100-bed facility with inpatient geriatric care and hospice service
- **Wesley Woods Clinic**, providing outpatient primary care for geriatric patients
- **Budd Terrace**, a 250-bed skilled nursing care facility
- **Wesley Woods Towers**, a 201-unit residential retirement and personal care facility

Emory Healthcare also manages Wesley Woods Senior Living retirement facilities located throughout north Georgia.

Saying yes when everyone else said no

During layovers in Bolivia, flight attendant June Rheingrover often volunteered in an orphanage near Santa Cruz. There she met 9-year-old Mireya, always smiling and reaching for hugs, despite the polyarticular juvenile rheumatoid arthritis that affected her joints.

Rheingrover and life partner Patrick Norris, a pilot, decided to bring Mireya to the United States for treatment. This proved difficult, however, and two years passed with no entrance visa in sight. Meanwhile, Mireya's condition deteriorated. She became wheelchair bound, weighed less than 40 pounds, and was in constant pain. She tried to keep smiling, but the spark was fading.

Desperate, Rheingrover began calling random people at Emory Healthcare for advice. A social worker passed the message along to pediatric rheumatologist Sheila Angeles-Han at Emory-Children's Center, who immediately offered to treat the child without charge. Her offer helped persuade Bolivian courts to declare Rheingrover as Mireya's legal guardian and to let the girl leave.

"Dr. Han said yes when everyone else said no," says Rheingrover. "I am so grateful that people like her still exist in this weary world. She is my hero."

Shortly after the first visit to Han, Mireya's pain went away, and she stopped moaning in her sleep. With weekly steroid and methotrexate injections, she abandoned the wheelchair, first crawling, and then racing up the stairs of her new home. Her joints loosened and straightened. She grew to normal size. In regular visits to Han, she jumps up nimbly on the exam table, chattering happily in fluent English: "Look what I can do!"

Biologic therapy, used for immune disorders, now keeps the brakes on Mireya's overly aggressive immune system, although earlier damage means she eventually will need joint replacement. While Rheingrover and Norris pay for the medicines Mireya requires, costs for care (totaling more than \$45,000 thus far) are unreimbursed. But who could put a price on watching a bubbly Mireya leave for Disney World with her American "parents," walking on her own.

In the past five years, Georgia children in poverty increased from 19.9% to 23.3%. Many children seen by Emory pediatricians have no health insurance, and their parents have no resources to pay for care. More than half are covered by Medicaid, which provides lower reimbursements for pediatric than for adult care. Even with insured patients, Emory pediatric specialists often spend much more to provide services than they ever get back—except for the satisfaction of knowing they are an essential part of the safety net for these vulnerable Georgians.

Sheila Angeles-Han, a pediatric rheumatologist at Emory-Children's Center and one of only 200 in the country, offered to treat Mireya without charge, a gesture that helped persuade the Bolivian government to let the child leave that country and come here for treatment.



Emory pediatricians provide care in the following venues:

Outpatient:

- **Emory-Children's Center**, the largest pediatric multispecialty group practice in Georgia (and a joint venture with Children's Healthcare of Atlanta)

Inpatient:

- **Children's Healthcare of Atlanta**
 - **Children's at Egleston**, 255 beds, Emory campus, staffed by Emory and community physicians, with Emory providing 80% of physician care
 - **Children's at Hughes Spalding**, 24 beds, Grady Hospital campus, staffed by Emory and Morehouse medical schools and community physicians, with Emory providing 66% of physician care
 - Some Emory pediatric faculty also teach and have admitting privileges at Children's at Scottish Rite, 250 beds, located in north Atlanta
- **Emory University Hospital Midtown** (high-risk pregnancy and neonatal intensive care)

Split-second decisions in trauma care

Did we know whether the young woman had insurance or money to pay?

Grace Rozycki, chief of trauma and surgical critical care at Grady Hospital, laughs at the question. “When many patients arrive, we don’t know their names, anything about their lives, their medical history, or what medications they may be taking.

“When this woman was brought into the trauma bay, we knew only that she had been shot in the hip and that she was in shock, complaining deliriously of abdominal pain, and appeared to be nine months pregnant. We also knew she was dying and every second counted.” The reason that this patient had been brought to Grady is that this facility is a level 1 trauma unit (one of only two in Atlanta), with a trauma surgeon and operating room available 24/7.

In the operating room, Rozycki and the trauma team began an exploratory laparotomy and clamped the woman’s abdominal aorta to control bleeding while anesthesiologists started the first of 12 units of blood to restore her plummeting blood pressure. Working side by side with a team of Emory obstetricians, they performed an emergency cesarean section, opening the uterus to retrieve a baby boy, already blue from lack of oxygen.

Because of the ricochet of the bullet, the woman’s bowel was severely damaged, but she was too weak to withstand definitive repair. The team removed the most damaged

parts and then packed gauze pads and a sterile plastic bag over the open abdomen to control further damage. The woman was moved to the intensive care unit, placed on a ventilator, and further resuscitated until her condition could improve.

The following day, Amy—by then her identity was known and her family had arrived—was returned to the operating room for complete bowel repair. Two days later, the surgeons closed her abdomen. On day eight, she and her healthy son left the hospital.

The doctors don’t know, and never thought about, how much the hospital or physician services cost or if they were reimbursed. What they do know is that they made the right split-second decisions that saved two lives.

Emory provides 85% of physician care at the publicly funded Grady Memorial Hospital, which serves a large indigent patient population. Last year, Emory physicians provided \$24 million in uncompensated care for these patients.

When Grady patients do have coverage, all payments for Emory services go to the Emory Medical Care Foundation, which provided \$34.9 million in fiscal year 2010-2011 to support Emory’s mission at Grady, including support for salaries and other operating expenses.

Trauma surgeon Grace Rozycki knows almost nothing—name, medical history, or current medications—about many of the patients arriving in the ER in need of immediate surgery. But her team’s extraordinary expertise and judgment often combine to save these patients’ lives against the most desperate odds.



Veterans keep on giving

“I was on television the other night,” the Vietnam war veteran announced to his friends.

“Well, they didn’t mention my name exactly, but they said Emory doctors at the VA had just enrolled the first Georgia patient in a clinical trial for a new treatment for head and neck cancer. And that’s me.”

Hematologist Maria Ribeiro, chief of hematology/oncology and chair of the Atlanta VA Medical Center’s cancer committee, says that veterans view their participation in clinical trials as yet another way to serve their country.

After World War II, Atlanta’s VA hospital became one of the first VA hospitals in the nation to affiliate with a medical school. Since then, the bond has grown substantially, to the benefit of both institutions. Some 265 Emory faculty provide the majority of physician care in the center, and Emory clinician-scientists have made this facility one of the nation’s top VA centers for research. In 2010, research funding at this facility totaled \$29 million and involved more than 500 projects directed at some of the most serious problems faced by veterans.

Another veteran, for whom standard chemotherapy was failing, called the Veterans Affairs Medical Center (VAMC) to ask if he were eligible for a clinical trial. He was, and the new treatment he received proved to be effective. Over the next four years, he maintained a bulletin board for his physicians, adding new photos from his trips to Europe, South America, and elsewhere. The drug he received has since become the standard of care for his kind of late-stage colon cancer.

As the relationship between the Atlanta VAMC and Emory’s Winship Cancer Institute keeps expanding, hundreds of veterans with cancer have had the opportunity to participate in one or more of many National Cancer Institute and other clinical trials under way at the VA, thanks to their Emory doctors. Maria Ribeiro, chief of hematology/oncology and chair of the VAMC’s cancer committee, says that the veterans view their participation in clinical trials as yet another way to serve their country. They are as proud of contributing to medical progress as we already were of them, she says.

In addition to caring for patients with lymphoma or leukemia, Ribeiro sees more unusual cases, like the World War II vet with unexplained profuse bleeding during routine heart surgery. In her 17 years at the VAMC, she has diagnosed almost 20 cases of previously unrecognized hemophilia in patients there, a condition that would have disqualified these veterans for the military had it been known when they entered the service. In addition to caring for veterans with hemophilia at the VAMC, she volunteers for Hemophilia of Georgia, taking overnight calls from any Georgia emergency room with a suspected hemophilia crisis.



Doctors, nurses, researchers, teachers, students, staff, and administrators—those who comprise the citizenry of Emory’s Woodruff Health Sciences Center—take community service to heart, whether they are organizing a 5K to support cancer research, working in free clinics, or simply finding new ways to help when the going gets tough.

Below right: Nephrologist Janice Lea oversees Emory’s dialysis clinics, located throughout the city, including one at Emory University Hospital Midtown.

Serving locally

Neither rain nor snow nor sleet nor hail Last January, when the great “deep freeze” of 2011 struck north Georgia, with snow followed by sleet and icing, Atlanta came to a virtual halt. (Given the usually mild winters, snowplows don’t rank high in the city budget.) Most businesses and venues were closed for days but not Emory Healthcare. Some employees walked to work (one wearing spiked golf shoes on the icy streets), while others shuttled

co-workers in their four-wheel drives. Staff worked with local emergency services to get patients to treatment, while clinicians slept in the hospitals for days on end to be accessible. For many patients, their presence was life-saving. Emory’s three dialysis centers located in communities across the city were the only ones in Atlanta that remained open during this time.



House calls for the elderly A new domiciliary care program brings Emory care providers to patients rather than the other way around. For more than a year now physicians Louise Horney and Candace Cato and nurse practitioner Karolina Graber have been making the rounds at five assisted-living facilities throughout metro Atlanta. Among the three of them, they see about 200 patients each year in this outreach program of The Emory Clinic. The Emory providers say that the system has the advantage of allowing them to see patients in the context of where they live.

Stewart Moran, 91 (right with Emory geriatrician Louise Horney), lives at Sunrise Assisted Living in Decatur, Ga. In cases like his, it makes more sense for the doctor to go to the patient, rather than the other way around.



Filling a need The Open Door Community on Ponce de Leon Avenue had a clinic for homeless men, often staffed by volunteer Emory medical faculty and their students, who learn both health care and compassion from their mentors. There was nothing comparable for homeless women at Open Door, so third-year medical students Bridget Spelke and Joelle Rosser applied for and won a start-up grant from Reproductive Health Access and began recruiting fellow students to help set up and maintain one. First-year students volunteer to coordinate activities, while older, more experienced students take histories and do annual exams, all under the oversight of Emory faculty who work in the clinic.

Right: Medical student Shruthi Rereddy with a patient at the Open Door clinic for homeless women.



What's in the air in Atlanta? Researchers at Emory's Rollins School of Public Health and Georgia Tech plan to find out, helped by an \$8 million grant from the Environmental Protection Agency to create a Southeastern Center for Air Pollution and Epidemiology, one of four national clean air research centers in the country. Researchers are analyzing data linking air quality with health effects in children and adults, including birth outcomes, asthma, and cardiac illness.

Right: Paige Tolbert co-directs a clean air research center studying metro Atlanta commuters' exposure to complex particulate mixtures in traffic and mechanisms of acute cardiorespiratory outcomes.



Serving globally

Turning leftovers into lifesavers Heavy seasonal rains in the Amazon Basin of Ecuador washed out roads and caused an unusual number of injuries this year, leaving the hospital in Ibarra crowded with patients waiting

for a hospital bed. Having just upgraded many of its own beds, Emory Healthcare donated the beds it replaced to MedShare International, an Atlanta-based organization that collects unused, unexpired medical supplies and equipment and sends them to hospitals in developing countries. Fifty of the beds went to Ibarra, along with huge containers of medical supplies that otherwise, in accordance with safety laws in the US, would have been thrown away, likely to end up in landfills. One of MedShare's oldest and most generous partners, Emory Healthcare provided 103,000 pounds of medical supplies last year. In the first half of 2011, 12 Emory-related medical, nursing, and dental teams also "shopped" for supplies at MedShare before heading off to provide free care in clinics across the world. Emory Healthcare employees also provided 600 volunteer hours to help sort and pack supplies for shipping.

Some of Emory Healthcare's beds and equipment recently were shipped to Gobierno Municipal del Cantón, a hospital in Ibarra, in northern Ecuador. Below right: a young Ecuadorian boy with his family, being treated for skin abscesses caused by jungle insect bites. The primary health concerns in Ecuador can be attributed to the effects of poverty on living conditions.

Faculty, staff, and students in Emory's Woodruff Health Sciences Center understand all too well the health-related problems that join the most diverse parts of the world—viruses that travel as fast as the planes that carry them, limited human and other resources, the impact of poverty—and are working on practical solutions to help.



A special place in Emory hearts Emory faculty in medicine, public health, and nursing are working to improve health in Ethiopia. Medicine's Henry Blumberg is implementing use of magnesium sulfate for patients with pre-eclampsia and eclampsia at three teaching hospitals in Addis Ababa, a project expected eventually to improve maternal and fetal outcomes throughout the country. Rey Martorell in public health heads a team working to improve maternal nutrition and nutrition throughout the life cycle. Emory's nursing school is conducting ongoing work to reduce maternal and infant mortality, supported by an \$8 million grant from the Bill & Melinda Gates Foundation.



Health clinic in Debre Markos, an area of about 60,000 people in Ethiopia, about 180 miles north of Addis Ababa, the capital.

As part of the nursing school's Alternative Winter Break program, nursing student Ashley Mire spent winter break last year on the island of Eleuthera in the Bahamas. Nursing students in the program gave flu vaccines, accompanied local nurses on home visits, and educated elementary, middle, and high school students about hygiene, nutrition, and disease prevention.

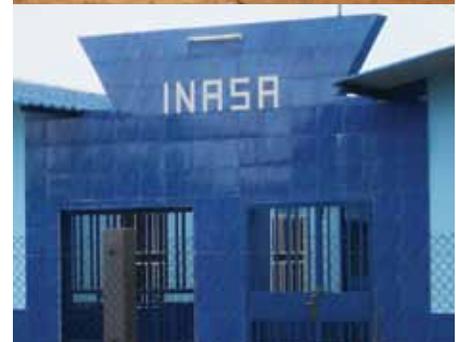
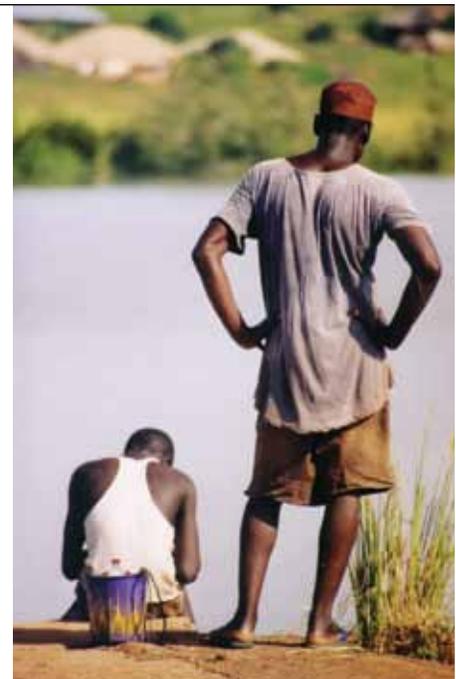


CDCs for the world One of the poorest countries in the world, Guinea-Bissau nonetheless had built a functioning public health system by the late 1990s. Then, a bitter civil war destroyed it all. Basic public health measures, like vaccinations of children, dropped precipitously. The country had no way to address ongoing crises like malaria or to respond to a cholera outbreak that killed or sickened thousands. The problem was tailor-made for the goals of the International Association of National Public Health Institutes (IANPHI), founded by Emory's Jeff Koplan and his Finnish counterpart, with fund-

With support from IANPHI, Guinea-Bissau was able to rebuild its "CDC"-like facility (lower right) after the previous one was bombed in a civil war in the late 1990s.

ing from the Bill & Melinda Gates Foundation. Guinea-Bissau joined the list of low-resource countries in which IANPHI helped build public health infrastructure. Bombed facilities were rebuilt; training programs were established; labs were renovated and

re-equipped; and a new countrywide surveillance program—incorporating laptops and cell phones—shortened response time to disease outbreaks from weeks to days. IANPHI leveraged assistance from more than 15 partner countries and agencies, including \$10 million from the Chinese government. As one of IANPHI's home bases, Emory also provided key support, helping cover costs of IANPHI's research and international assistance efforts.



Preparing the next generation



Faced with a nationwide and worldwide shortage of health professionals, Emory's schools of medicine, nursing, and public health have steadily expanded their training programs over the past several years.

But this effort is not just about numbers—it's about producing leaders prepared to respond to ever-changing economic and social challenges. Several new interdisciplinary PhD programs, for example, are giving students new tools for solving problems in new ways. Faculty from medicine and public health are collaborating with those in math and computational science to offer a new PhD in biomedical informatics, a field of study using computer technology to analyze and interpret

The Woodruff Health Sciences Center invested 21.4% of tuition income last year in student financial aid, an amount totaling \$17.3 million.

vast sums of data that is changing how medicine is practiced. Public health also recently created a new doctoral program in environmental health sciences, in collaboration

with Emory's graduate school. And Winship Cancer Institute is partnering with the graduate school to offer a new PhD in cancer biology.

Public health enrolled a record number of students this year for the third year running, including 100 international students. Medicine graduated the first class of students to have embarked on a totally revised curriculum that debuted in 2007. And in nursing, the first group of students in an accelerated BSN/MSN program received their bachelor's degree and began their master's.

Training for health professions is a considerable commitment for students in both time and financial resources. The Woodruff Health Sciences Center invested 21.4% of its tuition income last year in financial aid for its students, an amount totaling \$17.3 million.

By the numbers:

Emory students and trainees in health sciences:

Emory University School of Medicine

- 531 medical students, including 73 MD/PhD students; 620 postdoctoral fellows
- 1,192 residents and fellows
- 489 students in health profession training, such as physical therapy and physician assistant programs

Rollins School of Public Health

- 967 master's students, 137 PhD students, and 17 postdoctoral fellows

Nell Hodgson Woodruff School of Nursing

- 247 bachelor's, 212 master's, 20 PhD students



Providing the infrastructure for research

The Woodruff Health Sciences Center continues to rank high among the world's leading research institutions.

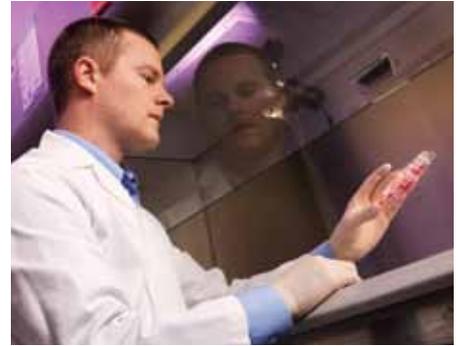
In fiscal year 2010-2011, the center was awarded \$511.5 million in research funding, bringing Emory University's total to \$539.7 million. Research awards are a point of pride and a considerable boost to the local economy, but what matters most to researchers is the opportunity to understand and combat disease. Awards in the past year included \$26 million from National Institutes of Health to

Supporting research involves considerable investment in facilities and oversight. Many of these overhead costs are unreimbursed. Last year, the total unreimbursed overhead costs for research in the WHSC was approximately \$97.3 million.

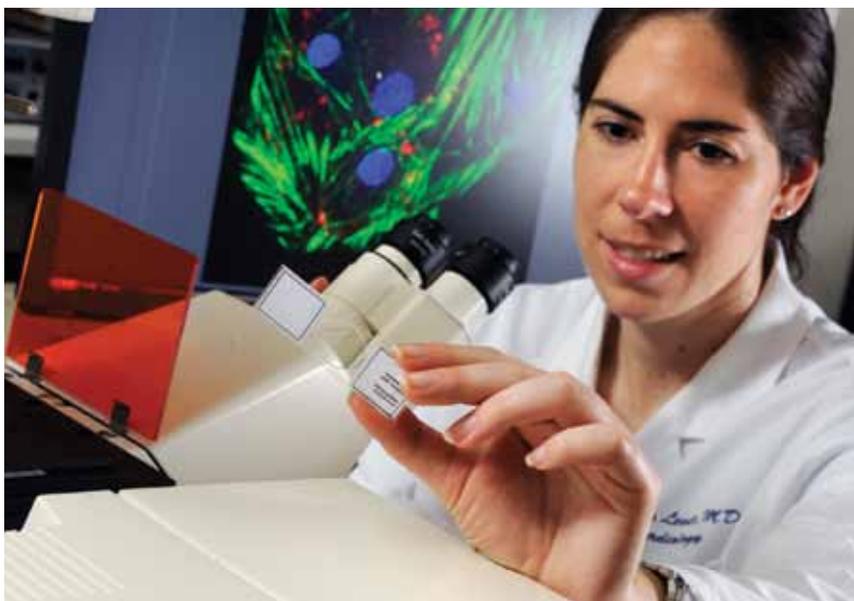
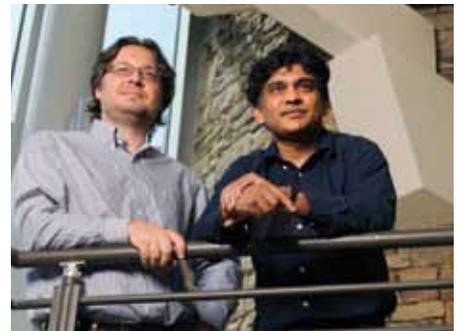
fund AIDS vaccine research in non-human primates, \$17 million from NIH for pediatric research (including \$4.8 million to study the genetics of Crohn's disease in African Americans), \$10 million from NIH to advance technology for painless flu vaccine patches, \$5 million to support research in Parkinson's disease, \$5.4 million to develop vac-

cines against the viruses that cause Ebola and Marburg hemorrhagic fever, \$5 million from NIH to develop more effective treatments for Parkinson's disease, and the list goes on.

To attract such awards, Emory must provide research space, such as the \$90 million health sciences research building currently under construction and the \$90 million Claudia Nance Rollins Public Health Building that opened last year. It also must pay the overhead costs of conducting research. Last year the total unreimbursed facility and administrative overhead costs for research in the WHSC was approximately \$97.3 million.



Each year Emory Healthcare invests millions in teaching and research missions, including \$73.7 million in fiscal year 2010-2011.





Economic driver: city, state, and region

Last February, a study published in *New England Journal of Medicine*

listed Emory as the fourth largest contributor to discovery of new drugs and vaccines by public sector research institutions. Emory was outranked only by the NIH, University of California System, and Memorial Sloan-Kettering. Among Emory drugs included in this study are 3TC and FTC, taken by more than 94% of U.S. patients on therapy for HIV/AIDS.

More new drugs and devices are in process. In June, Nulojix (belatacept), which Emory helped develop, gained FDA approval for prevention of organ rejection after kidney transplant. And Emory is working with partners like Georgia Tech to co-develop a number of products—a SpectroPen to help surgeons visualize tumor edges and a microneedle skin patch for flu vaccine,

among others—that likewise have potential for public health benefit and for economic impact.

Apica Cardiovascular, an Emory-Georgia Tech start-up company, has attracted venture capital investment to develop a device that helps minimize blood loss in heart surgery.

Since the 1990s, Emory scientists have formed 55 start-up companies and have invented 50 technologies already in the

marketplace, in clinical trials, or in early stages of development. Over the past two decades, Emory has received more than \$806 million in licensing fees from commercialized products. Such entrepreneurship generates resources for investment in research, more companies, more products, and jobs.

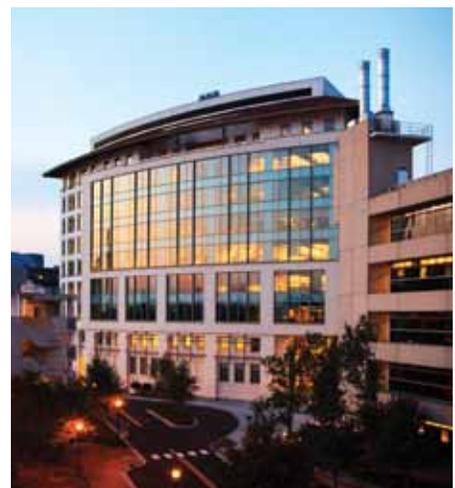
The fact that Emory Healthcare is the largest, most comprehensive health system in Georgia and that Emory-Children's Center is the state's largest pediatric multispecialty group practice also illustrates the degree to which Emory's Woodruff Health Sciences Center (WHSC) is a robust economic driver, both locally and regionally. Following are other examples:

Jobs and impact: With more than 18,000 jobs, the WHSC makes Emory the largest employer in DeKalb County and the fourth-largest private employer in metro Atlanta. Spending by the various schools, research centers, and health care entities within WHSC (see page 28) and by students and visitors is estimated to account for more than 10,000 additional jobs each year. Considering these and other factors, including the WHSC's annual operating expenses of \$2.8 billion, the WHSC's economic impact on metro Atlanta is estimated at \$5.5 billion per year.

Construction and growth: Over the past two decades, space for research, teaching, and patient care in the WHSC has grown by at least 15 new facilities or major additions. In the past year, the WHSC dedicated a new pub-

lic health building and broke ground on a new research building, scheduled for completion in 2013. This latter facility will provide space for 65 researchers and their teams, including those in cancer and in the Emory-Children's Pediatric Center, a partnership between Emory and Children's Healthcare of Atlanta. Later this year, construction will begin on a three-story addition to a neuroscience research building at Yerkes National Primate Research Center and on a new research facility at Yerkes where work will focus on transplantation and infectious diseases.

Last spring, Emory Healthcare assumed full ownership of Emory Johns Creek Hospital, formerly a joint-venture facility. Also last spring, Emory Healthcare and Atlanta's 410-bed Saint Joseph's Hospital announced plans to form a joint operating company (JOC) that would give Emory Healthcare a majority ownership, with a 51/49 percentage split, and allow the joint health care system to expand services. The JOC is expected to be finalized later this year, pending regulatory approval.



Value to the community

In addition to providing charity care, Emory's Woodruff Health Sciences Center (WHSC) benefited the community in many other ways in fiscal year 2010–2011:

| | |
|--|-------------------|
| | <i>(millions)</i> |
| Costs of charity care provided by Emory Healthcare (page 4) | \$68.7 |
| Financial aid provided to students from tuition income (page 24) | 17.3 |
| Emory Healthcare investment in WHSC teaching and research (page 25) | 73.7 |
| Cash loss for unrecovered costs for WHSC research (page 25) | 97.3 |
| Unreimbursed care provided at Grady Hospital (page 16) | 24.0 |
| Investment of Emory Medical Care Foundation in services at Grady Hospital (page 16) | 34.9 |
| Other community benefits | 109.2* |
| Total (millions) | \$425.1 |

**This includes the following:*

- Activities such as discounted/free prescription drug programs; programs for indigent patients; in-kind donations to organizations such as MedShare (see page 22); transportation services; flu shots; blood drives; subsidized continuing care, nursing home care, and home care; American Heart Association fundraising walk; and educational programs for the public, future health professionals, and patients *(millions)* **\$5.4**
- Shortfall between Emory Healthcare's cost to provide care to Medicaid patients and Medicaid reimbursement *(millions)* **\$87.4**
- Costs to Emory Healthcare for the Georgia provider tax *(millions)* **\$16.4**

Note: Statistics and information in this report are intended to augment rather than supplant the information required and the metrics used for Schedule H of the Form 990 that Emory University, Emory Healthcare, Wesley Woods Center of Emory University, and Wesley Woods Long Term Care Hospital file with the Internal Revenue Service.

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
- Emory Healthcare, the largest, most comprehensive health care system in Georgia
 - Emory University Hospital, 579 beds, staffed by Emory faculty physicians
 - Emory University Hospital Midtown. 511 beds, staffed by Emory faculty and community physicians
 - Emory University Orthopaedics & Spine Hospital, 120 beds, staffed by Emory faculty
 - Emory Johns Creek Hospital, 110 beds, staffed by Emory faculty and community physicians
 - The Emory Clinic, made up of 1,600 physicians, nurse practitioners, physician assistants, and other providers, is the largest, most comprehensive group practice in the state.
 - Emory-Children's Center, the largest pediatric multispecialty group practice in Georgia (and a joint venture with Children's Healthcare of Atlanta)
 - Wesley Woods Center of Emory University
 - Wesley Woods Hospital, 100 beds, inpatient geriatric care
 - Wesley Woods Clinic, providing outpatient primary care for geriatric patients
 - Budd Terrace, 250 beds, skilled nursing care facility
 - Wesley Woods Towers, 201 units, residential retirement and personal care facility
 - Emory-Adventist Hospital, 88 beds, jointly owned by Emory and the Adventist Health System
 - Emory Specialty Associates, an outreach physician group practice organization

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, 255 beds, Emory campus, staffed by Emory and community physicians, with Emory providing 80% of care
 - Children's at Hughes Spalding, 24 beds, Grady campus, staffed by Emory, Morehouse, and community physicians, with Emory providing 66% of care
 - Some Emory pediatric faculty also teach and have admitting privileges at Children's at Scottish Rite, 250 beds
- Atlanta Veterans Affairs Medical Center, 179 hospital beds and 50 nursing home beds, staffed by 265 Emory physicians

For more information, please contact
Health Sciences Communications: 404-727-5686
emoryhealthsciences.org





Day in and day out, Emory physicians, nurses, social workers, teachers, researchers, therapists, and others are contributing in extraordinary ways to meet the needs of the community. They are helping people get back on their feet (both literally and figuratively), providing millions of dollars in high-quality, compassionate care, regardless of patients' ability to pay.



EMORY
UNIVERSITY

Woodruff Health
Sciences Center