

Emory in the community:

Behind the scenes at the
Woodruff Health Sciences Center



The Robert W. Woodruff Health Sciences Center of Emory University includes

- Emory University School of Medicine
- Nell Hodgson Woodruff School of Nursing
- Rollins School of Public Health
- Yerkes National Primate Research Center
- Emory Healthcare, the largest, most comprehensive health care system in Georgia, which itself includes the following:

- The Emory Clinic
- Emory Children's Center
- Emory University Hospital
- Emory Crawford Long Hospital
- Wesley Woods Center of Emory University
- Emory-Adventist Hospital, jointly owned
- EHCA, LLC, created in collaboration with the Hospital Corporation of America

Emory Healthcare also has a community-based health care affiliate network comprising 45 hospitals representing 65 communities and more than 6,000 physicians throughout Georgia, Alabama, North Carolina, and South Carolina, with whom Emory shares its resources as an academic medical center and enhances the provision of health care services.

NOTE: As this report was going to press, the Emory Healthcare community and others in the Woodruff Health Sciences Center were responding to the urgent needs of many of those affected by Hurricane Katrina.



For increasing numbers of Georgians with little or no insurance coverage, Emory Healthcare physicians are providing the care they need but cannot afford.

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Doing what needs to be done

We like to say that our “reason for being,” or core purpose, in the Woodruff Health Sciences Center is to serve humanity by making people healthy. This encompasses the work we do in all our capacities, whether at the patient bedside, in the classroom, or in the lab; whether in the local community or in settings far away; whether for hurricane relief or for routine heroism that happens every day. In fulfilling our core purpose, our most important obligation is simply to understand and do what most needs to be done—to make people healthy.

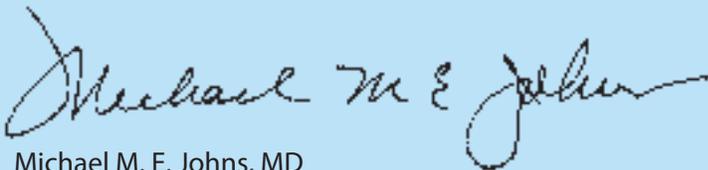
This book is meant to give our friends, even our own Emory family, a glimpse at some of the ways in which the Woodruff Health Sciences Center does this through service to the community, both for our nearest neighbors and for those on the opposite side of an ever-shrinking world.

Our highest priorities in such service are to maintain critically needed health programs that otherwise would not exist, to provide health care for those who otherwise would go without, and to make Atlanta and the world a healthier place. These are not easy goals, and they come at a cost to both the institution and the individuals who work to make them happen.

This book is also a way to express our own gratitude for the chance to serve, whether through clinicians in Emory Healthcare who provide tens of millions of dollars’ worth of charity care every year, through nursing students who run clinics for migrant farm workers, or through faculty in public health who work to solve malnutrition problems in children in Central America.

We are pleased to share with you some of the ways we work in the community as well as ways in which this “bread on the water” returns to us manifold, and we invite you to join us in this reaching out.

Sincerely,

A handwritten signature in black ink that reads "Michael M. E. Johns". The signature is fluid and cursive, with a large, sweeping initial 'M'.

Michael M. E. Johns, MD

CEO, Woodruff Health Sciences Center

Executive Vice President for Health Affairs, Emory University

Chairman of the Board, Emory Healthcare

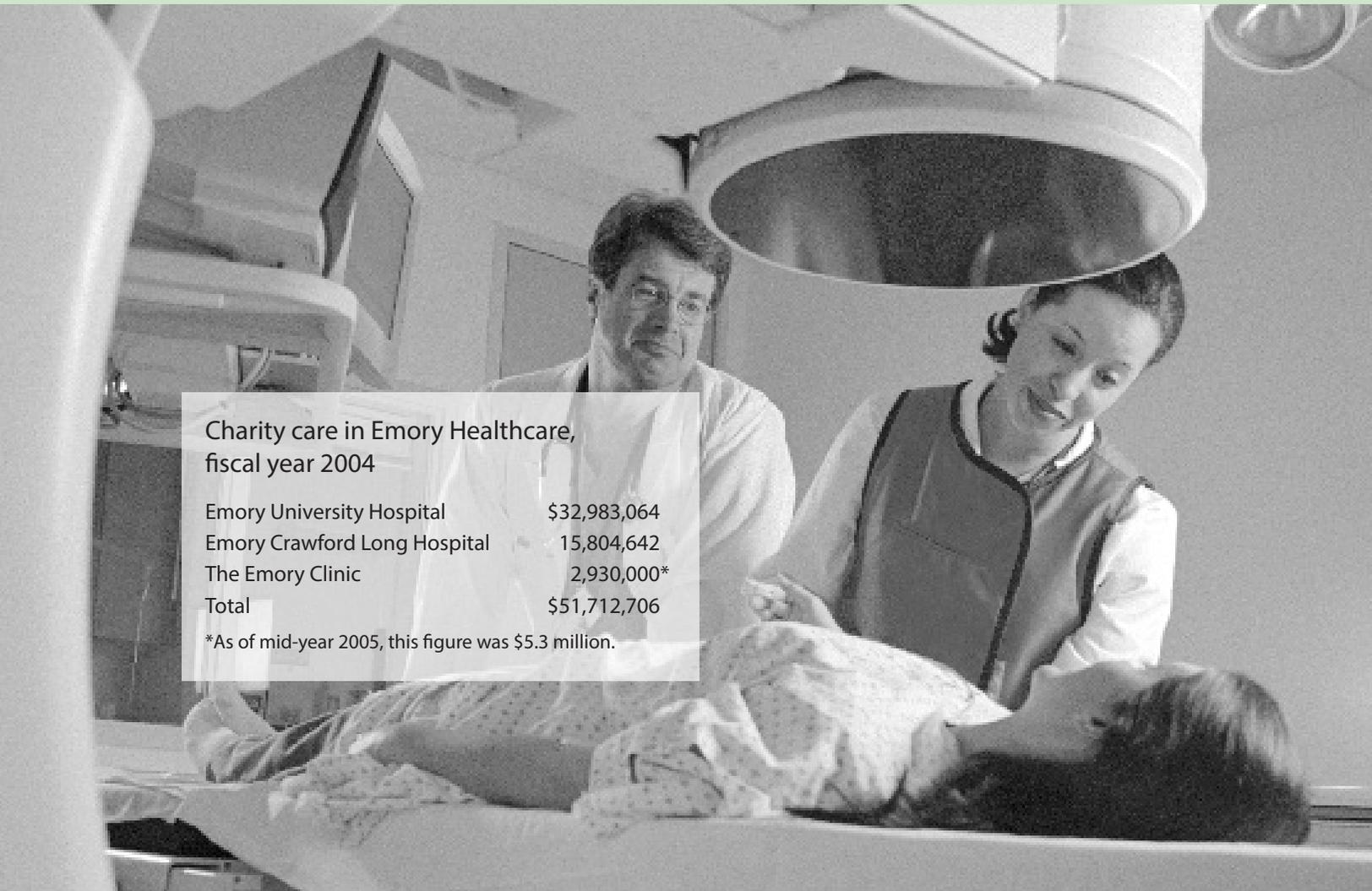
Charity care provided by Emory Healthcare

Illness, trauma, and high risk don't notice whether a person has health insurance. Catastrophic illness has become the most common cause of bankruptcy. In the old days, patients with good insurance helped make up the difference for those with little or no insurance. But those days are gone. In the present environment, the number of uninsured and underinsured Georgians continues to climb, even among those who work one or more jobs. As the cost (and curative power) of new treatments increase, the amount that payers are willing to reimburse health care providers continues to decline.

In a time like this, what do Emory's doctors, hospitals, and clinics do?

What they have always done: provide the best care possible to the patients who need it. That means in 2004, the last year for which complete figures are available, counting patients from every county in Georgia, Emory Healthcare physicians provided \$51.7 million in charity care, a number that appears likely to continue to rise (see table below).

What "charity care" means - Under Emory Healthcare policies, charity care encompasses indigent and catastrophic care (terms used in federal poverty guidelines). An example of those receiving charity care at Emory Healthcare would be homeless patients, who are not charged for care.



Charity care in Emory Healthcare, fiscal year 2004

Emory University Hospital	\$32,983,064
Emory Crawford Long Hospital	15,804,642
The Emory Clinic	2,930,000*
Total	\$51,712,706

*As of mid-year 2005, this figure was \$5.3 million.

Patients come first

By the time the young, South Georgia woman arrived in Emory University Hospital's emergency room, her liver was failing because of unexpected reactions to a prescription drug. The week before, she had been perfectly healthy. Now, she would die unless a new liver could be transplanted within 48 hours. Having listed her as Status One—highest priority—on the liver registry, Emory Healthcare clinicians focused on getting her ready if an appropriate donor match could be found. There was no time to worry whether she had insurance. They were going to save her life whether Emory got paid or not. They did save her life, and only the business office ever knew if the institution received any money for it.

Emory's policy regarding patients who will die without a liver, heart, or lung transplant is to operate without regard to financial status. That's a big gamble. The average cost of liver transplantation is \$150,000, although complex cases can easily top \$1 million. With one of the Southeast's largest liver transplant programs, Emory Healthcare provided \$7.95 million in direct charitable care for liver, heart, lung, and other transplant patients between September 2001 and April 2005.

A quirk of nature

The patient had been referred to Emory Healthcare because he needed specialized surgery unavailable in many hospitals in the state and because he had a medical history that would alarm any surgeon—or hospital administrator. Sometimes inexplicably, the patient's blood failed to clot normally, and he experienced hemorrhage. Sure enough, at Emory this patient's surgery went perfectly, but he continued to bleed. And bleed. And bleed. None of the usual medications could make it stop. The surgeon called for the first dose, then the second, then the third of factor VII, a synthetic blood-clotting agent. The drug is used widely for people with hemophilia, but many insurers refuse to cover its use for any other clotting problem. This man did not have hemophilia. Knowing that two other patients had needed the same medication within the past quarter, chalking up large unreimbursed expenses for the hospital, the surgeon called the hospital administrator with a heads-up. It wasn't a question of permission, since both knew this was the only way to keep the patient alive, whether the insurance company agreed or not. It took more than 20 doses—at \$10,000 a shot—before the patient's own body took over the work of clotting and he was able to go home.

Meeting the needs of the elderly and chronically ill

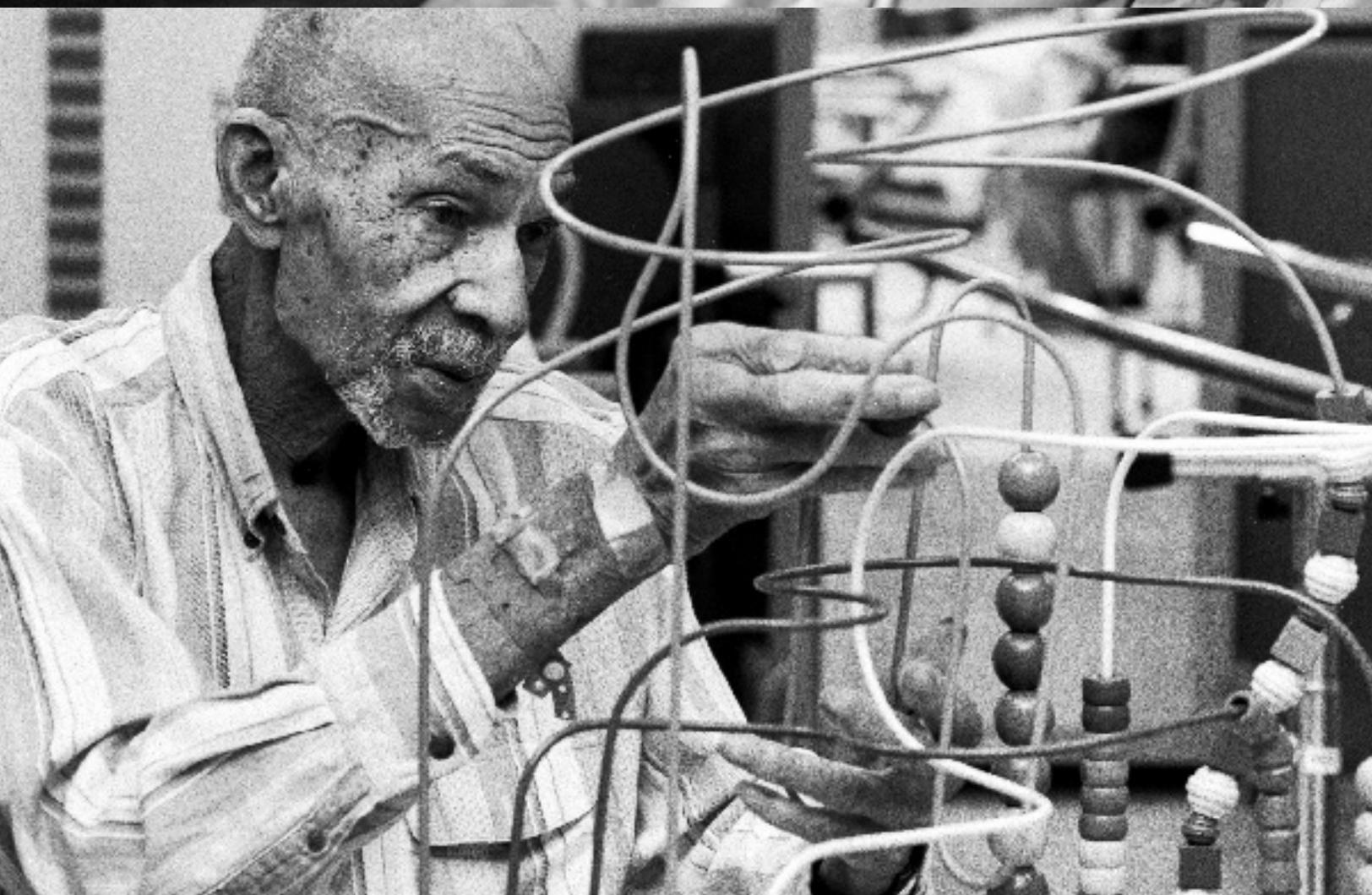
Administrators at Emory often say, a little wryly, a little proudly, that the Wesley Woods Center, a key component of Emory Healthcare, takes the concept of “nonprofit” to an art form. Patients and residents at Wesley Woods are part of the most rapidly growing segment of the population: those most likely to have complex, overlapping health problems and least likely to have either personal resources or adequate medical insurance. Although Wesley Woods’ state-of-the-art services draw many clients who do have coverage or other means to pay for care, the hospital treats with equal care and dignity those who have no money left and who are ineligible for federal or state programs.

Wesley Woods frequently is either under- or simply un-reimbursed for the majority of the 30,000 older adults and chronically ill patients served each year in its hospital, outpatient clinics, and nursing care and retirement facilities. On average, the center loses \$2.3 million every year, money that must be made up from charity—the biggest donor being the United Methodist Church—or from Emory itself. In fact, if Wesley Woods were not part of the Woodruff Health Sciences Center and Emory Healthcare, its ability to exist would be imperiled. Here are a few of the people who are grateful that it does exist and for the ongoing lifesaving services that Wesley Woods provides.

Stepping up to the plate

Following early onset of a devastating disease, Harry was left alert but increasingly “locked in” his own body. Even as his disease worsened, he was determined to make the most of his life. He made it clear he did not want to be taken off life support, no matter what happened, in the hope that a cure would be found to reverse or stop the problems that were slowly freezing his body. He volunteered to participate in a research study. And while he could, he smiled, laughed, and joked with his doctors and the scientists working with him. But eventually, he became dependent on a ventilator for breathing, and even the muscles of his face started shutting down. There was nothing left that could be done for him in Emory University Hospital, and doctors suggested that he be moved to Wesley Woods Hospital, to its long-term acute care unit. Harry had no insurance, no money, no federal or state program to help subsidize the costs of his care. In financial parlance, Emory Hospital had simply “eaten” these costs while he was there—and the hospital now undertook to reimburse the cost of his stay at Wesley Woods, at \$1,450 per day. He stayed there for three years, surrounded by caring nurses and staff, often visited by the researchers with whom he had earlier worked. By the time he died, Emory Healthcare had covered more than \$1.5 million for his care.





“Emory-Pays”

Aftermath of a stroke

When Joe had a serious stroke, he was rushed to Emory Crawford Long Hospital. After a week, he recovered to the point where he no longer needed to be in an acute care hospital, but he was too disabled to go home. He had no savings and no insurance and was too young for Medicare. That’s when he became one of the numerous patients the administrators at Wesley Woods’ Budd Terrace quietly call “Emory-pays” —patients receiving nursing home care for which Emory Healthcare pays the entire \$500-a-day cost. (Most patients at Budd Terrace are “private-pays,” with costs covered by insurance or private funds, while others are covered by charitable grants from the Jessie Parker Williams Foundation and the Wesley Homes Foundation.)

At Budd Terrace, Joe received daily rehab, while social service case managers worked to find financial resources that would help him throughout the rest of his life. For Joe, this involved getting him signed up for Veterans benefits. A month after his transfer to Budd Terrace, Joe was accepted by an assisted-living facility. In addition to the unreimbursed care at Emory Crawford Long, Emory had spent more than \$15,000 on Joe’s care at Budd Terrace and paid all the costs of his transfer to the new facility.

Budd Terrace sometimes cares for as many as 12 “Emory-pay” patients at one time before they can be discharged appropriately and compassionately.

A raging infection

Within days after 30-something Heather arrived at Emory University Hospital, doctors were able to control the raging infection that had devoured part of her breast. She no longer needed acute care, but her doctors felt uncomfortable about releasing her with an open wound, even though neither they nor the hospital were being reimbursed for her care. So she was transferred to Budd Terrace for daily sub-acute care, and Emory began paying her charges there.

When she arrived at Emory, Heather never expected to be in a nursing home facility where many of her fellow patients were in their 70s, 80s, and 90s. But she was grateful to be there. She was able to leave after three months (costing roughly \$45,000), when she was well enough to be released to her mother’s home in another state.



The hope of the future: Serving children

Emory Healthcare physicians at the Emory Children's Center are the connective tissue in a large and growing number of medical resources available for children. For example, the Angel II ambulances that dash out to small towns across North Georgia and bring in sick newborns and other babies for specialized care demonstrate the power of the partnership of the institutions within the Emory Regional Perinatal Center, which includes Emory Crawford Long Hospital, Children's Healthcare of Atlanta (whose on-campus Egleston site is staffed primarily by Emory physicians), and Hughes Spalding Children's Hospital at Grady.

In addition to directing intensive and intermediate care within the Emory Regional Perinatal Center and coordinating emergency transports throughout North Georgia for more than 850 babies annually, Emory doctors care for 1,700 premature and sick babies with special needs in metro Atlanta. State funds reimburse the hospitals (not the physicians), in recognition of the inadequacy of Medicaid or PeachCare funds to cover the hospital costs involved. The physicians bill for their services, hoping that there will be insurance but determined to provide the best care possible whether there is or not.



<< Georgia has one of the highest infant mortality rates in America. For unknown reasons, the rate of premature births and infant deaths is higher among African Americans. Not acceptable! In 2004, Emory's Division of Neonatal-Perinatal Medicine won the Leadership Award for Maternal and Infant Health from the Atlanta-based Center for Black Women's Wellness for its work in saving lives.

>> Emory's concern for children goes beyond medical care. Physicians in emergency medicine are tireless advocates for bicycle helmets. Faculty in public health teach adolescents about the risks of substance abuse. Nursing students perform free developmental physicals for 3- and 4-year-olds enrolling in Head Start. None of these programs are money-makers. All are good for kids.



Growing numbers of students have found friendly “pipelines” at Emory, ones that lead them to careers in medicine and science. Three students who participated as seventh-, eighth-, or ninth-graders in the Summer Science Discovery Camp, which is subsidized in part by the medical school, are now medical students themselves, and another four are applying for next year. The program is designed to heighten young students’ interest in science careers, particularly among African Americans and Hispanics. Topics range from human anatomy and neurobiology to environmental biology and field and stream ecology. “It’s worth whatever it takes because these young people are going to be fantastic doctors,” says the program’s administrator, who sometimes reaches into his own pocket to pay for kids’ lunches.

Older minority students also get a leg up in scientific careers in two programs begun at Emory and expanded with funding from the National Institutes of Health: PROMISE, an inexact acronym for a very exacting program in Post-baccalaureate Opportunities for Minorities in Biomedical Sciences, and FIRST, Fellowships in Research and Science Teaching for postdoctoral minority students, conducted jointly by Emory and the Atlanta University Center.

Tuition for the Summer Science Discovery Camp is kept to a minimum, with numerous scholarships available and medical faculty volunteering their teaching time.



It’s hard enough to get any kid to eat the healthy foods they need, so imagine what it’s like for a child with phenylketonuria, maple syrup urine disease, or one of the other inherited metabolic disorders detected by the Georgia newborn screening program. Because they can’t metabolize specific molecules, an ice cream cone or a hamburger can cause a toxic buildup resulting in debilitating damage to their developing brains. Since a statewide metabolic disease screening program for newborns was first established, Emory has served as the state referral center, holding numerous weekly clinics across Georgia and closely monitoring the diets of affected babies to assure they will grow up into bright, healthy kids—and have bright, healthy kids of their own.

The clinicians in this program try to make the onerous diets these kids must follow as easy as possible, frequently using Emory’s own resources to do so. A new clinical and laboratory genetics facility that opened in 2004 includes a store and demonstration kitchen where families can try new recipes using special metabolic products. Every summer, Emory invites about 40 young girls with these genetic diseases to a Metabolic Camp held on campus. They enjoy the company of girls who share the same dietary challenges—and they learn the importance of adhering religiously to their diet during their childbearing years to prevent mental retardation in their own offspring.

Is there a second chance for medically fragile babies and toddlers who have been abandoned or abused? Where do they go when their parents or relatives either can't or won't take care of them? For a steadily growing number of little ones in Atlanta, the answer to both questions is My House, an Emory-founded, Emory-affiliated emergency shelter and long-term transitional home, providing a nourishing, stable environment with both medical care and attention to development needs. Before My House existed, many of these babies simply remained boarders in the hospital where they were born or treated, running up hundreds of thousands of dollars in hospital costs. But it was the staggering human costs that most pained Donna Carson, an instructor in Emory's pediatrics department. In 1999, she and fellow faculty member Sue Glover founded My House as Georgia's first emergency shelter for medically fragile infants.

Carson is a fierce advocate who refuses to put limits on the possibilities for children who once might have been deemed hopeless. She is often called a "one-woman revolution," a spark that has ignited the community's heart. The nonprofit organization she heads today is operated with grants, donations from businesses and individuals, and hundreds of volunteers from the community. Widely recognized and honored, Carson and My House exemplify how Emory and the Atlanta community can work together to help children.

Dialysis means the difference between life and death for babies born with poorly developed kidneys or for kids who develop acute kidney failure as a result of infection, as did several children a few years ago who visited an Atlanta water park contaminated by E. coli. Pediatric nephrology in general, including dialysis, receives less than half of the amount billed for their services. For children

For many services provided to chronically ill children, any reimbursement comes nowhere close to paying for the actual time and expenses involved in getting (and keeping) a child well.

with no insurance, case managers work with the families to help them connect to any federal or state coverage for which they may be eligible. The issue gets more complicated in the case of children of immigrants who are in the United States without proper documentation. Invariably without money, they are ineligible for coverage and for donor kidneys and must receive ongoing dialysis.

Barry Warshaw, the Emory doctor who established Georgia's first dialysis service for children, says he doesn't know—and doesn't want to know—which children have coverage and which don't. "When they walk in the door, we know that without dialysis they will sicken further, then die. Whether we are paid or not," he says, "of course we are going to treat them."

Emory physicians' role at Grady Hospital

In addition to charity care provided by Emory Healthcare through Emory's own facilities, Emory physicians provide a substantial amount of charity care at Grady Hospital, where Emory and Morehouse medical school faculty provide 85% and 15% of care, respectively. The uncompensated care provided by Emory at Grady totaled \$22 million in fiscal year 2004 alone.

When Emory physicians do receive reimbursement for services to those Grady patients who have coverage, these funds are invested back into Grady via the Emory Medical Care Foundation, which was established by Emory physicians to disburse income for support of Emory's mission at Grady. These funds, which totaled \$39.2 million in 2004, are used for a variety of purposes, ranging from building new facilities and buying equipment and beds to research and salary support for vital patient services or providers.

Despite the fact that Grady cares for some 100,000 indigent patients, it is able to provide extraordinary services, many of them offered statewide, many recognized nationally. The programs noted here, all established and headed by Emory doctors, reflect the long-standing partnership between Emory and Grady.



Diabetes care: Keeping track of an arduous diet and medication regimen, remembering to pay attention to foot care and other potential complications, and handling all the other complexities of being diabetic are challenging enough for anyone, but particularly so for much of the patient population seen at Grady. The Diabetes Clinic at Grady was founded in the early 1970s by Emory doctors who pioneered a team approach to care as well as culturally oriented dietary management. The clinic follows more than 4,000 patients every year, including the largest patient base of African Americans with diabetes of any clinic in the nation. Emory doctors recently developed one of the largest computerized databases of its kind to track patients' diabetes care. The clinic also is active in training health professionals from all over Georgia in diabetes care.

Hematologist James Eckman leads the Sickle Cell Center, which has helped dramatically reduce hospitalizations for patients with this disease.



Sickle cell disease: Imagine your red blood cells suddenly curving in on themselves, becoming entangled, unable to flow smoothly through vessels, causing excruciating pain, slowing the transport of oxygen. That's what happens in a sickle cell crisis, mainly affecting people of African descent, and it's the reason the Sickle Cell Center at Grady opened the world's first and only dedicated 24-hour acute care treatment clinic. The center has the largest combined adult and pediatric sickle cell clinic in the world, actively following more than 1,300 patients. Before medical advances in recent years, sickle cell patients often died young. Now the center treats their disease and also helps them prepare for a long and productive life. The center has one of the first state-certified vocational rehabilitation training sites within a Georgia hospital, providing job training, education, and basic computer skills to sickle cell patients.

Lupus: In 2003, Emory rheumatologists developed the state's first and only clinic dedicated to systemic lupus erythematosus, in which the immune system suddenly attacks the body, causing achy joints, prolonged fever and fatigue, mouth ulcers, and steady erosion of heart, lungs, kidneys, and other organs. The disease primarily strikes women of childbearing age, and a disproportionate number are African Americans and Hispanics. Since establishing the clinic, Emory rheumatologists have seen 350 patients and now lead a CDC-sponsored Georgia Lupus Registry, working in partnership with the Georgia Department of Human Resources, physicians across the state, and patient advocacy groups such as the Georgia chapter of the Lupus Foundation of America.

Emory at Grady, continued

HIV: AIDS has changed a lot since 1986, when Emory's Infectious Disease Program opened its first AIDS clinic at Grady with 10 patients. Today, close to 5,000 people (including 300-plus children) of all colors and ethnicities and from all walks of life—about half of all HIV/AIDS patients in Atlanta—receive care at the freestanding Ponce de Leon Center, a 90,000-square-foot facility that is home to one of the nation's most comprehensive AIDS care programs. The center provides extensive outpatient medical, dental, and counseling services without regard to ability to pay. The Ponce Center also is deeply involved in prevention and research, including clinical trials unavailable elsewhere in the region.

Emergency care: The safety net of safety nets, Emory's emergency medicine physicians and surgeons are best known for providing trauma care at Grady, in the largest and busiest level I trauma center in Georgia. Emory emergency medicine doctors also established and manage acute care transports through Emory Flight, extending the reach of care to other Georgians for whom resources like the trauma center, burn center, and poison control center mean the difference between life and death.

These doctors also go beyond what they call "resurrection medicine" (saving those near death). They take steps to prevent the horrors they see every day: child neglect and abuse, fire-arm violence, head injuries, and other trauma from car and bicycle accidents, to name a few. They talk at churches, synagogues, and community events. They volunteer in programs for the homeless. They seek funding and collaborate with the city and schools to develop awareness and risk-reduction programs. And they go to the Capitol, testifying in sessions or cornering legislators to explain why these problems matter and what can be done about them.



Each afternoon, emergency department staff at Grady Hospital ready gurneys near the ambulance bay to prepare for the evening rush. By early morning on a routine day, the department will have served more than 300 patients.

Emergency medicine physicians are active in community health education, says Leon Haley, Grady's chief of emergency medicine.

Emory's partnership with the Atlanta Veterans Affairs Medical Center

One of Atlanta's best-kept secrets, the Veterans Affairs Medical Center (VAMC) has been affiliated with Emory since 1946 and has shared a backyard with the University since 1966. In fact, VAMC leaders credit the facility's extraordinary teaching, research, and patient care to synergy with Emory. Emory physicians comprise virtually all the medical staff at the 171-bed hospital and have helped the hospital climb to 10th among the nation's 158 VA centers nationally in research dollars received.



Cutting-edge research conducted at the Atlanta VA Medical Center on HIV, diabetes, prostate cancer, and osteoporosis promises to have far-reaching effects on the health of veterans and nonveterans.

Giving hope to other vulnerable populations

It is easy to slip through the safety net for those who have lost or never found their voice: those who are homeless because of problems with mental illness or the relentless grip of addiction, for example, or those struggling to put food on the table in a land whose language and ways are still mysterious. For these thousands of

For these thousands of voiceless, a few moments of understanding and dignity can seem as important as health care.

voiceless, a few moments of understanding and dignity can seem as important as health care. The Woodruff Health Sciences Center tries to provide some of both to these vulnerable populations. In return, these voiceless do speak—and become some of the center's most important teachers. Lessons learned in these

exchanges, about looking below the surface, about the healing power of touch and respect, help Emory's future doctors, physician assistants, nurses, and public health practitioners provide the kind of care most needed.

Emory psychiatry faculty working at Grady Hospital provide outreach services to the city's homeless who are severely mentally ill, with the goal of getting them into shelter and reducing incarceration and hospitalization.



Helping migrant farm workers

Georgia's migrant farm workers have little time, less money, and zero coverage to seek out health care. That's why each summer, faculty and students from the Nell Hodgson Woodruff School of Nursing go to them, in the rural areas in South Georgia where they work. Thanks to a Farm Worker Family Health Program founded 12 years ago, each year 1,000 migrant workers and their children receive free health assessments, including pap smears and treatment for problems such as muscle strains, foot fungus, eye infections, skin rashes, and diabetes.

For years, faculty and students crammed all their care into a two-week period. Now, thanks to a grant from the Georgia Health Foundation, students are able to return during the year. For many of the workers and their children, this is the only health care they ever get. And for the nursing students, helping provide that care is often their first opportunity to see what an enormous difference they can make in the community.



A recovery program that works

The special of the day at Café 458 may be chicken, pizza, or any of a dozen other dishes, but what's always on the menu are respect and dignity. Those are particularly delicious dishes for

many of the customers, homeless men and women struggling with addiction, mental illness, and severe physical disabilities but eager to achieve personal goals that will keep them off the street and make them more self-sufficient.

At Café 458, people for whom so many doors have been closed, for whom meals often entail standing in a long line, instead sit down at a table with a tablecloth and fresh flowers, order from a menu of healthy lunch choices, and are served by a volunteer waiter as would happen in any restaurant. During weekend brunches, when



Café 458 was founded by nursing faculty member Ann Connor (left, foreground) and her husband.

Vulnerable populations, continued

the restaurant allows the ordinary public to eat alongside the homeless, the feeling of inclusion in ordinary society grows even stronger. In fact, tied as it is to so many important social services, the café's motto is that a choice from the menu is simply a starting point in the process of empowerment. It seems to be working. Since Café 458 was founded almost 20 years ago by nursing faculty member Ann Connor and her husband, she and many other nursing faculty and staff have spent countless hours working in this and related programs. Nationwide, 90% of people who complete a recovery program relapse within six months. By contrast, two-thirds of all graduates of the café's recovery program remain clean and sober during the same time period, making the program a prototype for others.

The most vulnerable women in the city—prostitutes, women addicted to crack cocaine, women at high risk for HIV and other sexually transmitted diseases—have been the focus of public health researcher Claire Sterk's work for years. Sterk has established a safe house where women in one of Atlanta's roughest neighborhoods can meet for a meal and participate in an HIV-prevention program.

Emory faculty, staff, and students reach out to the immigrant community in a number of ways. Nursing students work at the Atlanta International School, where half of all students are refugees, meeting with newly arrived immigrants to teach basic hygiene and provide health information. The school of public health's Interfaith Health Program partners with churches and government organizations to offer health information and other crucial services to the immigrant community.



Supporting the local community through volunteer efforts

Throughout the year, Emory Healthcare clinicians and other faculty in the Woodruff Health Sciences Center, along with staff and students, hold numerous free health screenings. In addition, the Winship Cancer Institute provides numerous support groups for patients, whether they are seen at Emory or not. Other support groups focus on health issues ranging from smokers who want to quit to people who have had an organ transplant and are dealing with the emotional and medical follow-up. Numerous support groups and other free sessions are led by Emory Healthcare pastoral care staff to help patients and families deal with grief and loss. These are held on campus, in assisted-living facilities, and in congregations and other organizations where tragedy strikes.

Throughout the Woodruff Health Sciences Center, faculty embrace the opportunity to use their own time, without compensation, to teach members of the public how to become knowledgeable partners in staying healthy. Emory Healthcare clinicians, for example, offer lectures on specific problems and new treatments available and participate in free speakers' bureaus.



In 2004, as in every year, Emory employees walked, ran, and rode bikes to raise money for AIDS, heart, and other research. Staff at Yerkes National Research Primate Center helped build a house for Habitat for Humanity. They also donated a large quantity of food for pets in PALS (Pets are Loving Support), a group to help people living with AIDS care for their animals.



The world starts here: International service

The reach of work by Emory's doctors, nurses, and public health practitioners extends throughout the globe.



Public health professor Rey Martorell has gathered data to show the long-term economic benefits of investing in nutritional supplements for children in countries like Guatemala.

Motherhood is often abbreviated in Kenya, where about 20% of children die before the age of 5.



Researchers in nursing are working on a study in Kenya to help mothers prevent transmission of HIV to their children.

The risk of HIV transmission due to blood transfusion approaches one in 500 in some developing countries (compared with one in 5 million in the United States). The World Health Organization estimates that 5% to 10% of HIV infections worldwide are caused by transfusion of unsafe blood and blood products and that the percentage is considerably higher in many African nations where blood products are seldom tested and the majority of hospitals have no transfusion policies or procedures to limit HIV transmission. More than half of all blood transfused in Africa is given to children. The dangers of transmitting AIDS in transfused blood may be changing, thanks in part to the efforts of Emory Healthcare's Christopher Hillyer, director of the Emory Transfusion Medicine Program and President-Elect of the American Association of Blood Banks. Hillyer is the co-principal investigator of a five-year grant funded by the President's Emergency Plan for AIDS relief to improve the safety of blood transfusion in Kenya, South Africa, Mozambique, and Guyana.

In Kenya, large numbers of young nurses are dying of AIDS. That's one reason this and other countries hardest hit by poverty and disease have fewer and fewer nurses to hold together already fragile health care structures. Another reason is that richer countries regularly recruit Kenya's nurses away in an effort to solve their own countries' worsening nurse shortages. The Nell Hodgson Woodruff School of Nursing's Lillian Carter Center for Inter-

national Nursing—created precisely to strengthen the global capacity of nurses to improve the health of vulnerable people worldwide—works closely with governmental chief nursing officers in Kenya and more than 80 countries to help reverse the flow of nurses from the very countries that need them most.

Georgia—the one in the former Soviet Republic—has bestowed honorary citizenship on Kenneth Walker, the Emory medicine and neurology professor who heads the Atlanta-Tbilisi Health Care Partnership. Created by Emory 15 years ago to improve the education and health care systems in this struggling country, the partnership includes Emory's schools of medicine, nursing, and public health, as well as Georgia State University, Morehouse School of Medicine, Grady Memorial Hospital, and Georgia Institute of Technology. Over the years, all these institutions have sent faculty back and forth to the other Georgia, but none have made

the trip more often than Walker. He exemplifies Emory's broad-scale commitment to bringing this and other developing nations the information, technology, and training they need to improve health care for their own citizens. Program areas range from providing training in emergency medical services and in maternal and child health to helping get prosthetics for an estimated 10,000 lower-limb amputees, half of whom were injured in land mine explosions.

Malnutrition during pregnancy and in childhood often has devastating long-term effects on physical and intellectual development of the individual and, if widespread, on the health and functioning of the nation. Even the failure to obtain sufficient amounts of specific minerals or vitamins during pregnancy—a nickel's worth of iodine, easily packaged in iodized salt—can result in severe retardation and other birth defects. The Rollins School of Public Health has had a major impact on the nutrition and consequent health of children and adults. Rey Martorell's research on the effects of improved nutrition during pregnancy and early childhood, conducted over three decades in Central America, has had a major influence on the policies of international organizations such as UNICEF, the World Bank, and the World Food Program. Glen Maberly, founder and director of the Program Against Micronutrient Malnutrition, has been given a share of the credit for the elimination of iodine deficiency in children in China, and Fritz van der Haar heads the network for Sustained Elimination of Iodine Deficiency, a global alliance of 10 international organizations working toward universal salt iodization. Work by other faculty in public health on a Flour Fortification Initiative, sponsored by UNICEF and the CDC, seeks to improve micronutrient status of global populations through fortification of wheat flour.

Recognizing that tiny amounts of money may yield huge payoffs, faculty in the school of public health have worked to fight micronutrient malnutrition in children and pregnant women in countries in Central America and elsewhere.



The Atlanta Rotary recently joined forces with the Rollins School of Public Health's Center for Global Safe Water to build new wells and support safe water treatment and storage in Kenya. The joint effort was inspired by problems in many villages in the struggling country where lack of easy access to clean water means children must spend hours carrying water instead of going to school and poor sanitation causes life-threatening disease. The effort also was inspired by the

An estimated 1.1 billion people lack access to safe drinking water. Public health faculty are working to reduce this staggering figure.

The school of public health's Center for Global Safe Water is working to support the efforts of women like this one, who go door to door or set up shop to sell a chlorine solution for purifying water.



success of an inexpensive but effective water purification program, sponsored by the CDC and CARE, in which poor Kenyan women borrow enough money to buy a purifying chlorine solution wholesale and sell it retail to their neighbors. The program works. It gives the women (sometimes called the Avon ladies of Kenya) unprecedented economic power and already has cut in half the number of cases of diarrhea in children under 5, those least likely to survive serious bouts of the disease.

Faculty in public health are also working to build better latrines in places like El Salvador to help conserve water, prevent pollution, and reduce childhood illness and death.

Emory Healthcare surgeon Steven Roser recently spent a week with a team of volunteers at a government hospital in Ecuador, where they repaired cleft palate and other deformities in children.



The unrecognized costs of research

During 2003-2004, the Woodruff Health Sciences Center received \$329 million in research funding, making Emory University (total funding \$351.5 million) the leading research university in the state. This money does many things: It adds to Atlanta's resources and economic development, helps Georgia in its mission to become a leader in biotechnology and technology transfer (Emory has launched 27 start-up companies over the past decade), gives patients access to clinical trials, helps train new scientists, and yields numerous advances in the treatment, early detection, and prevention of disease.



Emory's research successes help the world, but the dollars themselves help the Atlanta community in ways far beyond economic development. Emory's ability to bring in federal, state, and foundation research money makes a great difference to the public hospitals and programs in which faculty work and to the community members served by those faculty. Research funds also help grow programs, services, and reputation.

But as administrators know full well, research funding is a two-edged sword, usually costing the institution more in overhead expenses than the grants bring in. Last year, the total cash loss on unrecovered indirect costs for the Woodruff Health Sciences Center was more than \$40 million. Research-related cash losses (for research, clinical trials, training and fellowships, and other expenses) for the schools of medicine, public health, and nursing and for Yerkes National Primate Research Center totaled \$27.9 million, \$8.2 million, \$636,284, and \$3.3 million, respectively.

But, say administrators, it was worth every penny, for reasons such as the following:

- Twice a month, dozens of scientists and clinicians gather at Emory for a lecture by a nationally recognized researcher, as part of the Drug Development and Pharmacogenomics Academy created by Emory's Winship Cancer Institute and the medical school's Department of Pharmacology. The goal is new, better, more effective drugs to tackle cancer. In a spirit of collegiality, Emory has opened the star-studded academy, without charge, to the entire scientific and medical community in Atlanta and the region.

- Now at 600, the number of clinical trials under way at Emory rises almost weekly, joining the best science to the most attentive medicine and giving today's patients access to tomorrow's cures.

A successful vaccine to prevent AIDS would save more lives than any medical innovation since penicillin, and Emory is on the lookout for that new magic bullet. Researcher Harriet Robinson has a DNA/poxvirus vaccine considered among the most likely candidates to succeed in helping control the AIDS pandemic, because of its ability to be tailored to different viral strains. In addition, Emory researchers developed a compound that is now the single most widely prescribed anti-HIV drug in the world, part of the AIDS “cocktail” that literally brought many patients back from death’s door.



The next generation: Scholarships and training

For fiscal year 2005, the Woodruff Health Sciences Center spent almost \$11.4 million, more than half of the revenue from graduate and professional school tuition coming into Health Sciences, to provide financial aid for students in the schools of medicine, nursing, and public health. In all three schools (which include Emory's highly ranked physician assistant, physical therapy, and nurse practitioner programs), the deans have allocated the schools' own money for scholarships and student loans. The deans say that scholarship aid is their single highest fund-raising priority in the years ahead.



FOUNDING LEGACY IN COMMUNITY SUPPORT

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



The Robert W. Woodruff Health Sciences Center
Emory University

The Woodruff Health Sciences Center plays a vital role in contributing to the health of the community, from local to international. Emory Health-care clinicians, who provide millions of dollars in charity care each year, join others throughout the center, in the schools of medicine, nursing, and public health and in Yerkes National Primate Research Center, doing what it takes—solving urgent problems and meeting crucial needs that would otherwise go unmet.



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