A record number of prospective students descended on Rollins in March for Visit Emory Day. The 374 attendees (545 with their guests) toured buildings and the campus, visited the David J. Sencer CDC Museum, and attended a research and opportunities fair. The mood was decidedly festive, coming shortly after *U.S News & World Report* announced Rollins’ No. 5 spot in its rankings of public health schools and programs.
A founder leaves 12
Dick Levinson retires after 40 years at Emory, during which time he helped establish and build Rollins.

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Partnerships between researchers at Rollins and Georgia Institute of Technology fuel discovery.

COVER STORY
The founders of BLKHLTH pause for a selfie during the cover photo shoot. The four Rollins alumni devote most of their free time to the social justice organization they run. The mural, Sunrise of Edgewood, located at U Space Gallery at 439 Edgewood Avenue SE, was created by Baltimore-based street artists Gaia during the Living Walls Conference in 2012.

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Potter studies the financial toll campus sexual assault extracts from its victims in the form of changing to less challenging majors or dropping out of college altogether. She has also developed bystander intervention strategies to stop assault before it happens.
Making black health matter

Each year our graduates go out in the world and start making a difference. In this issue, we introduce you to four recent graduates who have already made an impact. They have started a social justice organization, BLKHLTH, with the goal of improving the health and wellness of people of color. Through podcasts, community events, and workshops, these alumni are raising awareness of racialized health disparities and suggesting solutions. I find their work inspiring, and I hope you do too.

This issue also looks at the strong partnerships between Rollins and the Georgia Institute of Technology. Working in areas including air pollution, water and sanitation, diabetes, and the exposome, the collaborations between Rollins and Georgia Tech researchers have produced impactful work that neither could have accomplished alone. It’s such a strong partnership because Georgia Tech researchers are skilled at solving problems and the Rollins researchers know the problems that need to be solved.

The Humphrey Fellowship celebrated its 40th year as a program and its 25th year at Rollins. The program brings accomplished mid-career professionals from designated developing countries to the United States for one year of non-degree graduate study and practical professional experience. We take a look at five former fellows and the difference the fellowship allowed them to make in their countries.

Finally, we celebrate the career of Dick Levinson, who retired as executive associate dean for academic affairs. He was one of the founding pillars of our school, a beloved teacher, and a skilled administrator. In honor of his years of service, Room 1000 in the Claudia Nance Rollins Building, widely considered to be the best classroom in the school, has been named in his honor. We will miss Dick greatly and wish him well in his retirement.

James W. Curran, MD, MPH
James W. Curran Dean of Public Health
Emory’s largest ever research grant

Emory received its largest ever research grant—$180 million awarded to the Child Health and Mortality Prevention Surveillance network (CHAMPS). Launched in 2015, CHAMPS collects and analyzes data to help identify the causes of child mortality in the places where it’s highest. This latest $180 million supplement brings the Bill & Melinda Gates Foundation’s total investment in CHAMPS to $271 million.

“More than 5 million children die every year from mostly preventable causes, the overwhelming majority of them in sub-Saharan Africa and South Asia,” says Dr. Robert F. Breiman, professor of global health in the Hubert Department of Global Health, director of the Emory Global Health Institute, and principal investigator for CHAMPS. “CHAMPS relies on diverse partnerships with research institutes, universities, and health ministries in the countries where we work. The innovative surveillance and analysis being done by CHAMPS and its partners will catalyze evidence-driven interventions at the local, national, and global levels that we believe can save the lives of millions of children.”

CHAMPS has established sites in Bangladesh, Ethiopia, Kenya, Mali, Mozambique, Sierra Leone, and South Africa, and will add two more in the program’s next phase. CHAMPS partners with governments and national public health institutes to prepare to use CHAMPS findings to better understand and prevent specific causes of disease in children under age five. CHAMPS’ inclusive, open-access approach to data-sharing is designed to stimulate and incorporate creative new ideas to prevent child mortality.
David Stephens receives the 2019 Charles R. Hatcher Jr. MD Award

David S. Stephens MD has been named the 2019 recipient of the Charles R. Hatcher Jr. MD Award for Excellence in Public Health. Stephens is vice president for research in the Robert W. Woodruff Health Sciences Center (WHSC), a position in which he oversees the WHSC research enterprise and leads planning activities that enhance research programs and collaborations throughout the WHSC and Emory University.

Stephens wears many other hats as well. He is the Stephen W. Schwarzmann Distinguished Professor of Medicine, chair of the Department of Medicine at Emory School of Medicine, professor of microbiology and immunology, and professor of epidemiology at Rollins. He is also chair of the Research Advisory Council in the WHSC and a member of the Executive Committee on the WHSC Leadership Team.

Since joining Emory in 1982, Stephens has led the development of successful programs in infectious diseases and microbial pathogenesis.

In 1988 Stephens co-founded the Atlanta Active Surveillance Project (now the Georgia Emerging Infections Program), a population-based surveillance and clinical research program. In 2001 he led CDC’s clinical emergency response team in defining clinical issues in prophylaxis, diagnosis, and treatment of Bacillus anthracis infections and has contributed to efforts to combat other infectious disease threats such as epidemic meningitis, SARS, and recently Ebola virus disease.

Stephens has served as the site principal investigator for multiple NIH RO1 and other federal grants, including the NIH-sponsored Southeastern Regional Center of Excellence for Emerging Infections and Biodefense, the CDC-supported Southeastern Center for Emerging Biologic Threats, and the NIH-funded Exploratory Center for Interdisciplinary Research in Vaccinology. He also founded and directed the Emory University NIH K30 Clinical Research Curriculum Award (now a component of the CTSA).

The infectious diseases program he directed has graduated more than 130 fellows, and his laboratory has trained 90 infectious diseases fellows, postdoctoral fellows, medical students, and undergraduates in bacterial pathogenesis.

Increased coverage but modest treatment gains for depression

While insurance coverage for depression has increased, treatment rates have grown more modestly, according to a study led by Dr. Jason Hockenberry, associate professor of health policy and management. The findings indicate that non-financial barriers to patient care remain.

The researchers analyzed health services and spending data from the 1997, 2007, and 2015 Medical Expenditure Panel Surveys, which included the responses of 86,216 individuals. During the examined survey years, a number of new treatments and medications became available, and policies targeted toward mental health (such as the expansion of Medicaid under the Affordable Care Act) increased coverage of mental health services. Findings from the researchers’ analysis show an absolute increase in the prevalence of treated depression and an increase in the proportion covered by insurance (Medicaid in particular). Despite this, overall spending on depression-related care has experienced a gradual increase (approximately 2 percent a year) from 1998 to 2015, and the rate of treatment for depression remains lower than the reported rate of incidence.
Climate targets make financial sense

New research offers economic vindication of the Paris Agreement climate targets, stating that health benefits resulting from improvements in air quality significantly outweigh any near-term costs, especially in developing regions.

The study’s lead co-author, Dr. Noah Scovronick, assistant professor of environmental health, began his research when he was at Princeton University. Scovronick says it is becoming increasingly important to take into account public health effects when making policy decisions about climate change, and the study provides a new climate policy model to do that.

“We’ve built these considerations directly into this new model to see how the cost-benefit calculation changes when these impacts are accounted for,” Scovronick says. “If we include the health benefits, the model tells us to reduce our emissions much more quickly than it would otherwise.”

The model combines the cost of reducing carbon emissions with the potential health ‘co-benefits’ and establishes that climate change investments can yield net gains. Traditional cost-benefit models of climate policy have typically ignored the conditions caused by air pollution which take a heavy economic toll on a country.

While the global health benefits from reduced emissions could reach trillions of dollars annually, the extent of the impact will depend on air quality policies that nations adopt independently of climate change. The researchers found that India and China might in the near-term benefit the most from adopting such policies.

Clean water, efficient cookstoves

Unsafe drinking water is a major cause of mortality around the world. An estimated 1.1 billion people lack access to safe drinking water, more than a third of whom rely primarily on open wells and untreated surface water that can be contaminated with human and animal feces. Cooking indoors on traditional open-fire stoves with solid biomass fuels such as wood and charcoal has been linked with pneumonia, low birthweight, and impaired development in children.

A large-scale program to deliver water filters and portable biomass-burning cookstoves to Rwandan homes reduced the prevalence of reported diarrhea and acute respiratory infection in children under 5 years old by 29 percent and 25 percent, respectively, according to a Rollins study.

“After neonatal disorders, pneumonia and diarrheal disease are the two leading killers of children under 5 years of age in Rwanda and in much of sub-Saharan Africa,” says Dr. Thomas Clasen, Rose Salamone Gangarosa Chair in Sanitation and Water, who led the study. “The results of this trial provide strong evidence that effective interventions can be successfully delivered to and embraced by a population at risk, even in remote rural settings.”
Why are those born in the rural South less healthy and prone to die sooner?

Rollins researchers are participating in a landmark study to understand why people born in rural communities in the South live shorter and less healthy lives than their counterparts elsewhere in the country.

The Risk Underlying Rural Areas Longitudinal Study (RURAL) will allow researchers to learn what causes the burden of heart, lung, blood, and sleep disorders in select rural areas in four southern states—Kentucky, Alabama, Mississippi, and Louisiana. It will offer clues on how to alleviate these diseases, including factors that amplify risk and resilience in rural communities.

The six-year, $21.4 million study will recruit 4,000 multi-ethnic participants from 10 of the most economically disadvantaged rural counties in southern Appalachia and the Mississippi Delta. It includes 50 investigators from 16 institutions across the country and is funded by the National Heart, Lung, and Blood Institute, which is part of the National Institutes of Health.

A transdisciplinary team will use a mobile examination unit—essentially, "a research center on wheels"—to conduct an approximately four-hour-long detailed baseline examination on study participants. Familial, lifestyle, environmental, economic, and behavioral factors will be recorded along with medical history including risk for heart, lung, blood, and sleep disorders. Researchers will use smartphones and wearable activity monitors to gather data about the health and lifestyles of participants.

Dr. Viola Vaccarino, Wilton Looney Chair of Cardiovascular Research and professor of epidemiology, Dr. Tené Lewis, associate professor of epidemiology, and Dr. Gene Brody, professor of behavioral sciences and health education, will work with colleagues from the University of California, Berkeley, on the social determinants portion of the study. "We will develop, implement, and evaluate psychosocial instruments and methods that are best suited for this special population and provide training and troubleshooting for research staff involved in behavioral and psychosocial assessments," Vaccarino says.

Rural populations, according to Lewis, have typically been understudied despite having much higher rates of cardiovascular and lung disease. "We recognize that the causes of rural-urban health disparities are likely multifactorial, but we believe that psychological and social factors play a key role," she says. "We are well positioned to improve our understanding of factors that may drive some of the increased rates of disease that we are seeing in these communities."

Apart from Emory, the other institutions participating in RURAL are Duke University; Johns Hopkins University; Los Angeles BioMedical Research Institute; University of California, Berkeley; University of Massachusetts Medical School; University of North Carolina at Chapel Hill; Perelman School of Medicine at the University of Pennsylvania; Larner College of Medicine at the University of Vermont; University of Virginia at Charlottesville; and Wake Forest School of Medicine.

In addition, investigators from the University of Louisville (Kentucky), LSU’s Pennington Biomedical Research Center, University of Mississippi Medical Center, and University of Alabama at Birmingham will play a central role in participant recruitment, retention, follow-up, data return, return of results, community engagement, and education.

The study’s coordinating center is Boston University School of Medicine.
Conventional vs. organic milk

In a small study of milk collected from stores across the United States, Rollins researchers found traces of current-use pesticides and antibiotics in conventionally produced milk but not in milk produced using organic methods. They also found, that growth hormone levels were higher in the conventional vs. organic milk samples. While most samples were within FDA and EPA limits considered safe for these substances, several samples of conventionally produced milk exceeded FDA limits for a few of the antibiotics tested.

Dr. Dana Boyd Barr, professor of environmental health, is senior author of the paper that was published in Public Health Nutrition. Barr is director of a laboratory that studies human exposure to a wide range of chemicals.

“Sufficient exposure to pesticides may lower birth weight, contribute to delayed motor and neurological development, and increase cancer risk,” the authors say.

They also note the long-time hypothesis that levels of antibiotics in dairy and meat products could lead to antibiotic resistance and hypersensitivity.

Researchers collected samples from a total of 69 half-gallon milk cartons: 34 organic and 35 conventionally produced. They tested multiple brands of milk collected from across the U.S. The majority of samples were of milk with 2 percent milkfat, the type most commonly consumed by U.S. children.

“To our knowledge, this is the first study in several years to compare levels of pesticides, antibiotics, and growth hormones in milk according to production method (conventional vs organic),” the authors say.

Low referral rates to diabetes programs

A Rollins study finds that 14.5 percent of patients with diagnosed prediabetes take medication to lower glucose, but less than five percent were referred to diabetes prevention programs nationally.

Adults with a prediabetes diagnosis were more likely to receive lifestyle modification advice or referrals to programs from their health care professionals than patients at high risk of diabetes who didn’t have a formal diagnosis. More than 80 percent of those who received medical advice followed the suggestions of their provider and adopted positive lifestyle changes in the previous year.

Dr. Mohammed K. Ali, associate professor of global health, led the study, which was published in JAMA Network Open.

“Our report is a wake-up call,” says Ali. “Seventeen years after the publication of trials showing that intensive lifestyle change programs for people with prediabetes can delay onset of type 2 diabetes by an average of seven years and lower other heart disease risk factors as well, less than 20 percent of people at risk of diabetes nationally are referred to weight loss programs and less than five percent to designated diabetes prevention programs.”
Vaping: friend or foe?

E-cigarettes may be a potential pathway to quitting for smokers, but for many young people, that path moves in the opposite direction. Middle- and high-schoolers are up to three times more likely to vape than to smoke. Yet, once they start vaping, nearly one in three will start smoking in the next six months. Compare that with just one in 10 non-vaping teens who will become a smoker in the next six months.

A study led by Dr. Carla Berg, associate professor of behavioral sciences and health education and associate director for population sciences at Winship Cancer Institute, is following the market closely to understand the role that retailers play in getting the products into the hands and lungs of young people. “How do you brand and market a product so that it only appeals to a population that could potentially benefit from it—smokers—without marketing it toward a population—youth—that will absolutely not get any benefit from it? That’s the question,” says Berg.

Berg’s research team visited 180 retailers, including convenience stores and dedicated vape shops to examine the extent to which young people are the targets of e-cigarette sales and advertising and what’s happening at the point-of-sale that might discourage or encourage young people to take up the habit.

The team’s findings could help inform FDA regulations intended to restrict youth access to the products.—Sonya Collins ■

Behind the Legionnaires’ outbreak

The recent outbreak of Legionnaires’ disease linked to Sheraton Atlanta has left one dead and dozens more ill, and experts searched for the cause for a month. That’s not surprising, according to Dr. Allison Chamberlain, research assistant professor of epidemiology. As she told The Washington Post, “It takes a lot of investigation from individuals with a variety of expertise and backgrounds ... to understand where to test and how to test and how to pinpoint the culprit.”

Chamberlain also answered questions about the outbreak and the disease on GPB radio:

How does one contract Legionnaires’ disease?

A person contracts Legionnaires’ disease when they breathe in water vapor that contains Legionella bacteria. If a person has certain risk factors—primarily, being over the age of 50, being immunocompromised, or having underlying lung conditions, they’re more susceptible to complications from Legionnaires’ disease. About 5 percent to 15 percent of infected persons will die from this disease.

What are the symptoms?

Some of the symptoms are shortness of breath, fatigue, headache, fever, sometimes nausea, and cough, primarily after the first few days.

Why are hotels a common place for Legionella bacteria?

In large buildings like hotels, there’s a lot of plumbing. There’s a lot of places for water to be aerosolized, such as showerheads, spas, saunas, pools, and hot tubs. That’s why hotels can be a problem area for this particular bacteria.

What can hotels do to prevent this type of outbreak?

Hotels can have proactive water management plans in place to routinely test their water safety parameters, including pH, temperature, and chlorine levels, as well as the Legionella bacteria itself. If they find themselves in a situation like this, the best thing to do is what the Sheraton did—close and do the testing that needs to be done. They’ll take water samples from all across the hotel to see if they can find where it’s coming from. ■
First living HIV-positive kidney donor

On March 25, Nina Martinez 15MPH became the first living HIV-positive kidney donor in the United States. Though surgeons have transplanted kidneys from deceased HIV-positive donors to HIV-positive recipients since 2016, this was the first time it had been done in this country with a living donor. The surgery is a step toward lifting the stigma surrounding HIV and potentially opens the door for more organ donations.

“Society perceives me, and people like me, as people who bring death,” Martinez told The Washington Post. “And I can’t figure out any better way to show that people like me can bring life.”

Martinez, a 36-year-old public health consultant, acquired HIV as a 6-week-old in 1983, when she received a blood transfusion before blood banks began testing for the virus. She and her family did not learn of her infection until she was eight.

She began considering becoming a donor in 2013, when a law was passed that allowed HIV-to-HIV transplantation. Her interest was piqued shortly afterward when she saw a Grey’s Anatomy episode depicting the first kidney transplant between a living HIV-positive donor and HIV-positive recipient.

Last year she learned an HIV-positive friend needed a kidney, and she started the process of being evaluated as a potential donor. Her friend passed away before the transplant could take place, but she decided to stay on the donor list.

The recipient, who has elected to remain anonymous, and Martinez are reported to be doing fine. In April, Martinez tweeted, “True facts. Left kidney is off doing amazing things in its next life. Just you & me now, righty.”

Hurricane Response Hub

Rollins has been chosen to serve as one of five regional technical assistance centers for the Hurricane Response Hub initiative. Funded by the CDC, this national program is designed to enhance disaster-related surveillance and environmental and occupational health recovery efforts in areas impacted by Hurricanes Harvey, Irma, and Maria by building disaster-related public health workforce capacity.

Rollins will be the coordinating body of the Georgia Hurricane Response Hub Technical Assistance Center. The Hub will operate in close partnership with the Georgia Department of Public Health and the Georgia Hospital Association.

“We are enthusiastic about bringing together the leading public health and health care preparedness professionals in Georgia to enhance storm resilience capacity in the state,” says Dr. Melissa (Moose) Alperin, director of the center.

The 2017 hurricane season was considered extremely active with 17 named storms, 10 hurricanes, and six major hurricanes, causing more than $200 billion in damage nationwide. Recovery efforts from the hurricanes are ongoing, and many organizations still need assistance to ensure disaster-related environmental and occupational health best practices are applied to their work.
This spring, Dick Levinson, Charles Howard Candler Professor of Public Health and executive associate dean for academic affairs emeritus, retired after more than 40 years at Emory, in a career including the entire history of Rollins and its antecedent community health program. Rollins Dean Jim Curran feted him as one of the “founding pillars of the school, an inspiring teacher, a dedicated administrator, and a major force in helping Rollins build programs and faculty renowned for exemplary teaching and research.”

It was only fitting, added the dean, that Room 1000 in the Claudia Nance Rollins Building, widely considered to be the best classroom in the school, the one where Levinson had done most of his innovative teaching in recent years, would be named in his honor. Levinson himself, together with wife, Linda, added to what Curran called his “tireless advocacy for faculty” by establishing the Richard Levinson, PhD Teaching Fund for Faculty Support, focused on interdisciplinary teaching across school boundaries. Appreciative faculty and alumni are helping the fund grow.

Levinson’s public health story began soon after he joined Emory College’s sociology faculty in 1972, drawn to the school in part because of research opportunities with medical school colleagues.

When faculty from family and preventive medicine decided to create a master of community health program to train health planners, they asked Levinson to develop and teach the behavioral science component. “Funded out of the medical dean’s back pocket,” as Levinson recalls, the program nonetheless took off. Student enrollment soared. CDC staffers, including then director David Sencer, often joined the mostly part-time Emory faculty. In 1978, Levinson moved his primary appointment to the medical school. A few years later, he and his community health colleagues realized that what they were doing was hard to distinguish from what was happening nationally in the growing field of public health, words now firmly in Levinson’s vocabulary. They received accreditation as a public health program and began offering Emory’s first MPH degree. By definition, says Levinson, he had become a “public health academic.”
A Robert Wood Johnson Fellowship in the nation’s capital awakened an interest in health policy and the nuts and bolts of how it was created. In 1986, Levinson spent a year and a half at the CDC as acting chief of Behavioral Epidemiology and Evaluation. Under William Foege’s leadership, public health at the CDC was expanding rapidly in chronic disease, prevention, violence, and other social problems—issues where health and behavioral science meet. “That year was like an internship for me,” says Levinson. “That’s when I learned what public health really was—and what we were preparing our students to do.”

He would continue as a sociology professor, medical sociologist in the CDC’s Division of Chronic Disease Prevention and Health Promotion, adjunct professor in community and preventive medicine, and a researcher with colleagues in medicine and law. But in 1990 his primary focus became the newly created school of public health, headed by Dean Raymond S. Greenberg. Housed in rented quarters, the school wouldn’t get its Rollins name, much less its beautiful buildings, gifts from the Rollins family, for several years. Looking back, he says, it might have been seen as a risky investment, but nonetheless he and the small core faculty took ownership of the fledgling school and poured in sweat equity. Lots of it. Teaching. Developing a curriculum. Creating programs, policies, and procedures. Recruitment. Faculty development, promotions, and tenure applications, and the dreaded accreditation process.

It was hard—and exhilarating—and Levinson would keep doing all of it for the rest of his career.

A master at collaboration, he took full advantage of the university’s race to become a major research institution following the $100 million gift from Robert W. Woodruff in 1979. He helped develop and cement unusually good working relationships between public health, medicine, nursing, law, and other parts of the university. He helped design and implement joint appointments and programs across campus and with the CDC, The Carter Center, and other public health institutions.

In addition to past students and faculty whose careers he has helped advance, Levinson is most proud of programs he created, beginning with an undergraduate study abroad program at the University of London to compare the U.S. and British health systems. He was critical in developing the four-plus-one program (where students begin taking MPH courses as seniors in college, then finish the graduate degree a year after their baccalaureate) and of the dual MD/MPH and PhD/MPH degree programs. He takes special pleasure in having created a post-doctoral MPH program that aims behavioral science at public health problems.

Over the years, Levinson has received much recognition at Emory, including the Charles Howard Candler professorship, University Teacher Scholar, Crystal Apple Award, and the Thomas Jefferson Award. He had numerous job offers, but he always laughed. “Why would I leave? I have every imaginable job here.”

Levinson tried to retire before, most recently last year, but Curran asked him to stay on as emeritus dean while once again steering the school through the complex waters of re-accreditation. That also allowed time for a smooth transition of leadership. In 2017-2018, Levinson began sharing the associate dean’s duties with Kimberly Jacob Arriola, professor of behavioral science and health education and NIH-investigator, handing over larger and larger increments to her until last year, when she took over the title and all its responsibilities.

Though he will be retired, he’ll still be keeping an eye on the school and the faculty he loves. Levinson says that the miracle that is Rollins came about in part from the vision of leaders like Charles R. Hatcher Jr., MD, vice president for health affairs and director of the Woodruff Health Sciences Center at the time of the school’s creation; major gifts from two generations of the Rollins family; and support from the university and the CDC. He is proud to have chaired the search committee that brought Jim Curran here as a transformative dean. But the “core element,” he says, “the thing that got us here and has every indication of sustaining us onward, is the faculty, its talents, dedication, and willingness to do things both compensated and uncompensated.”

Although much too modest to do so, he could be describing himself.
Driving innovation
The partnership between Rollins and Georgia Tech fuels rich discovery

Every 80 minutes, Monday through Friday, a bright yellow and white van shuttles between Emory’s Clifton Road campus and Georgia Institute of Technology. Passengers might include graduate students who conduct research in labs on both campuses, dual-degree students splitting classes between locations, and faculty researchers traveling to meetings with co-investigators. The twisting six-mile route that runs along highways and through neighborhoods traces the strong and binding ties between Emory and Georgia Tech.

Those ties include a joint department of biomedical engineering, created by the Emory School of Medicine and the Georgia Tech College of Engineering, which ranks No. 3 in the nation. It includes a research alliance that combines forces to investigate infectious diseases, vaccines, nanotechnology, cancer, cardiology, and pediatrics. And it includes a joint library services center on Emory’s Briarcliff campus that houses a shared collection of materials.

Rollins has forged its own strong and mutually beneficial partnerships with Georgia Tech. From measuring the impact of air pollution policies on cardiovascular and respiratory health to evaluating measures to increase diabetes screening, the collaborations between Rollins and Georgia Tech researchers have produced work that neither could have accomplished alone.

“Georgia Tech is full of engineers who are really good at solving problems, but they don’t really know what problems need to be solved,” says Dr. Joe Brown, an environmental engineering professor at Georgia Tech with an adjunct appointment in the Rollins Department of Environmental Health. “Rollins is full of researchers who...
are experts on what and where the problems are. That’s what makes the partnership so powerful.”

Here is a look at some of the magic this partnership has produced.

CLEARING THE AIR
A lot of what is known about the air quality in Atlanta and how it impacts health is thanks to the teamwork of Rollins’ environmental health researchers and Georgia Tech engineers and atmospheric scientists. In existence for two decades, the partnership has been able to link air quality with ER visits related to asthma and cardiovascular disease, observe biological changes in Atlanta commuters due to traffic pollution, and assess the impact of air pollution on preterm birth and other reproductive outcomes.

“Most of the work we do is highly multidisciplinary,” says Dr. Jeremy Sarnat, associate professor of environmental health. “Working with experts in engineering, atmospheric chemistry, and particle physics has opened up completely new avenues of research.”

These collaborations culminated in establishment of the Southeastern Center for Air Pollution and Epidemiology, an Environmental Protection Agency (EPA)-funded joint research initiative between Rollins and Georgia Tech’s schools of Civil and Environmental Engineering and Earth and Atmospheric Sciences. The EPA funded four such centers in 2011. “We received the top score nationally, and we were told one of the key reasons was our pairing of a school of public health with an engineering school,” says Dr. Paige Tolbert, O. Wayne Rollins Chair of Environmental Health.

Basically, researchers at Georgia Tech are able to parse out what chemicals people are exposed to and how much, when, and where those chemicals come from. Then Rollins researchers can measure the health impact of those exposure levels. For example, the EPA might have two or three monitoring stations in Atlanta for a given pollutant. However, people live all over the city. Using advanced modeling techniques and novel targeted measurements, Georgia Tech researchers are able to figure out how much exposure a person has who lives five or ten miles from a monitoring station. Those data allowed a team including Dr. Stefanie Sarnat, associate professor of environmental health, to conclude that clean air measures implemented in Atlanta prevented tens of thousands of asthma- and cardiovascular-related emergency room visits over 15 years. Sarnat is expanding this study to multiple cities to get more generalizable results.

Jeremy Sarnat worked with Georgia Tech counterparts to assess the health impact of traffic pollution on Atlanta commuters and on people living next to the downtown connector, specifically in two Georgia Tech dorms. The former was a daunting project, since measuring the air quality within a moving car is complex. Georgia Tech researchers were able to design and combine sampling instruments and techniques to capture the data that Sarnat needed, which in turn allowed him to identify inflammation and oxidative stress following fairly typical exposure to traffic pollution.

These studies help quantify the health cost of air pollution and conversely, the savings associated with clean air regulations. “By working together, we were able to measure specific health outcomes of regulations developed by the EPA and the state of Georgia,” says Dr. Ted Russell, professor of civil and environmental engineering at Georgia Tech.
Georgia Tech and a collaborator on these projects. “And we’re able to see that some regulations, such as reducing diesel trucking emissions and requiring cleaner power plants, have real health benefits. This work helps close the loop for regulators.”

EXPLORING EXPOSURES
Over a lifetime, people are exposed to untold numbers of pollutants, toxins, and chemicals. That cumulative exposure, along with the body’s response, is called the exposome, and it is often described as the environmental equivalent of the human genome. To study this relatively new and extremely complex concept, the National Institutes of Health funded the country’s first Environmental Health Core Research Center focused on the exposome, Emory’s HERCULES Center. Housed in Rollins, the center is a collaborative effort between researchers at Rollins, Emory at large, and Georgia Tech.

Georgia Tech experts in systems biology, metabolomics, and big data analysis help Rollins researchers gather and make sense of the vast amounts of information involved in the exposome. For example, Drs. Mike Caudle and Qiang Zhang, associate professors of environmental health, are working with Georgia Tech counterparts on single-cell RNA sequencing—looking at how exposures change gene expression in different types of brain cells differently. “It’s the big new thing in environmental health, and we are out in front on it,” says Dr. Carmen Marsit, professor of environmental health and director of HERCULES.

In a study funded by a HERCULES pilot grant, Dr. Melissa Smarr, assistant professor of environmental health, is teaming with a researcher at Georgia Tech who developed the microneedle patch—a bandage-sized patch of painless and dissolvable needles that can be used to administer vaccines. Smarr, however, is not interested in injecting anything into the skin—she wants to draw fluid out.

Smarr is investigating the health impacts of exposures to phthalates, which are synthetic compounds added to a lot of cosmetics, lotions, and time-release medications. Animal studies have shown phthalates can damage the liver, kidneys, lungs, and reproductive system, but they haven’t been studied extensively in humans. One reason—they are flushed out of the system within hours or days, so they can be hard to detect in a single blood or urine test. Several such tests would provide more information but would be costly and burdensome for participants.

Dr. Mark Prausnitz, the Georgia Tech creator of the microneedle patch, has adapted it so it can extract interstitial fluid—fluid found in the spaces around cells—with the help of a suction device. Theoretically, these small, simple patches could be used over a period of time to chart exposure.

“My goal is to identify novel biomarkers to improve our understanding of human exposures, particularly in populations where it’s hard to get biospecimens, like pregnant women or children,” says Smarr. “Think about how difficult it is to get blood from a child. Microneedles could be a huge advantage for children exposure research.”

DRAWING A CLIMATE ROADMAP
The Georgia Climate Project, co-founded by Rollins instructor Daniel Rochberg, brings together climate researchers from Emory, Georgia Tech, the University of Georgia, and several other schools in Georgia. The project is working to build a statewide consortium that can help Georgia better understand how climate change will impact the state and how best to respond to it.

In November, this group will convene the second-ever statewide Georgia Climate Conference. “Climate change is one of this century’s greatest challenges,” says Rochberg. “And we need as many hands on deck as possible.”

In addition to the conference, the project is undertaking a series of initiatives aimed at boosting the state’s capacity to understand and address climate change. Last year they created a Georgia Climate Research Roadmap, which identifies 40 key climate research questions for the state. Rochberg and his colleagues are in the process of creating an information portal to summarize the answers they have gotten to some of these questions.

Georgia Tech is taking the lead on a second joint project by the same funder, the Ray C. Anderson Foundation. Called Georgia Drawdown, this project is modeled after Project Drawdown, which identifies 100 things that need to be done to reduce emissions to zero by 2050. “They looked beyond the usual portfolio of solutions,” says Rochberg. “Educating women and girls emerges in the top 10. Reducing food waste shows up in the top 10. There are a lot of nonintuitive findings that are exciting at the global level. We want to identify the Georgia version of this.”

Rochberg has gotten students involved, working with Georgia Tech researchers to build a Georgia Climate Solutions Navigator. Although it is still in the development phase, the navigator is designed as something of a Pinterest for climate solutions. The goal is that both climate
Emory students also compete in a Carbon Reduction Challenge organized by Georgia Tech, in which students from both schools devise innovative ways to reduce an organization’s carbon emissions. “One of the best examples involved SunTrust,” said Rochberg. “Interns figured out that if the bank changed its car rental policy from midsize to compact cars, it would save the bank $40,000 a year and reduce its carbon footprint. Companies may not have the time to search the nooks and crannies for opportunities to reduce carbon emissions, but this challenge provides a motivated group of students looking for solutions.”

UNBUCKLING THE DIABETES BELT

The 10 states with the highest type 2 diabetes rates are in the South, forming a "diabetes belt" that stretches across the southeastern United States and up through Appalachia. More than 11 percent of people in those areas have diabetes, compared with 8.5 percent of people outside the diabetes belt, according to the CDC.

The Georgia Center for Diabetes Translation Research—a partnership led by Rollins that includes Georgia Tech, Emory’s schools of medicine, nursing, and business, and Morehouse School of Medicine—is working to improve those grim statistics. The Georgia Tech researchers bring expertise in complex systems modeling that lets researchers plug in a host of “what if” scenarios to predict likely outcomes.

Dr. Shivani Patel, assistant professor of global health, is collaborating with Dr. Douglas Bodner at Georgia Tech to take advantage of this computational power to try to figure out how to get people, especially those who have low economic resources, to be screened for diabetes. Would extending clinic hours make a difference in screening levels? How about increasing the number of community health workers? Offering a financial incentive?

The team is starting with a small Atlanta study but hopes to expand to put together some actionable data. "We know the problem and the stakeholders, and Georgia Tech knows how to model this and provide quantiative answers,” says Dr. K.M. Venkat Narayan, the Ruth and O.C. Hubert Professor of Global Health and director of the Emory Global Diabetes Research Center. “The ultimate goal is to be able to sit down with the commissioner of public health and show where we can get the most bang for our buck to improve diabetes care.”

Narayan is using Georgia Tech’s prowess in processing big data to make sense of the sea of information that his colleagues at Grady hospital have collected through continuous glucose monitoring. “We typically diagnose diabetes based on one or two glucose tests,” says Narayan. “Now we have these sensors that measure glucose continuously for one to two weeks, and you can only imagine the volume of data that is captured. The Georgia Tech scientists have the methods..."
and the expertise to analyze it, which has allowed us to see that every person with diabetes may be different based on their glucose patterns.”

Dr. Mohammed K. Ali, associate professor of global health, is working with Georgia Tech colleagues to dig deeper into results from randomized controlled trials. “We determine the mean for the intervention and control groups and compare them; if there is a difference, we assert whether that intervention worked or not,” says Ali. “Our colleagues at Georgia Tech have the ability to look between and around those means.”

In other words, many people in the intervention did less well or better than the mean that was attributed to the whole group. Georgia Tech researchers can use machine learning to run multiple simulations from the same data set that can pull out more precise profiles of which participants are doing better or worse.

“So it’s not just looking at men versus women or young versus old,” says Ali. “It’s getting down to a much more discrete profile, such as African American men in their teens and twenties tended to do better because of this reason. It’s getting closer to precision public health.”

WORKING TOGETHER IN WASH
Researchers at Rollins’ Center for Global Safe WASH have long worked with counterparts at Georgia Tech and are currently collaborating on several projects. Two of these involve the gut microbiome—one in Mozambique to assess the impact of improvements in urban water supply in low-income urban areas on child health, and another in Ecuador looking at differences in infants’ gut microbiome along an urban-rural gradient and how that impacts health.

In Mozambique, Drs. Joe Brown and Kostas Konstantinidis are Georgia Tech colleagues who bring critical engineering expertise. “We wanted to compare the health of people who get the new water system to that of people who don’t,” says Dr. Karen Levy, who co-leads the project with Dr. Matthew Freeman, both associate professors of environmental health. “As an environmental engineer, Joe highlighted many important questions, like how far is the person from the chlorine pumping station? Is the water continuously pressurized? How is the water delivered?”

In Ecuador, Levy builds off the knowledge that people from Western cultures have a much less diverse gut microbiome than those in under-resourced countries. She wanted to see if infants in the same country, with the same diet, culture, and genetic background, had differences in their gut microbiome based on where they were on a gradient of urbanization—rural, intermediate, or urban. Early data suggests those differences exist, with rural infants having the most diversity. Now she is investigating how those differences impact health, particularly from enteric infections. Konstantinidis’ lab is supplying sophisticated sequencing and bioinformatic analysis of the stool samples.

“The Georgia Tech researchers are fundamental collaborators,” says Levy. “We’re not saying, ‘Can you run these samples for us?’ This isn’t off-the-shelf analysis. We have weekly meetings where we look at the results we have so far and brainstorm about what to do next.”

Freeman is also working with colleagues from operations research, management, industrial engineering, and public policy at Georgia Tech to determine how a few low-resource countries have been able to achieve high and sustained vaccination rates. This multidisciplinary team, which also includes Emory researchers from Rollins, business, and political science, has “led to an excited intellectual space where researchers bring diverse areas of expertise, methods, and perspectives that spark creativity, leading to new approaches to tackle the thorny challenges of health service delivery in low-income settings,” says Freeman.

These are but some of the fruitful collaborations between the two schools. And even more creative solutions are likely brewing among the passengers on the Emory/Georgia Tech shuttle.
CULTURAL EXCHANGE

Humphrey Fellowship celebrates 25 years at Rollins

By Martha McKenzie | Illustration by Sam Falconer
Hubert H. Humphrey Fellowship Program celebrated its silver anniversary at Rollins and its 40th anniversary as a program.

Former President Jimmy Carter started the fellowship as a way to honor the late senator and vice president who had dedicated his career to the advocacy of human rights and international cooperation. The program brings accomplished mid-career professionals from designated developing countries to the United States for one year of non-degree graduate study and practical professional experience.

Rollins hosted its first cohort of 11 fellows 25 years ago under the leadership of Dr. Philip Brachman, former professor of global health and epidemiology. Brachman continued to run the program—enthusiastically and devotedly—until his death in 2016. Dr. Roger Rochat, professor of global health, succeeded him. To date, Rollins has hosted 222 fellows from 96 countries.

For the fellows, the year at Rollins is often transformative. In addition to academic work, fellows participate in workshops, conferences, and professional affiliations that provide interaction with leaders from all levels of government, multinational organizations, and the private sector. And they join a network of Humphrey Fellows.

“The African Humphrey alumni have just set up a listserv to stay in touch with each other,” says Rochat. “The 20 Humphrey alumni in Myanmar meet once a month. The connections they make here are leading to new initiatives, which is phenomenal.”

For Rollins and Emory, the fellows offer a rich resource of diverse views and experiences. Dr. Jennifer Sarrett invites fellows to give guest lectures in her undergraduate Health and Human Rights course. “While I can teach the students about issues related to health and human rights around the globe, nothing I can do can match the experience of learning about issues from those on the ground, working directly in these areas,” says Sarrett.

As he does every year, President Carter addressed the most recent class. He reflected on establishing the fellowship 40 years ago and the impact Humphrey fellows have had—and continue to have—on the United States and their home communities around the world.

Here’s a small sampling of some of that impact.

INVALUABLE NETWORKING

The most valuable thing Sangay Phuntsho took away from his 2015-2016 Humphrey Fellowship was connections—both fellow classmates and professionals at Rollins, the CDC, and elsewhere. A senior program officer with the Department of Public Health, Ministry of Health in Bhutan, Phuntsho had never studied in a developed country before he came to Rollins, so his knowledge and professional network were limited and local.

“The fellowship has changed my way of working,” says Phuntsho. “We are a small and a developing nation, so we really
need to enhance progress at an unprecedented rate and keep up to date with the world. Seeing the health care system of a developed country was eye-opening. The contacts that I made while I was there are proving very beneficial.”

Charged with managing the national immunization program in Bhutan, Phuntsho took advantage of every opportunity to learn more in this area. He worked with experts at the global immunization division of the CDC and the Pan American Health Organization (PAHO), attended a global polio eradication training program, took classes on infectious diseases and cost-effectiveness of health programs at Rollins, and attended many more workshops and seminars.

When he returned home, he discovered he needed help doing a rotavirus vaccine cost-effectiveness study in line with the country's new vaccines introduction plan. He reached out to one of the vaccine experts he met during his fellowship and got the assistance he needed. He hopes that Bhutan can introduce rotavirus vaccine to the routine immunization program in the near future.

The fellowship, however, was not a one-way street. Phuntsho felt he had much to offer to his fellow classmates and did so through several presentations. “I was an ambassador for my country,” he says. “We are very small, but in our own small ways, we are rich in our culture, tradition, and environmental preservation. I come from a country where the progress of the nation is being measured in terms of the happiness level of its people, unlike the gross domestic products in most countries. It's a very different development paradigm that I am proud to share.”

A SOCIAL JUSTICE PERSPECTIVE
Carol Palmer came to her Humphrey Fellowship in 1999-2000 with an extensive background in health, having served as a physical therapist, Jamaica’s resource person on quality for the World Confederation of Physical Therapy, and a planner for Jamaica’s Ministry of Health. The fellowship broadened her view of health.

“We studied health and social justice, and it gave me exposure to how health impacts one's life totally,” says Palmer. “We learned how social ills impact your health, which in turn impacts society. It heightened my sensitivity to the needs of others, and I brought that back with me and applied it to everything in my life.”

This new sensitivity played a role in her decision to switch from the Ministry of Health to the Ministry of Justice, where she drove Jamaica’s agenda for restorative justice. Thanks to those efforts, the country has begun diverting young offenders in minor crimes from the criminal justice system to a child diversion program that offers behavioral change counseling.

Palmer spearheaded Jamaica’s National Task Force Against Trafficking in Persons, which she still chairs. The task force has a three-pronged approach to curbing trafficking—rescuing victims; ensuring funding for their housing, medical needs, clothing, food, and counseling; and educating the public about human trafficking. Palmer’s efforts were rewarded with the Pinnacle Award, given by the U.S. Embassy’s Stakeholder Appreciation and Recognition Awards Committee.

Palmer has most recently moved to the Ministry of Science, Energy and Technology, where she serves as permanent secretary. “I still talk about the Humphrey fellowship all these years later,” she says. “The whole program focuses on the question, ‘How do you make your society a better place?’ I’ll do everything I can to make sure I’m making a positive contribution to change in the world.”

PROTECTING SIGHT
Priya Adhisesha Reddy has spent her career trying to save the vision of people, particularly children, in poor resource settings. In addition to serving as project manager and patient care manager with Aravind Eye Care System in India, she has led countless research projects. She implemented a diabetic retinopathy project where 30,500 patients benefited from treatment and led a school screening project that screened more than a million children for vision problems.

She came to the Humphrey Fellowship in 2016-2017 with the goal of learning more about health care economics, policies, and advocacy so she could continue and expand her work. Reddy was particularly impressed with the cross-cultural learning from fellows from other countries, an internship with USAID, and courses in research writing, which she says have helped her professional development.

Upon returning to India, Reddy led a study that got broad recognition after its publication in The Lancet. The study measured the effect of providing glasses to correct presbyopia (an age-related eye condition) among tea workers aged 40 years or older. The simple intervention improved productivity by 22 percent over a three-month period.

Reddy is also working as a consultant for the Seva Foundation, a Berkeley-based nonprofit dedicated to eliminating avoidable blindness. In this role, she is evaluating a program that helps 54 eye hospitals in India develop their surgical knowledge and improve
The Humphrey Fellowship changed Anwar Sarhan’s career trajectory. Prior to his 2006-2007 fellowship, he worked as an occupational therapist at a government public hospital in Bahrain, a position he planned to continue.

Then he spent time with professionals like Phil Brachman, “who really make a career out of helping people,” says Sarhan. “I wanted to be like that. Government organizations usually are very bureaucratic so you can’t do much as one person. I thought the best option was to start my own company.”

About the same time, he happened to read online about a Dutch company called Groasis that had invented a technology they claimed to be able to grow trees with very little water. Sarhan was intrigued but very skeptical. Planting forests in the arid Middle East could transform the landscape—and the health—of the region, but was it possible in climates such as Bahrain’s?

Sarhan worked with the Dutch inventor to adapt the technology for the Middle East and conducted his own trials in Bahrain, Saudi Arabia, and Kuwait. The Groasis product is a planting container that feeds young plants, using stored water instead of continually irrigating them. After the first year, the container can be removed and the trees survive. Sarhan’s trials were a success, and his company has planted tens of thousands of trees in the Middle East over the past five years.

“These are desert trees, not fruit trees,” he says. “But they are still good for the environment, cleaning the air, providing shade for animals, and reducing dust storms. This can be transformative for the Middle East.”

Sarhan credits the fellowship for his success. “I learned scientific methods that I applied to adapting the technology at Emory, but more importantly, I gained the confidence and motivation to follow through,” he says. “If you don’t have examples of people who have really impacted their communities, you can’t imagine what it would look like. It’s not easy to leave a government job that pays well with set hours to go start your own business. The fellowship allowed me to imagine it.”

**FIGHTING AIDS**

Godwin Etim Asuquo came to the Humphrey Fellowship in 2001-2002 specifically to learn how to deal with HIV in Nigeria. As the coordinator of primary health care training for nurses and midwives in the Federal Capital Territory of Nigeria, he saw the devastation the disease was causing in his country.

“To date, the Humphrey Fellowship has been the most significant experience of my career,” says Asuquo, who also earned an MSN while he was at Emory. “By interacting with the professors, instructors, and other experts at Rollins, I gained much knowledge and skills around HIV prevention and treatment that I took back to Nigeria. I found that when I got back home, I was the expert on HIV.”

Asuquo used that expertise to develop national policies and training programs on HIV management and supported stakeholders at the national, state, and local levels to implement them. He worked with the federal government and then with USAID’s Policy Project to expand that work, with great effect. Asuquo’s work contributed to a drop in Nigeria’s HIV prevalence to 1.4 percent in 2019 from 5.8 percent in 2008.

Asuquo went on to serve as head of reproductive health and HIV/AIDS programs for the United Nations Population Fund and as chief party/program director for Save the Children USA’s Global Fund Program in Tanzania. Today he is back in Nigeria as executive director of the Africa Center for Health Leadership, a think tank on leadership issues in the health care delivery system. In this capacity, he is working to implement a program for universal health coverage and to establish a college of health, technology, and management.

“In Nigeria, health care institutions focus on how to deliver services,” he says. “Health care staff and providers lack leadership, management, negotiation, and partnership skills. We want to establish a college that emphasizes both health services delivery and leadership and management. We want to develop nurses, doctors, and community health workers who focus primarily on patient care, not on internal hierarchies.”

_Humphrey Fellows who want to stay in touch with Rollins can contact Michelle James, senior director of alumni engagement, at michelle.james@emory.edu or Roger Rochat, Humphrey Fellowship coordinator, at rrochat@emory.edu_
Paulah Wheeler, Mercilla Ryan-Harris, Khadijah Ameen, and Matthew McCurdy (l-r), all 2016 Rollins graduates, founded and run BLKHLTH, an organization dedicated to improving the health and wellness of the black community. The views/activities shared in this article belong to BLKHLTH and are not representative of official positions of their employers.
Alumni create social justice organization to reduce racialized health disparities

By Martha McKenzie

It started with T-shirts.

Saddened by the recurring reports of police violence against black people and inspired by the #BlackLivesMatter movement, Paulah Wheeler 16MPH designed shirts emblazoned with the words “Black Health Matters.” She had them printed for herself and the other board members of the Association of Black Public Health Students (ABPHS) with the intent of sparking a conversation on campus about racism-fueled health disparities. They did.
In 2017, life expectancy in the U.S. was **75.3 years** for blacks and **78.8 years** for whites. *(CDC)*

“People would come up to us and ask where they could get the T-shirt,” says Wheeler. “They wanted to know if we were an organization, and if so, how they could join. The shirts touched a nerve.”

Wheeler had met her fellow T-shirt wearers—Mercilla Ryan-Harris 16MPH, Khadijah Ameen 16MPH, and Matthew McCurdy 16MPH—within her first few weeks at Rollins. All four joined ABPHS; Ameen as president, McCurdy as vice president, Wheeler as treasurer, and Ryan-Harris as an active member. The three women were in the health policy and management department, so they shared many classes. The foursome quickly bonded over a shared passion for improving health outcomes for black people and even joked about forming a consulting company. The response to their Black Health Matters T-shirts made them think such a venture was perhaps not a joke.

One weekend, the four friends holed up in the Decatur apartment shared by Wheeler and Ameen. Living off of Uber Eats and pots of coffee, they filled flip charts and notebooks with org charts, timelines, and topics. They brainstormed late into the night until Ryan-Harris collapsed on a couch and McCurdy on the floor. The next day they were back at it. In the rush of capturing ideas on paper, Black Health Matters was shortened to BLKHLTH. In the end, they decided they liked the vowel-free moniker.

At the end of the weekend, BLKHLTH was born. “By the time we left that apartment, we had hammered out our mission and vision, formulated our goals, and created a framework of a strategic plan,” says McCurdy. “We figured it out. We created a business.”

Today BLKHLTH is an organization dedicated to improving the health and wellness of the black community. It posts articles, blogs, and podcasts on its website, BLKHLTH.com. It consults and collaborates with other local organizations that engage with the black community. It puts on community health education events. And it conducts workshops to train the current and future health workforce on the role of racism in perpetuating health disparities.

This agenda is even more impressive when you consider that Wheeler, Ryan-Harris, Ameen, and McCurdy are doing this in their spare time. All have demanding full-time jobs. Wheeler is an Oak Ridge Institute for Science and Education Fellow in the CDC’s Center for Global Health. Ameen is a public health adviser in the CDC’s Office of the Associate Director for Policy and Strategy. McCurdy is a social science analyst on the strategic planning team for the Department of Health and Human Services. And Ryan-Harris is the program manager for the Public Health Sciences Institute at Morehouse College.

So when do they do all the work necessary to run BLKHLTH? “Pretty much every minute we are not at work,” says Ameen. “We can do that because we all love it. And we believe we are filling a need.”

That need is great. Study after study has shown black people have worse health outcomes than white people. In the U.S., black women are three to four times more likely to die from complications of childbirth than white women. Black people are nine times more likely to die from HIV than white people. Black people are 70 percent more likely to be diabetic than white people. And the list goes on.

These disparities are due to social determinants of health—the conditions in which people are born, grow up, live, work, and age. Black people tend to attend underfunded schools, live in worse neighborhoods, and have less access to health care.
The root of these social determinants, say the BLKHLTH founders, is racism. "Simply being black is not the reason we experience health disparities," says Ryan-Harris. "In my hometown, College Park, you have fast food places on every corner and broken sidewalks filled with litter. Come up to Brookhaven and you have Kale Me Crazy and Nuts ‘n Berries along with lots of green spaces. It’s the structural and societal racism that puts these types of social determinants in place."

Racism itself takes a toll, and it isn’t limited to racist slurs. Black people can experience a host of daily racial microaggressions—a white woman clutches her purse closer when a black man walks by, a store owner follows a black shopper around the store, a black person strolls down streets and past buildings named after slave owners. All these racist insults are internalized and elevate stress levels.

It is into this landscape that the BLKHLTH founders plunged. "We were learning some about racialized health disparities in school, but we all had this hunger to try to do something about it," says Ameen. "Instead of focusing on the problem, we wanted to be part of the solution."

Each of the four brings a different skill set. McCurdy got his MPH in the behavioral science and health education department, so his thinking tends toward health behaviors and structures that influence those behaviors. He is experienced in strategic planning, and he likes to come up with a lot of big ideas. Ameen is the one who brings those ideas back down to earth and keeps everything organized. Her expertise runs toward health systems and policy. Wheeler is the creative member of the team, designing graphics and editing podcasts and videos. She also brings a global health perspective. Ryan-Harris is social and cultivates lots of connections. She excels at execution.

"You tell Mercie you want this to happen, and she'll create a plan, make an agenda, and carry it out. It's done," says McCurdy. "Our personalities and skills really complement each other."

FILLING AN INFORMATION GAP

Community events account for a large part of BLKHLTH’s work. Its two main event series—BLKHLTH Ask a Doctor and BLKHLTH Conversations—are designed to break down barriers that black people experience in accessing health-promoting information and services.

The structuring of the events is intentional. They are held within predominantly black communities, ideally at a black-owned business. To attract participants, flyers are posted in churches, grocery stores, pharmacies, and libraries in the neighborhood. The physicians or experts who are invited are most often black, contributing to an environment of trust and cultural understanding.

Ask a Doctor events address conditions prevalent in the black community, so far covering sickle cell disease, diabetes, heart disease, Alzheimer’s, stress, and reproductive health. BLKHLTH invites two or three clinicians and perhaps a few other experts who bring information packets and lists of local resources to send home with participants. There are no rigid presentations or panel discussions during the 2.5 hour session. Participants are presented with introductory information about the topic, then they break into small groups for facilitated discussions. Finally, an open forum is held where everyone sits in a circle while the physicians, who insist on being addressed by their first names, respond to questions and provide more detailed information about the health condition.

These sessions address two hurdles in the black community—health literacy and mistrust of the medical community. “If you have low health literacy, you may not understand the instructions your doctor gives you,” says Ryan-Harris. “We want to provide information in a way that is easily digestible and in a setting where people feel safe to ask questions.”

The trust issue is harder to tackle. In the Tuskegee syphilis study, U.S. Public Health Service

Khadijah Ameen and Mercilla Ryan-Harris discuss attendees’ ideas on the causes of black maternal health disparities at an Ask a Doctor event in July (left). Breaking into small discussion groups, attendees discuss the likely causes behind some of the maternal and child health disparities experienced by black people.
While 9% of white households are food insecure, 23% of African-American households are. (Feeding America)

researchers withheld treatment from about 400 black men, without their knowledge or consent, to study how the disease progressed. The study ran from 1932 to 1972, well after penicillin became the standard of care for syphilis. Though this study is perhaps the most well-known example of medical racism, it is just one in a century-long pattern.

This mistrust not only keeps black people from going to the doctor, it keeps them from giving blood, donating organs, and participating in clinical trials. “Researchers need to know how black people live and cope with and manage disease,” says Wheeler. “Then, as new information and treatments become available, they can make them applicable in a context that works for us.”

The BLKHLTH Conversations sessions are designed as a brainstorming venue, tackling broad health issues affecting the black community. These sessions have covered entrepreneurship and mental health, intimate partner violence, and HIV, and are structured to give everyone a voice.

Subject matter experts and lay attendees are asked, for example, “If you had unlimited resources and no barriers, what would you do to solve intimate partner violence in the black community?” Participants write an answer on a card and then switch cards. They then rate the idea on the card they were passed on a scale of one to five. The rounds are repeated four more times, and then participants are asked if anyone has a card with a score of 25—a perfect score. The group then discusses the top ideas.

“Some big, great ideas came out of this session,” says Wheeler. “And that’s because everybody got a chance, anonymously, to suggest their brainchild. There may be people in an organization who have really great ideas but who, in a conventional structure, do not get a seat at the table. We feel the answers are within our community, and we want to give people the opportunity to share them.”

The BLKHLTH founders plan to write papers on the solutions generated in these sessions as a way to broadcast them to a broader community.

ROOTED IN RACISM

Through the course of launching and growing BLKHLTH, the four leaders learned about the link between racism and racialized health disparities in the black community. “That is something we had to teach ourselves,” says Ryan-Harris. “There is a huge body of literature out there about this, but we never covered it in school. In class when we were talking about health disparities, we always talked about social determinants. But we never really addressed racism as the underlying cause.”

The more they learned, the more they realized they wanted to share that knowledge. They developed various workshops around the issue, including those appropriate for undergraduates, graduate students, and practitioners.

The workshops are centered around Critical Race Theory, a concept developed by legal activists and scholars that examines and challenges the relationship between race, racism, and power. The BLKHLTH founders join a growing cadre of professionals applying the theory in the public health field. “It’s a step beyond cultural competency,” says McCurdy. “It’s not about creating a program that doesn’t offend. It’s about creating a program or acting in a way that is reformatory.”

This includes recognizing and unlearning implicit bias. For example, studies have long shown black people are undertreated for pain compared with white people. A 2016 University of Virginia study of medical students and residents found bias plays a role in the discrepancy. Half of the white study participants held one or more false beliefs about biological differences between black people and white people—black people's skin is thicker, black people's blood coagulates more quickly, black people's nerves are less sensitive. And those who held those beliefs perceived black patients' level of pain as lower than that of white people.

“If you are a well-meaning person, but you genuinely believe that your black patients don't experience as much pain as your white patients, you're not going to provide the same treatment,” says Ameen. “We will continue to see these racialized health disparities until this is unlearned, and that's what we are trying to teach in our classes.”

For researchers or practitioners, Critical Race Theory calls for amplifying the voices and experiences of black people and other marginalized groups. Listen to the black people they are studying or serving. Include them on the leadership team, the design team, and the team that goes out and does the field work. Make sure the work being done actually benefits this group.

So far, Wheeler, Ryan-Harris, Ameen, and McCurdy have taught versions of the class at Rollins, University of Georgia, and the CDC. They plan to expand and formalize the curriculum and hope to distribute it much more widely. “I would like to develop two-day workshops for MPH faculty, staff, and students to give them the tools to think critically about how race and racism intersect with their work,” says McCurdy.

They also want to grow BLKHLTH beyond Atlanta, taking their events and classes national and maybe even global. And they want BLKHLTH to become their full-time jobs. “We have strategic planning meetings twice a year,” says Ryan-Harris. “At our last meeting, we all agreed we wanted to be doing this full time within the next three to five years. So we’ve started planning how we are going to get there.”

In the meantime, they remain committed to making a difference. “Not everyone has to be an advocate,” says McCurdy. “Not everyone has to pick up this flag and walk with it. But everyone does need to understand the context in which life is happening in the black community. They need to understand that reality, and that is what we are trying to do.”
In this competitive environment, funds are a crucial tool in recruiting the most promising students and retaining great faculty and staff. Rollins is grateful for the generous endowment of four new funds.

Ray Bain 81G and his wife, Marlene Cole, have endowed the Marlene N. Cole DVM, MPH and Raymond P. Bain PhD Scholarship in honor of Michael H. Kutner, professor of biostatistics and bioinformatics. The fund will support outstanding PhD students in biostatistics.

Bain is senior vice president of Biostatistics and Research Decision Sciences at Merck Research Laboratories. He earned his PhD in statistics and biometry at Emory School of Medicine, the precursor of the Rollins Department of Biostatistics and Bioinformatics. He then taught for five years as assistant professor of biometry, medicine, and community health. It was here he met Cole, a faculty member working in the medical school supervising the clinical care in animal modeling studies. Bain was assigned as the biostatistician on one of Cole's studies. They left Emory in 1986, Cole to go to the National Institutes of Health and Bain to go to George Washington University. But they both remained close to Emory.

“Our philanthropic support is centered on education, and I particularly want to honor my mentors,” says Bain. “I’ve had several outstanding mentors, but the most spectacular, by far, was Mike Kutner.”

Joan Cioffi PhD has endowed the Joan P. Cioffi, PhD and Charles P. Freitas, Jr. Scholarship Endowment in honor of her late husband to provide scholarship support to outstanding MPH students with a preference for students who have a demonstrated interest in humanitarian response or public health services for displaced populations.

Cioffi's husband, who passed away more than a decade ago, worked across the globe as an engineer and was keenly aware of public health needs in the countries where he worked. “I am 75 years old, and I am looking for a legacy opportunity,” says Cioffi. “I've had a long-term relationship with Emory and with the public health program. I know a fund that helps attract the brightest students would be good for Atlanta, good for public health, and in a small way, would keep my husband's memory alive.”

Cari Jo Clark, associate professor of global health, has endowed two funds, the Cari J. Clark Global Scholarship and the Cari J. Clark Global Women’s Health Fund. The former will support international students pursuing their MPH and the latter will support students, faculty, or staff working on global health research programs related to women's health.

“Many scholarships are restricted to U.S. citizens, but I believe if the best and the brightest from around the world want to come to Rollins, they should be able to,” says Clark. “Also, it's very hard to find money to support students, staff, and public health associates in women's global health research.”

Clark decided to make the gifts after she received an inheritance from her grandparents. “My husband (Alvaro Alonso, associate professor of epidemiology) and I are both lucky enough to work at Emory, and we don't have very big needs,” says Clark. “We wanted to put some of this money we inherited where our values are, so Rollins made sense for us.”

Cari Jo Clark, Ray Bain, Lance Waller, Mike Kutner (l-r)
CLASS NOTES

1990s

DR. MEGHNA R. DESAI 96C 99MPH is the CDC Country Director for India. Desai is chief of the Malaria Branch in the Division of Parasitic Diseases and Malaria with the Center for Global Health at CDC. She has held a number of leadership roles throughout her 20-year career. She and her spouse have two children and she enjoys cooking, dancing, and thrill-seeking activities.

2000s

DR. DAVID A. BRAY 01C 04MPH 08PHD is the executive director of the People-Centered Internet coalition. The PCI works to recognize and support global projects that improve people’s lives through community-based use of the internet. He and his wife, Diane Morrison 97BSN 05MSN, have a one-year-old son.

RAYMOND J. KOTWICKI 03MR 04MPH was recently conferred as a Distinguished Fellow of the American Psychiatric Association (APA). Kotwicki serves as the Charles B. West Chief Medical Officer at Skyland Trail, a nonprofit mental health treatment facility in Atlanta. This distinction is the highest membership award given by the APA and is reserved for an elite group of psychiatrists who continue to make significant contributions to the field of psychiatry in clinical excellence, community service, research, and education.

The de Beaumont Foundation recognized JOVONNI R. SPINNER 07MPH as a “40 Under 40 in Public Health” honoree. Spinner is a senior public health advisor for the Office of Minority Health and Health Equity at the Food and Drug Administration. She leads the FDA’s Clinical Trials Diversity Initiative, which addresses the lack of diversity in clinical trials.

BREANNA LATHROP 08MSN 08MPH has co-authored a book, How Neighborhoods Make Us Sick: Restoring Health and Wellness to Our Communities. Her co-author is Veronica Squires 06C. Lathrop and Squires work at Good Samaritan Health Center in Atlanta, which provides a full circle of health services including medical, dental, mental, nutrition, and health education to low-income populations. Lathrop is chief operating officer, medical director, and a family nurse practitioner at Good Sam, and Squires is the chief administrative officer.

Married: DANIEL J. THOMPSON JR. 01OX 03C 08MPH and Misty Caudell, on May 25, 2019, in Flowery Branch, Ga. Charlie Burnett 01OX 03C was a groomsman. Daniel is the executive director of the Georgia OB/Gyn Society and Misty is the founder and medical director of the Georgia Skin Center. They live in Gainesville, Ga.

2010s

Born: To LORI (NORTHCRAFT) BAXTER 10A 10MPH and her husband, David, their second child, a son, Riley Ernest, on Oct. 5, 2018, in their hometown of Roseburg, Oregon. The family returned to Vientiane, Laos, in December, where they have lived for the past two years, working to expand the rights of people with disabilities with Humanity and Inclusion (Handicap International). Follow their expat family adventures at AwayGoWe.com.

Married: DR. BRIAN S. WOJECK 10MPH and Jennifer Dudanowicz, on June 15, 2019, in New Britain, Conn. He specializes in sleep medicine and internal medicine. Previously, Wojleck worked as a physician at Hartford Hospital in Hartford, Conn., and as a sleep medicine specialist at the Veterans Affairs Connecticut Healthcare System in Newington, Conn. Last summer he started a fellowship in endocrinology at Yale-New Haven Hospital. Jennifer is a director and legal counsel for operations at Charter Communications in Stamford, Conn.

Married: ALEXANDRA GEMMA 12MPH and Ian Crook on May 4, 2019, in New York City at the Faculty House of Columbia University. Alvin Tran 12MPH attended the ceremony.

DR. ALVIN TRAN 12MPH received his doctor of science in nutrition and social epidemiology from the Harvard T.H. Chan School of Public Health. He recently joined the faculty at the University of New Haven’s School of Health Sciences as an assistant professor of public health.

Married: DANA BONGIOVANNI 14MPH and Eduardo Garcia, on April 27, 2019, in Plainsboro, N.J. She is a health care public relations manager at the biopharmaceutical company Amgen, based in Thousand Oaks, Calif. A native of Peru, Garcia is a freelance visual effects assistant editor in Los Angeles.
CHANGE KWESILE 14MPH is co-author of *Z is for Zambia: An Alphabet Book*, a recently published children’s book, aiming to increase positive representation of life in Zambia through everyday stories. After Emory, she worked with the Zambia-Emory HIV Research Group in Zambia.

MARIA ELIZABETH GEORGE 16MPH published the article “Evaluating the Needs of Cancer Survivors through Focus Groups and Surveillance Data.” It highlights the gaps in care that survivors often face after treatment. It was published in *Michigan Journal of Public Health*, Volume 9; 2018.

DR. PAULA W. KING 16MPH published a book, *Lead Well*. It has topped the bestsellers list on Amazon. In the book, she shares prevention and wellness strategies that help women optimize their health. She explains how a healthy lifestyle helps prevent disease and promotes emotional, physical, and spiritual health. King is a board-certified physician and women’s leadership coach, helping women in power advance their careers and manage their personal lives.

BONNIE GALE 18MPH is a business intelligence analyst at Piedmont Healthcare Inc. at Piedmont Hospital in Atlanta. She works in the patient eExperience area, collecting and analyzing data to improve access to health care and the patient experience.

**Dean’s Council**

**ROBERT J. FREEMAN** of Atlanta in April 2019. Freeman was a long-time member of the Dean’s Council, and he established the Sallie B. Lee Scholarship in honor of his aunt. With his father, Freeman founded Lithonia Lighting and built it into a successful business. During his retirement, he was involved with the Atlanta Community Food Bank, the Atlanta Association of Developmental Disabilities, the Bobby Dodd Institute, Cafe 458, and MedShare International.

**1980s**

**DR. CRAIG L. SCHWIMMER 86MPH 91M** of Dallas, Texas, on April 9, 2019. He was on the teaching faculty at Johns Hopkins University and actively involved in training residents. After completing his otolaryngology training, he founded The Snoring Center in 2001 and remained there as medical director until his death. He was compassionate and professional, maintaining a high standard for patient-focused care. He is survived by his wife, Shanon, and two teenaged daughters.

**1990s**

**DAVID A. DEFRANCES 95MPH** of Brookhaven, Ga., on Jan. 30, 2019, at 58. DeFrances graduated from West Virginia University in 1983 with a BS in engineering management for mining and completed his master’s in environmental and occupational health at Emory. He was a fan of R&B and jazz, and enjoyed spending time with his family. He is survived by his daughter, brothers John and Jim, and nieces and nephews.

**2000s**

**MOLLY MALOY CLAY 00MPH** of Atlanta, on Feb. 22, 2019, at 49. Clay was an enthusiastic public health educator at Fernbank Science Center in Atlanta. She loved to travel. She was predeceased by her daughter, Grace. Survivors include her son, Zander, and her sister, Kate Maloy.
One in five women entering college in the U.S. will be a victim of campus-based sexual assault before she graduates (if she graduates). These numbers have not changed since first published in 1987.

Researchers have long investigated the devastating psychological and physical toll sexual assault takes on victims. SHARYN POTTER 94MPH 98G has identified a corresponding financial toll. Potter is a professor of sociology and women’s studies at the University of New Hampshire and co-founder and executive director of research at the Prevention Innovations Research Center (PIRC). The research center was one of three centers engaged by the 2014 White House Task Force to Protect Students from Sexual Assault and cited in the Task Force’s report, “Not Alone.”

In her study on the economic costs of campus sexual assault, Potter has found that victims often change their major or drop out of college following an assault. In fact, one-third of her study participants never completed college, which can cripple their career trajectory and earnings potential.

Potter has talked to many such women who shared similar narratives and details these conversations in her TEDx Talk. “Sophia” had planned on pursuing master’s and doctoral degrees in psychology. After she was a victim of campus sexual assault, Sophia couldn’t concentrate on her studies. She never completed her bachelor’s degree, and at 32 years old, she is four credits short of earning it. Sophia now works at a homeless shelter.

“Ann” wanted to be a neurobiologist. After her sexual assault, she changed her major to early childhood education, saying she now found neurobiology too taxing. Potter cites research estimating that students graduating with a bachelor’s biology degree earn approximately $1 million more over their lifetime than people who graduate with an early education degree.

Although Ann has a rewarding career, Potter worries what our society and community may have lost because Ann was unable to complete her neurobiology degree. “Did we lose the person who was going to find the cure for Parkinson’s or Alzheimer’s disease?” says Potter.

In addition to identifying the financial cost of campus sexual assault, Potter and her PIRC colleagues are working to stop it before it is perpetrated by focusing on training witnesses to become proactive bystanders. Their bystander intervention prevention strategies are being used in more than 500 colleges and universities nationwide, as well as in the UK, Canada, and Sweden.

“Our bystander intervention strategies teach people to be aware of and identify potentially problematic situations and then give them the skills to intervene,” says Potter.

Potter and colleagues have also created an app, uSafeUS, that connects students with an up-to-date source of all resources a person who has experienced an assault might need, as defined by each school. The app also has three interactive assault prevention tools to help reduce the incidence of assault by letting users or their friends subtly exit potentially risky situations. uSafeUS is currently available for all college and university campuses in New Hampshire and is being rolled out nationwide. Potter and colleagues are currently working on adapting the app for high school students.

To truly curtail sexual campus assault, Potter believes the country must undergo a fundamental culture change. “There are so many lessons that the campus sexual assault prevention movement can learn from the large cultural change credited to the anti-drunk driving movement of the late 1970s and early 1980s,” says Potter. “Prior to that movement, people would regularly get in their cars after drinking and cause horrible crashes. It was not the norm to take an intoxicated person’s car keys or find them a safe ride. There has been this larger paradigm shift in how we think about drunk driving, and because of that, we have seen a significant decrease in drunk-driving fatalities. You can ask an 8- or 9-year-old about drunk-driving, and they know it’s wrong. But you can’t ask them about sexual assault. "And this education needs to start age-appropriately," continues Potter. “Teaching kids about communities, respect, healthy relationships, and how we help one another is so important, and it needs to be part of the K-12 curriculum. College is not the first time that students should be receiving this message, and even high school is really late too.”

Of her time at Rollins, Potter says, “I was in health policy and management at Rollins, and it truly was a transformational experience, both personally and intellectually. I learned so much about community engagement and the collaborative approach while at Rollins, which truly informs the work I do today.” —Catherine Morrow

Would you like to share your story?
Let us know with an email to the editor: martha.mckenzie@emory.edu
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Ranked in top 5

In the latest *U.S. News & World Report* rankings, Rollins came in at No. 5 among the nation’s 177 accredited programs and schools of public health. Rollins has placed in the top 10 for more than 15 years—most recently as No. 7. This year marks the first time that accredited programs of public health were included on the list.