a woman and her children stop for a photo on their way to unc project-malawi.

Photo by Caitlyn Kleibecker
EXECUTIVE SUMMARY

THE UNC INSTITUTE FOR GLOBAL HEALTH AND INFECTIOUS DISEASES (IGHID) WAS LAUNCHED IN 2007 TO COORDINATE AND CATALYZE GLOBAL HEALTH ACTIVITIES ACROSS THE CAMPUS. IGHID PLAYS A LEADING ROLE IN RESEARCH, SERVICE AND EDUCATION AT UNC SITES AND PROJECTS WORLDWIDE.

The Institute continues to focus its efforts in Sub-Saharan Africa, Asia, and Latin America, and of course, North Carolina. Since the last report we have exciting developments in every region and in all of our endeavors in research, service and teaching.

We have nearly completed a major addition to facilities on the campus of UNC Project-Malawi. Given that so much work in Malawi is devoted to the prevention and treatment of HIV infection, we are particularly pleased that our HIV research programs are now ranked 6th by US News and World Report.

We continue to contribute to HIV discovery. In 2011 the multinational HIV Prevention Trials Network (HPTN) 052 study, led by UNC faculty, demonstrated that treatment of HIV infection stopped HIV transmission. This work was recognized by the journal Science as the “Breakthrough of the Year,” and the results changed global medical and public health HIV policy. In 2015 the HPTN 052 study ended, demonstrating the durability of HIV “treatment for prevention.”

More than a decade ago UNC’s David Margolis, MD, caused a stir by publishing a provocative paper in The Lancet discussing a strategy for the cure of HIV infection. This research helped galvanize research momentum towards an HIV cure and has led to multiple National Institutes of Health (NIH) supported UNC research grants. In May 2015, UNC and GlaxoSmithKline (GSK) announced a joint public-private venture—Qura Therapeutics—focused on a cure for HIV infection. The company will be located on the UNC Chapel Hill campus, with facilities housing UNC and GSK employees. Highlights of the launch can be found at http://globalhealth.unc.edu/progressreport2015
UNC’s commitment to global health extends beyond HIV. UNC Project-Malawi served as one of 10 sites of a phase III trial of the first malaria vaccine. The U.S. National Cancer Institute (NCI) awarded IGHID and UNC’s Lineberger Comprehensive Cancer Center $3.7 million to create the UNC Malawi Cancer Consortium to investigate cancers that affect people living with HIV.

UNC has expanded its work in China and Nicaragua. The UNC Project-China was awarded a $3 million five-year NIH-supported grant to fund crowdsourcing of HIV testing campaigns. Crowdsourcing is the process of obtaining ideas from a large group in order to achieve a specific task, often using multiple sectors and enabled by the Internet.

In 2014, UNC Project-Nicaragua launched projects to identify the risk factors associated with norovirus infection.

UNC faculty are committed to work on emerging pathogens. Working through a public–private partnership with Ohio-based Clinical Research Management Inc., and funded with a grant from the Bill & Melinda Gates Foundation, UNC faculty are testing a novel clinical trial to see whether infusion of the blood plasma of Ebola survivors can reduce mortality. This work is being conducted in Liberia and Sierra Leone.

To sustain a commitment to global health, UNC must nurture young people interested in such careers—from both developed and developing countries. IGHID has received continued support for such efforts from the NIH Fogarty Center, Doris Duke, the Gilead Foundation, and increasingly, from generous philanthropists. Trainees at all of our sites have had great success, and the programs are inspiring in-country training. We are particularly excited about successful residency programs in surgery and obstetrics in Malawi. And the UNC Department of Pediatrics has launched a global health track in their residency program designed to send trainees to Nicaragua.

In 2014, IGHID managed more than $43 million in research revenue—the second largest concentrated research effort on campus. We are on track to greatly exceed this support in the coming year. In our full report we offer far greater detail about each of our programs, and their trajectory. The faculty and staff that represent UNC IGHID could not be more excited about the future.

Sincerely,

MYRON S. COHEN, MD
Associate Vice Chancellor for Global Health
and Director of the Institute for Global Health & Infectious Diseases
The University of North Carolina at Chapel Hill
Malawi is a small, landlocked country with a population of 15 million. Eleven percent of people aged 15–49 are living with HIV. The virus disproportionately affects women and children in Malawi. The average life expectancy is 52 years.

UNC’s work to improve public health in Malawi began more than 20 years ago with three staff literally “working out of a broom closet.” That initial program has grown into a $12 million operation with three locations in the Lilongwe district.

UNC Project-Malawi’s primary facility, the Tidziwe Centre, is on the campus of Kamuzu Central Hospital. Two other locations (George Joaki Centre and Bwaila Hospital) are used solely for clinical research activities. Since the beginning of the program, UNC has collaborated with the Malawi Ministry of Health and the Malawi College of Medicine to identify innovative, culturally acceptable and affordable methods to better the health of the people of Malawi through clinical care, research and training.
SERVICE

UNC Project-Malawi is home to the country’s only two board certified infectious diseases specialists. The Sexually Transmitted Infections Clinic provides testing and care for more than 7,000 patients each year. Surgeons staff the burn unit, one of only two such units nationwide. The first Malawian OB/GYN came onboard in 2014. Through the Gates Foundation-funded Safe Motherhood Initiative, UNC has constructed two Maternal Waiting Homes outside of Lilongwe. These homes allow women with high-risk pregnancies to live in closer proximity to the hospital. The goal is to prevent mother and child mortality.

UNC Project-Malawi has the only board certified oncologist in the nation and is one of only two cancer centers. The cancer research and care unit is the first in the region to transfer immunohistochemistry to the UNC Project-Malawi pathology lab. This has resulted in correct diagnoses, treatment and survival for scores of children with lymphoma, who had previously been misdiagnosed. In early 2015, this lab at UNC Project-Malawi earned four-star status from the Honorable Minister of Health.

RESEARCH

UNC Project-Malawi is committed to advancing clinical care through innovative research. On average, 20 research studies are in the data collection period at any given time. In 2014, UNC Project-Malawi joined the U.S. National Institutes of Health (NIH) HIV Vaccine Trials Network (HVTN). UNC Project-Malawi’s funded research is in the areas of adult treatment and prevention, HIV-related cancers, HIV prevention
and treatment for pregnant women, infants and children, and now, HIV vaccines.

UNC Project-Malawi is proud to be one of only 10 sites worldwide that conducted a phase III trial of the first malaria vaccine.

In the fall of 2014, the UNC Lineberger Comprehensive Cancer Center and the UNC Institute for Global Health & Infectious Diseases received a $3.7 million grant from the U.S. National Cancer Institute (NCI) to study the growing worldwide cancer problem and expand the University’s efforts in Malawi to study and treat HIV-associated cancers. The UNC Malawi Cancer Consortium will investigate Kaposi’s sarcoma, non-Hodgkin’s lymphoma and cervical cancer.

TRAINING

Malawi serves as a key training site for the UJMT Fogarty Global Health Fellows Program. Trainees, both pre- and post-doctoral, have the opportunity to experience supervised clinical inpatient and outpatient clinical care rotations as well as to conduct Institutional Review Board-approved clinical research in the Kamuzu Central Hospital facilities. Research areas include cancer, tuberculosis, reproductive health, malaria, trauma, burns, HIV and other sexually transmitted infections.
MALAWI

In 2014, two pharmacy students from UNC Chapel Hill completed a training program at UNC Project-Malawi. In the summer of 2015, this program will expand threefold. The goals are to provide UNC pharmacy students with global experiential training, build a relationship with the Malawi College of Medicine pharmacy program in Blantyre and assist the other pharmacy sites in the area with enhancing their dispensary capabilities.

MALAWI RESIDENCY AND DEPARTMENTAL PROGRAMS

Perhaps one of the greatest problems in health care in Malawi is the “brain drain” facilitated by lack of in-country advanced training opportunities. UNC has supported advanced training for a large number of Malawian physicians and scientists who have returned as leaders. With trainees returning to Lilongwe, UNC has collaborated with the Malawi College of Medicine to launch in-country...
residency programs in General Surgery and Obstetrics and Gynecology. The surgery program graduated its first six surgeons in the spring of 2015, filling a huge void and providing a model for future training programs.

The UNC pathology team is the first in Africa to use virtual microscopy technology to provide real time academic interaction between a pathologist in Malawi and pathologists located at UNC Chapel Hill.

The growth of the UNC Project-Malawi, has led to the construction of a new building adjacent to the Tidziwe Centre. This structure will expand faculty and students’ living quarters as well as house administrative offices, classrooms and laboratory space. It will also be home to the UNC-Malawi Cancer Center.
China has one of the world’s most rapidly growing economies, leading to substantial social and behavioral changes. This economic growth has come at a price with high levels of water and air pollution. Non-communicable diseases, such as heart disease and stroke, are also on the rise. The country’s immigrant population also presents unique health needs.

The UNC Project-China has expanded its footprint during the past several years. Joseph Tucker, MD, PhD, leads the program at the UNC-South China Sexually Transmitted Infections (STI) Research Training Center in Guangzhou, China. New services for African migrants in China, a new training opportunity and two major U.S. National Institutes of Health (NIH) grants have opened the door for increased engagement and collaboration.

**Highlights**

- Received a **$3 MILLION** five-year grant to examine how crowdsourcing can provide HIV testing and care among gay men in China
- Launched the first clinic in China focused on serving the needs of the growing African diaspora
- Hosted a week-long intensive training course for sexual health researchers, including **57 JUNIOR TRAINEES**

[med.unc.edu/infdis/china](http://med.unc.edu/infdis/china)
SERVICE

UNC Project-China is working to better understand the clinical needs of China and foreigners living there in order to structure preventative and treatment services. UNC and Chinese organizations partner to prevent, treat and research non-communicable diseases, HIV and STIs.

Guangzhou has over 200,000 Africans and many are vulnerable to HIV and other STIs. Accordingly, UNC launched a pilot African clinic at the Guangdong Provincial STI Control Center. This is the first clinic in China focused on serving the needs of the growing African diaspora and the first with a formally designated community liaison, supported by the Guangdong provincial health authorities.

RESEARCH

A five-year $3 million grant from the NIH has been secured to examine the use of crowdsourcing to promote HIV testing and linkage to care in South China. Crowdsourcing leverages the wisdom of crowds to solve a problem. The basic concept of the award is to arrange a series of creative, participatory contests in order to create a new HIV testing and linkage campaign that empowers at-risk individuals. In partnership with local collaborators and entrepreneurs, UNC Project-China researchers led by Dr. Tucker evaluated a crowdsourced intervention consisting of a one-minute video to promote HIV testing in China. This crowdsourced intervention was evaluated using a randomized controlled trial, paving the way for implementation.

Another major research grant led by Dr. Tucker focuses on the social science and ethics of curing HIV. Co-led by Stuart Rennie, PhD, from UNC’s Department of Social Medicine, the research examines the social context of HIV cure research in the United States, South Africa and China. Research advances now introduce the possibility of an HIV cure, but concomitant social science and ethics research is critical to inform subsequent clinical research. This research closely works with ongoing clinical HIV cure research in Chapel Hill, North Carolina, USA; Cape Town, South Africa; and Guangzhou, China. In May 2014, Drs.

We tried to find a compelling, entertaining and effective way to reach this audience, and we’re hopeful that by using crowdsourcing, we’ve hit upon a winning formula.

Joseph Tucker, MD, PhD
Director, UNC Project-China
Tucker and Rennie convened the Brocher Foundation Workshop on Social Science and Ethics of HIV Cure Research near Geneva, Switzerland. The workshop was attended by Nobel Laureate Françoise Barré-Sinoussi, who is committed to developing an HIV cure.

The goal of the Immunology and Biology of Infectious Syphilis (IBIS) research project is to better understand the immunological basis for serological responses to syphilis. Approximately 20 percent of syphilis-treated individuals lack a serological response to therapy, calling into question one of the cornerstones of conventional clinical management. The IBIS team has made great progress during the past year, including successfully obtaining NIH supplemental funding for syphilis research training in Guangzhou. Vice-Director of the Guangdong Provincial STD Control Center, Heping Zheng, PhD, spent several months learning about B-cell immunology and cell sorting technology in the Duke laboratory of D43 training faculty, Anthony Moody, MD. Assistant Director of the Guangdong Provincial STD Control Center Laboratory, Yaohua Xue, PhD, learned about cutting-edge molecular techniques for detection of Treponema pallidum, the bacteria that causes syphilis infection, in the laboratory of D43 training faculty, Justin Radolf, MD. Arlene Seña, MD, MPH, is UNC’s IBIS Principal Investigator.

The UNC Project-China team received a five-year Global Infectious Diseases grant from the Fogarty International Center, the only such award in China. The purpose of this training grant is to nurture the next generation of STD/HIV researchers, drawing on the growing pool of Chinese junior investigators who are ready to undertake mentored HIV/STD research. All three of the initial postdoctoral fellows and have been highly productive, resulting in publications in The Lancet and Clinical Infectious Diseases. This project is unique because of the substantial co-funding from colleagues at the Guangdong Provincial Centers for STD Control and Prevention, Sun Yat-sen, and the Guangzhou Eighth People’s Hospital.

The South China-UNC STI Research Training Center hosted a week-long, intensive training course for sexual health researchers in July 2014. The course was attended by 57 junior trainees who gave the course high ratings. The Training Center is supported by a five-year Fogarty International Center grant and annually evaluated by a Training Advisory Group.
Zambia is a land-locked country located in south central Africa. It is home to 14.5 million people. Zambia boasts Victoria Falls, one of the seven Natural Wonders of the World. However, life expectancy is among the lowest in the world and the death rate is one of the highest—largely due to the prevalence of HIV. In 2012, IGHID successfully recruited a team of seven new full-time faculty members led by Jeffrey Stringer, MD.

Completed a country-wide assessment of breast and cervical cancer in Zambia, including estimates of disease burden and current capacity for control.

Received an eLearning capacity building grant to develop a new postgraduate diploma program in applied public health informatics from the Fogarty Foundation in collaboration with the University of Zambia.
UNC is deeply committed to women’s health around the world, and we will do everything we can to assist Zambia to make pregnancy and delivery safer for all women.

Jeff Stringer, MD, Director, UNC Global Women’s Health
SERVICE

In 2014 the UNC team, having spent more than a decade building large population-based healthcare programs in HIV, TB, maternal and child health, primary healthcare, and cervical cancer prevention, fully transitioned these programs to local health ministries and indigenous organizations.

RESEARCH

In 2014 UNC expanded its engagement with the University of Zambia in a number of clinical research and training activities, including:

- Susan G. Komen funded projects to assess national capacity for breast and cervical cancer prevention, and to expand breast cancer training and screening
- NIH-funded studies to expand research capacity in Zambia, and to assess the effectiveness of new diagnostic protocols
- Development of an important cohort to investigate prematurity, as part of Seattle Children’s Hospital’s GAPPS initiative
- Specialist obstetric and ultrasound training and medical education needs assessment

TRAINING

UNC is supporting three promising trainees working in Zambia. Lily Yan, MD, a Doris Duke Fellow, is working on the Better Health Outcomes through Mentoring and Assessment (BHOMA) project, which aims to improve population level mortality and morbidity through an integrated intervention focused on primary care delivery and clinical benchmarks. Neo Chung, PhD, a Fogarty Global Health Fellow, is studying the HIV treatment cascade in Zambia. The treatment cascade, also called the HIV care continuum, measures the number of people linked to care and actively taking antiretroviral medications. Finally, Brigitte Frett, MSW, MD, PhD, a Fogarty-Fulbright Scholar, is designing a media campaign to promote the human papilloma virus (HPV) vaccine in Zambia. Misconceptions about the shot have hindered widespread adoption of the vaccine.
Nicaragua is a Central American nation of approximately 6 million people. It is considered the second poorest country in the Western Hemisphere, second only to Haiti. In 2013, the World Bank reported Nicaragua’s per capita gross domestic product (GDP) as $1,851. Nicaragua currently ranks 88th among nations in infant mortality. Among the leading causes of infant and child deaths are diarrhea and pneumonia, which are largely preventable.

UNC’s relationship with the University of Nicaragua, León (UNAN) arose through a series of service and teaching initiatives, with funded research projects beginning in 2003. The primary goal of the UNC Program in Nicaragua is to promote cutting edge research to improve the health of individuals living in Central America and beyond. UNC’s program in Nicaragua strives to provide clinical and research experiences in Nicaragua to talented UNC students, residents and fellows with an interest in global health.
SERVICE

UNC faculty and learners in Nicaragua have interacted with the Barrilete Program, a local orphanage that also provides pre-school and afterschool programs for low-income students in León. These activities have included providing tutoring, food, clothing and ongoing visits to read and play with the children.

RESEARCH

Unlike many other potential research sites in Central America, UNAN has a high concentration of PhD-trained faculty. This has led to a standard of world-class research among UNAN faculty. UNAN is the site of the largest public medical school and university hospital in Nicaragua. This has facilitated hospital-based research studies. The UNC-UNAN collaboration has an excellent relationship with the local Ministry of Health. This has been fostered by UNC-led evaluations of pediatric immunization programs in Nicaragua using data collected through the system of public health clinics and hospitals.

Seven active research projects are underway at UNC Project-Nicaragua. The portfolio of research initiatives during the past five years has focused on gastrointestinal disease epidemiology and pediatric immunizations, including studies of childhood diarrhea and rotavirus vaccine effectiveness, H. pylori and gastric cancer, and evaluation of Nicaragua’s national pneumonia immunization program. Findings from UNC-UNAN studies have been presented widely and led to changes in clinical care guidelines.

In July 2014, the first recipients of the UNC Nicaragua-Project and the UNC Institute for Global Health and Infectious Diseases (IGHID) Nicaraguan Pilot Research Grants were announced. The grants are designed to support infectious diseases research and collaboration between UNC faculty and faculty from UNAN-León. Following a competitive application process, three diverse programs received awards of up to $10,000 each for one year of support. The projects investigate norovirus risk factors in children and antimicrobial resistant bacteria in the waters of León and Chapel Hill.

TRAINING

Students and trainees have also been involved in UNC activities in Nicaragua. UNC medical students and residents have performed clinical electives at the University Hospital (HEODRA) and outlying public clinics, have been enrolled in medical Spanish programs in León, and have contributed to existing research projects with one-on-one mentorship.
The focus of UNC’s work in the Dominican Republic (DR) and Guatemala is on HIV prevention, care and treatment among key populations including female sex workers and their partners, men who have sex with men (MSM), and transgender women. The HIV epidemic in both the DR and Guatemala is concentrated, meaning that while population-level prevalence remains below 1 percent these key populations experience disproportionately high rates of HIV and experience multiple barriers to care and treatment.

**OTHER UNC PROJECTS IN LATIN AMERICA**

**Highlights**

Received a **$1.5 MILLION** three-year implementation science grant to strengthen the HIV cascade of care among men who have sex with men and transgender women in Guatemala.

Developed and evaluated *Abriendo Puertas* (Opening Doors), a multi-level intervention to improve HIV prevention and care outcomes among female sex workers living with HIV in the Dominican Republic.

Received a **$1.5 MILLION** five-year grant from HRSA to improve linkages to HIV care and retention among Mexican men and transgender women in North Carolina.

[globalhealth.unc.edu](http://globalhealth.unc.edu)
DOMINICAN REPUBLIC

Since 2001 UNC has been collaborating with the HIV Vaccine and Research Unit led by Yeycy Donastorg, MD, MPH, at the Instituto Dermatalogico y Cirugia de Piel Dr. Huberto Bogaert Diaz in Santo Domingo. In 2011, with funding from the USAID Research to Prevention project at the Johns Hopkins Bloomberg School of Public Health, UNC investigators conducted formative research to improve understanding of the experiences of key populations as they navigate the HIV care and treatment system. This project addressed an important gap in HIV research and programming in the DR, since previous efforts had been focused mostly on HIV surveillance and primary prevention among key populations with little attention to the experiences and needs of key populations living with HIV.

UNC faculty developed *Abriendo Puertas* (Opening Doors), a multi-level intervention for female sex workers living with HIV and their regular partners. *Abriendo Puertas* includes: individual-level health education and counseling; peer health navigation; provider sensitization; and community mobilization. HIV testing, counseling and linkage to care for male partners was also offered. With additional support from USAID, 250 female sex workers living with HIV were treated and 225 or 90 percent remained in care over 10 months of follow up. Sixty-four of these women referred a steady male partner to the study. Key findings were a significant increase in consistent condom use and adherence to treatment. Viral load remained unchanged, highlighting the need for further research and intervention.

GUATEMALA

In 2008, UNC began collaborating with the Center for Health Studies at the Universidad del Valle Guatemala (UVG) in Guatemala City. The team has established a nuanced knowledge base on the social networks of sexual and gender minorities to inform intervention development. This work has been published in *AIDS and Behavior*, *Culture Health and Sexuality* and the *Journal of Healthcare for the Poor and Underserved*. These findings to develop two innovative implementation science projects are funded by PEPFAR. Together with Sonia Morales Miranda, PhD, at UVG, UNC is implementing a pilot study to assess if social network referrals, which have been very efficient for recruitment for HIV surveillance, can be used to promote early adoption of HIV testing and linkage to HIV care.

LATINOS IN NORTH CAROLINA

In addition to UNC’s work in Latin America, faculty has been conducting applied HIV research with Latinos in North Carolina to explore questions related to HIV, migration and social networks. In 2013, UNC faculty received a five-year Health Resources and Services Administration (HRSA) Special Programs of National Significance grant to strengthen linkage to HIV care and retention among Mexican men and transgender women in NC.
The Galápagos is a chain of volcanic islands in the Pacific Ocean. The islands are a part of the country of Ecuador. Tourism supports protecting the island and its natural resources. However, tourism also has its drawbacks, including placing a drain on the fresh water supply and introducing new plants and animals from the mainland. Healthcare and education on the islands are limited.

Stephen Walsh, PhD, of UNC’s Department of Geography, serves as Director of the Center for Galápagos Studies (CGS). The CGS is a collaboration between UNC and Ecuadorian university partner Universidad San Francisco Quito (USFQ). In May 2011, UNC and USFQ dedicated a research station on San Cristóbal Island, Galápagos. Dr. Walsh serves as Co-Director of the Galápagos Science Center on San Cristóbal Island. Jill Stewart, PhD, of UNC’s Gillings School of Global Public Health, serves as Deputy Director of this center.
SERVICE

The hospital on San Cristóbal is supported by the Ministry of Health in Ecuador and will open in the summer of 2015. The hospital is state-of-the-art and will provide health services for all residents of the inhabited islands. It will also be available for the care and treatment of the nearly 200,000 tourists who visit each year. In partnership with colleagues in the School of Medicine and the School of Public Health at USFQ, planning for the involvement of UNC’s School of Nursing is underway.

RESEARCH

UNC students and professors are heavily engaged in health research in the Galápagos. IGHID supports a research collaboration between UNC, the Galápagos Science Center (GSC) and provincial public health officials in the Galápagos. Aims of this research are to estimate prevalence of infectious diseases on the islands using hospital data, and to determine whether rates of gastrointestinal, respiratory, urinary and skin infections have decreased with the opening of a new municipal water treatment facility on San Cristóbal Island in 2014. Researchers at UNC are also engaged in studying and improving water quality in the Galápagos.

TRAINING

The CGS is also providing students an unparalleled opportunity to study linkages between health and the environment through a study abroad program offered each summer in the Galápagos. Dr. Stewart led a course titled “Humans and their Microbial Footprint” in the summers of 2012 and 2013. Up to 18 students each summer learned about how human activities can affect the ecology of infectious diseases with a focus on waterborne pathogens.

In the summer of 2015, Amanda Thompson, PhD, UNC’s Department of Anthropoloy, and Peggy Bentley, PhD, Associate Dean for Global Health in UNC’s Gillings School of Global Public Health, will teach a study abroad global health course “Ecology of Health and Nutrition.” This course includes a fieldwork component, providing students with the opportunity to conduct health research in the unique context of the Galápagos. This research will require considerable time in the field and the lab to collect and analyze primary data. Students from across campus applied for the summer 2015 global health course, some of whom will follow their predecessors in joining School of Public Health degree programs and conducting independent research.

LEFT: CHILDREN PLAY IN THE GALÁPAGOS, ECUADOR. Photo by Kelly Houck
BELOW: UNC STUDENT SHANNON STEEL SURVEYING BEACHES ON SAN CRISTÓBAL ISLAND, GALÁPAGOS, ECUADOR, IN 2014. Photo by Jill Stewart
PROGRESS IN THE MANAGEMENT OF INFECTIOUS DISEASES
The groundbreaking trial Strategic Timing of AntiRetroviral Treatment (START) study released findings recently that may possibly change worldwide treatment guidelines. UNC Chapel Hill was one of three sites in the state that participated in this clinical trial which found that starting people living with HIV on treatment earlier in their disease course protects them from death as well as co-morbid conditions related and unrelated to AIDS. The study is expected to influence the World Health Organization (WHO), who is meeting in 2015 to review its global HIV treatment guidelines. Inclusion in this trial is just one of the many examples of how UNC Chapel Hill researchers have continued to be at the forefront of improving the lives of people living with HIV and preventing transmission of the virus to uninfected people.

These results influencing treatment guidelines are just a few examples of notable HIV findings to come out of UNC. This past winter UNC Virologist Ronald Swanstrom, PhD, Director of UNC’s Center for AIDS Research (CFAR), was part of a team that definitely pinpointed the timeline for HIV replication in the brain, making a strong case for the early initiation of ART to prevent cognitive decline. A substudy of the START trial is a neurological trial being led by UNC Neurologist Kevin Robertson, PhD, which seeks to further study the connection of ART on the brain and cognitive function. The START neurology substudy is still in analysis and results are forthcoming.

Internationally, in 2014, our UNC Project-Malawi site joined the U.S. National Institutes of Health (NIH) HIV Vaccine Trials Network (HVTN). UNC Project-China was commissioned by the World Health Organization (WHO) to undertake four qualitative systematic evidence reviews to inform the 2015 HIV guidelines.

David Wohl, MD, site leader of the AIDS Clinical Trials Unit at UNC Chapel Hill
MALARIA AND OTHER PARASITIC DISEASES UPDATE

UNC IGHID continues to expand its efforts in the studying and controlling of malaria and other parasitic diseases. Since 2012, three new faculty have been added to the Institute.

Carla Cerami, PhD, has two research programs both of which are focused on conditions that disproportionately impact low income countries—malaria and neurological trauma. Her current work on malaria is on the role of iron in the host pathogen interaction. This project, funded by both the Bill and Melinda Gates Foundation and the National Institute of Child Health and Development, is conducted primarily in The Gambia in collaboration with the Medical Research Council Unit in Gambia (MRC-Gambia), the International Nutrition Group at the London School of Hygiene and Tropical Medicine and the Liverpool School of Tropical Medicine. Her work showing the replacement of iron by supplementation, a common practice in malaria endemic regions, may worsen malaria infection was published in *Nature Communications*.

In addition, Dr. Cerami is the UNC principal investigator on a multi-institutional collaborative project with researchers from Baylor College of Medicine and Duke School of Medicine, which is funded by a translational U01 from the National Institutes of Neurological Disorders and Stroke. The goal of the team is to characterize and develop a novel, low-cost therapeutic agent for the treatment of neurological trauma and to initiate a clinical trial with this compound for the treatment of traumatic brain injury by 2017.

Jessica Lin, MD, was awarded a K08 award after her UNC Infectious Diseases Fellowship to study the genetics of relapsing malaria caused by *Plasmodium vivax*, of which the initial results were recently published in the *Journal of Infectious Diseases*. In addition, working in conjunction with the Armed Forces Research Institute of Medical Sciences (AFRIMS) in Bangkok, Thailand, she has been conducting antimalarial drug trials in Western Cambodia. These studies have shown over 50 percent failure rates of the last effective antimalarial drug in the region and were recently published in *Lancet Infectious Diseases*.

Natalie Bowman, MD, PhD, was awarded a K23 after her UNC Infectious Diseases Fellowship to study neurolocial infections in people living with HIV. Working with collaborators at Johns Hopkins University, she is conducting an observational study in Bolivia and Peru to understand the clinical characteristics and pathogenesis of parasitic brain infections, including Toxoplasmosis and Trypanosomiasis, in people living with HIV.

The research program of Steven Meshnick, MD, PhD, continues to investigate the epidemiology of malaria across Africa. His work with the Bill and Melinda Gates funded Malaria in Pregnancy Consortium has shed
critical insights into the epidemiology and appropriate prevention of malaria in pregnant women. He also received an NIH award to study the leading candidate antigen for a malaria vaccine targeted at preventing pregnancy associated complications of malaria. In addition to his work on malaria in pregnancy, he was recently awarded an NIH R01 to study epidemiological and spatial models of malaria transmission in the Democratic Republic of the Congo in order to provide malaria control programs data driven tools to target the malaria transmission reservoir.

The research program of Jonathan Juliano, MD, continues to study the evolutionary and ecological factors that drive the emergence of drug resistance and the diversification of candidate malaria vaccine antigens. Using state of the art sequencing techniques, his lab has been studying the current status of resistance to artemisinins, the last effective antimalarial, in Africa. Resistance to these drugs has emerged in Asia. The spread of this resistance to Africa would be a global public health disaster. Leading a multi-institutional study, his group recently published the first large scale survey of resistance associated genes in Africa in the Journal of Infectious Diseases. In addition, his team, in collaboration with the University of Massachusetts and Karolinska Institute, showed the presence of parasites tolerant to artemisinins in Africa. In addition to his work on malaria in Africa, Dr. Juliano works on studying drug resistance and vaccine antigens in Plasmodium vivax, the most common malaria outside of Africa. In collaboration with the NIH, his group has been integral in conducting genome studies to identify loci associated with resistance to chloroquine in vivax malaria. His group is also working on identifying novel vivax vaccine candidates using a combination of genomics and immunomics, in collaboration with AFRIMS.

The malaria research group in the IGHID now contains a breadth of research expertise, from basic sciences to translational clinical work to epidemiology to geography. Thus, over the next several years, this group of researchers plans to continue to strengthen their work in these areas and try to answer critical questions concerning the biology and epidemiology of this important pathogen. In addition, they are working hard to increase the amount of malaria work done at our site in Lilongwe, Malawi, by trying to augment the research infrastructure to promote malaria research and to attract clinical research studies to the site.

EBOLA

The Ebola epidemic in West Africa took the world by surprise. UNC joined both domestic and global activities. In North Carolina, UNC worked on statewide and local management plans. Globally, David Wohl, MD, and William Fischer, MD, partnered with Ohio-based Clinical Research Management and the Bill and Melinda Gates Foundation to develop a strategy to generate a “survivor” plasma bank, and a well-planned clinical trial using convalescent serum for therapy. This work received $7.5 million in funding. The same team is working on a study of potential long-term sequelae of Ebola infection. These studies are taking place in Liberia and Sierra Leone.
Highlights

Manages approximately 1,800 patients with HIV

Staffs more than 50 faculty that include clinicians and researchers

Researchers and collaborators received $4.4 million in R01 funding to help develop treatments that target HIV reservoirs

GHID works in collaboration with UNC’s Division of Infectious Diseases, essentially the domestic arm of the Institute housed as one of 10 clinical divisions in UNC’s Department of Medicine. The Division of Infectious Diseases has a faculty of more than 50 that includes clinicians and researchers working to prevent and treat infectious diseases from influenza to HIV to tropical diseases and emerging infections domestically and internationally.

med.unc.edu/infdis
OUTPATIENT SERVICES

The UNC ID Clinic is located in a large and modern facility on the first floor of North Carolina Memorial Hospital. The ID Clinic is open weekdays and manages approximately 1,800 patients with HIV as well as a variety of other services, including HIV prevention, evaluation and treatment of sexually transmitted infections, hepatitis C, bone and joint infections, post-surgical infections, respiratory infections, and infections in returning travelers.

UNC Infectious Diseases faculty provide extensive outreach services in other community settings for HIV, sexually transmitted infections (STIs), tuberculosis and other communicable diseases. Faculty assist with direct patient care, medical supervision, administration and disease investigation in the community for different programs located in North Carolina:

- Durham County Health Department: Arlene Seña, MD, MPH
- Lincoln Community Health Center EI Clinic: Heidi Swygard, MD, MPH
- Wake County Clinic A: Claire Farel, MD, MPH, and Robert Dodge, PhD, RN, ANP
- North Carolina HIV/STD Prevention and Control Branch: Heidi Swygard, MD, MPH
- North Carolina Department of Corrections, Division of Prisons: Becky White, MD, MPH

INPATIENT SERVICES

The ID Division manages two consult services (General ID and Compromised Host) and an in-patient infectious diseases ward service. The busy Compromised Host Service delivers care to patients with organ transplants, cancer and other patients with immunosuppressive conditions, including patients in the NC Jaycee Burn Unit.

RESEARCH

Joseph Eron, MD, along with co-principal investigators Jeff Stringer, MD, and Mina Hosseinipour, MD, MPH, led the successful funding of the NIH HIV Network Clinical Trials Unit with sites in Chapel Hill and Greensboro, North Carolina; Lilongwe, Malawi; and Lusaka, Zambia, contributing to trials sponsored by HIV prevention, treatment and vaccine research networks. UNC is also home to Center for AIDS Research (CFAR), directed by Ron Swanstrom, PhD.

David Margolis, MD and J. Victor Garcia, PhD, lead a team of investigators focused on the cure of HIV infection.

The Martin Delaney Collaboratory of AIDS Researchers for Eradication (CARE): CARE is a consortium of leading scientific experts in the field of HIV latency from a dozen leading academic research institutions as well as Merck Research Laboratories. The investigators are focused on the “target and clear” approach to elimination of HIV infected cells.

QURA Therapeutics: QURA is a unique joint venture public-private partnership that is focused on the cure of HIV infection. Led by Dr. Margolis, investigators from UNC will work together with GSK scientists in shared space on campus. GSK has made an initial investment of $20 million.

Also on the HIV cure front, Angela Kashuba, PharmD, and collaborators including Dr. Garcia, received $4.4 million in R01 funding to help develop treatments that target HIV reservoirs. In order to develop and select treatments that will suppress the virus in all tissues and to help inform the work being done to cure HIV, Kashuba and her laboratory will identify which drugs penetrate tissues best and what mechanisms they use to do so.
Myron Cohen, MD, leads a variety of HIV prevention efforts. He has worked in the state of North Carolina for the past 30 years to develop novel strategies to reduce HIV incidence. North Carolina and UNC ID are seamless partners with past trainees and faculty playing key roles. Dr. Cohen serves as the co-Principal Investigator (PI) of the NIH-funded HIV Prevention Trials Network (HPTN). The HPTN has 22 research sites around the world, including NC. Dr. Cohen serves as PI of the HPTN 052 study, which has demonstrated that treatment of HIV prevents transmission. He is Co-Protocol Chair of HVTN 703/HPTN 081 designed to determine if the VRC01 monoclonal antibody can prevent HIV acquisition.

With respect to HIV testing and linkage to care, Byrd Quinlivan, MD, has been a co-Principal Investigator on the NC LINK program, a multi-million dollar project funded by the Human Resources and Services Administration (HRSA) involving systems linkage and access to HIV care in North Carolina. In its fourth year, the project has strengthened existing collaborations between IGHID and the NC HIV/STD Prevention and Care Branch to improve HIV detection, surveillance and linkage to care for newly diagnosed persons with HIV through a state-wide system of patient navigators or HIV “bridge counselors.” The NC LINK project has also been successful in developing a system for re-engaging people living with HIV who have fallen out of HIV care using a shared database between Ryan White HIV/AIDS Program-funded clinics in NC.

Adaora Adimora, MD, serves as the Principal Investigator of the UNC site of the Women’s Interagency HIV Study (WIHS). The NIH established the WIHS in 1993 at six sites primarily in the West Coast and Northeast to study women who are either living with HIV or at risk of infection. The award at UNC provides new opportunities to advance women’s health research in HIV/AIDS in the South. In collaboration with a team of co-investigators, the WIHS is moving forward with an ambitious scientific research agenda that encompasses social and clinical epidemiology, advanced epidemiologic and statistical methods, cancer genomics, pharmacokinetics and pathogenesis.

Domestic research involving other STIs is conducted by several investigators including:

Joseph Alex Duncan, MD, PhD, is an investigator in the Atlantic Coast STI Cooperative Research Center, an NIH-funded multi-institutional research center focused on STI pathogenesis research including antibiotic resistance and immunity in N. gonorrhoeae infection. Marcia Hobbs, PhD, and Dr. Duncan also recently received a $3.5 million grant to conduct studies of potential vaccine and pharmacologic targets in N. gonorrhoeae using a unique study of human gonococcal infection.
Arlene Seña, MD, MPH, has been conducting clinical research on STI epidemiology, new diagnostics and therapeutics at the Durham County Department of Public Health. She serves on the Scientific Review Committee for an NIH-funded STI Clinical Trials Group, and has served as a co-investigator on large randomized clinical trials involving investigational new drugs for treatment of emerging drug-resistant *N. gonorrhoeae*.

David Wohl, MD, and William Fischer, MD, are part of a team of researchers implementing a new clinical trial in Liberia treating Ebola patients with transfusions of blood plasma from survivors of the deadly virus. This $5.7 million study is being conducted in conjunction with Clinical RM, and is funded by the Bill and Melinda Gates Foundation. More importantly, Fischer, Wohl and their colleagues augmented the clinical care infected patients received in Liberia through the introduction of point of care diagnostic tests and leveraged the clinical trial to build capacity for safe blood and blood product procurement, and donation.

The ID Fellowship program at UNC offers a broad range of clinical and research training, both locally and internationally that are supported by globally recognized faculty. Dr. Duncan leads this training program.

Dr. Wohl, Heidi Swygard, MD, MPH and Christopher Hurt, MD, organize the largest annual training in the state of providers who treat people living with HIV. May Update is a collaboration between UNC, the North Carolina Area Training and Education Center (NCATEC) and the Greensboro Area Health Education Center (AHEC) to provide dentists, physicians, nurses, pharmacists and other allied health professionals with the latest clinical information about treating people living with HIV. Dr. Wohl is the Director of the NCATEC. Dr. Swygard organizes the conference, which just marked its 20th year.

Every week, UNC’s Institute for Global Health & Infectious Diseases and Center for AIDS Research (CFAR) host the Friday Conference Series. Each Friday morning, investigators from around the world travel to UNC to present their latest research findings. Past talks have focused on HIV pre-exposure prophylaxis (PrEP), the human papilloma virus (HPV) and the overuse of antibiotics in the community and hospital setting.
NEW IGHID RECRUITS

Luther Bartelt, MD  
Assistant Professor  
Chapel Hill  
specialty: Research focuses on immunocompromised host infectious diseases.

Lameck Chinula, MMED  
Research Instructor,  
OB/GYN, UNC Project-Malawi  
specialty: First Malawian OB/GYN at UNC Project-Malawi

Vivian Go, PhD, MPH  
Associate Professor, Health Behavior, Chapel Hill and Vietnam  
specialty: Research focuses on the design, implementation and evaluation of behavioral HIV prevention interventions among marginalized populations, including people who inject drugs.

Michael Herce, MD, MPH  
Clinical Instructor,  
Infectious Diseases, Zambia  
specialty: Research focuses on the effect of implementing new tuberculosis diagnostics on empirical treatment practices.

Portia Kamthunzi, MMED  
Research Instructor,  
Pediatrics, UNC Project-Malawi  
specialty: Research focuses on malaria, pediatric HIV and prevention of mother to child transmission of HIV in Malawi.

Cecilia Kanyama, MMED  
Research Instructor,  
Medicine, UNC Project-Malawi  
specialty: Research focuses on infectious diseases in Malawi, specifically HIV.

Kate Muessig, PhD  
Assistant Professor,  
Health Behavior  
Chapel Hill and China  
specialty: Research focuses on HIV health issues in China, specifically HIV treatment as prevention and developing eHealth and mHealth interventions for men who have sex with men. Her US-based research has centered on improving provision of mental and physical health services for vulnerable populations.

Raquel Reyes, MD, MPA  
Assistant Professor,  
Medicine, Chapel Hill  
specialty: Development of international experiences in the School of Medicine and Department of Medicine for trainees.

Natalia Soriano-Sarabia, PhD  
Research Instructor Medicine,  
Chapel Hill  
specialty: Research focuses on hepatitis C virus and HIV treatment and eradication.

Julia Sung, MD  
Clinical Assistant Professor  
Medicine, Chapel Hill  
specialty: Research focuses on clearing latent HIV infection.

Brian Pence, PhD, MPH  
Assistant Professor,  
Epidemiology  
Chapel Hill and Africa  
specialty: Research focuses on linkages between mental health and HIV-related behaviors and health outcomes in the Southeastern US and Africa.

Kimberly Powers, PhD  
Assistant Professor,  
Epidemiology  
Chapel Hill and Malawi  
specialty: Research focuses on global health and infectious diseases, specifically HIV and sexually transmitted infections in Malawi.

Daniel Westreich, PhD  
Assistant Professor,  
Epidemiology, Chapel Hill  
specialty: Research focuses on causal inference tools, which help speed the translation of scientific findings into policy interventions. His research also addresses the intersections of infectious diseases epidemiology, specifically HIV/AIDS, and women’s reproductive health.
Collaborated with 15 U.S. government and industry partners to support degree and residency programs to train 15 Malawian healthcare professionals, including UNC Project-Malawi’s first Malawian OB/GYN

Added Vietnam as Doris Duke Fellow training site

Received more than $50 million in annual funding to support UNC’s Infectious Diseases Fellowship program from the CDC, NIH, Agency for Health Care Research, and the Bill and Melinda Gates Foundation

**FELLOWSHIPS**

**UNC, Johns Hopkins, Morehouse School of Medicine, Tulane (UJMT) Fogarty Global Health Fellows Program**

Funded by the Fogarty International Center in 2012, the UJMT Fogarty Global Health Fellowship Program continues to train the next generation of U.S. and foreign-national global health scientists. This program is a partnership with Johns Hopkins University, Morehouse School of Medicine and Tulane University. It supports global health researchers in an 11-month mentored training program at institutions and training sites abroad. Trainees range from early-career physicians, epidemiologists, dentists and basic scientists. Since 2012, the program has received $3.9 million to support a total of 84 trainees, with the capacity to train at 22 sites in 18 low- and middle-income countries in Africa, Asia and South America. Since inception, five additional training sites have been added in Brazil, Jamaica, Malaysia, Mali and Rwanda. The program leverages funding for trainee awards from the UNC Center for AIDS Research (CFAR) and a grant from the Gilead Foundation to support people in the field. Supplemental funds for the training program also come through other institutes within the National Institutes of Health (NIH), including the National Cancer Institute and the National Heart, Lung and Blood Institute.

Program trainees study global health problems such as HIV/AIDS, tuberculosis, malaria and maternal and child health, and address the chronic non-communicable diseases that cause a majority of deaths in developing countries, such as cancer, cardiovascular disease, asthma and diabetes. Each year 30 pre- and post-doctoral candidates accepted to the fellowship receive a stipend, travel funds and research project funding. Benjamin Chi, MD, Associate Professor in the UNC Department of Obstetrics and Gynecology, recently assumed the role of Program Director for this fellowship program.
Doris Duke International Clinical Research Fellowship

The UNC Doris Duke International Clinical Research Fellowship (DDICRF) supports medical students who are interested in pursuing careers in global health in a training program abroad between their third and fourth year of medical school. The program provides students with the opportunity to participate for 12 months in a mentored, clinical research project in a low- or middle-income country. A total of 13 fellows will participate over the course of the grant to conduct research in Malawi and China. The program has recently added Vietnam as an alternate training site for fellows. To date, seven trainees have been involved in the program. The first cohort funded for the 2013-2014 year has produced two publications and eight publications are in progress.

OTHER TRAINING OPPORTUNITIES

Fulbright-Fogarty Awards in Public Health

The Fulbright-Fogarty Awards in Public Health began in July 2011. In 2012, UNC began receiving funding for this training program from the NIH Fogarty International Center. This partnership sends Fulbright ambassadors across the globe to study emerging public health issues in the developing world. The Fulbright/Fogarty program at UNC supports the international sites hosting the awarded trainees.

Fogarty AIDS International Training Research Program (AITRP)

The U.S. National Institutes of Health (NIH) Fogarty International Center’s AIDS International Training and Research Program (AITRP) has trained nearly 2,000 foreign researchers over the past 20 years. Most remain in their countries to battle the epidemic, train young scientists and move into government health leadership. UNC has been a training partner in the AITRP program since 1998 and has operated in China, Cameroon and Malawi.

A change in the program has led to country specific focus in South Africa and Malawi. Audrey Pettifor, PhD, directs the program in

THE FOGARTY GAVE ME THE CHANCE TO REFINE MY SKILLSET AND THE CONFIDENCE NEEDED TO BE A SUCCESSFUL RESEARCHER.

Kathryn Lancaster, 2013-14 pre-doctoral UJMT FOGARTY GLOBAL HEALTH FELLOW
Johannesburg and Mina Hosseini, MD, MPH, runs the program in Malawi. The programs allow long- and short-term HIV/AIDS research training. Training needs include focus on epidemiology to improve disease surveillance; behavioral epidemiology and social sciences to develop and implement culturally appropriate intervention programs; medical training in HIV care, technology transfer and training in laboratory techniques; and research to improve implementation of preventing HIV mother to child transmission.

GILEAD

The HIV Care in Malawi: Gilead Training Fellowship, funded by the Gilead Foundation, supports a doctoral education of medical professionals from the east African nation of Malawi. Fellows study internal medicine at the University of Cape Town and at the University of Pretoria, both in South Africa. Also, Malawian nationals come to the US to study at UNC. To date, six fellows have been awarded training fellowships. Two are currently enrolled in the MMed program in South Africa. The fellowship has produced a DrPH from UNC in public health leadership, one epidemiologist from UNC, and a Nursing PhD. One MMed from the University of Cape Town has recently returned to Malawi as UNC Project-Malawi’s first Malawian OB/GYN. This award covers a stipend, health insurance, tuition and travel.

UNC Global Women’s Health Fellowship

This unique opportunity provides early career training for obstetrician-gynecologists (OB/GYNs) aspiring to an academic career in global women’s health. The fellowship leverages the strengths of the UNC School of Medicine, the UNC Gillings School of Global Public Health, and UNC-affiliated institutions in Zambia and Malawi to provide world-class training in clinical research and service delivery.

Trainees receive mentorship from seasoned UNC faculty members and will be based at either the University Teaching Hospital in Zambia in Lusaka or UNC Project-Malawi in Lilongwe. Both sites are academically vibrant, with three-part missions of clinical research, service delivery and training. Each have multiple faculty members living full-time in country, with ongoing projects in HIV prevention and treatment, maternal-child health, cervical cancer prevention and treatment, family planning, obstetrical fistula, quality improvement, and outcomes and effectiveness research.

Training in Infectious Diseases Epidemiology (TIDE)

The goal of UNC’s Training in Infectious Diseases Epidemiology (TIDE) program is to produce a new generation of leaders in infectious diseases epidemiology. UNC’s ID Epidemiology program is housed in the Department of Epidemiology, which is one of the premier departments in the world in one of the best Schools of Public Health—UNC’s Gillings School of Global Public Health. Doctoral students receive rigorous training in epidemiological methods. Because UNC’s ID program is one of the largest and strongest in the country, trainees will have copious opportunities to participate in multidisciplinary research. Training will be enriched by collaborations within UNC and with neighboring institutions such as Family Health International (FHI), GSK, the North Carolina State Health Department, and Duke University. Students would work in one of three program areas: Vector-borne Diseases, Bioterrorism and Emerging Infectious Diseases, or STD/HIV. Trainees in each program area will be co-mentored.
by one of four senior Epidemiology faculty members and one co-mentor who is either a basic scientist, clinical scientist or junior faculty member. This promotes multidisciplinary work as well as junior faculty career development.

**Explorations in Global Health Grants**

Originally begun as an international travel grant program in UNC’s Gillings School of Global Public Health, under the leadership of Peggy Bentley, PhD, the Explorations in Global Health (EGH) faculty grants program was taken over by IGHID in 2009. The faculty grants are small pilot awards given to UNC faculty to foster the development of research partnerships and projects in global health. Grants can be applied to international travel or to bring international colleagues to campus to establish or cultivate research relationships, or to undertake small-scale, discrete research projects with international collaborators. The Institute expanded the program to include funding for small research projects, and as a result, receives a large number of applications from all over campus each year for the competitive grant awards.

Since its inception in 2006, the EGH program has awarded over $320,000 to UNC faculty who have in turn been awarded over $2 million in new external dollars. Faculty may jointly apply for grants with a UNC student or other faculty. Over 40 faculty from across campus have benefited from this program through the receipt of joint or single awards. In the most recent 2015 awards, the EGH program funded six successful applications and a total of eight faculty members in projects ranging from: “Mexico Sugar-Sweetened Beverage and Non-Essential Food Tax Evaluation” to the “Longitudinal Study of Ebola Survivor Cohort to Characterize the Clinical Sequelae of Infection.” In addition to sponsoring the research program, the Institute arranges for EGH grant recipients to give a talk on campus about their research in order to increase cross-campus research, academic learning and dialogue. 

**THE EXPLORATIONS IN GLOBAL HEALTH GRANT WILL ALLOW ME TO DEEPEN OUR COLLABORATION WITH OUR MEXICAN COLLEAGUES AS WE BEGIN TO UNDERSTAND THE EFFECTS OF THESE [JUNK FOOD] TAXES.**

*Lindsey Smith, PhD, Research Assistant Professor, Department of Nutrition, UNC Gillings School of Global Public Health*
The University of North Carolina has one of the largest programs in Global Health and Infectious Diseases in the United States. The work extends to faculty and students from all parts of the campus. The work undertaken has made important discoveries, saved lives and offered critical training to thousands of health professionals in the US and in resource-limited settings. We hope that the 2015 report conveys the breadth and depth of the work, and the commitment of UNC to these goals—service, research and education.
UNC has managed to sponsor specialty training for Malawian healthcare professionals, and I am one of the beneficiaries. These professionals have come back and held leadership positions in government and at UNC Project-Malawi. There is a feeling of ownership of programs being led by the local healthcare professionals.

Lameck Chinula, MMED, UNC Project-Malawi’s first Malawian OB/GYN
A woman and her children stop for a photo on their way to UNC Project-Malawi. Photo by Caitlyn Kleiboer.