The David N. Pincus Global Health Fellowship

DEVELOPING LEADERS IN

PEDIATRIC GLOBAL HEALTH

2017-2019

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1. INTRODUCTION

Pediatric global health has seen tremendous growth over the past 15 years. This has occurred for many reasons including a deep desire by many to participate in creating health equity worldwide. In 2016, more than 5 million young children across the globe died from preventable causes. The solutions to this enduring problem lie in an array of global interventions that provide both immediate relief and incremental long-term change. Our fellowship strives to train leaders in pediatric global health who will be equipped to contribute to these solutions.

The Children’s Hospital of Philadelphia (CHOP) established the David N. Pincus Global Health Fellowship in 2008 to train future leaders in the field of pediatric global health. Together with our founding benefactor, David N. Pincus, CHOP launched the fellowship to address significant challenges to global child health including fragmented access to pediatric health services, suboptimal pediatric quality medical care in strained healthcare systems, and a scarcity of pediatric trained local health workforce. The David N. Pincus Global Health Fellowship is a two-year academic training program that seeks to address these challenges while building clinical, teaching, research, advocacy and leadership skills in our fellows.

CHOP strives to be the world leader in the advancement of healthcare for children. The Pincus Global Health Fellowship supports CHOP’s mission by promoting programs that improve the health of children around the world. The Pincus Fellowship helps create and maintain meaningful collaborations among health care professionals affiliated with CHOP and global partners committed to improving children’s health. The Fellows are based in resource limited settings where they provide clinical care, teach, advocate and do scholarly research that advances knowledge relevant to children living in developing countries. Fellows complete the program equipped with clinical, teaching, advocacy, research and leadership skills to continue in careers dedicated to advancing children’s health in resource constrained communities and countries.

The Global Health Center at CHOP provides the faculty and administrative support to the Fellowship and connects CHOP and our Global Health faculty to a worldwide network of clinicians, educators and researchers. During each cycle, one Global Health Fellow works in the Dominican Republic and one Fellow works in Botswana, in both sites working in close collaboration with our local colleagues.
2. BACKGROUND

CHOP’s Global Health Center serves to promote child health across the globe, particularly among the most vulnerable in resource-limited settings. We collaborate with global partners to improve the health of children in partner communities, while also serving as a source of training and professional growth for the next generation of healthcare workers at CHOP and abroad.

Global Health formally began at CHOP in 2004 and has grown considerably in scope since then. CHOP’s Global Health partnerships abroad now include long-term pediatric programs in the Dominican Republic and Botswana which aim to improve the health of children and families as well as build capacity among local healthcare providers through CHOP’s four pillars: clinical care, teaching, research, and advocacy. CHOP physicians also have active collaborations in more than 17 additional countries around the world.

Professionals working on behalf of CHOP, as well as other partners such as the University of Pennsylvania, Columbia University, etc., at our partner sites are performing a wide range of important work. From residents and fellows who provide clinical support to in-country staff working in busy health centers, to researchers examining key issues facing patients around the world, to faculty who give time to teach and mentor professionals at all levels of the healthcare system, we are all united in a mission to build capacity and sustainable improvement in health systems around the world.

The David N. Pincus Global Health Fellowship is included among Global Health’s many endeavors. The Fellowship trains pediatricians to become leaders, educators, and future faculty in the growing realm of pediatric global health, especially in the prevention and treatment of diseases and illnesses prevalent in resource-poor nations.

Global Health not only accentuates the tremendous generosity of spirit and energy of participants but also allows CHOP to exchange ideas and find creative solutions alongside partners near and far in the international pediatric healthcare community. This exchange is of mutual benefit to all involved.
3. FELLOWSHIP DESCRIPTION – OVERVIEW

Established in 2008 by a generous gift of David N. Pincus, this fellowship program provides opportunities for Global Health Fellows to enhance their clinical, educational, research, advocacy and leadership skills in pediatric global health. The David N. Pincus Global Health Fellowship seeks to cultivate and support the professional training of future leaders in pediatric global health. We seek outstanding candidates who not only want to provide clinical service and education in a developing setting, but who are also problem solvers who will work with their mentors to design and implement advocacy projects and research studies that will benefit children in our partner communities. Accepted applicants join an intense and exciting two-year academic fellowship at The Children’s Hospital of Philadelphia and work primarily in one of our partner countries: the Dominican Republic or Botswana.

Purpose:
The Fellows increase access to and availability of high quality healthcare for children living in our partner sites, which are typically low-resource and face significant health challenges. Concurrently, the program provides opportunities through a richly mentored experience for Global Health Fellows to enhance their knowledge and skills in pediatric global healthcare.

Fields of Study and Practice:
The two-year Global Health training model combines clinical service, teaching and scholarship in a developing country. The Fellows’ clinical experience is focused on diseases particularly common in resource-constrained regions of the world such as malnutrition, water-related illnesses, acute respiratory disease, diarrhea, tuberculosis and HIV/AIDS. Tropical diseases such as dengue or various parasitic infections may also account for a significant burden of childhood diseases in the partner countries. Each fellow also has the opportunity to design, implement, present and publish a research project under the mentorship of faculty members in the Department of Pediatrics at the Perelman School of Medicine of the University of Pennsylvania.

The following is a short overview of the various aspects of the fellowship:

- Clinical Service: Global Health Fellows will work collaboratively with in-country professional colleagues. The Fellow will have regular and ongoing pediatric clinical responsibilities. The range of clinical service includes ambulatory care in the Dominican Republic (outpatient preventive and sick office visits, outreach and home visits) and inpatient pediatric care performed at the level of a general inpatient pediatric hospitalist in Botswana. Fellows connect with and augment existing healthcare systems in their communities with the guidance of the fellowship faculty and in-country partners. They provide pediatric medical service in areas of modest resources while also being exposed to a broad range of interesting pathologies. In doing so, they develop and
improve their clinical diagnostic skills and learn to optimize therapy using available resources.

- **Education:** Global Health Fellows actively coordinate and engage in educational activities in their community, in collaboration with other professionals. In both settings this includes teaching opportunities with local pediatric residents, nurses and other learners. Fellows are supported by the Global Health Faculty at The Children’s Hospital of Philadelphia (see Section 4 of this brochure) and receive mentorship from a variety of professionals. Fellows are also actively involved in supervising residents and students from CHOP and the University of Pennsylvania who visit Global Health sites. The fellowship provides intensive epidemiologic and biostatistics coursework and additional activities (conferences, journal club, specialized training) are individualized according to the interest and motivation of the Fellow.

- **Research:** Study design, implementation, analysis and write-up is an important learning objective of the Global Health Fellowship. Fellows learn how to design global health research projects and use the principles of clinical epidemiology to understand statistical analysis during the Global Health Fellowship. Intensive coursework and training occur early in the fellowship at the Center for Clinical Epidemiology and Biostatistics at the University of Pennsylvania. Individualized research faculty mentoring allows Fellows to choose to explore their specific research interests. Each Fellow works closely with his or her research mentor(s) to design, plan, execute and write-up a research study. The realm of each research project is flexible based upon the interests of the Fellow, but is guided closely by a chosen faculty mentor and on the priorities of the relevant Global Health partner site.

**Fellowship Locations:**
Fellows begin their fellowship at CHOP and spend four to six weeks orienting to the program, doing epidemiology and biostatistics coursework, meeting with CHOP and Penn faculty and preparing for their assignment in partner countries. They then relocate to their host country and live there. Fellows return to CHOP midway through their fellowship to meet in-person with mentors and to attend CHOP’s annual Global Health conference. Each Fellow is strongly encouraged, usually during their second year, to visit the second fellowship site – this visit builds rapport between Fellows and further enriches their appreciation for the importance of context in Global Health as they explore the health systems in both the DR and Botswana. Fellows also return to CHOP for the last 1-2 weeks of their fellowship to finalize their training experience. It is estimated that 21 of the 24 total fellowship months are spent caring for children, studying, and researching in the partner country, which allows for an intensive global immersion education experience.

**The Dominican Republic**
Health indicators in the Dominican Republic demonstrate continued high levels of infant and under-5 child mortality, vaccine preventable illnesses, and malnutrition. During his/her two-year fellowship, the Fellow shares outpatient clinical time between the Centro de Salud Divina
Providencia in the town of Consuelo (province of San Pedro de Macorís) and Clínica de Familia (partnered with Columbia University’s International Family AIDS Program) in the nearby city of La Romana. From 2017, fellows will also participate in an in-patient experience. Clinical duties are accompanied by a scholarly project conducted in either Consuelo or La Romana, with close mentorship and support both in-country and remotely from CHOP.

- In Consuelo, the Fellow performs his/her primary clinical responsibilities in collaboration with CHOP’s partners at the Centro de Salud Divina Providencia. The Fellow is an active pediatric provider in the community pediatric health program through Centro de Salud Divina Providencia known as Niños Primeros en Salud (NPS), caring for children less than 5 years of age who reside in six of the lowest-income neighborhoods in Consuelo. The program focuses on preventive care, nutrition and breastfeeding, growth and development, vaccinations, as well as acute care issues, including respiratory infections, diarrhea, skin infections, malnutrition, parasitic infections, and dengue fever, among other conditions. Dominican pediatric residents from the Hospital Infantil Robert Reid Cabral (HIRRC), the country’s main children’s hospital in Santo Domingo, and Hospital Materno-Infantil San Lorenzo de los Mina, one of the main maternal and child hospitals in the country (also in Santo Domingo), rotate through Consuelo monthly for their community health rotation. This exchange provides rich opportunities for both education and collaboration between the Fellow and the Dominican residents. The Fellow also actively engages in community health and wellness programs (including those related to community health workers, nutrition, and parasitic infections) and conducts home visits in the Consuelo neighborhoods (“barrios”) with the program’s pediatric nurse to improve access and provision of care to children who need it most.

- In La Romana, the Fellow works at Clínica de Familia, which partners with the Dominican Ministry of Health and Columbia University’s International Family AIDS Program. Clínica de Familia is a model clinic caring for vulnerable populations in the eastern Dominican Republic. With a multi-disciplinary staff of over 90 people, the clinic provides free comprehensive family-centered primary and HIV-specialized outpatient medical care, along with community outreach, psychosocial support services, and an annual summer camp for HIV-positive children. The Fellow functions as one of the two pediatric providers in the clinic, providing primary and HIV care for HIV-exposed and HIV-infected children, collaborating closely with a multidisciplinary team. The Fellow plays an active role in co-facilitating monthly pediatric department team meetings, participating in weekly clinical education conferences (often leading sessions on relevant clinical topics or cases), mentoring rotating medical students/residents, and supporting the pediatric nutrition program. Additionally, the Fellow gains experience in pediatric HIV management, multidisciplinary teamwork, and delivery of comprehensive health services in resource-limited settings.
Botswana’s health challenges include the 3rd highest HIV prevalence globally, prematurity, childhood diarrhea, pneumonia and malnutrition. In this setting, the Global Health Fellow works to provide clinical care and service to children at the University of Botswana’s main teaching hospital, which is currently Princess Marina Hospital in Gaborone, Botswana. Clinical duties are accompanied by a scholarly project with close mentorship and support both in-country and remotely from CHOP.

- At Princess Marina Hospital in Gaborone, Botswana, the Fellow delivers inpatient general pediatric clinical care as part of the CHOP program in collaboration with the Department of Paediatric and Adolescent Health, Faculty of Medicine, University of Botswana (UB) and the Botswana-UPenn Partnership. The Fellow serves as an adjunct faculty member for UB and at different times leads both a pediatric ward team and a neonatal team. The team includes a variety of trainees (such as medical students and a resident) caring for children admitted to the hospital. The hospital serves as the referral hospital for the entire country and sees a high rate of prematurity, neonatal complications, pneumonia, diarrhea, HIV and AIDS-related disease, tuberculosis, and malnutrition. The hospital is large and busy, and as a result the Fellow will encounter both routine and unusual, challenging medical cases. Morning report and teaching rounds are held each morning (Monday to Friday) to review new cases, and to problem solve with the trainees and faculty on management of ongoing cases. Monthly academic meetings include pediatric journal club, and both pediatric and neonatal morbidity and mortality meetings. The Fellow takes call as a general pediatrician.
4. GLOBAL HEALTH FACULTY AND MENTORSHIP

Andrew Steenhoff, MBBCh, DCH, FAAP
Medical Director, CHOP Global Health Center
Attending Physician, CHOP Division of Infectious Diseases
Director, David N. Pincus Global Health Fellowship
Assistant Professor of Pediatrics, Perelman School of Medicine at the University of Pennsylvania

Dr. Steenhoff graduated from the University of the Witwatersrand Medical School in Johannesburg, South Africa with a distinction in pediatrics. He completed pediatric training in Johannesburg, South Africa, England and the United States. Following pediatric residency and chief residency at Albert Einstein Medical Center in Philadelphia, he did an Infectious Diseases Fellowship at the Children’s Hospital of Philadelphia (CHOP) from 2004 to 2007. Dr. Steenhoff combines clinical and research skills to improve pediatric outcomes in the developing world. His research focuses on pediatric infectious diseases with a particular interest in tuberculosis, HIV, pneumonia and gastroenteritis. Dr. Steenhoff is the author of over 100 peer-reviewed manuscripts and book chapters and has worked at CHOP since 2004. He teaches and mentors students, residents and fellows (including the Pincus Fellows) in Botswana, the Dominican Republic and Philadelphia.

From 2008 to June of 2015, Dr. Steenhoff was based in Botswana for 7 and a half years where he lead CHOP’s Global Health program and was Associate Country Director of the Botswana-UPenn Partnership. In July 2015, he returned to Philadelphia as the medical director of the Global Health Center at CHOP. Dr. Steenhoff is also an assistant professor of Pediatrics at the University of Pennsylvania, an attending physician in the Division of Infectious Diseases at CHOP, and an adjunct senior lecturer in the Department of Paediatrics, Faculty of Health Sciences of the University of Botswana.

As a global health advocate, he seeks to optimize mutually beneficial collaborations between clinical and academic institutions in diverse settings. He has practiced clinical medicine in the United States, England, Botswana and South Africa. He speaks English, and some French, Zulu and Afrikaans.
Liz Lowenthal MD, MSCE
Research Director, CHOP Global Health Center
Assistant Professor of Pediatrics and Epidemiology, Perelman School of Medicine at the University of Pennsylvania

Dr. Lowenthal is an attending physician in the Division of General Academic Pediatrics and a core faculty member of the Center for Pediatric Clinical Effectiveness at CHOP. She specializes in the care and treatment of children and adolescents with HIV. She is also trained as an epidemiologist and is involved with pediatric clinical research in several countries.

Dr. Lowenthal is a graduate of Baylor College of Medicine in Houston, Texas. She completed her pediatric residency training at the Baylor Affiliated Hospitals and her fellowship training in general academic pediatrics at The Children's Hospital of Philadelphia.

Dr. Lowenthal's international experience includes four years of living full-time in Botswana where she served as associate director and clinic director of the Botswana-Baylor Children’s Clinical Centre of Excellence, a large clinic dedicated to the care and treatment of children with HIV infection. She has also served on national medical advisory committees for Botswana and as a consultant to the World Health Organization. She has taken part in health professional training activities in a number of countries, including Botswana, South Africa and Zambia.

Dr. Lowenthal is the principal investigator for a CDC-funded PEPFAR Public Health Effectiveness Research grant focused on optimizing adherence to antiretroviral therapy among perinatally HIV-infected adolescents in Botswana. She also receives funding from the National Institutes of Health and the Stoke's Research Institute. Her research interests currently span several areas of international child health including pediatric and adolescent HIV treatment adherence, comparative effectiveness of antiretroviral regimens, adolescent sexual health, social support networks for children and adolescents with HIV, and improving the palatability of pediatric HIV treatments.

Tonya Arscott-Mills MD, MPH FAAP
Botswana Pediatric Director, CHOP Global Health Center
Attending Physician, CHOP Division of General Pediatrics,
Clinical Assistant Professor of Pediatrics, University of Pennsylvania Perelman School of Medicine
Pediatric & In-country Research Director, Botswana-UPenn Partnership;
Lecturer, Department of Pediatrics, Faculty of Medicine, University of Botswana & Global Health Faculty, The David N. Pincus Global Health Fellowship
Dr. Arscott-Mills is an attending physician in the Division of General Pediatrics at the Children’s Hospital of Philadelphia (CHOP), and a board certified pediatrician in the US and Botswana. As Pediatric & In-country Research Director for the Botswana-UPenn Partnership she leads CHOP activities in Botswana. Dr. Arscott-Mills is a graduate of Wake Forest University School of Medicine, North Carolina. She did her pediatric residency training at St Christopher’s Hospital for Children in Philadelphia. She was awarded an MPH from the London School of Tropical Medicine and Hygiene. Her career to date has focused on pediatric global health, clinical care and training health professionals in the developing world — specifically in Jamaica, Zambia, Afghanistan, and for the last 8 years, in Botswana.

Dr. Arscott-Mills is also adjunct faculty in the Department of Pediatrics & Adolescent Health, Faculty of Medicine, at the University of Botswana where she has been involved in training the University’s first classes of medical students and pediatric residents. She also teaches and mentors fellows and residents in clinical medicine and research from CHOP and the University of Pennsylvania School of Medicine as well as residents from the University of Botswana. As a member of Botswana’s National HIV and TB Specialist Panels, Dr. Arscott-Mills is involved in recommending and setting national policies and guidelines for HIV/AIDS and TB. The Botswana-UPenn Partnership for which she works, has received funding for their work in Botswana from the President’s Emergency Plan for AIDS Relief, the US Centers for Disease Control and Prevention, the International AIDS Society, the National Institutes of Health, Thrasher Foundation and the Grand Challenges Canada Program.

Susan Coffin, MD MPH
Attending Physician and Clinical Director, CHOP Division of Infectious Diseases
Professor of Pediatrics, Perelman School of Medicine at the University of Pennsylvania

Susan Coffin, MD, MPH, is an attending physician and clinical director for the Division of Infectious Diseases at The Children’s Hospital of Philadelphia, a Core Faculty member of the Center for Pediatric Clinical Effectiveness at CHOP, and a professor of Pediatrics at the Perelman School of Medicine at the University of Pennsylvania.

She is actively engaged in the clinical care of children with infections, teaching of medical students, residents, fellows, and other care providers. Dr. Coffin was previously the Associate Hospital Epidemiologist after serving over a decade as the Medical Director of the Department of Infection Prevention and Control at The Children’s Hospital of Philadelphia.

Dr. Coffin has an active and well-funded research program that focuses on the prevention of healthcare-associated infections and vaccine-preventable diseases. Dr. Coffin is an active participant in numerous local, state and nation-wide public health programs that address such topics as the epidemiology and prevention of healthcare associated infections, pandemic influenza preparedness, and pediatric influenza. In addition, Dr. Coffin has worked on infectious

Dr. Coffin’s interests include: pediatrics, infectious diseases, public health, vaccines and vaccine-preventable diseases, infection control and healthcare-associated infections, quality improvement.

Keri Cohn, MD MPH DTMH
Attending Physician, Division of Emergency Medicine
Children’s Hospital of Philadelphia
Assistant Professor of Clinical Pediatrics
Perelman School of Medicine at the University of Pennsylvania

Dr. Cohn is an assistant professor of Clinical Pediatrics at the Perelman School of Medicine of the University of Pennsylvania, an Attending physician in the division of emergency medicine at the Children’s Hospital of Philadelphia, and the director of the Pediatric Emergency Medicine-Global Health (CHOP) Fellowship. She has long been involved in international health, having worked with many international organizations throughout the world in Africa, Central America, the Caribbean, Europe, and South East Asia. After completing her pediatrics residency at CHOP, she worked with Médecins Sans Frontières (Doctors Without Borders) as the chief expatriate physician in the northern rebel region of the Cote d’Ivoire during the civil war. She received her Diploma of Tropical Medicine and Hygiene at the London School of Hygiene and Tropical Medicine in 2007 and completed a combined fellowship in Pediatric Infectious Diseases and Emergency Medicine at Children’s Hospital Boston to further her academic pursuit of global health. While an instructor at Harvard Medical School, she completed a Global Health Fellowship and her Masters of Public Health at the Harvard School of Public Health. In 2010 she was awarded Pediatric Infectious Disease Society Burtis Burr Breese Award for her tuberculosis research in Haitian migrant children living in the Dominican Republic. She has acted as a senior advisor for the MGH Division of Global Health and Human Rights and was the founding director of the Initiative to End Childhood Malnutrition in Rukungiri, Uganda. Additionally, she works closely with the Global Emergency Care Collaborative, developing training programs for providers to train in advanced emergency care in East Africa. In 2015 she re-deployed on mission in Sierra Leone with Médecins Sans Frontières to work at an Ebola Management Center. Since 2016 she also has begun a 3 phase research study and prevention program to address Caustic Soda Ingestion in Liberia. In addition to continuing her work abroad, she is committed to locally advancing post-graduate academic education for medical professionals in global health.
Kassa Darge, MD, PhD, DTM&P
Chair of Department of Radiology, The Children’s Hospital of Philadelphia
Professor of Radiology, University of Pennsylvania Perelman School of Medicine
Global Health Faculty, The David N. Pincus Global Health Fellowship

Kassa Darge, MD, PhD, DTM&P is a pediatric radiologist and Chair of the Department of Radiology of The Children’s Hospital of Philadelphia (CHOP) and Professor of Radiology with secondary appointment as Professor of Radiology in Surgery at the Perelman School of Medicine of the University of Pennsylvania. He also holds The “John W. Hope” Endowed Chair for Radiology Faculty Development. In addition, he is an Honorary Professor of Radiology at the Addis Ababa University in Ethiopia. Dr. Darge has been actively involved in various global health activities and international outreach work for the past 25 years. Prior to his appointment at CHOP Dr. Darge served for 7 years as the Chairman of the Department of Pediatric Radiology at the Institute of Radiodiagnostic of the University of Wuerzburg, Germany. Dr. Darge did his radiology residency and pediatric radiology fellowship at the University of Heidelberg. At the same time he pursued a fellowship in Tropical Pediatrics that was offered at the University. During this fellowship he worked in southern part of Ethiopia with a focus on childhood malnutrition and tuberculosis. Prior to his radiology training Dr. Darge was a research fellow of the World Health Organization (WHO) at the Bernhard-Nocht Institute for Tropical Medicine in Hamburg, Germany and its outposts in Liberia and Ghana. His research focus during this time was on filarial diseases and in particular onchocerciasis. He received from the Institute his Diploma in Tropical Medicine and Parasitology (DTM&P). Since 15 years his international outreach work has focused on radiology and in particular pediatric radiology. He has established the CHOP Department of Radiology International Pediatric Radiology Education Outreach. One of the major activities of this outreach is in Ethiopia and supports the radiology residency education and also runs an accredited pediatric radiology fellowship. Dr. Darge’s current research focus is in pediatric uroradiology and he has over 200 publications. Dr. Darge is a member of some 22 professional societies nationally and internationally. He is a reviewer for 33 scientific journals and serves on the editorial board of 2 of them. Dr. Darge had been invited as a visiting professor over 40 times. He has organized 35 continuing medical education (CME) courses locally, nationally and internationally. Dr. Darge has received a total of 26 awards and recognitions for both his research and educational undertakings. Among these the following stand out: the "Schinz Medal" and "Honorary Membership" by the Swiss Radiological Society, the "Heidi Patriquin International Fellowship for Education Award" by the Society of Pediatric Radiology (SPR), "Contrast Agent Research Award" by the German Radiological Society, "The Schering Prize" by the European Federation of Societies of Ultrasound in Medicine (EFSUMB) and the “Honored Educator Award” by the Radiological Society of North America (RSNA).
Elizabeth T. Drum, MD, FAAP, FCPP

Medical Director, Radiology & Procedural Sedation/Anesthesia
Medical Director, Anesthesiology Global Health Initiatives
Attending Anesthesiologist, Department of Anesthesiology and Critical Care Medicine; The Children’s Hospital of Philadelphia

Dr. Drum joined the faculty of the General Anesthesiology Division at The Children’s Hospital Of Philadelphia in 2015 where she is the Medical Director of Radiology and Procedural Sedation/Anesthesia. She also serves as the department’s Medical Director of Global Health Initiatives. Dr. Drum has sub-specialty certification in Pediatric Anesthesiology by the American Board of Anesthesiology. She is credentialed by the National Disaster Medical System of the Department of Health and Human Services and served as a Major in the US Army Medical Corp from 1991-1994. She has extensive experience in surgical mission work around the world including participating in 26 medical mission trips to 6 countries. She was selected as the 2015 International Physician of the Year by medicalmissions.org for her work. She is an advocate for improving the safety and capacity of anesthesia care around the world in conjunction with increasing surgical capacity. Many of her trips to other countries have focused on building educational systems and collaborating with local providers to create infrastructure that supports educational initiatives. As a member of the American Society of Anesthesiologists Global Humanitarian Outreach Committee, she founded a scholarship program to send US Anesthesiology residents to Addis Ababa, Ethiopia for a month-long rotation at Cure Ethiopia Children’s Hospital, and she serves as its US Program Director. She is a member of the Society for Pediatric Anesthesia Committee on International Education and Service and a member of the Board of Directors of the Alliance for Surgery and Anesthesia Presence. Prior to joining the faculty at CHOP, she was a Professor of Anesthesiology and Pediatrics at Temple University School of Medicine where she still holds an Adjunct Clinical Appointment.

Kristen A. Feemster, M.D., M.P.H., M.S.H.P.R.
Assistant Professor of Pediatrics, the Perelman School of Medicine at the University of Pennsylvania, Attending Physician, Division of Infectious Diseases at the Children’s Hospital of Philadelphia and Global Health Faculty, The David N. Pincus Global Health Fellowship

Kristen A. Feemster, MD MPH MSPHR is an Assistant Professor of Pediatrics in the Division of Infectious Diseases at the Children’s Hospital of Philadelphia (CHOP) and the Perelman School of Medicine at the University of Pennsylvania (UPenn). As faculty for the Global Health program at CHOP, she works with projects in both Botswana and the Dominican Republic as a researcher and mentor. Dr. Feemster completed her undergraduate work at Yale University and received her M.D. and an M.P.H. in Population and Family Health from Columbia University Schools of Medicine and Public Health in New York City. She completed pediatric residency at CHOP then pursued a dual
fellowship training program in health services research and pediatric infectious diseases: She was a fellow in the Robert Wood Johnson Foundation (RWJF) Clinical Scholars Program at Penn, completing a Master of Science degree in Health Policy Research then returned to CHOP for pediatric infectious diseases training. She joined the faculty in her current position in 2010. During this time she has studied and worked in Brazil and Mali. She currently resides in Philadelphia.

Dr. Feemster’s research interests include immunization delivery, domestic and international vaccine policy and infectious diseases surveillance. She is especially interested in understanding the role of community and household characteristics in infectious disease transmission to inform the development of effective policies related to the prevention of pediatric infectious diseases. Her work focuses upon vaccine acceptance among parents and immunization providers, sociodemographic disparities in influenza disease risk, testing and treatment practices, and health-care associated respiratory infection in the pediatric ambulatory setting. As a global health mentor, she is working on projects investigating outcomes of severe pneumonia among HIV-exposed uninfected infants in Botswana and the impact of pneumococcal vaccine introduction on serotype distribution in the Dominican Republic. In addition to her research, Dr. Feemster is a senior fellow in the Leonard Davis Institute of Health Economics (Penn), a member of the Center for Pediatric Clinical Effectiveness and PolicyLab (CHOP) and a research director for the Vaccine Education Center (CHOP). She also serves as Medical Director for the Philadelphia Department of Health Immunization Program and Chair of the Advisory Commission for Childhood Vaccines that advises the National Vaccine Injury Compensation Program.

James Guevara, MD, MPH

Associate Professor of Pediatrics & Epidemiology, the Perelman School of Medicine at the University of Pennsylvania
Attending Physician, the Children’s Hospital of Philadelphia
Director of Interdisciplinary Initiatives, PolicyLab
Global Health Faculty, The David N. Pincus Global Health Fellowship

Dr. Guevara is a board-certified pediatrician. He received his M.D. degree from Northwestern University and M.P.H. degree from the University of Washington. He holds positions at the Department of Biostatistics and Epidemiology as Assistant Director for Faculty and Trainee Diversity, where he is involved in developing and evaluating diversity policies for faculty and trainees. At the Children’s Hospital of Philadelphia where he is the Director of Interdisciplinary Initiatives at PolicyLab: Center to Bridge Research, Practice, & Policy, he participates in developing and disseminating child health policy research. He also participates as a Senior Fellow at the Leonard Davis Institute of Health Economics in interdisciplinary health services research and as a Senior Scholar at the Center for Clinical Epidemiology and Biostatistics where he teaches a graduate course in meta-analysis and mentors students.
Nationally, he is an Associate Editor for Academic Pediatrics and participates as a member of the Executive Research Committee of the Academic Pediatrics Association. He has research interests in the organization, financing, and delivery of primary health care services to children with developmental and behavioral disabilities and has received federal support to conduct his research. Through his research initiatives, he focuses on improving the delivery of healthcare in primary care settings, reducing health disparities, and translating research findings into practice and policy.

**Shirley Huang, MD**  
Attending Physician, CHOP Healthy Weight Program  
Attending Physician, CHOP Division of Gastroenterology, Hepatology, and Nutrition  
Associate Professor of Pediatrics, the Perelman School of Medicine at the University of Pennsylvania  
Global Health Faculty, The David N. Pincus Global Health Fellowship

Shirley Huang, M.D. is Attending Physician for the Healthy Weight Program and the Division of Gastroenterology, Hepatology, and Nutrition at The Children’s Hospital of Philadelphia. She received her B.S. in Nutritional Sciences at Cornell University and her M.D. from the State University of New York at Buffalo. She completed her general pediatrics residency at The University of North Carolina at Chapel Hill and her nutrition fellowship at The Children's Hospital of Philadelphia. Dr. Huang’s background and interests include clinical nutrition (obesity prevention and management, dyslipidemia, and nutrition support), nutrition program development, community nutrition, nutrition education, and international nutrition. Internationally, she has worked as a medical missionary at Tenwek Hospital in Kenya, and has also served as a provider, educator and nutrition expert for CHOP’s Global Health Program in the Dominican Republic and Botswana. She has been a past committee member and co-chair on CHOP’s Global Health Symposium Committee. Furthermore, she has been a mentor for Nutrition fellows and Global Health fellows during their training programs with their international nutrition curricula, activities, and interests.
Anthony A. Luberti, M.D.

Program Director, Clinical Informatics Fellowship Program, The Children’s Hospital of Philadelphia
Medical Director, Informatics Education, Center for Biomedical Informatics, The Children’s Hospital of Philadelphia
Clinical Professor of Pediatrics, the Perelman School of Medicine at the University of Pennsylvania
Global Health Faculty, The David N. Pincus Global Health Fellowship

Dr. Luberti is the Medical Director of Informatics Education in the Center for Biomedical Informatics at The Children’s Hospital of Philadelphia. Informatics and information technology are disciplines which have been shown to help support clinical care, education, and research efforts in Global Medicine. Since February 2009, Dr. Luberti has been involved in various aspects of CHOP’s Global Health programs and the Botswana UPenn Partnership (BUP) including the development and application of database and electronic medical record programs and the use of various technologies and distance learning methods to support a number of educational and research efforts in Botswana. Most recently in 2012, he and others from CHOP, BUP, and the ministries and schools in Botswana hosted the first Health Informatics Pitso (Symposium) in Gaborone and other informatics educational activities. Currently he is collaborating with the Faculty of the University of Botswana School of Health Sciences (UB-FAS) in the development of a curriculum and a core undergraduate course in health informatics. As the Program Director for one of the first Fellowship Programs in Clinical Informatics in the nation, Tony is co-leading (with Kagiso Ndlovu, faculty at UB and Manager of the BUP Health Informatics Program) a month-long rotation for CHOP’s informatics fellows to explore informatics opportunities and projects in Botswana.

Dr. Luberti received his MD from the University of Pennsylvania School of Medicine and a Masters in Information Science from Penn State University. He has more than 15 years experience with the implementation of several Electronic Health Record (EHR) systems at CHOP in both ambulatory and inpatient settings. He also has served as Medical Director of CHOP's nurse triage call center, and continues to precept pediatric residents in CHOP’s Resident Continuity Clinic.

Kevin Osterhoudt, M.D.

Professor of Pediatrics, the Perelman School of Medicine at the University of Pennsylvania
Attending Physician, CHOP Division of Emergency Medicine
Medical Director, The Poison Control Center at CHOP
Global Health Faculty, The David N. Pincus Global Health Fellowship
Dr. Osterhoudt is a Professor of Pediatrics at The Children’s Hospital of Philadelphia and the University of Pennsylvania School of Medicine, is an attending physician in the Division of Emergency Medicine and the medical director of The Poison Control Center at CHOP, and is a faculty member in the Community Outreach and Education Core of the Center of Excellence in Environmental Toxicology at Penn. He has co-authored over 100 journal articles and textbook chapters, and serves on the editorial boards of Pediatric Emergency Care and Clinical Toxicology. Dr. Osterhoudt is recognized for teaching excellence and was awarded the David Cornfeld Bedside Teaching Award by The Children’s Hospital of Philadelphia in 2005, the Scott Mackler Award for Excellence in Teaching by the University of Pennsylvania in 2008, and the ACMT Award for Significant Contributions to the Educational Pursuits of Medical Toxicology by the American College of Medical Toxicology in 2009. He has served nationally on the Board of Directors of the American College of Medical Toxicology, as the American Board of Pediatrics' representative to the medical toxicology sub-board, and on the Executive Committee of the Council on Environmental Health of the American Academy of Pediatrics. International experiences have included participation in a 2002 delegation to establish a pediatric emergency medicine program in Kosovo, participation in the Global Health Program’s medical outreach to the Dominican Republic in 2007, service to the Bach Mai Hospital Foundation in Hanoi in 2013, being a course director in the Salzburg Seminars, and most recently mentoring in the Global Health Program’s academic relationship with Princess Marina Hospital in Botswana. Dr. Osterhoudt’s primary academic interests are in the areas of childhood poisoning prevention and treatment, and in the assessment of environmental risks to pediatric health.

Pierre Russo, MD
Division Director, CHOP Division of Anatomic Pathology
Professor of Pathology and Laboratory Medicine, University of Pennsylvania Perelman School of Medicine
Global Health Faculty, The David N. Pincus Global Health Fellowship

Dr. Russo is director of the Division of Anatomic Pathology at The Children’s Hospital of Philadelphia and Professor of Pathology and Laboratory Medicine at the Perelman School of Medicine at the University of Pennsylvania. Dr. Russo has a long-standing interest in pediatric pathology with an emphasis on pediatric liver and gastrointestinal diseases.

Dr. Russo has been involved with the Botswana-UPenn Partnership program and the University of Botswana pathology residency program since 2015. Dr. Russo’s goals include the use of telepathology in consultation services and webinars for case conferences and teaching.

David Andrew Spiegel, M.D.
Attending Surgeon, Children’s Hospital of Philadelphia
Associate Professor of Orthopaedic Surgery, University of Pennsylvania Perelman School of Medicine
Global Health Faculty, The David N. Pincus Global Health Fellowship
Dr. David Spiegel works as a pediatric orthopaedic surgeon at the Children’s Hospital of Philadelphia, specializing in neuromuscular diseases, trauma, and spinal deformities and is an Associate Professor of Orthopaedic Surgery at the University of Pennsylvania School of Medicine. He attended Duke University for college, medical school, and orthopaedic surgical residency training, and then completed both a research and a clinical fellowship in pediatric orthopaedics at the Children’s Hospital of Philadelphia and the University of Pennsylvania School of Medicine. He has served as an Honorary Consultant in Orthopaedics and Rehabilitation at the Hospital & Rehabilitation Centre for Disabled Children in Banepa, Nepal, for nearly 20 years and is also an Honorary Professor at the University of Basrah, Basrah, Iraq. He has served on the Committee on Children’s Orthopaedics in Underdeveloped Regions of the Pediatric Orthopaedic Society of North America (POSNA) for more than 10 years, and was chairman for 3 years. He has also served as Chairman of the Bone and Joint Decade committee of POSNA, and on the Global Courses Committee of the Pediatric Orthopaedic Society of North America. He has been on the Board of Orthopaedics Overseas, Global-HELP, the Ponseti International Association, and Miracle Feet. He currently serves on the International Committee of the American Academy of Orthopaedic Surgeons and is director of their international scholars program. He has received the President's Call to Service Award (2006), by the President’s Council on Service and Civic Participation, for 4000 hours of community service, and the Golden Apple Award by Health Volunteers Overseas (2009). He received the Humanitarian Award from the Pediatric Orthopaedic Society of North America (2013) and from the Scoliosis Research Society (2016), and also an AAOS achievement award in 2014. He has served as a consultant for the World Health Organization in Mongolia and Somalia, and was on the steering committee for the WHO’s Global Initiative for Emergency and Essential Surgical Care. He has delivered more than 250 invited lectures, mostly at international venues including Nepal, Iran, Iraq, China, Pakistan, Tanzania, Mongolia and Somalia. He has also co-edited a textbook entitled “Global Orthopaedics: Caring for Musculoskeletal Conditions and Injuries in Austere Settings”.

Flaura Koplin Winston, MD PhD
Scientific Director and Founder, CHOP Center for Injury Research and Prevention
Chair, CHOP Scientific Advisory Committee for Entrepreneurship and Innovation
Professor of Pediatrics, University of Pennsylvania Perelman School of Medicine
Global Health Faculty, The David N. Pincus Global Health Fellowship

Flaura Koplin Winston, MD PhD is an internationally recognized, board-certified, practicing pediatrician, a doctorally-trained engineer, and a public health researcher. She is the Scientific Director and Founder of the Center for Injury Research and Prevention and Chair of the Scientific Advisory Committee for Entrepreneurship and Innovation at The Children’s Hospital of Philadelphia (CHOP) and a professor of pediatrics at the University of Pennsylvania. She conducts research in the US and globally at the interface of child and adolescent health, injury, engineering, technology and behavioral science. Dr. Winston’s work is published in peer-
reviewed journals and conference proceedings. She applies clinical models and systematic, pragmatic research methods to develop and evaluate novel approaches, largely focused on the use of technology to promote health and prevent injury. To do this work, she has demonstrated ability in pulling together diverse teams (by discipline and across sectors) to create, evaluate and implement solutions for major health and safety problems that achieve measurable impact. Topical areas of research focus include:

1. Preventing young driver crashes;
2. Promoting appropriate use of child restraints in motor vehicles;
3. Prevention of traumatic stress and posttraumatic stress disorder;
4. Violence prevention; and
5. Evidence-based digital health for better health.

What is unique about Dr. Winston is her focus on research that achieves real-world results and saves lives. Her research to action to impact approach has led to patents and informed new products, programs, regulations and laws.

**Katherine Yun, MD MHS**

*Attending Physician, PolicyLab within the CHOP Division of General Pediatrics*

*Assistant Professor of Pediatrics, Perelman School of Medicine at the University of Pennsylvania*

*Global Health Faculty, The David N. Pincus Global Health Fellowship*

Dr. Yun's research focuses on refugee and immigrant health in the United States. In Philadelphia, she has partnered with the Bhutanese American Organization-Philadelphia, African Family Health Organization, and Karen community leaders to study health care navigation within new immigrant communities. Dr. Yun has also contributed to research on the prevalence of non-communicable conditions among US lawful permanent residents, the health status of newly-arrived refugee children in the US, and the health status of survivors of human trafficking in Europe and Southeast Asia. Clinically, she is an attending pediatrician with the CHOP Refugee Health Program and Puentes de Salud. Dr. Yun is also a member of the Executive Committee for the American Academy of Pediatrics' Section on International Child Health and serves on the board of the Pennsylvania Immigration & Citizenship Coalition. She was raised in Asia and has previously worked, studied, or volunteered in Indonesia, Uzbekistan, Guatemala, and Honduras.
Theoklis Zaoutis, MD, MSCE, PhD
Chief of the Division, CHOP Division of Infectious Diseases
Werner and Gertrude Henle Endowed Professor of Pediatrics and Professor of Epidemiology, University of Pennsylvania Perelman School of Medicine
Senior Scholar, University of Pennsylvania Center for Clinical Epidemiology and Biostatistics
Global Health Faculty, The David N. Pincus Global Health Fellowship

Theoklis Zaoutis, MD, MSCE, PhD is the Werner and Gertrude Henle Endowed Professor of Pediatrics and Professor of Epidemiology at the Perelman School of Medicine at the University of Pennsylvania (PENN) and Chief of the Division of Infectious Diseases at the Children’s Hospital of Philadelphia (CHOP). He is also Senior Scholar in the Center for Clinical Epidemiology and Biostatistics at PENN. He is the author of over 230 peer-reviewed publications, most of which are in pediatric infectious diseases with a focus on healthcare acquired infections, antimicrobial resistance, and antimicrobial use.

Dr. Zaoutis is the director of the Master of Science in Clinical Epidemiology degree program at PENN and also serves as the Director for the Center for Pediatric Clinical Effectiveness (CPCE) at the CHOP Research Institute. The mission of the CPCE is to discover, disseminate, and implement knowledge about best practices in pediatrics. He also serves on multiple advisory committees in the United States and Europe including for the Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH), the American Academy of Pediatrics, the European Society for Pediatric Infectious Diseases and most recently was nominated to serve on Presidential Advisory Committee for Combating Antibiotic-Resistant Bacteria. Finally, he serves as the Editor in Chief of the Journal of the Pediatric Infectious Diseases Society.

In terms of international and global health, in 2011, Dr. Zaoutis founded the Center for Clinical Epidemiology and Outcomes of Pediatric Diseases - "Stavros Niarchos Foundation" (CLEO). The Center aims to improve patient safety and quality of health services in Greek hospitals, with emphasis on infection prevention and appropriate use of antibiotics in hospitals. CLEO was founded in collaboration with the First and Second Pediatric Departments of the University Of Athens School Of Medicine. To date, CLEO has been involved in multiple successful healthcare improvement initiatives in Greece. Dr. Zaoutis volunteers his time to lead the CLEO team in their efforts.
Adriana LaMonte, MPIA  
Project Administrator, CHOP Global Health Center

Adriana completed both her undergraduate and graduate studies in the discipline of Public and International Affairs, focusing on global political economy and nonprofit management. She took the skills that she developed through her studies to Haiti to work for a nonprofit hospital (Hôpital Albert Schweitzer Haiti) for three years, contributing to their monitoring and evaluation, fundraising, and strategic programming efforts. Adriana joined the CHOP Global Health team in November, 2015, and is responsible for leading the Global Health Center’s Niños Primeros en Salud program in the Dominican Republic, as well as the Global Health Allies program and the annual CHOP Global Health Conference.

Tanya Tyler  
Pincus Global Health Fellowship Administrator, CHOP Global Health Center

Tanya brings over 20 years of strong experience in executive-level administrative assistant work. She has worked in a variety of industries, and excels in administrative process improvement, marketing and communications, and leadership. Tanya has also founded/co-founded multiple non-profit (501(c)3) organizations aimed at community-building and youth empowerment. As an integral member of the CHOP Global Health team, Tanya provides administrative support for team members, from booking complex travel itineraries to bringing disparate teams together for the meetings that fuel their work in bringing quality care, teaching, research and advocacy to the children who need it most.
5. GLOBAL HEALTH COMPETENCIES

The David N. Pincus Global Health Fellowship curriculum is designed to help fellows broaden their clinical skills, acquire basic tools of research methodology, and develop leadership capabilities. Attaining these goals will position Pincus Global Health Fellows to become leaders in the field of pediatric global health. During the fellowship, Fellows will achieve these goals through the following activities:

- Fellows will develop strong clinical, diagnostic and treatment skills with an emphasis on infectious diseases and malnutrition in resource scarce settings. Fellows will work collaboratively with clinicians in the partner country to care for children and adolescents in underserved areas. Their training will also include ongoing mentorship of Children’s Hospital of Philadelphia faculty.

- Fellows will acquire advanced knowledge regarding healthcare delivery and public health problems facing children in resource poor countries through experiential learning. Their daily work will enhance their understanding of the impact that strained economic, social and cultural conditions place upon underserved populations in developing nations. This understanding, coupled with academic study, will allow the fellows to develop a systematic approach to the challenges associated with healthcare in resource scarce settings.

- Fellows will develop and implement educational interventions in their work setting. This will allow the Fellows to develop a basic foundation for creating and presenting educational materials designed to advance knowledge of basic pediatric health and preventive medicine at the professional, ancillary, and community levels.

- Through graduate level academic training, Fellows will develop clinical research skills relative to pediatric medicine, particularly in global public health. Fellows will understand research design, use the principles of clinical epidemiology and evidence-based medicine, understand statistical analysis, and receive certification in the Responsible Conduct of Research. The Fellow will successfully complete at least one academic project and is encouraged to present the results of these projects at national meetings and/or in peer-reviewed journals.
DETAILED DESCRIPTION OF LEARNING OPPORTUNITIES

Delivery of Clinical Care.
Fellows will provide direct clinical care to children (0-21 years) in the developing world under the supervision of a local clinician and faculty for four or more months each year of the fellowship. Fellows will have access to the full Global Health faculty at The Children’s Hospital of Philadelphia for intermittent or ongoing mentorship.

In the Dominican Republic, Fellows will work with the Pediatric staff at the Centro de Salud Divina Providencia in Consuelo. Clinical responsibilities will include ambulatory consults, preventive and urgent care visits as well as community outreach visits serving rural children living in low resource settings. The Fellows will also provide general pediatric consultation to visiting residents and make appropriate referrals when necessary. Skills required for these activities are those obtained in a General Pediatrics residency.

The Dominican-based Fellow will also work at Clínica de Familia, associated with the Columbia University International Family AIDS Program (IFAP), in La Romana. In La Romana, the fellow will provide care to pediatric patients working under the supervision of a staff pediatrician. Fellows will master current diagnostic and therapeutic approaches to HIV-infected children, implementing these practices during routine preventive and urgent care ambulatory visits.

In Botswana, the Fellow will perform direct clinical services under the supervision of Dr. Tonya Arscott-Mills and in collaboration with the University of Botswana and pediatric services based at Princess Marina Hospital in Gaborone, Botswana. They will be active participants in the overall pediatric program of the University of Botswana and in the Botswana-UPenn Partnership. The fellows will provide clinical care to children (0-21 years) in the hospital and local clinics along with staff pediatricians. The Fellows will provide general pediatric consultation and make appropriate referrals when necessary. Skills required for these activities are those obtained in a General Pediatrics residency.

Delivery of Knowledge.
Fellows will work with faculty advisors to develop, deliver and monitor the impact of pediatric health educational materials for professionals, communities, families and patients. Each Fellow will work with local healthcare professionals to collaboratively identify educational opportunities for professional colleagues. The Fellows will coordinate monthly professional education sessions designed to enhance pediatric knowledge. These may be in the form of case presentations, lectures, group discussions, morbidity and mortality seminars, online learning or journal article discussions. The Fellows will alternately lead some of the sessions or assist other professionals in presenting information in an educational setting.
Additionally Fellows will be active in developing community, family and patient education materials throughout the course of their Fellowship. Fellows will work closely with local clinicians and faculty advisors to develop educational materials for communities, families and patients. Educational materials may be in a variety of formats such as print materials, audio-visual materials, or interactive activities.

**Academic Opportunities**
Fellows will be enrolled in a higher education program during their Fellowship to achieve their research and educational goals. Examples of academic coursework are the intensive summer courses offered through the Master of Public Health and Master of Science in Clinical Epidemiology degree programs at the University of Pennsylvania School of Medicine (Clinical Research Methods for Faculty, Residents, Fellows, and Research Staff Interested in Careers as Collaborative Researchers).

Fellows will have the opportunity to design the focus of their Fellowship with approval of the Fellowship Director as long as they meet the core curriculum requirements in clinical care and education. Opportunities for furthering their knowledge in clinical research, education, or research or public health will be prioritized.

**Faculty and Mentorship**
The David N. Pincus Global Health Fellowship has a rich diversity of faculty members with expertise ranging from infectious disease to education, primary care and nutrition. Faculty members are either associated with the University of Pennsylvania School of Medicine or with Columbia University School of Medicine. Faculty members have an interest in global health activities and are available to support the Fellow’s clinical, educational or research activities depending upon his or her needs and interests.

Each Fellow will choose a primary faculty mentor during the first three months of their Fellowship. The Fellow and their faculty mentor will meet regularly throughout their Fellowship. Fellows will have quarterly face to face visits with the Fellowship Director, their primary mentor, or another faculty member to evaluate and give feedback on the Fellow’s progress. Faculty mentors will maintain regular contact with the Fellow (via weekly telephone contact, email communication) and they will assist in identifying a suitable Scholarly Activity for the Fellow.

**Scholarly Activity**
Fellows are expected to complete an approved Scholarly Activity to achieve certification in their Global Health Fellowship. Faculty mentors will support the Fellow as they evaluate and determine the focus for their Fellowship and Scholarly Activity. Mentors will provide logistical
support and academic guidance to the Fellow as the Scholarly Activity proceeds. Mentors will evaluate the Fellows’ progress at regular intervals and provide feedback in order to assure a successful implementation of their Scholarly Activity. Examples of such activities include;

- Community based research of health knowledge (assessment of a particular disease, practitioner knowledge, development and implantation of educational program, and outcomes research to demonstrate effectiveness of educational strategy).
- Development of a surveillance tool to monitor a particular infectious disease, implementation of the tool in target community, and outcomes research demonstrating efficacy.

Scholarly Activities will be presented at the annual Global Health Symposium at CHOP. Fellows will also be encouraged to present their Scholarly Activity at a national meeting through a poster or abstract, and/or publish in a national or international journal.

**E-Portfolio.**

One important tool to overcome the obvious geographic challenges of distance learning and academic work is the E-Portfolio. This is a web-based repository of all the participant’s work. The Fellows will be expected to maintain an E-Portfolio (via a preferred electronic sharing method like DropBox or Google Drive) where they will record not only their Scholarly Activity, but also a running bibliography of their reading, regular journaling reflecting on their clinical experiences, as well as a listing of their class work completed. The E-Portfolio will be reviewed quarterly by the faculty mentor to assure that the fellow is developing appropriate breadth and depth of learning, even when working abroad.

**Evaluation.**

Fellows’ performance will be evaluated annually by their faculty mentor. There will be monitoring and ongoing feedback by the Fellowship Director and the primary faculty mentor throughout the fellowship as outlined above. Fellows will also provide semi-annual evaluations of the fellowship.
# PEDIATRIC COMPETENCIES

**Competency 1: Patient Care**

Provide family-centered patient care that is development- and age-appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

1. Use a logical and **appropriate clinical approach** to the care of patients in a developing country setting, utilizing **locally available resources**, and applying principles of **evidence-based decision-making** and problem-solving.

2. Understand the approach to pediatric patients with the following presentations in developing countries and initiate appropriate work-up and management:
   - HIV/AIDS
   - Diarrhea/dehydration
   - Respiratory Distress and Infections
   - Fever
   - Malnutrition (including Severe Acute Malnutrition)

3. Provide **culturally sensitive care and support** to patients and their families.

4. Participate in **health promotion and injury/disease prevention** activities in an international setting, utilizing local guidelines and practices.

**Competency 2: Medical Knowledge.**

Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a pediatrician; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care and community health.

**Epidemiology/Public Health:**

1. Describe the epidemiology, trends, and major causes of **infant and child mortality and morbidity** in a developing country, and contrast to that in developed countries.

2. Recognize the **major underlying socioeconomic and political determinants of infant/child health**, and how these impact inequities in child survival and healthcare access in developing countries.
3. Describe **known effective interventions, including prevention and treatment**, for reducing under 5 mortality and morbidity (e.g., vitamin A supplementation, exclusive breastfeeding, etc.).

4. Describe the epidemiology of **neonatal mortality**, and compare/contrast common causes including perinatal asphyxia and neonatal infections to under-five mortality. Identify **prevention and treatment strategies** (e.g., skilled delivery at birth) specifically aimed at reducing neonatal morbidity and mortality.

5. Understand the impact of **environmental factors**, including safe water supply, sanitation, indoor air quality, vector control, industrial pollution, climate change and on child health in developing countries.

6. Demonstrate a basic understanding of **health indicators** and **epidemiologic tools and methods**, and how they may be used in settings with limited resources to monitor and evaluate the impact of public health interventions.

7. Understand the common childhood **injuries, including drowning, ingestions, burns and motor vehicle accidents** that contribute to childhood morbidity and disability in the developing world, and describe prevention strategies.

### Malnutrition and Infectious Diseases:

8. Recognize signs and contrasting features of:
   - **Underweight**
   - **Stunting (chronic malnutrition)**
   - **Acute Malnutrition** – severe/moderate, complicated/uncomplicated
   - **Micronutrient deficiencies** (iron, vitamin A, iodine, zinc)
   - **Low birth weight** and associated maternal risk factors

Understand and compare the different **anthropometric measures** used to diagnose malnutrition, and principles of **prevention and management** of these different disorders.

9. Describe the **interaction between malnutrition/micronutrient deficiencies** and infectious diseases in infants and young children.

10. Become familiar with the presentation, diagnosis, management, and prevention strategies of the following specific diseases in resource-limited settings, based on local and international guidelines:
Malaria - uncomplicated and complicated/severe (e.g. Cerebral malaria)
Pneumonia/Lower Respiratory Infections
Diarrhea and dysentery
Measles
Neonatal infections including neonatal tetanus
HIV/AIDS and related infections/complications
Tuberculosis
Dengue Fever

11. List the vaccine-preventable diseases and the immunizations available in developing countries, and know the current international vaccine policies and recommendations.

12. Identify conditions that contribute to morbidity and impaired cognitive development in the developing world such as intestinal parasites, hearing loss, birth complications, anemia, infections (e.g. cerebral malaria), nutritional deficiencies, injuries, and environmental toxin exposures.

Specific Populations

13. Describe common health issues faced by immigrant and refugee populations in developing nations.

14. Describe health issues of children in the developing world affected by humanitarian crisis, including refugees, internally displaced, and orphans.

15. Understand the challenges faced by children living with disabilities in resource-poor settings, and describe prevention strategies and models of support.

Competency 3: Interpersonal Skills and Communication

Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families, their communities, and professional associates.

1. Appropriately utilize interpreters and communicate effectively with families who are non-English speaking.
<table>
<thead>
<tr>
<th>2. Communicate effectively and respectfully with physicians, nurses and other health professionals in a global healthcare setting, in order to share knowledge and discuss management of patients.</th>
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<tr>
<td>3. Develop <strong>effective strategies for teaching</strong> health professionals, students, colleagues and other community members in settings with varying levels of knowledge or understanding of pediatric healthcare and medical English.</td>
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<tr>
<td>4. Demonstrate awareness of <strong>effective communication approaches</strong> for delivery of health care and educational materials in communities with <strong>limited literacy and education</strong>.</td>
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**Competency 4: Practice-based Learning and Improvement**

Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one's patient care practice.

<table>
<thead>
<tr>
<th>1. Identify <strong>standardized guidelines</strong> (e.g., WHO/UNICEF/IMCI) for diagnosis and treatment of conditions common to developing countries and adapt them to the individual needs of specific communities and patients.</th>
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<td>2. Know and/or access <strong>appropriate medical resources</strong> and apply them to the care of patients in the developing country setting.</td>
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<td>3. Understand the principles of <strong>evidence-based medicine</strong> and apply them when reviewing recent literature and considering the implications for impact on practice in resource limited settings.</td>
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<tr>
<td>4. <strong>Work collaboratively and cross-culturally with health care team members</strong> to assess, coordinate, and improve patient care practices and outcomes in settings with limited resources.</td>
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<tr>
<td>5. Apply and improve upon <strong>physical examination skills and clinical diagnosis</strong> in settings where diagnostic studies are limited.</td>
</tr>
<tr>
<td>6. Establish <strong>individualized learning objectives</strong> and focus for the Global Health Fellowship and strategies for completing scholarly activity.</td>
</tr>
<tr>
<td>7. Identify and utilize the <strong>resources needed to prepare for Global Health clinical work</strong> in a less developed country.</td>
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**Competency 5: Professionalism.**

Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to diversity when caring for patients in a developed or developing country setting.

1. Demonstrate a commitment to **professional behavior** in cross cultural interactions with staff and professional colleagues and be respectful of differences in knowledge level and practices.

2. Give examples of **cultural differences** relevant to care of international populations and how **traditional medicine** and Western/scientific medicine can conflict with or complement one another.

3. Identify **common ethical dilemmas and challenges** confronted when working in a setting with limited resources or different cultural values.

4. Understand the **ethical standards and review processes for research** with human subjects carried out in developing countries.

5. **Recognize personal biases** in caring for patients of diverse populations and different backgrounds and how these biases may affect care and decision-making.

6. Understand and be sensitive to the profound **inequities in global health** and how individuals and health delivery systems can contribute to diminishing these disparities.

**Competency 6: Systems-based Practice**

Understand how to practice high-quality health care and advocate for patients within the context of the health care system.

1. Compare and contrast different **health care delivery settings in the developing world**, including hospitals, clinics and the community centers, and the roles of different health care workers as they apply to patients in developing countries, such as the physician, nurse, community health worker, traditional birth attendant, etc.

2. Identify the **major governmental and non-governmental organizations** active in international child health, and give examples of initiatives and programs that impact child health (WHO, UNICEF, Global Fund, GAVI, etc.).

3. Describe international goals and strategies for improving child and maternal health (such as the **Millennium and Sustainable Development Goals**), and how these have impacted policy, funding and development of newborn, child and maternal health programs worldwide.
4. Develop understanding and awareness of the **health care workforce crisis in the developing world**, the factors that contribute to this, and strategies to address this problem.

5. Identify different **health care systems and fee structures between and within countries**, including the **public and private sectors**, and understand the impact of these systems on access to patient care and quality of care.

6. Demonstrate sensitivity to the **costs of medical care** in countries with limited resources and how these costs impact choice of diagnostic studies and treatment plans for individual patients.

7. Contrast the advantages and disadvantages of different approaches to implementing **health care interventions in developing countries**, disease focused vs. comprehensive, facility-based vs. community. Describe the **WHO Integrated Management of Childhood Illness (IMCI)** program as an example.

8. **Advocate** for families, such as recent immigrants to a developing country, who need assistance to deal with system complexities, such as lack of insurance, multiple appointments, transportation, or language barrier.

9. Understand the pediatrician’s role in **advocating for health policy** efforts locally and internationally that can reduce inequities and improve health of children in developing countries.

Acknowledgement:
6. ADMINISTRATIVE INFORMATION

I. BENEFITS
   • Annual base salary of $60,000
   • Full benefits package standard for academic fellows at The Children’s Hospital of Philadelphia; vacation, medical, dental, prescription, disability insurance, travel and evacuation insurance, 403(b) retirement account.
   • Annual roundtrip ticket to global health site.
   • In country travel allowance for work related travel while working internationally
   • Tuition reimbursement for required graduate coursework

II. ELIGIBILITY
The Children’s Hospital David N. Pincus Global Health Fellowship seeks motivated pediatricians to apply for a two year fellowship. Those who meet the following minimum requirements will be invited to interview with the faculty and staff in Philadelphia:

   • Either an M.D. or D.O. degree
   • Must have completed a pediatric or medicine-pediatrics residency at an accredited residency program.
   • Board Certified or Board Eligible.
   • Must hold a license to practice medicine in the State of Pennsylvania and will be appointed to the University of Pennsylvania School of Medicine in the Division of General Pediatrics. In order to obtain faculty appointment, Fellows will need to satisfy the requirements required by the Division of General Pediatrics and those of the Medical Staff Affairs office at the Children’s Hospital of Philadelphia.
   • US citizens and permanent residents will be given priority in consideration for Fellowship positions.

III. APPLICATION PROCESS
The following are the necessary documents to submit in order to apply:

1) Application: Candidates must submit a completed electronic application form (including ECFMG certificate number and visa information, if a foreign medical graduate). Applications are available on the Children’s Hospital of Philadelphia Global Health website (www.chop.edu/globalhealth) and will only be accepted electronically.

2) Letters of Recommendation: Candidates must provide three letters of recommendation from professional colleagues familiar with the applicant’s recent professional work, medical school transcript and curriculum vitae. Letters should be sent electronically to Fellowship Administrator Tanya Tyler tylert1@email.chop.edu

3) Personal Statement: Candidates must submit a one-page summary highlighting their interests, purpose and career goals as they pertain to the fellowship.

4) CV: Candidates must submit a detailed and current curriculum vitae
5) **Medical License:** Candidates must submit a current US license to practice medicine and before commencing fellowship must apply and become licensed in the state of Pennsylvania.

IV. **TIME TABLE**

The next Fellowship cycle for which we will accept applications is 2019-2021. We will start receiving applications from June 1st, 2018. Applicants are encouraged to apply as early as possible and applications will close August 31st, 2018. Interviews are scheduled for qualified applicants on a rolling basis after receipt of all application documents. Applicants must arrange for an interview in Philadelphia unless otherwise approved by the Fellowship administration. If you need any information in the meantime, please contact Tanya Tyler.

Applicants will also be chosen on a rolling basis throughout the interview process. The next two-year Fellowship commences on July 7, 2019, at which time each Fellow must be available to begin classwork and orientation in Philadelphia.

For additional information, interested applicants should contact the Fellowship Administrator Tanya Tyler [tylert1@email.chop.edu](mailto:tylert1@email.chop.edu) or the Fellowship Director Andrew Steenhoff, MBBCh, DCH [steenhoff@email.chop.edu](mailto:steenhoff@email.chop.edu)

The Children's Hospital of Philadelphia and the University of Pennsylvania are equal opportunity affirmative action employers. Women and minorities are encouraged to apply.