

# **The David N. Pincus Global Health Fellowship**

**DEVELOPING LEADERS IN  
PEDIATRIC GLOBAL HEALTH**

**2021-2024**



(Updated: March 6, 2020)

## Table of Contents

- 1 Introduction**
- 2 Background**
- 3 Fellowship Description – Overview**
- 4 Global Health Faculty & Mentorship**
- 5 Global Health Competencies**
- 6 Administrative Information**
  - a. Benefits**
  - b. Eligibility**
  - c. Application Process**
  - d. Timetable**

## 1 Introduction

Pediatric global health has seen tremendous growth over the past 20 years. This has occurred for many reasons, including a deep desire by many to participate in creating health equity worldwide. In 2018, more than 5.3 million children under age five across the globe died from preventable causes; roughly half of those deaths occurred in sub-Saharan Africa. The solutions lie in an array of global interventions that provide both immediate relief and incremental long-term change. **Our fellowship trains 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 care, suboptimal pediatric medical care in strained healthcare systems, a scarcity of pediatric-trained local health workforce and gaps in pediatric research. **The David N. Pincus Global Health Fellowship is a three-year academic training program that addresses these challenges by building clinical, teaching, research, advocacy and leadership skills in our fellows, who will become the pediatric global health leaders of the future.** Fellows complete the program equipped with skills to thrive in careers dedicated to advancing children's health in low- and middle-income countries (LMIC).

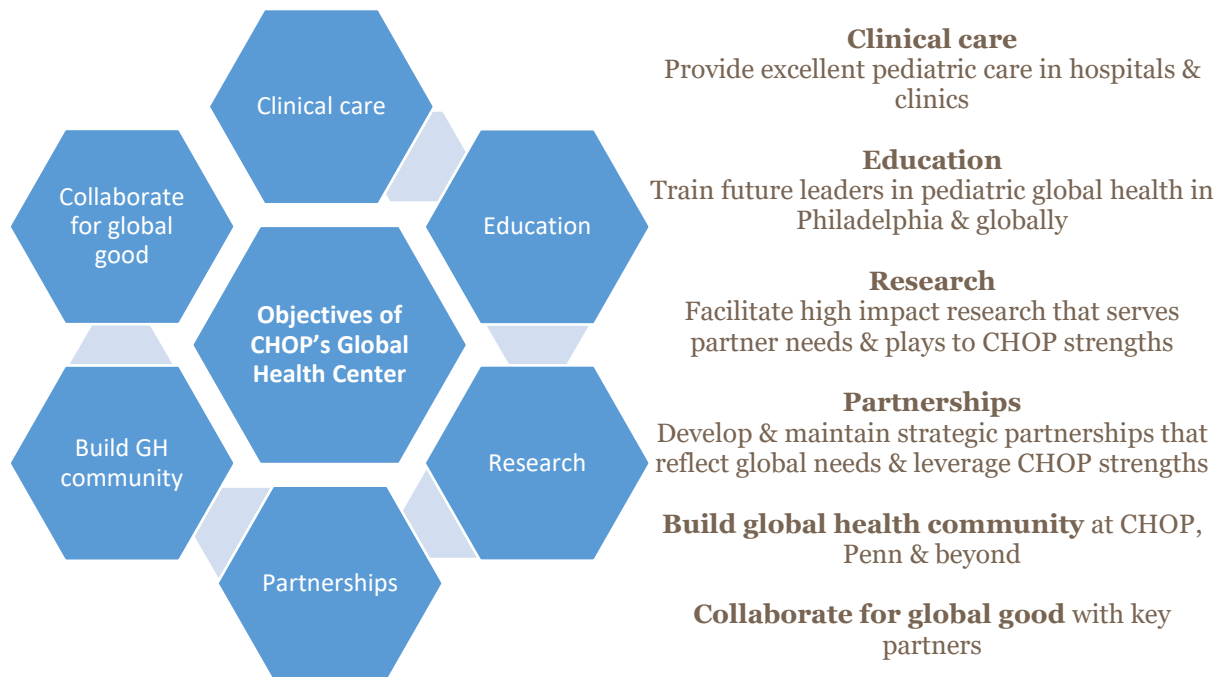
CHOP strives to be the world leader in the advancement of healthcare for children. The Pincus Global Health Fellowship supports CHOP's mission by promoting programs that improve the health of children around the world. The Pincus Fellowship creates and maintains meaningful collaborations among health care professionals affiliated with CHOP and global partners committed to improving children's health. CHOP's David N. Pincus Global Health Fellows are based in resource-limited settings where they provide clinical care, teach others, advocate on behalf of patients, lead projects and conduct scholarly research that advances knowledge relevant to children living in LMIC.

The Global Health Center at CHOP provides 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 the other Fellow works in Botswana; in both sites, fellows work 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 LMIC. 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. The Center has six objectives (Figure 1).

**Figure 1:** The six objectives of CHOP's Global Health Center



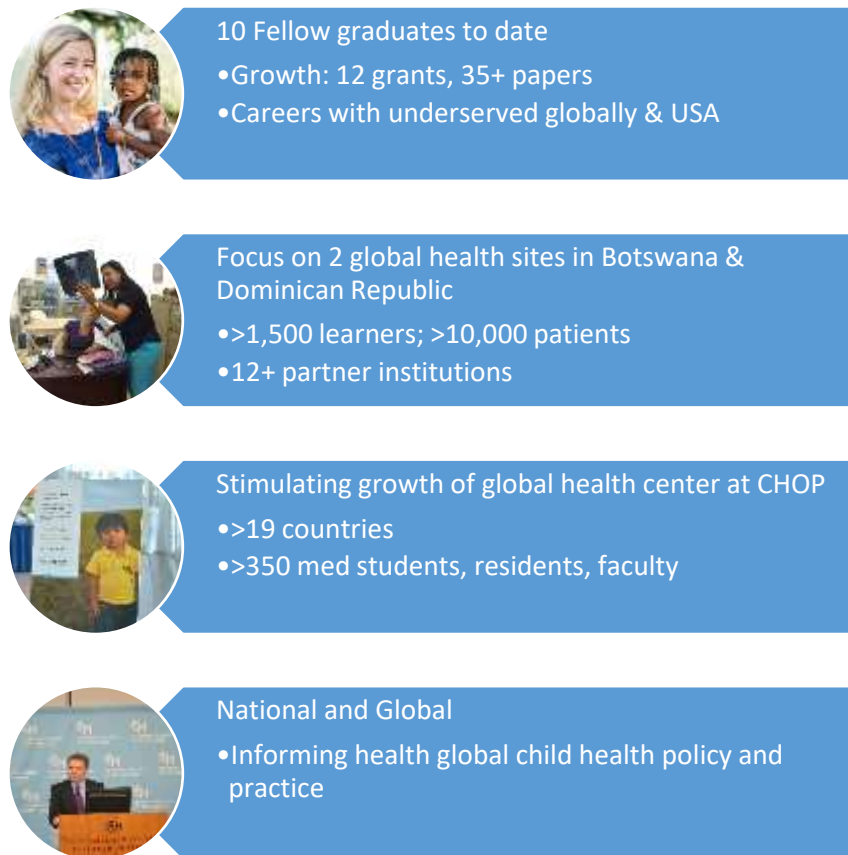
Global Health has been practiced for many years at CHOP, and, since 2004, the scope of global health activities has grown considerably. CHOP's Global Health partnerships include long-term pediatric programs in the Dominican Republic and Botswana, which aim to improve the health of children and families as well as build capacity among local healthcare providers in five areas: clinical care, teaching, research, leadership and advocacy. Beyond Botswana and the Dominican Republic, CHOP physicians also have active collaborations in more than 17 other countries around the world.

Professionals working on behalf of CHOP, as well as many partners, including the University of Botswana, Columbia University, University of Pennsylvania, and Centro de Salud Divina Providencia, are performing a wide range of important work. From residents and fellows who provide clinical support to in-country colleagues 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 united in a mission to build sustainable capacity, improve health and achieve equity in health for all children worldwide.**

The David N. Pincus Global Health Fellowship is one of CHOP Global Health's many endeavors. The Fellowship positively impacts the Fellows, host sites, the Global Health Center at CHOP and national and international health policy and practice (Figure 2). The Fellowship trains pediatricians to become leaders, clinicians, educators, researchers, advocates and future faculty in the growing discipline of pediatric global health.

Figure 2: The impact of the David N. Pincus Global Health Fellowship.



Global Health is of mutual benefit to all partners involved. When practiced well, it accentuates the tremendous generosity of spirit and energy of participants and facilitates a respectful exchange of ideas, learning and creative problem-solving to advance global child health. **We invite you to join us, gain skills and play your part to positively impact global child health!**

### 3 Fellowship Description – Overview

Established in 2008 by a generous gift of David N. Pincus, this fellowship provides excellent 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 cultivates and supports 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 LMIC 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 educationally rich and exciting three-year, fully funded academic fellowship at The Children’s Hospital of Philadelphia and work primarily in one of our partner countries: the Dominican Republic or Botswana.

#### Purpose:

**Immersed in a global site, fellows complete a rigorous, exciting, mentored, and transformative three-year academic fellowship with The Children’s Hospital of Philadelphia and partners.** The Fellows increase access to 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 including obtaining a Master’s degree in public health, epidemiology or a related field.

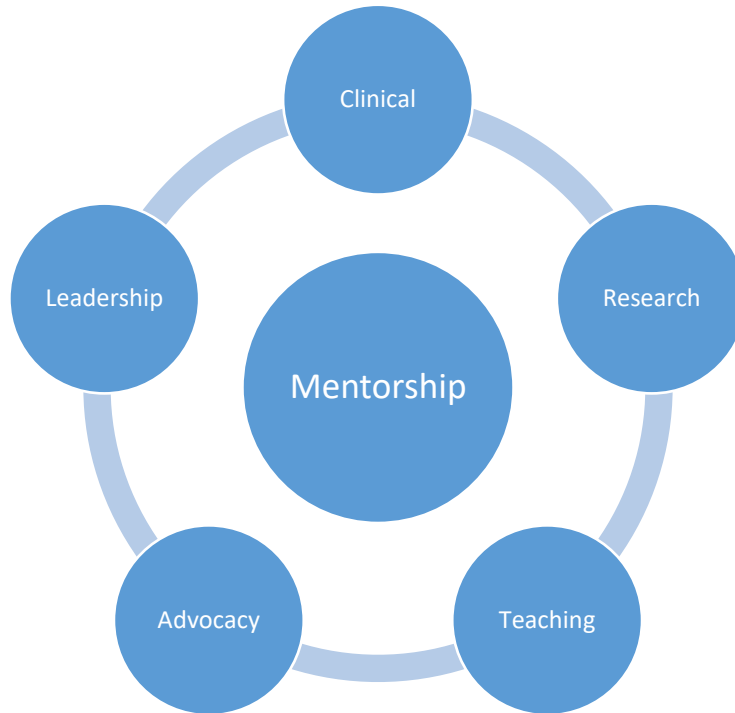
#### Ethos:

This is aligned with **David N. Pincus’ ethos**, whose generosity, wisdom and dedication to children established this fellowship. David Pincus said, **“You get involved, that’s what I’m about. That’s what you’re supposed to do, if you can do it. You’re supposed to not just think about your own life; you’re supposed to do things for other people.”**

#### Fields of Study and Practice:

The three-year Global Health training model combines clinical service, teaching, and scholarship in a LMIC, as summarized in Figure 3. The Fellows’ clinical experiences are 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 partner countries. Each fellow benefits from funding, protected time and mentorship to acquire a master’s degree by distance learning through the London School of Hygiene and Tropical Medicine. Additionally, each fellow has the opportunity to design, implement, present and publish a research project with the mentorship of faculty members in the Department of Pediatrics at the Perelman School of Medicine of the University of Pennsylvania.

Figure 3: The training model of the David N. Pincus Global Health Fellowship.



The David N. Pincus Global Health Fellowship is a mentored, immersive experience that builds leadership, clinical, research, teaching and advocacy skills in pediatric global health. The following is a short overview of some of the aspects of the fellowship:

- Clinical Service: Fellows work collaboratively with in-country professional colleagues. Fellows 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 fellowship faculty and in-country partners. Fellows provide pediatric medical service in areas of modest resources while gaining exposure 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 and Teaching: Fellows actively coordinate and engage in educational activities in their host communities, 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 CHOP (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, the University of Pennsylvania and other organizations who



visit Global Health sites. The three-year CHOP David N. Pincus Global Health Fellowship program allows for ample study and research time as well as funding to pursue a Master-level degree by distance learning through the [London School of Hygiene and Tropical Medicine](#). The fellowship also provides support for additional activities (conferences, journal club, case discussions) according to the interest and motivation of the fellow.

- **Research:** Acquiring skills to conduct high-quality research is a valuable tool to advance global child health. Intensive coursework and training will occur throughout the fellowship through a distance-learning program with the [London School of Hygiene and Tropical Medicine](#). Currently, six distance-learning programs are offered: (1) clinical trials, (2) demography and health, (3) epidemiology, (4) global health policy, (5) infectious diseases and (6) public health. Early in their first year, fellows will enroll in a distance learning degree program with courses starting in October. Study design, implementation, analysis, and write-up are important learning objectives of the Global Health Fellowship. Fellows learn how to design global health research projects and use the principles of clinical epidemiology and public health, adapting and applying them to Global Child Health. Fellows who already have master's-level training (e.g. MPH) will work with the program director and faculty to design a curriculum that meets their learning goals. Individualized mentoring allows fellows to explore their specific research interests. Fellows have access to CHOP Global Health faculty as well as faculty at the University of Pennsylvania. 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 is responsive to the priorities of the relevant Global Health partner site. We encourage you to explore the following links to learn about the work of prior CHOP David N. Pincus Global Health Fellows: [Lara Antkowiak](#), [Marc Callender](#), [Maria Dunn](#), [Matt Kelly](#), [Savarra Mantzor](#), [Chloe Turner Henry Welch](#), and [Kate Westmoreland](#).

#### Fellowship Locations:

Fellows begin their fellowship at CHOP and spend approximately two weeks orienting to the program, 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. Fellows also return to CHOP at the end of their second year to welcome the new class of global health fellows and share their experiences.

Each Fellow is strongly encouraged, usually during their second or third year, to visit the other 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. 32 of the 36 total fellowship months are spent caring for children, studying, and conducting research in the partner country, which allows for an exceptional educational 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 three-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. Fellows will also participate in a short-term inpatient experience through one of CHOP's partner hospitals. Clinical duties are accompanied by a scholarly project conducted in either Consuelo or La Romana, with close mentorship and support provided 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 eight 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 pediatric 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 nurses 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 is one of two pediatricians 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**

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 provided 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. Hence 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 the management of ongoing cases. Monthly academic meetings include pediatric journal club, and both pediatric and neonatal morbidity and mortality meetings. The Fellow takes calls as a general pediatrician.

## 4 Global Health Faculty & Mentorship

Fellows have access to a wide range of faculty from Children’s Hospital of Philadelphia and the University of Pennsylvania. Full biographies can be found [here](#). The following is a list of some faculty and key staff with brief bios:

### **Andrew Steenhoff, MB BCh, DCH, FAAP**



Medical Director, CHOP Global Health Center  
Attending Physician, CHOP Division of Infectious Diseases  
Director, David N. Pincus Global Health Fellowship  
Associate Professor of Pediatrics, Perelman School of Medicine at the University of Pennsylvania

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 TB, HIV, pneumonia and gastroenteritis. Dr. Steenhoff is the author of over 160 peer-reviewed manuscripts and book chapters. He teaches and mentors students, residents and fellows in Botswana, the Dominican Republic, and Philadelphia.

From 2008 to 2015, Dr. Steenhoff was based in Botswana, where he led CHOP’s Global Health program and was Associate Country Director and Research Director of the Botswana-UPenn Partnership. In July 2015, he returned to Philadelphia as Medical Director of CHOP’s Global Health Center. Dr. Steenhoff is an adjunct senior lecturer in the Department of Paediatric & Adolescent Medicine, 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 Afrikaans, French and Zulu.

### **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'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 several countries, including Botswana, South Africa and Zambia. Dr. Lowenthal receives funding from the National Institutes of Health. 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, neurodevelopment in children 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, Perelman School of  
Medicine at the University of Pennsylvania  
Pediatric & Research Director, Botswana-UPenn Partnership;  
Adjunct Lecturer, Department of Pediatrics, Faculty of Medicine,  
University of Botswana

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 & Research Director for the Botswana-UPenn Partnership, she leads CHOP and Penn research activities in Botswana. Dr. Arscott-Mills’ career to date has focused on pediatric global health, clinical care and training health professionals in the developing world – specifically in Afghanistan, Jamaica, Zambia, and for the last 12 years, in Botswana.

Dr. Arscott-Mills is also adjunct faculty in the Department of Paediatrics & 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 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 also 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 Research Fund and the Grand Challenges Canada Program. As an MPH graduate of the London School’s distance learning program, Dr. Arscott-Mills serves as the fellows’ faculty lead for the London School of Hygiene and Tropical Medicine Master’s program.

**Adelaide Barnes, MD**



Assistant Program Director of the Pediatrics Residency Program at Children's Hospital of Philadelphia  
Global Health Faculty, The David N. Pincus Global Health Fellowship  
Assistant Professor of Clinical Pediatrics, Perelman School of Medicine at the University of Pennsylvania

Adelaide Barnes, MD, is an Assistant Professor of Clinical Pediatrics within the Section of Hospital Medicine at The Children's Hospital of Philadelphia.

Dr. Barnes is active in the Pediatrics Residency Program, where she serves as an Assistant Program Director and Chair of the Intern Selection Committee, a mentor to residents, and a facilitator for the Professionalism series. She serves as the global health liaison between the Pediatrics Residency Program and CHOP's Global Health Center and oversees pediatric resident global health activities. She also sits on the Hospital Diversity Council and serves as a faculty mentor to the Multicultural Physicians' Alliance, an organization at CHOP comprised of underrepresented minority residents, fellows, and attending physicians who are committed to creating a diverse workforce that affords the best and most culturally competent care to CHOP's patients and families.

**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, and the teaching of medical students, residents, fellows, and other care providers. Dr. Coffin is 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 disease prevention projects in healthcare and community settings in Botswana, China, Egypt, Ghana, Greece, India, South Africa and Vietnam. Dr. Coffin's interests include pediatrics, infectious diseases, public health,



vaccines and vaccine-preventable diseases, infection control and healthcare-associated infections, and quality improvement.

**Keri Cohn, MD, MPH, DTM&H**

Attending Physician, Division of Emergency Medicine  
Children's Hospital of Philadelphia  
Associate Professor of Clinical Pediatrics  
Perelman School of Medicine at the University of Pennsylvania

Dr. Cohn is an Associate 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 Director of CHOP's Pediatric Emergency Medicine-Global Health Fellowship.

She has long been involved in global health, having worked with many international organizations throughout the world - in Africa, Central America, the Caribbean, Europe, and Southeast 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 Cote d'Ivoire during the civil war. In 2010, she was awarded the Pediatric Infectious Disease Society Burtis Burr Breese Award for her tuberculosis research in Haitian migrant children living in the Dominican Republic. She served as a senior advisor for the Massachusetts General Hospital (MGH) Division of Global Health and Human Rights and was the founding director of the Initiative to End Childhood Malnutrition in Rukungiri, Uganda.

Dr. Cohn 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 has been conducting research 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**



Radiologist-in-Chief & Chair of the Department of Radiology, The Children's Hospital of Philadelphia  
Professor of Radiology, Perelman School of Medicine at the University of Pennsylvania

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. Before his appointment at CHOP, Dr. Darge served for seven years as the Chair of the Department of Pediatric Radiology at the University of Wuerzburg, Germany. During his fellowship, he worked in the southern part of Ethiopia with a focus on childhood malnutrition and tuberculosis. Before 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. For over 15 years, his international outreach work has focused on radiology and in particular pediatric radiology. He established the CHOP Department of Radiology International Pediatric Radiology Education Outreach. One of the major activities of this outreach is in Ethiopia. It supports radiology residency education and runs an accredited pediatric radiology fellowship. Dr. Darge's current research focus is in pediatric urology and he has over 200 publications.

Dr. Darge is a member of over 22 professional societies nationally and internationally. He is a reviewer for 33 scientific journals and serves on the editorial board of two of them. Dr. Darge has 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 Anesthesia Sedation Services  
Associate Chief for Clinical Operations, General Anesthesia Division  
Medical Director, Anesthesiology Global Health Initiatives  
Attending Anesthesiologist, Department of Anesthesiology and  
Critical Care Medicine; The Children's Hospital of Philadelphia  
Associate Professor of Clinical Anesthesiology and Critical Care,  
Perelman School of Medicine at the University of Pennsylvania

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 Anesthesia Sedation Services. 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 six countries. She was selected as the 2015 International Physician of the Year by [medicalmissions.org](http://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.

**Kristen A. Feemster, MD, MPH, MSHPR**



Adjunct Associate Professor of Pediatrics, the Perelman School of Medicine at the University of Pennsylvania, Director of Research for the Vaccine Education Center at Children's Hospital of Philadelphia and Medical Director of the Immunization Program and Acute Communicable Diseases at the Philadelphia Department of Public Health

Dr. Feemster is an adjunct Associate 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 on projects in both Botswana and the Dominican Republic as a researcher and mentor. She joined the faculty at CHOP in 2010 and her current position at the Philadelphia Department of Health in 2017. Dr. Feemster has studied and worked in Brazil and Mali. Her research interests include immunization delivery, domestic and international vaccine policy and infectious disease 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 healthcare-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, the impact of pneumococcal vaccine introduction on serotype distribution in the Dominican Republic (DR) and Group B Streptococcus in the DR. 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 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**



Professor of Pediatrics & Epidemiology, the Perelman School of Medicine at the University of Pennsylvania  
Attending Physician, the Children's Hospital of Philadelphia

Dr. Guevara is a board-certified pediatrician. He holds positions in the Department of Biostatistics and Epidemiology and he is a senior fellow at the Penn Center for Public Health Initiatives. Dr. Guevara is also a senior fellow at the Leonard Davis Institute of Health Economics, a senior scholar at the Center for Clinical Epidemiology and

Biostatistics, and Lead Diversity Search Advisor at the University of Pennsylvania.

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.

### **Anthony A. Luberti, MD**



Program Director, Clinical Informatics Fellowship Program, The Children's Hospital of Philadelphia  
Medical Director, Informatics Education, Department of 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 Health. 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. 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. He has collaborated with the Faculty of the University of Botswana School of Health Sciences (UB-FAS) to develop 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, Dr. Luberti is co-led (with Mr. Kagiso Ndlovu, faculty at UB) a month-long rotation for CHOP's informatics fellows to explore informatics opportunities and projects in Botswana.

He has more than 20 years' experience with the implementation of several Electronic Health Record (EHR) systems at CHOP in both ambulatory and inpatient settings. He previously 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, MD, MSCE**



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 Perelman School of Medicine at the University of Pennsylvania. He 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*. 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.

Dr. Osterhoudt's international experiences have included:

- Participating in a 2002 delegation to establish a pediatric emergency medicine program in Kosovo,
- Participating 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,
- Serving as the course director in the Salzburg Seminars, and most recently
- Mentoring Global Health trainees through the Global Health Program's academic relationship with the University of Botswana.

Dr. Osterhoudt's primary academic interests are in the areas of childhood poisoning prevention and treatment, and the assessment of environmental risks to pediatric health.

### **Pierre Russo, MD**



Division Chief, CHOP Division of Anatomic Pathology  
Professor of Pathology and Laboratory Medicine, Perelman School of  
Medicine at the University of Pennsylvania  
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 A. Spiegel, MD**



Attending Surgeon, Children's Hospital of Philadelphia  
Professor of Orthopaedic Surgery, Perelman School of Medicine at the  
University of Pennsylvania  
Global Health Faculty, The David N. Pincus Global Health Fellowship

Dr. Spiegel is a pediatric orthopaedic surgeon at the Children's Hospital of Philadelphia, specializing in neuromuscular diseases, trauma, and spinal deformities. 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 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 ten years and was chairperson for three 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), from 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 the Scoliosis Research Society (2016) and an American Academy of Orthopaedic Surgeons (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 China, Iran, Iraq, Mongolia, Nepal, Pakistan, Somalia and Tanzania. He has also co-



edited a textbook entitled “Global Orthopaedics: Caring for Musculoskeletal Conditions and Injuries in Austere Settings.”

**Alexandra Vinograd, MD, MSHP, DTM&H**



Attending Physician, Division of Emergency Medicine & Acute Care-Global Health Fellowship Director, Children's Hospital of Philadelphia  
Assistant Professor of Clinical Pediatrics, Perelman School of Medicine at the University of Pennsylvania

Dr. Vinograd 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 deeply involved in CHOP's Pediatric Emergency Medicine-Global Health Fellowship. She is the Director of the CHOP Acute Care-Global Health Fellowship.

**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, Perelman School of Medicine at the University of Pennsylvania  
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 significant health and safety problems that achieve measurable impact.

Topical areas of research focus include:

- Preventing young driver crashes;
- Promoting appropriate use of child restraints in motor vehicles;
- Prevention of traumatic stress and posttraumatic stress disorder;
- Violence prevention; and
- 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, Division of General Pediatrics and the Refugee Health Program  
Faculty Member, CHOP PolicyLab  
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 Guatemala, Honduras, Indonesia and Uzbekistan.

**Theoklis Zaoutis, MD, MSCE, PhD**



Werner and Gertrude Henle Endowed Chair  
Thomas Frederick McNair Scott Professor of Pediatrics and Professor of Epidemiology, Perelman School of Medicine at the University of Pennsylvania  
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). He is also a Senior Scholar in the Center for Clinical Epidemiology and Biostatistics at PENN. He is the author of over 300 peer-reviewed publications, most of which are in pediatric infectious diseases with a focus on healthcare-acquired infections, antimicrobial resistance, and antimicrobial use. 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 2011, Dr. Zaoutis founded the Center for Clinical Epidemiology and Outcomes of Pediatric Diseases (CLEO) in Athens, Greece, funded by the Stavros Niarchos Foundation. The Center aims to improve patient safety and quality of health services in Greek hospitals, with emphasis on infection prevention and the 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. Dr. Zaoutis volunteers his time to lead the CLEO team in their efforts.

### **Adriana Deverlis, MPIA**



Global Health Program Manager, 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.

### **Mazvita Rankin, MPH**



Senior Grants Writer, CHOP Global Health Center

Mazvita provides support to the Global Health faculty in grant prospecting, preparation, and submission, working closely with the Sponsored Projects Office to maximize support from external funders. Mazvita's background is in public health, and she is passionate about improving maternal and child health. Previously she worked in community-based nonprofits. She was the Assistant Early Head Start Director at Maternity Care Coalition in Philadelphia and was responsible for quality assurance and compliance. After that, she was the Grants Manager at the Boston Area Rape Crisis Center in Massachusetts. Mazvita has over six years of grant writing experience. She joined the CHOP Global Health team in November 2017.



**Aimee Ortega**



Executive Secretary, CHOP Global Health Center  
Fellowship Coordinator, David N. Pincus Global Health Fellowship

Aimee Ortega brings a diverse background to Global Health. She is fluent in Spanish and has a strong background in Executive-level administrative support. Before joining Children’s Hospital of Philadelphia (CHOP), she supported the COO of another large Healthcare system in Philadelphia. Aimee is enthusiastic about CHOP Global Health and its mission and has strong family ties in the Dominican Republic as well. She is a vital member of CHOP Global Health Team, providing support to team members, thereby facilitating the delivery of quality care, health education, innovative research, and advocacy to promote the health of the children who need it most around the world.

In addition to supporting the Global Health Medical Director and the Global Health team, she also serves as the Coordinator for the CHOP David N. Pincus Global Health Fellowship.

## 5 Global Health Competencies

The David N. Pincus Global Health Fellowship curriculum is designed to help fellows develop, apply and practice the following skills in a global context - leadership, clinical care, research, teaching and advocacy. Attaining these skills 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 enhance their leadership skills through formal and informal learning. Formal learning will include pursuit of master's level studies through the London School of Hygiene and Tropical Medicine, CHOP's Medical Leadership Course and discussion of leadership articles. Informal learning will include mentoring by in-country and CHOP-based faculty, including 1-on-1 biweekly personal coaching with the Fellowship Director.
- 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 by 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 and experienced mentorship, 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 build an effective foundation for creating and presenting educational materials designed to advance knowledge of pediatric health and preventive medicine at the professional, ancillary, and community levels in a global context.
- Through graduate-level academic training, Fellows will develop clinical research and advocacy skills highly relevant to global child 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. Fellows will complete at least one academic project and are expected to present the results of this project at national meetings and in a peer-reviewed journal.

## **DETAILED DESCRIPTION OF LEARNING OPPORTUNITIES**

### **Delivery of Clinical Care**

Fellows will provide direct clinical care to children (0-21 years) in an LMIC 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 under the age of 5 years 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 do clinical service 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 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 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 their Fellowship. Fellows will work closely with local clinicians and faculty advisors to create 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 distance learning Master of Science program through the London School of Hygiene and Tropical Medicine during their Fellowship to achieve their research and educational goals. Currently, six distance-learning programs are offered and fellows will choose one: (1) clinical trials, (2) demography and health, (3) epidemiology, (4) global health policy, (5) infectious diseases and (6) public health. These studies will take place online and will be fully funded by the fellowship. Coursework will begin in October of the first year of the fellowship and will be completed during the 3-year fellowship.

Fellows will have the opportunity to design the focus of their Fellowship with the 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.

Note: If a selected fellow already has one of the degrees above, these funds may be applied to the fellow's research project after discussion with the fellowship director.

### **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 Children's Hospital of Philadelphia and 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, with the assistance of the fellowship director, chooses a primary faculty research mentor during the first three to four months of the fellowship and will meet regularly throughout the fellowship with him/her. Faculty mentors maintain regular contact with the Fellow (via both in-person and other means including telephone, Skype, WhatsApp, email, etc.) and provide mentorship as needed throughout the research study. Additionally, each fellow also has a bi-weekly conference call with the fellowship director.

### **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 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 the target community, and outcomes research demonstrating efficacy.

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

### 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 workup 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 globally-minded 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 LMIC, and contrast to that in a HIC.
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 LMIC.
3. Describe **known effective interventions, including prevention and treatment**, for reducing under-five 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 on child health in LMIC.
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 LMIC, 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 LMIC, 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 LMIC, and know the current international vaccine policies and recommendations.

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



### Specific Populations

13. Describe common health issues faced by **immigrant and refugee populations** in LMIC.
14. Describe the health issues of children in LMIC affected by humanitarian crises, including **refugees, internally displaced, and orphans**.
15. Understand the challenges faced by children living with **disabilities** in LMIC, 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.
2. **Communicate effectively and respectfully with physicians, nurses, and other health professionals** in a global healthcare setting, to share knowledge and discuss management of patients.
3. Develop **effective strategies for teaching** health professionals, students, colleagues, and other community members in settings with varying levels of knowledge or understanding of pediatric healthcare and medical English.
4. Demonstrate awareness of **effective communication approaches** for the delivery of health care and educational materials in communities with **limited literacy and education**.

### 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.

1. Identify **standardized guidelines** (e.g., WHO/UNICEF/IMCI) **for diagnosis and treatment** of conditions common in LMIC and adapt them to the individual needs of specific communities and patients.
2. Know and/or access **appropriate medical resources** and apply them to the care of patients in LMIC.

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| 3. Understand the principles of <b>evidence-based medicine</b> and apply them when reviewing recent literature and considering the implications for impact on practice in LMIC. |
| 4. <b>Work collaboratively and cross-culturally with health care team members</b> to assess, coordinate, and improve patient care practices and outcomes in LMIC.               |
| 5. Apply and improve upon <b>physical examination skills and clinical diagnosis</b> in settings where diagnostic studies are limited.   |
| 6. Establish <b>individualized learning objectives</b> and focus for the Global Health Fellowship and strategies for completing scholarly activity.                             |
| 7. Identify and utilize the <b>resources needed to prepare for Global Health clinical work</b> in a LMIC.   |

### 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.

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| 1. Demonstrate a commitment to <b>professional behavior</b> in cross-cultural interactions with staff and professional colleagues and be respectful of differences in knowledge level and practices.           |
| 2. Give examples of <b>cultural differences</b> relevant to care of international populations and how <b>traditional medicine</b> and Western/scientific medicine can conflict with or complement one another. |
| 3. Identify <b>common ethical dilemmas and challenges</b> confronted when working in a setting with limited resources or different cultural values.  |
| 4. Understand the <b>ethical standards and review processes for research</b> with human subjects carried out in LMIC.  |
| 5. <b>Recognize personal biases</b> 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 <b>inequities in global health</b> 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.

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| 1. Compare and contrast different <b>health care delivery settings in LMIC</b> , including hospitals, clinics, and the community centers, and the roles of various 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 <b>major governmental and non-governmental organizations</b> 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 <b>Sustainable Development Goals</b> ), and how these have impacted policy, funding, and development of newborn, child and maternal health programs worldwide.   |
| 4. Develop understanding and awareness of the <b>health care workforce crisis in LMIC</b> , the factors that contribute to this, and strategies to address this problem.   |
| 5. Identify different <b>health care systems and fee structures between and within countries</b> , including the <b>public and private sectors</b> , and understand the impact of these systems on access to patient care and quality of care.   |
| 6. Demonstrate sensitivity to the <b>costs of medical care</b> in LMIC and how these costs impact the choice of diagnostic studies and treatment plans for individual patients.  |
| 7. Contrast the advantages and disadvantages of different approaches to implementing <b>health care interventions in LMIC</b> ; disease focused vs. comprehensive, facility-based vs. community. Describe the <b>WHO Integrated Management of Childhood Illness (IMCI)</b> program as an example.                                  |
| 8. <b>Advocate</b> for families, such as recent immigrants to a LMIC, who need assistance dealing with system complexities, such as appointments, transportation, or language barriers.  |
| 9. Understand the pediatrician's role in <b>advocating for health policy</b> efforts locally and internationally that can reduce inequities and improve the health of children in LMIC.  |

Acknowledgment:

Competencies adapted from The AAP Section of International Child Health resident education subgroup, Kittredge, D., Baldwin, C. D., Bar-on, M. E., Beach, P. S., Trimm, R. F. (Eds.). (2004). APA Educational Guidelines for Pediatric Residency. Ambulatory Pediatric Association Website.

## 6 Administrative Information

### I. BENEFITS

- Annual base salary: Children’s Hospital standard for academic fellows based on PGY status
- Full benefits package standard for academic fellows at The Children’s Hospital of Philadelphia; vacation, medical, dental, prescription, and disability insurance, travel and evacuation insurance, 403(b) retirement account.
- Annual roundtrip ticket to global health site.
- Full tuition for the coursework at the London School of Hygiene and Tropical Medicine (or funding for research, if fellow already has a pertinent master-level degree)

### II. ELIGIBILITY

The David N. Pincus Global Health Fellowship seeks motivated pediatricians to apply for a three-year fellowship. Those who meet the following minimum requirements may be invited to interview with 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. Subspecialists are also welcome to apply.
- Board Certified or Board Eligible.
- Must hold a license to practice medicine in the State of Pennsylvania and will be appointed to the Perelman School of Medicine at the University of Pennsylvania in the Division of General Pediatrics. 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 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](http://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 [globalhealthcenter@email.chop.edu](mailto:globalhealthcenter@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. Before commencing fellowship, selected candidates must apply for and gain a license to practice in the state of Pennsylvania.

#### IV. TIME TABLE

The next Fellowship cycle for which we will accept applications is 2021-2024. We will start accepting applications from June 1, 2020. Applicants are encouraged to apply as early as possible. Applications will close September 23, 2020. Interviews are scheduled for qualified applicants on a rolling basis after receipt of all application documents.

Interviews will occur on these four dates: September 25, October 2, October 16, and October 30, 2020. Applicants must arrange for an interview in Philadelphia unless otherwise approved by the Fellowship administration.

Applicants will also be chosen on a rolling basis throughout the interview process – so please apply early! The next three-year Fellowship commences on July 5, 2021, at which time each Fellow must be available to begin orientation in Philadelphia.

For additional information, interested applicants should contact Fellowship Coordinator, Aimee Ortega at [globalhealthcenter@email.chop.edu](mailto:globalhealthcenter@email.chop.edu) or the Fellowship Director Andrew Steenhoff, MB BCH, 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.