Global Health in Pediatric Education:

An Implementation Guide for Program Directors

THE AMERICAN BOARD *of* PEDIATRICS

GLOBAL HEALTH IN PEDIATRIC EDUCATION:
An Implementation Guide for Program Directors

Global Health Task Force of the American Board of Pediatrics

A COMPREHENSIVE RESOURCE DESIGNED FOR:

✓ Pediatric Program Directors (Residency & Fellowship):

Educators have seen significant changes in the field of global health (GH) education over the past two decades, with calls for universal pre-departure preparation for GH electives, increased emphasis on stateside GH training, and awareness of the ethical issues pertaining to short-term GH experiences. Meeting the demands of applicants and stakeholders in GH education is difficult for graduate medical educators, particularly when some of these training interests fall outside of core curriculum requirements. The authors developed this Guide to help busy educators implement pediatric GH education—both stateside and internationally—as easily as possible, regardless of program size or budget. Resources include suggestions for GH competencies, strategies for integrating GH education into existing frameworks, free online curricula, adaptable templates for GH-related policies and procedures, comprehensive checklists, and more.

✓ Chairs, Designated Institutional Officers, Graduate Medical Education Committees, & Institutional Leaders:

Trainee demand is not the only driving force for pediatric GH education—the call is coming from other stakeholders as well. The Federation of Pediatric Organizations recommended in 2007 that all pediatric residency programs offer core GH training. To assist departments and institutions seeking to create an infrastructure to support GH training, the Guide provides checklists for safety, health, logistical, and legal considerations for trainees working globally; offers suggestions pertaining to assessment and evaluation of trainees, programs, and electives; and outlines best practices for GH electives and training partnerships.

✓ Global Health Educators:

Already have a GH educational infrastructure? This guide is equally useful for early and seasoned GH educators, to offer a foundation upon which to build a program or to augment an already robust GH Track. The authors—all GH educators—created these resources to save time, share innovations, and promote best practices.

✓ Pediatric Trainees:

Looking to incorporate GH into your training and/or career? The guide has myriad resources for trainees seeking GH training, including online curricula, creative suggestions for integrating GH topics into stateside work, and guidance on how to engage in safe, ethical GH experiences.

✓ Global Training Partners:

The guide emphasizes the importance of sustainable, ethically sound, mutually beneficial training partnerships, particularly surrounding GH electives. Checklists for "sending" institutions are provided, and tips for bidirectional relationships are offered.

bit.ly/globalhealthpedspdguide

WHAT is the guide?	**WHO** is it for?	**WHEN** was it developed?	**WHERE** should it be used?	**WHY** is it important?	**HOW** was it developed?
A comprehensive, practical resource for incorporating global health education into pediatric training programs	Educators Trainees Program coordinators Departmental & institutional leaders Global partners	2017, with planned updates every 3 years (or as needed) by authors and the American Board of Pediatrics (ABP) Education and Training Committee	Any pediatric residency or fellowship training program that offers GH electives and stateside GH education	It is the first comprehensive resource to guide educators through all aspects of GH in pediatric residency and fellowship: stateside GH training, GH electives, & global partnerships	By the ABP Global Health Task Force Trainee Workgroup, in collaboration with the Association of Pediatric Program Directors Global Health Learning Community and the American Academy of Pediatrics Section on International Child Health

GLOBAL HEALTH IN PEDIATRIC EDUCATION

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Global Health in Pediatric Education:
An Implementation Guide for Program Directors

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This guide is one of several tools developed by the **American Board of Pediatrics (ABP) Global Health Task Force** with the goal of improving the health of infants, children, adolescents, and their families globally. This guide was developed under the leadership of the ABP's Global Health Task Force Trainee Workgroup, in close collaboration with the Association of Pediatric Program Directors Global Health Learning Community, the American Academy of Pediatrics Section on International Child Health, and the American Board of Pediatrics Education and Training Committee. Funding support was provided by the American Board of Pediatrics Foundation. The content is solely the responsibility of the authors and does not necessarily represent the official view of the American Board of Pediatrics or the American Board of Pediatrics Foundation.

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The American Board of Pediatrics

A MEMBER OF THE AMERICAN BOARD OF MEDICAL SPECIALTIES

September 1, 2018

Dear Colleagues,

We are pleased to offer *Global Health in Pediatric Education: An Implementation Guide for Program Directors*. The purpose of this guide is to provide a comprehensive, practical resource for incorporating global health education into pediatric residency and fellowship training programs.

The American Board of Pediatrics (ABP) sets standards for certification in pediatrics. To do so, our leadership is closely aligned with educators, departmental and institutional leaders, general and subspecialty pediatricians, and other certifying organizations. Through these collaborations, we have the unique ability to identify emerging areas of priority within pediatrics, convene and engage experts, and develop resources to support educators and pediatricians.

The ABP's Global Health Task Force, convened in 2013, is one such important collaboration that has offered several recommendations to the ABP, including a suggestion to develop this guide for program directors. We believe that this guide will offer valuable assistance to most programs, but we also recognize that not all graduate medical education programs in pediatrics have the capacity or the priority to offer global health education to their residents and fellows. This guide is not intended to represent a requirement for programs but instead to support new and long-standing global health programs. We welcome feedback and suggestions for improvement at globalhealth4pds@abpeds.org.

Sincerely,

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PREFACE

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I am glad to see this long overdue comprehensive guide for pediatric global health program directors and other interested stakeholders in international health. In this age of the "Global Village," none in our profession can be insulated from the health issues that affect those who reside in mostly resource-poor environments.

I write from the perspective of one who has been at the head of an African, U.S. university-affiliated institution that has been host to dozens of international scholars, mostly from North American universities, for both short-term as well as longer-term global health attachments. I have also hosted elective students from United Kingdom and European universities and so can draw some contrasts.

Over the years, what has become clear is the importance of pre-departure briefing for the trainees so that expectations are realistic and managed. It is informative that the one GH attaché that we had to prematurely send back home to the United States during a period of more than 20 years was one who made his own arrangement for an elective placement. This is obviously something that has to be avoided.

In the pre-departure course it is important that the potential attachés are sensitized to some of the challenging and sometimes ethical issues they may face, including the frustration of dealing with critically ill children whose lives would otherwise have been saved by access to equipment that would have been available in the home institution. A good example of this is the lack of mechanical ventilation possibilities in neonates and infants. Or they may sometimes be expected or asked to perform beyond their capability or training (after all, being a doctor in a resource-limited environment is supposed to be an indication that you are able to be a "jack of all trades" in medical care). Dealing with the death of multiple children during the course of one shift is not something that can be effectively taught in a lecture, but it is certainly an issue that time should be spent on, especially in sites where the neonatal and child mortality rates may be high, as is the case in most of the popular international placement facilities.

Based only on a foreign application letter for placement, those of us at international sites are not in a position to assess a candidate's suitability for an elective placement. We depend on the home institutions to make the necessary evaluation for suitability of the placement, with special attention paid to an individual's cultural sensitivity and not just their enthusiasm to work in an international setting or clinical acumen. The much talked about "cultural shock" cannot always be predicted by the global health program director, but they are better placed than the host institution's director to "sieve out" the ones least likely to cope in a new environment that is often less organized or supportive.

It is important that the short-term global health electives or attachment should be planned in such a way that there is visible mutuality of benefit for all three parties: the individual GH scholar, the home institution, and the host institution. The benefit to the individual and the home institution are easier to see in terms of exposure to a wide range and numbers of pathologies, polishing of clinical skills, and exposure to different cultures. For the home institution, a global health track in pediatrics is a good selling point for the faculty to attract applicants, and the diversity of the international exposure of their trainees certainly enriches the curriculum. As for the host institution, there are also educational benefits where the visiting scholars are expected to present at journal club, participate in the training of medical students, give opinions on how differently particular cases could have been handled in their more-resourced institution, or even assist in developing job aids for nurses and paramedics. In addition, the more senior resident attachés also contribute to the clinical care of

patients. Some short-term scholars have asked in advance what small items they can bring from the United States for use in the clinic where they would be working -- this can be anything from stickers for children to transcutaneous oxygen monitors. Some European university programs have actually established a small fund for students on electives overseas to utilize to buy something for their host institution. All are designed to make a contribution to the functioning of the host facility.

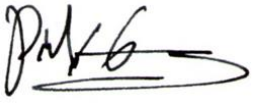
The ideal collaborative set-up would of course be a bidirectional partnership arrangement whereby scholars from the host institution also go to the United States. This is usually not possible, partly because of financial constraints but also more importantly because of stringent U.S. regulations regarding who is allowed to manage patients in the United States. A close surrogate could be an "educational tour" as opposed to a clinical one, for clinicians from a host institution to gain an appreciation of what it is possible to achieve with "state of the art" resources at the elective scholar's home institution. Such an arrangement of course can only be a reasonable expectation if there is a long-term memorandum of understanding (MOU) between the two institutions for developing each other's capacities. An MOU is essential to avoid unnecessary misunderstanding, as it clearly sets out each party's responsibilities and encourages accountability from all parties involved.

From our experience with short-term GH scholars, four to six weeks seems to be the most popular elective duration, and four weeks are the minimum for meaningful interaction and benefit for both sides; the longer, the better for the host institution. It takes time to get people acclimated to the new work and social environment, especially for those who have not previously traveled outside the United States. The scholars often need to use translators if they are left with a patient on their own (it's not always possible to have a supervisor all the time); it can take time to get comfortable with each other; it might take a week at least to understand the clinic flow and also to understand the various documentation that may be needed for patient management.

In the environment in which we work, most of the health care is managed by paramedics and clinical officers (the equivalent of a physician assistant in the United States). It is important that the scholars give them due respect. There are a lot of very competent and experienced clinicians among them; however, there is sometimes a tendency for them to have the perception that they are looked down upon by visiting scholars, and the scholars need to be sensitive about this perception. It can lead to a less fruitful stay. Another issue that is sometimes sensitive can be the form of address, which can so easily lead to people taking offense. Some people don't like being referred to by their first name and prefer the surname; scholars should be counseled to learn how the people they are working with wish to be addressed, and this of course works both ways.

Visiting scholars need to be aware that the local clinic staff may not be familiar with some of the North American terminology, I have in mind basic titles like resident and fellow. Under the British system, there are no residents; these are registrars and the fellow is a very senior academic, often one who has completed specialty training. This clarification is particularly important to ensure that the local staff expectations are in line with the individual's stage in training to reduce the chance that they will be asked or expected to perform procedures that may be beyond their capability.

Of course, a good number of these points I raise are covered to various extents in the chapters of this document, which is a very useful resource for those coordinating and managing the expanding specialty of Global Health in Pediatric Education. I would like to congratulate and thank the leadership of the American Board of Pediatrics Global Health Task Force, the Association of Pediatric Program Directors Global Health Learning Community, and the American Academy of Pediatrics Section on International Child Health for developing this useful resource.



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Additional authors were recruited from the Association of Pediatric Program Directors (APPD) through the APPD Global Health Learning Community Executive and Steering Committee and include Drs. Tania Condurache, Heather Crouse, Heather Lukolyo, Christiana Russ, and Omolara Uwemedimo.

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- **2016-17** APPD Global Health Learning Community Executive and Steering Committees: Drs. Tania Condurache (Co-Chair), Christiana Russ (Co-Chair), Adelaide Barnes, Maneesh Batra, Sabrina Butteris, Heather Crouse, Heather Lukolyo, Trish McQuilkin, Joanne Mendoza, Michael Pitt, Chuck Schubert, Nicole St Clair, Omolara Uwemedimo, and Jennifer Watts
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This guide is intended to be paired with educational resources and best practices that have been established by global health educational leaders, including the Association of Pediatric Program Directors Global Health Learning Community and the American Academy of Pediatrics Section on International Child Health. ***Feedback and suggestions for improvement for this guide are appreciated, always welcome, and can be addressed to globalhealth4pds@abpeds.org***

SUMMARY OF KEY POINTS

INTRODUCTION – Training Globally Minded Pediatricians

- Many trainees are seeking ethically sound, partnership-based global health (GH) training opportunities during residency.
- In addition to trainee demand, there are national and international calls for training globally minded, globally competent pediatricians.
- GH education provides a framework for multidisciplinary training in cross-cultural care, human rights, health disparities, and advocacy.
- When considering pediatric GH education, there are several tiers of trainees: (1) all pediatric trainees; (2) pediatric trainees engaging in GH electives; and (3) pediatric trainees seeking to incorporate GH into their careers. This guide is appropriate for all tiers of trainees.
- The purpose of the guide is to provide a comprehensive, practical resource for pediatric residency and fellowship program directors to incorporate GH education into their respective training programs.

CHAPTER 1 – Global Health Education in Pediatric Training Programs: Core Considerations

- There are multiple opportunities to incorporate GH education into a pediatric training framework, requiring variable levels of resources.
- Definitions of residency GH tracks vary. A draft definition is provided in this section, as well as guidance for GH faculty mentors, track directors, and track program coordinators.

CHAPTER 2 – Global Health Training at Home: Competencies and Implementation

- GH-specific objectives can be applied to all competency domains (patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice). Examples are offered in this section for both Tier 1 (all trainees) and Tier 2 learners (trainees on GH electives). For trainees enrolled in GH tracks (Tier 3), programs are encouraged to develop additional objectives that are pertinent to the content of their GH track.
- This section provides the "how to" for educators seeking to integrate GH into their curriculum, including:
    - Strategies for incorporating GH-specific objectives into existing and new residency curricula
    - High-yield educational resources currently available (online and print)
    - Considerations for mapping GH education to board specifications.

CHAPTER 3 – Local Global Health

- GH emphasizes the health of all people, both internationally and locally.
- Local GH topics encourage trainees to "think globally, act locally" in the care of underserved children and migrant populations.
- Unique competencies are required for pediatricians to care for local global pediatric populations, including refugees, immigrants, internationally adopted children, and victims of human trafficking. Competency-based objectives for local GH training programs are offered in this chapter.
- Challenges inherent to the development of community partnerships need to be mindfully considered and discussed with institutions, partners, and trainees.

CHAPTER 4 – Going Global: Training Program Preparation

- Training programs that offer GH electives need to ensure that a minimum infrastructure is in place to support an ethically sound, safe training experience with appropriate pre-departure, on-site, and post-return support. A comprehensive checklist and programmatic recommendations are provided in this section.
- Identifying safe, ethically sound elective options for trainees is difficult and will likely require departmental investment in the development of training partnerships and/or trainee investment in elective fees.
- Debriefing and evaluation are important components of the GH elective that are frequently overlooked; suggestions for both are offered.

CHAPTER 5 – Going Global: Trainee Preparation

- There are many considerations for trainee preparation for GH electives, including logistics, personal motivations, safety, health, emergencies, ethics, sustainability, resources, culture, culture shock, language, and professionalism. This chapter offers a "top ten" list to help structure pre-departure training and mentorship.
- Culture shock is frequently experienced by trainees during GH electives, and the phenomenon is summarized here in an effort to optimize pre-departure training and on-site mentorship.

CHAPTER 6 – Evaluation and Assessment: Who, What, Where, Why, and How

- There are four areas of assessment and evaluation to consider with GH training: (1) assessment of the trainee; (2) evaluation of the GH training program; (3) evaluation of the GH elective; and (4) evaluation of outcomes of the GH training program.
- Assessment of trainee performance during a GH elective can be difficult to obtain due to time limitations of the host supervisor as well as the length of standard stateside assessment forms. Innovative strategies for obtaining assessment data surrounding the GH elective and from the host supervisor are offered.

CHAPTER 7 – Accreditation and Certification Considerations

- At present, any individuals who take more than 6 months of clinical electives away from a training program (such as a GH elective) require review and approval by the ABP, unless they are enrolled in an ACGME-approved GH program.
- GH Tracks are usually developed within the confines of standard residency training, and individuals enrolled in tracks do not require ABP approval unless they impinge on the aforementioned 6-month rule.
- Although the ACGME and ABP expect that almost all clinical training in the United States will be supervised by board-certified or board-eligible providers, this is not feasible nor required during GH electives. However, programs are expected to seek supervisors who routinely provide health care to infants and children.

CHAPTER 8 – Fellowship Opportunities in Global Health

- There are many opportunities to participate in GH during fellowship training. A spectrum from electives abroad to formal GH fellowships within subspecialty and general pediatrics fellowships are available.
- Examples of GH training opportunities and important information for fellowship program directors are offered in this section.

CHAPTER 9 – Post-Graduate Fellowship and Work Opportunities in Global Health

- For Tier 3 learners, there are many post-graduate opportunities in global health within the realms of clinical practice, policy, advocacy, research, and education. Examples are offered in this section.

CHAPTER 10 – Partnerships and Bidirectional Trainee Exchanges

- It is important to strive for mutually beneficial partnerships with global colleagues with agreement upon and alignment of goals, clear expectations, and frequent communication.
- For some global partners, that mutuality may include the establishment of bidirectional trainee and faculty exchanges, which confer many known benefits to both partners as summarized in this chapter.
- Obstacles to bidirectional exchange implementation will vary at each institution. Common challenges are summarized here, and solutions as well as implementation strategies are offered, including the establishment of a stateside consortium to support global partnerships.

INTRODUCTION: TRAINING GLOBALLY MINDED PEDIATRICIANS

Michael Pitt, MD & Nicole St Clair, MD

KEY POINTS

- Many trainees (residents and fellows) are seeking ethically sound, partnership-based global health (GH) training opportunities during residency.
- In addition to trainee demand, there are national and international calls for training globally minded, globally competent pediatricians.
- GH education provides a framework for multidisciplinary training in cross-cultural care, human rights, health disparities, and advocacy.
- When considering pediatric GH education, there are several tiers of trainees: (1) all pediatric trainees; (2) pediatric trainees engaging in GH electives; and (3) pediatric trainees seeking to incorporate GH into their careers. This guide is appropriate for all tiers of trainees.
- The purpose of the guide is to provide a comprehensive, practical resource for pediatric residency and fellowship program directors to incorporate GH education into their respective training programs.

BACKGROUND

In 2015, the American Academy of Pediatrics (AAP) and the American Board of Pediatrics (ABP) convened a Pediatric Global Health (GH) Leadership Conference to develop a set of global child health goals that could be addressed by the pediatric community. Multiple stakeholders attended, including faculty from various institutions engaged in GH initiatives, and representatives from the International Pediatric Association, the AAP, the ABP, the Canadian Pediatric Society, the Association of Pediatric Program Directors (APPD), the Accreditation Council for Graduate Medical Education-International, the Global Pediatric Education Consortium, the Consortium of Universities for Global Health, the Academic Pediatric Association, the Council of Pediatric Subspecialties, the United States Agency for International Development, and the Liberia College of Physicians and Surgeons.

One of the recommendations made by representatives from the ABP GH Task Force and the wider GH education community was to develop a Program Directors Guide to Global Health in Pediatric Residency Education. The ABP Global Health Task Force Trainee Workgroup was charged with this task, which led to the development of the guide and required close collaboration, review, and co-authorship from national stakeholders.

There are many compelling reasons to incorporate GH training into core aspects of pediatric residency and fellowship education, including:

- To better serve patients of all ethnicities and backgrounds in high-income countries, including refugees, immigrants, children living in poverty, and victims of human trafficking;
- To improve the health of children worldwide by training pediatricians to engage in partnerships and capacity development;
- To meet trainee demand for GH education and global experiences during training;
- To foster a culture of globally minded pediatricians who are trained to recognize health inequities, human rights issues, and advocacy opportunities in both high- and low-income settings.

DEFINING GLOBAL HEALTH

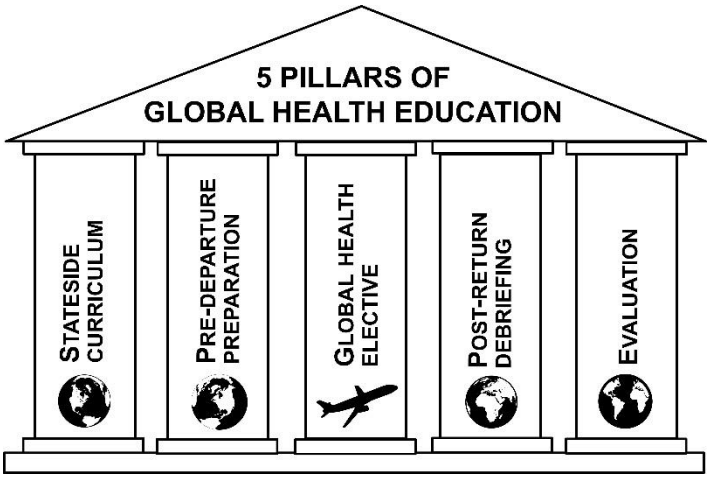
Global health is defined as collaborative transnational research and action for promoting health for all.[1] It is important to note that this definition specifies "all" and not "others." GH not only involves medicine outside of one's borders; it encompasses principles important to the care of children in all regions. In 2007, the Federation of Pediatric Organizations suggested that pediatric GH training should include topics such as human rights, travel medicine, medical tourism, international adoptions, immigration, child marriages, and an analysis of some of the differing structures in health care delivery systems.[2] Additional proposals for GH training for pediatric training programs have been provided in the literature since 2007 and will be summarized in this guide.

WHY THIS GUIDE?

This guide's author group, and many national organizations, are advocating for exposure to GH-specific topics for all pediatric learners. Many skills germane to GH are necessary for all pediatric trainees, including effective use of interpreters, care of immigrants and travelers, cultural humility, and recognition of social determinants of health.[3,4] Trainees need not have a passport to practice GH; diseases do not respect borders, and resource limitation is not unique to low- and middle-income countries.

Implementing GH curricula within pediatric training presents unique challenges. Merely having an opportunity for trainees to participate in an international elective is not sufficient. In fact, without adequate preparation and partnership, these experiences can be detrimental to trainees and the patients and health system at the host site. If training programs are offering GH electives, the other pillars of GH education should be concomitantly considered, including stateside curriculum, pre-departure preparation, post-return debriefing, and evaluation. (Figure 1)

Figure 1: Five pillars of GH education.



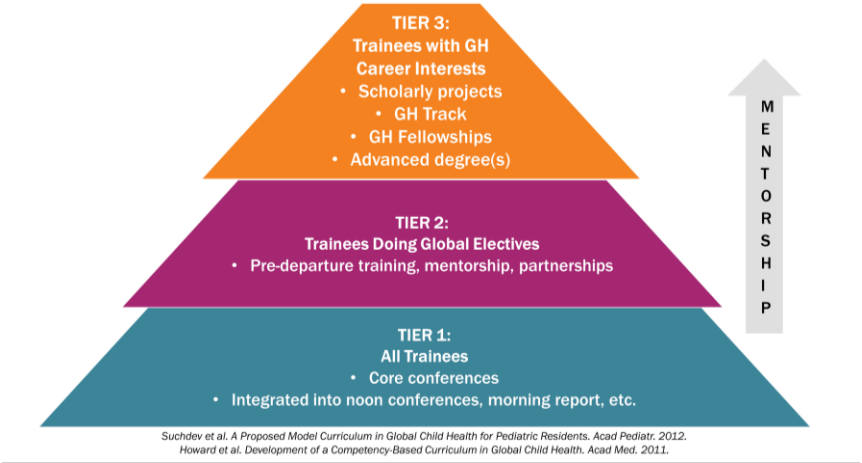
Training programs are increasingly challenged to fit the expanding expectations for and from their trainees into the same fixed time frame, including many expectations outside of the GH field. Fortunately, this implementation guide is designed to support residency and fellowship programs of all sizes to meet these demands and offers resources pertinent to all of the pillars of GH education. In addition to laying out the competencies specific to GH work, this guide provides strategies to incorporate training into existing residency and fellowship frameworks; reviews all aspects of GH electives, including medical-legal logistics and pre-travel preparation; provides an overview of what a dedicated GH track typically entails; discusses trainee assessment and program evaluation; and considers strategies for preparing interested trainees for GH work in fellowship and careers. Throughout the guide, we will provide several modifiable resources for individual and program use, including a comprehensive GH Education Checklist. Our hope is that this manual is valuable for program directors who may have little to no GH experience while offering meaningful resources and content even for seasoned GH educators.

The purpose of this guide is to provide a comprehensive, practical resource for incorporating GH education into pediatric residency and fellowship training programs. When considering pediatric GH education, there are several tiers of trainees to consider: (Figure 2)

1. All pediatric trainees (Tier 1)
2. Pediatric trainees engaging in GH electives (Tier 2)
3. Pediatric trainees seeking to incorporate GH into their careers (Tier 3).

This guide is appropriate for all three tiers of trainees. However, while many of the principles in this guide can also be applied to the third tier of trainees, the authors suggest that program directors seek further assistance from faculty mentors with GH experience to meet Tier 3 learners' needs (eg, through the development of a GH track, global training partnerships, and/or GH-specific fellowship).

Figure 2: Tiered approach for pediatric GH training.



"The additional training provided by the Global Health Track is extremely valuable. It reminds us of issues in our community and globally that need to be addressed and re-ignites that desire to help and give back. It provides us opportunity to connect with like-minded people and hear how we can too become advocates and address local and global health disparities now and in the future…I am grateful to be a part and have the opportunity to go abroad and experience medicine through the lens of a different culture."

~ Anonymous trainee

CHAPTER 1

Global Health Education in Pediatric Training Programs: Core Considerations

Nicole St Clair, MD & Jennifer Watts, MD, MPH

KEY POINTS

- There are multiple opportunities to integrate GH education into a pediatric training framework, requiring variable levels of resources.
- Definitions of GH tracks in residency programs that target Tier 3 learners vary. A draft definition is provided in this section, as well as guidance for GH faculty mentors, track directors, and track program coordinators.

TIERED APPROACH

As mentioned in the introduction, when considering GH education in pediatrics, there are three tiers of trainees to consider (Figure 2). This chapter provides strategies for integrating GH education into training programs that are pertinent to all tiers of trainees and offers a definition for a GH track (for programs targeting Tier 3 learners).

OPPORTUNITIES FOR INTEGRATION

Table 1 offers sample approaches for integrating GH education into pediatric training programs, based on the target audience. As programs move further down the table, dedicated GH faculty mentorship and additional oversight are necessary.

Table 1: Opportunities to Integrate GH education into Pediatric Training Programs Based on Learner Audiences.

***Abbreviations**: PD=Program Director; DIO=Designated Institutional Official; ACGME=Accreditation Council for Graduate Medical Education; ABP=American Board of Pediatrics; ASTMH=American Society of Tropical Medicine and Hygiene; HBB=Helping Babies Breathe; NRP=Neonatal Resuscitation Program; WHO=World Health Organization*

LEARNERS	INTEGRATION OPPORTUNITIES	EXAMPLES	RESOURCES REQUIRED	ADDITIONAL OVERSIGHT REQUIRED
TIER 1: All pediatric trainees	Core curriculum (eg, trainee conferences, workshops, etc)	• Critical care lecture + WHO Emergency Treatment and Triage (ETAT) guidelines • Adolescent medicine lecture + human trafficking • Failure to thrive lecture + WHO malnutrition management guidelines • Cross-cultural communication + cultural humility	Knowledgeable and experienced faculty	None
	Advocacy curriculum	• Local refugee resettlement agencies • International adoption clinics	• Knowledgeable and experienced faculty • Community organization partnerships, when applicable	Evaluation of partnerships, when applicable
	Morning report	• GH case presentation • Case management comparison: high- vs low-resource settings	Knowledgeable and experienced faculty	None
	Journal club	• GH literature	Knowledgeable and experienced faculty	None

	Bedside rounds/clinic preceptorship	• Refugee and immigrant patients and families • Adoptees • Recently returned travelers	Knowledgeable and experienced faculty	None
	Simulation	• Simulation scenarios for high- and low-resource settings (eg, NRP vs HBB)	Knowledgeable and experienced faculty and established simulation curriculum	None
	Visiting speakers	• Grand rounds • Evening seminars	Knowledgeable and experienced faculty	None
	GH newsletter, website, or posts	• Weekly to monthly GH news and education	Knowledgeable and experienced faculty	None
LEARNERS	**INTEGRATION OPPORTUNITIES**	**EXAMPLES**	**RESOURCES REQUIRED**	**ADDITIONAL OVERSIGHT REQUIRED**
TIER 2: Pediatric trainees engaging in GH electives	International elective (typical duration 4-8 weeks)	• Clinical elective • Community-based elective • Research elective • Longitudinal community immersion	• Preparation curriculum, on-site support, and debriefing • Stateside GH faculty mentor • On-site supervisor (with signed program letter of agreement) • Salary support • Health, disability, evacuation, and malpractice insurance coverage during elective • +/- institutional partnership • +/- travel stipend	• PD and Program Evaluation Committee (PEC) • DIO • Mechanisms for trainee assessment and elective evaluation
	Local GH elective (typical duration 2-8 weeks; see Chapter 3 for details)	• Indian Health Services elective • Adoption, immigrant, and/or refugee health elective • Border health elective • Advocacy elective	Same as international elective	Same as international elective
LEARNERS	**INTEGRATION OPPORTUNITIES**	**EXAMPLES**	**RESOURCES REQUIRED**	**ADDITIONAL OVERSIGHT REQUIRED**
TIER 3: Pediatric trainees seeking to incorporate GH into their careers	GH "track" (see below for definition)	Refer to Appendix A	• GH track director, +/- associate(s), +/- program coordinator • +/- international and local partnerships	• PD and PEC • Mechanisms for trainee assessment and program evaluation
	Local service learning, volunteer, and advocacy opportunities	• Health education at a refugee resettlement agency • Legislative advocacy	• +/- faculty mentor • +/- partnership agreement	Mechanism for evaluation of community partnerships
	National advocacy training	• AAP legislative advocacy training	• Faculty mentor • +/- stipend support	PD and PEC
	National GH-related conferences	• AAP Section on International Child Health H Program • APPD Global Health Learning Community annual meetings • ASTMH and PAS conferences	• GH faculty mentor • +/- stipend support	PD and PEC

	Additional post-graduate training during residency	• Master's in Public Health, Population Health, etc	• Faculty mentor • +/- tuition support • Modified residency schedule	• PD and PEC • DIO • +/- ACGME and ABP (re: additional training months)
	Additional year of residency	• Baylor College of Medicine/Texas Children's Hospital Global Child Health Residency Program	• GH faculty mentor • Salary support • Modified residency schedule	• PD and PEC • DIO • ACGME and ABP • Mechanisms for trainee assessment and program evaluation
	GH fellowship (general or subspecialty)	http://www.globalhealthfellowships.org/database.html	• Fellowship PD and PEC • Program coordinator • Salary support • International training partnership	• DIO • ACGME and ABP • Mechanisms for trainee assessment and program evaluation

DEFINITION OF A GH TRACK

There are variable definitions and interpretations of a pediatric residency GH track.[3,5] Members of this author group are currently working with a team of stakeholders to reach a consensus definition. In the interim, below are draft recommendations for a GH track structure:

- ✓ At least one dedicated GH track director (ideally with some salary support* allocated to the role)
- ✓ At least one established partnership in a resource-limited setting where residents can do a GH elective
- ✓ Organized GH mentorship
- ✓ Pre-departure curriculum, on-site support, and post-return debriefing for GH electives
- ✓ Resident salary support during GH electives
- ✓ Maintenance of existing malpractice, health, and disability insurance during GH electives
- ✓ Evacuation insurance for GH electives
- ✓ Core GH curriculum that includes (and expands upon) the topics outlined in Chapters 2 and 3, either longitudinally throughout residency or in a consolidated fashion for GH track participants (eg, annual 1- to 2-week courses)
- ✓ Opportunities for GH track residents to participate in educational activities that cater to their GH interests (eg, adoption/immigrant/refugee clinics, TB or HIV clinics, etc)
- ✓ Mechanisms to evaluate the track.

Additional components for a GH track could include the following:

- \+ A team of faculty mentors with GH-specific knowledge
- \+ Travel stipend opportunities for GH electives
- \+ Additional assessment and evaluation mechanisms for: (1) GH track resident performance; (2) GH partnerships; and (3) GH track outcomes (graduate career choice, etc)
- \+ Local partnership(s) to support service learning, volunteering, and advocacy opportunities
- \+ GH track program coordinator
- \+ Engagement of GH track trainees and GH track leadership in regional and national professional networks (eg, Association of Pediatric Program Directors Global Health Learning Community; American Academy of Pediatrics Section on International Child Health; Academic Pediatric Association Global Health Special Interest Group; Consortium of Universities for Global Health)
- \+ Collaboration with other residency programs within the same training institution (eg, formation of a multidisciplinary GH track).

**Salary support varies widely, from 0 to 50% FTE, depending on institutional resources and GH educator roles*[6]

"During my residency, the Global Health Track allowed me travel, perspective, experience and opportunity beyond what I would have otherwise been able to achieve in my four years of residency training. The experiences were invaluable in keeping me flexible, my differential broad, and making me continuously re-evaluate my goals and ideals of why I want to be a physician and what kind of physician I wanted to be. Besides the friendship among other like-minded people, the Global Health Track also provided medical education beyond that gained from the bread-and-butter pediatrics and internal medicine I was learning. The Track also provided the opportunity to travel and to work with practitioners who serve a variety of populations than I would not otherwise have been able learn from."
~ Emily Fisher, MD, MPH

GH FACULTY MENTORS, TRACK DIRECTORS, AND PROGRAM COORDINATORS

Although some resources exist nationally to assist with delivery of GH training in all pediatric training programs (Table 2), authors recommend GH-specific faculty mentorship for any program that engages trainees in GH electives and/or GH tracks.

- Tier 2 trainees (GH elective participants): authors encourage programs to identify faculty mentors who have prior experience working in resource-limited settings (for elective preparation, on-site support, and debriefing). Ideally, these mentors would also be familiar with the clinical and cultural atmospheres at the trainee's elective site and would have open communication with the host partners.
- Tier 3 trainees (GH career interests): authors encourage programs to appoint a GH track director and a faculty mentor team, if feasible at their institutions. The author team recognizes that resources for GH training vary widely but encourages funded roles for GH track directors as well as programmatic support to ensure consistency and sustainability.[5,7] Additional considerations for GH fellowships are outlined in Chapter 8.

For those seeking to employ a GH track director and/or a GH track program coordinator, sample position descriptions are included in Appendices B and C.

CHAPTER 2

Global Health Training at Home: Competencies and Implementation

Sumeet Banker, MD, MPH & Jill Helphinstine, MD

KEY POINTS

- GH-specific objectives can be applied to all competency domains (patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice). Examples are offered in this section for both Tier 1 (all trainees) and Tier 2 learners (trainees on GH electives). For trainees enrolled in GH tracks (Tier 3), programs are encouraged to develop additional objectives that are pertinent to the content of their GH track.
- This section provides the "how to" for educators seeking to integrate GH into their curriculum, including:
  - Strategies for incorporating GH-specific objectives into existing and new residency curricula
  - High-yield educational resources currently available (online and print)
  - Considerations for mapping GH education to board specifications.

TIER 1 LEARNERS: COMPETENCY-BASED OBJECTIVES FOR ALL TRAINEES

There is widespread recognition that GH principles of worldwide social determinants of health, cultural humility, and acquisition of skills employed in resource-limited settings should be learned by all members of the growing pediatric workforce. These principles apply just as much to the care of children at home as to those abroad. Specific curricula and objectives are necessary to accomplish the task of educating all pediatric trainees, but they have not yet been developed for this population of learners in a format that may be broadly adapted by academic institutions.

For the purposes of this guide, GH objectives for all pediatric trainees were adapted from available literature[3,4,8–11] and developed with expert consensus from the American Board of Pediatrics (ABP) Global Health Task Force Trainee Workgroup. These objectives were developed to represent what all pediatric trainees should ideally know about GH and the care of children at home and abroad. Each objective is mapped to an existing competency for pediatric trainees as outlined by the ABP in the Pediatric Milestones Project (2012) and adopted by the Accreditation Committee on Graduate Medical Education (ACGME) in the Program Requirements for Graduate Medical Education in Pediatrics. These competencies are italicized below and contain a reference to the ACGME Program Requirements document. Of note, the authors chose to highlight additional local GH competency-based objectives in Chapter 3. Some of the objectives noted below will overlap with those in Chapter 3, and this overlap is intentional.

Please note that the content below represents a thought process of the author group for the purpose of this document, guided by the aforementioned literature, but has not yet undergone vetting by larger audiences and stakeholders. This is not meant to be a "one size fits all" approach for training programs; instead, objectives should be modified at each institution based on educational priorities and needs (both locally and with global partner training sites). Any suggestions for modifications to these objectives are welcome.

Table 2: Global Health Objectives for Tier 1 Learners (All Trainees) Linked to Established ACGME Competencies

PATIENT CARE
Interview patients and families about the particulars of the medical condition for which they seek care, with specific attention to behavioral, psychosocial, environmental, and family unit correlates of disease [IV.A.5.a).(1).(d)]: • Analyze the impact of environmental factors such as clean water, sanitation, air quality, pollution, climate change, overcrowding, and natural disasters on child health and apply this knowledge to the interviews of patients and families who seek care in your practice. • Reflect on and describe how fragmented family units contribute to health and illness, particularly in relation to immigrant and refugee children and adoptees that are separated from their biological parents and explore pertinent questions regarding primary caretakers and relationships among those who form the family unit. • Perform essential components of a history and physical examination for children with immigrant or refugee status (including utilization of trauma-informed care) and identify unique considerations for providing a medical home for these children. • Explain essential components of a comprehensive evaluation of a child/youth traveling internationally.
MEDICAL KNOWLEDGE
Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care [IV.A.5.b)]: • List the top causes of neonatal, infant, child, and adolescent morbidity and mortality for low- and middle-income countries (LMIC) and high-income countries (HIC) and discuss why these lists may differ. • Describe and interpret the following core health indicators: neonatal mortality rate, maternal mortality rate, infant mortality rate, and under-five mortality rate. Compare the differences in these core health indicators between LMICs and HICs. • Summarize the presentation, diagnosis, management, and prevention of global infectious (eg, malaria, TB, HIV/AIDS, diarrheal disease) and noninfectious (eg, prematurity, birth asphyxia, anemia, pneumonia, malnutrition, obesity, stunting, trauma, mental health) causes of child and adolescent morbidity and mortality. • Describe the health and psychological problems of vulnerable children and adolescents who are immigrants, refugees, internally displaced, or orphans. Discuss the impact of victimizing activities such as trafficking, child labor, political conflict, and warfare.
PRACTICE-BASED LEARNING AND IMPROVEMENT
Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems [IV.A.5.c).(6)]: • Identify appropriate medical resources, including references and standardized guidelines (eg, WHO/CDC/country-specific guidelines) for diagnosis and treatment of conditions common to resource-limited settings and adapt them to the individual needs of specific patients.

INTERPERSONAL AND COMMUNICATION SKILLS
Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds [IV.A.5.d).(1)]: • Display effective communication skills (including both spoken language and nonverbal cues) and humility when discussing medical information with families from different cultures, particularly those for whom English is a second language. • Demonstrate effective use of an interpreter.
PROFESSIONALISM
Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation [IV.A.5.e).(5)]:
• Describe common ethical dilemmas that arise in the care of diverse patient populations, particularly those who may face discrimination based on race, religion, ethnicity, sexual orientation, or gender identity. • Identify the impact of culture-based gender roles within family and society as it applies to the physician-parent interaction, as well how the gender of a child may affect health-seeking behaviors and outlook. *Develop the ability to use self-awareness of one's own knowledge, skill, and emotional limitations that leads to appropriate help-seeking behaviors [IV.A.5.e).(6).(a)]:* • Reflect on and describe personal biases that may affect decision-making when caring for diverse and vulnerable populations and develop strategies to avoid them.
SYSTEMS-BASED PRACTICE
Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care [IV.A.5.f).(3)]: • Describe the differences in the health care models around the world (including public/private payers, use of community health workers, etc), advantages and disadvantages of each system, and how each affects patient care and availability of resources. • Recognize the multiple barriers that immigrants and refugees encounter when accessing health systems in North America and identify resources available to help address some of these barriers. *Advocate for the promotion of health and the prevention of disease and injury in populations [IV.A.5.f).(7)]:* • Reflect on the interplay between culture and health, including reasons for the use of alternative or traditional medicine, atypical therapies, and delays in seeking care. • Describe traditions and practices of cultural groups in your area of practice as they relate to health practices and health outcomes. *Work effectively in various health care delivery settings and systems relevant to their clinical specialty [IV.A.5.f).(1)]:* • Identify the differences between the standardized guidelines used for the care of children around the world and the guidelines used in your own practice and explain why differences may exist and when certain guidelines may be more appropriate (eg, rural low-resource settings within the United States).

TIER 2 LEARNERS: COMPETENCY-BASED OBJECTIVES FOR TRAINEE PARTICIPANTS IN GH ELECTIVES

This set of objectives includes additional objectives that should be achieved by trainees embarking on short-term elective experiences in international or domestic resource-limited settings. General principles and best practices in GH apply to these experiences, and it is important to ensure achievement of these competency-based objectives prior to the start of the elective. For more detailed information on considerations for pre-departure preparation, please refer to Chapter 5 of this guide.

Table 3: Additional Objectives for Tier 2 Learners (Trainees Participating in GH Electives) Linked to Established ACGME Competencies

PATIENT CARE
Develop and carry out management plans [IV.A.5.a).(1).(g)]: • Apply WHO (or in-country/local) clinical practice guidelines to the care of patients in resource-limited settings.
PRACTICE-BASED LEARNING AND IMPROVEMENT
Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems [IV.A.5.c).(6)]: • Reflect on and describe how standardized guidelines developed for specific patient populations and health care workers (eg, WHO, IMCI, ETAT, and HBB) can improve care in resource-limited settings and understand their limitations. • Explain why certain evidence-based practices (eg, NRP versus HBB, PALS versus APLS, etc) are successful or unsuccessful in different settings (low resources versus high resources).
INTERPERSONAL AND COMMUNICATION SKILLS
Work effectively as a member or leader of a health care team or other professional group [IV.A.5.d).(3)]: • Demonstrate cultural humility while working in an unfamiliar setting, acknowledging the local expertise and perspectives of colleagues familiar with that environment. • Integrate into the professional and social networks of the health care team and surrounding community during the GH elective (specifically, do not just spend time with other outside visitors).
PROFESSIONALISM
Develop the ability to use self-awareness of one's own knowledge, skill, and emotional limitations that leads to appropriate help-seeking behaviors [IV.A.5.e).(6).(a)]: • Anticipate possible conflicts that may arise while serving in an unfamiliar clinical setting by devising strategies for managing one's stress, well-being, security, and professional responsibility. • Describe signs and symptoms of "culture shock" and issues surrounding clinical care with resource limitations and understand how the experience of "culture shock" may affect one's behavior and communication. • Identify GH elective opportunities that are under the auspices of mutually beneficial training partnerships. • Reflect on the limitations of one's own knowledge base when facing new, unfamiliar diseases or old, familiar diseases but with different resources, and seek appropriate help when needed. • Describe how coping skills and stress management may vary among different cultures and among providers who are accustomed to resource limitations and higher rates of morbidity and mortality.
SYSTEMS-BASED PRACTICE
Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care [IV.A.5.f).(3)]: • Modify diagnostic and patient care decisions in the context of significant resource limitations domestically or abroad. *Advocate for the promotion of health and the prevention of disease and injury in populations [IV.A.5.f).(7)]:* • Participate in health promotion and prevention activities in a resource-limited setting utilizing local guidance and practices and using a diplomatic, culturally humble style. *Work effectively in various health care delivery settings and systems relevant to their clinical specialty [IV.A.5.f).(1)]:* • Perform an inventory of resources in a given clinical setting in order to understand how that setting functions and to identify possible areas of improvement while considering long-term sustainability. • Challenge yourself to identify how local resources could be utilized to address systems issues.

TIER 3 LEARNERS: COMPETENCY-BASED OBJECTIVES FOR RESIDENT PARTICIPANTS IN GH TRACKS

When applicable, programs are encouraged to identify additional objectives for trainees committed to a longitudinal GH track. Such objectives can be tailored to the specific emphases and curriculum of the program's GH track, which vary at each institution based on local needs, local faculty expertise, and other factors.

STRATEGIES FOR INCORPORATING OBJECTIVES INTO RESIDENCY CURRICULUM

GH curricula may fit a variety of active and passive educational formats to suit the objectives and needs of the learners. These include traditional didactic sessions such as conferences and grand rounds, as well as interactive sessions such as case conferences, journal clubs, and simulations; examples of curricular integrations from these formats are included above (Table 1). When delivering core GH curricular elements, it is important to work within the existing educational framework of the residency program in order to reach a broad audience of trainees and normalize GH topics within the residency curriculum.

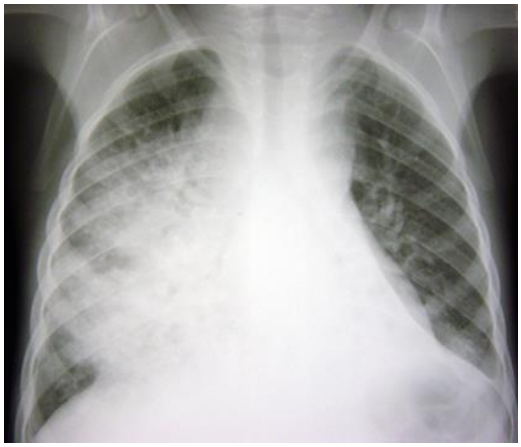
INNOVATIVE STRATEGIES FOR INTEGRATION OF OBJECTIVES

Although pediatric residency programs vary with respect to size, location, training sites, and availability of faculty with specific GH interests, there are some general approaches to integration of GH principles into residency curricula that may be adapted to fit all programs. These approaches have varying degrees of time/resource commitment and are outlined below.

Integrating Content into Existing Residency Curriculum

Implementing a new GH curriculum from scratch can be an arduous task. Integrating GH principles into existing curricular offerings such as didactic conferences and morning reports allows programs to harness the strength of the existing curriculum. Although instructors and lecturers may not have specific expertise in GH, they may have some familiarity based on their depth of knowledge on their given topic. They may be able to add a section to their talk on the GH implications of the disease process, how it may present clinically in resource-poor areas, or special considerations for immigrant/refugee populations. Some examples are included below, and additional examples may be found in Table 1.

- Integrating acute malnutrition in low- and middle-income countries (LMIC) into a discussion of rural food insecurity in high-income countries (HIC)
- Incorporating cases of refugees and immigrants with mental health problems into a lecture on post-traumatic stress disorder (PTSD) and/or generalized anxiety disorder
- Noting the global burden of pneumonia-related mortality when teaching about community-acquired pneumonia



Adapting New Content from Existing Resources

The next step on the time/resource continuum would be to adapt existing resources to design a GH curriculum that meets the needs of the trainees at a given program. Groups of GH educators with experience in service and research have collaborated to create web-based resources for global child health education. These resources vary in terms of the technology necessary to run the modules, variety of topics covered, and target audience. A list of options is in Table 4 below, (with bold text indicating resources that authors consider high yield for U.S. pediatric trainees).

"Participating in the global health track has helped develop my capabilities as a physician. The simulations and journal clubs I have experienced this year have helped introduce me into what I may experience on my own when practicing globally or locally in poor resource settings. I especially enjoyed the simulation where we have limited resources…It provides great experience in learning how to use the limited resources to the best of my abilities and to the best of my patient's needs."

~Anonymous trainee

Harnessing Local Expertise to Create Original Content

Creating new content altogether can be an attractive option because it allows the teacher to highlight his or her areas of expertise, while also tailoring the discussion to the local context (eg, specific immigrant population, community resources, and the baseline knowledge level of trainees).

Although they may not have specific designation as such, GH educators may be found in many places, both on faculty and in the community. Faculty teachers can be found and recruited from many pediatric divisions as well as other disciplines (eg, internal medicine, emergency medicine, obstetrics, surgery, etc) and other schools (eg, nursing, public health, dentistry, public policy/law, etc). Examples include:

- Obstetrician or infectious disease specialist provides global context on improvements in maternal-to-child transmission of HIV
- Faculty surgeon discusses successes/struggles in reducing pediatric morbidity and mortality from trauma due to road traffic accidents in East Africa by working with a regional Ministry of Health to enforce helmet laws.

Teachers can (and should) also be found in the community. Many governmental and nongovernmental organizations advocate for rights for and provide services to immigrants, refugees, adoptees, and the impoverished/under-insured. Training programs can capitalize on the local expertise of these organizations to provide practical context and real-life examples of the interplay between health and well-being. Examples include:

- Social worker from local refugee resettlement agency discusses cultural barriers to health care-seeking behaviors in local Central African refugees
- Supervisor from local Interpreter Services outlines best practices when utilizing a language interpreter
- Medical director of local Department of Health discusses surveillance, monitoring, and preparedness for local outbreaks of infectious diseases.

Table 4: Examples of Resources for Pediatric GH Curriculum Development and Delivery
(Note: This list is not exhaustive. Suggestions for additions are welcome at globalhealth4pds@abpeds.org. Resources are listed alphabetically, and bold text indicates those that the authors consider high yield for U.S. pediatric trainees.)
Abbreviations: *PC=Patient Care; MK=Medical Knowledge; PBLI=Problem-Based Learning and Improvement; ICS=Interpersonal and Communication Skills; PR=Professionalism; SBP=Systems-Based Practice; ELEC=Global Health Elective*

RESOURCE	DESCRIPTION	SOURCE	DOMAIN COVERED
INTERACTIVE MODULES			
Boston University edX Global Health MOOCs—*The Practitioner's Guide to Global Health*	Online preparation courses that are interactive, case-based, and evaluative, enable tracking for program directors, and are free of charge	https://www.edx.org/course/practitioners-guide-global-health-bux-globalhealthx	ELEC
Consortium of Universities for Global Health (CUGH) modules and resources	Interactive modules on several topics in general GH (not necessarily specific to children), including trauma/burns, cardiovascular disease, health economics, and climate change. *Note: GCHEMP (below) is a subset of this list*	http://www.cugh.org/resources/educational-modules	Variable
Ethical Challenges in Short-Term Global Health Training	Ten cases designed to introduce trainees to ethical issues that may arise in overseas experiences	Johns Hopkins Berman Institute of Bioethics http://ethicsandglobalhealth.org	PR, ELEC
Global Child Health Curriculum Modules	Four 1-hour modules on GH topics: 1) global child mortality; 2) undernutrition; 3) fever in a returned traveler; and 4) children new to Canada. Available free by request.	Canadian Pediatric Society http://www.cps.ca/en/curriculum	MK, PC
Global Child Health Education Modules Project (GCHEMP)	Interactive modules on several topics in global child health, including fever, malnutrition, culture, and preparation for an elective	Consortium of Universities for Global Health http://cugh.org/training-module-topic-area/global-child-health-gchemp	MK, SBP
Global Pediatrics Education Series (GPEDS)	Twenty-eight recorded lectures with post-tests/CME (fees apply)	University of Minnesota http://globalpeds.umn.edu/gpeds	MK, PC, SBP
Refugee Health e-Learning Program through the University of Ottawa, Canada	Multimedia e-learning modules geared toward trainees	http://ccirhken.ca/e-learning	PC, MK, ICS, SBP
SickKids Centre for Global Child Health Public Health Nutrition Course	Free online course about international nutrition using a multimedia approach	http://learn.sickkidsglobal.ca/	MK, PBLI
Simulation Use for Global Away Rotations ("SUGAR") • **SUGAR** • **PEARLS** • **S-PACK**	(1) SUGAR: Simulation curriculum for trainees to experience challenges of working in resource-limited settings (2) PEARLS (Procedural Education for Adaptation to Resource-Limited Settings): curriculum for proceduralists to adapt to low-resource clinical settings S-PACK (Pre-Departure Activities Curricular Kit): Comprehensive preparation curriculum prior to GH training experiences	Midwest Consortium of Global Child Health Educators and Affiliates (multi-institution collaboration) http://sugarprep.org	ELEC

MULTIMEDIA RESOURCES			
Coursera courses	Collection of web-based online courses from many prominent institutions, most requiring an enrollment fee.	https://www.coursera.org/course/globalhealthintro https://www.coursera.org/learn/essentials-global-health	Variable
Ethnomed	Cultural profiles and cross-cultural health	https://ethnomed.org/culture	PR, SBP
First Do No Harm	A documentary that explores the ethics of GH clinical electives and volunteer projects in developing countries	https://vimeo.com/22008886	PR, ELEC
Johns Hopkins School of Public Health Open Courseware	Open source static course resources with readings, slide sets, and some audio files from courses previously offered at the school	http://ocw.jhsph.edu/index.cfm/go/find.browse#topics	PC, MK, SBP
Playing God	Podcast interview with *NY Times* reporter Sheri Fink about the ethics of physicians/humans deciding who lives and dies	NYC Radiolab http://www.radiolab.org/story/playing-god/	PR
Selected TED talks	Engaging recorded multimedia lectures given by worldwide leaders and academicians. *(eg, Hans Rosling – "The best stats you've ever seen;" "We are winning the war against child mortality"*	www.ted.com	MK
The Wellcome Trust Topics in International Health CD-ROM Series	Series of educational materials for medical and life sciences students, teachers, and other healthcare professionals.	http://rehydrate.org/resources/tih-titles.htm	MK
Unite for Sight Global Health University	Offers over 20 online certificate programs through their Global Health University covering areas such as technology, social entrepreneurship, program development, and refugee health. Most programs cost $100.	http://www.uniteforsight.org/global-health-university/	Variable
University of Washington Department of Global Health e-Learning	A number of recorded courses and modules to support education and advancement of trainees and LMIC health workers, as well as providing resources for GH educators. Some content has associated fees.	https://edgh.washington.edu	Variable
BOOKS, MANUALS, AND PRINT RESOURCES			
Atlas of Pediatrics in the Tropics and Resource-Limited Settings	Atlas of pediatric diseases in tropical settings	Spector J, Gibson T. AAP Publication. Paperback, ISBN-10: 1581103034.	MK
CDC Yellow Book	Reference for those who advise international travelers	CDC Travelers' Health http://wwwnc.cdc.gov/travel/page/yellowbook-home-2014	PC, MK
Child Health for All, 4th ed.	Detailed mid-size book with approach to public health and	Kibel M, Wagstaff L. Oxford University Press Southern	PC, MK, SBP

	community pediatrics in Southern Africa, written by local experts.	Africa. 4th ed. ISBN 0195764951.	
Coovadia's Pediatrics and Child Health Textbook	Detailed mid-size book with approach to all common pediatric conditions seen in Southern Africa, written by local experts.	Green R, Coovadia H. Oxford University Press Southern Africa. 2014. 7th ed. ISBN 0199053944.	PC, MK
Emergency Triage Assessment and Treatment	Triage manual for low-resource settings.	Accessible at: http://www.who.int/maternal_child_adolescent/documents/9241546875/en/	MK, PBLI, SBP
Global Health: Diseases, Programs, Systems, and Policies, 3rd ed.	Graduate-level textbook that examines health challenges facing LMIC countries.	Merson, Black, Mills (eds); Jones and Bartlett. ISBN-13: 9780763785598.	PC, MK, SBP
Global Health Training in Graduate Medical Education: A Guidebook, 2nd ed.	Guide for educators in developing GH training and program design	Jack Chase, MD and Jessica Evert, MD (eds). Global Health Education Consortium, San Francisco, 2011. https://www.cfhi.org/global-health-training-in-graduate-medical-education-a-guidebook-2nd-ed	Variable
Integrated Management of Childhood Illness (IMCI)	Integrated approach to child health developed by WHO/UNICEF that focuses on well-being of the whole child	WHO IMCI home: http://www.who.int/maternal_child_adolescent/topics/child/imci/en Self-study modules: http://www.who.int/maternal_child_adolescent/documents/9789241506823/en/	MK, SBP, PBLI
The Lancet Global Health Portal	A collection of peer-reviewed GH series, regional reports and commissions, and multimedia	The Lancet http://www.thelancet.com/global-health	MK
Oxford Handbook of Tropical Medicine, 4th ed.	Resource for medical problems in tropical regions and in low-resource settings. Includes pediatric and adult diagnoses.	Brent A, Davidson R, Seale A (eds). Oxford University Press, New York, 2014. Available for purchase online and at retail outlets	MK, PBLI
Patient Health Education	Multilingual and culturally appropriate health information materials for non-English speaking patients.	HealthReach (National Institutes of Health): https://healthreach.nlm.nih.gov/ Health Information Translations: https://www.healthinfotranslations.org/	ICS
Textbook of Global Child Health	Comprehensive textbook	Kamat D, Fischer P. AAP Publication. Paperback, ISBN-10: 1581105231	MK
U.S. Committee for Refugees and Immigrants	Multilingual health and nutrition information and healthy living toolkit, domestic violence, etc	http://refugees.org/research-reports/	ICS
WHO Model Formulary for Children 2010	Based on the second model list of essential medicines for children 2009. World Health Organization. 2010.	Accessible at: http://www.who.int/selection_medicines/list/en/	MK

World Health Organization manual	Pocket Book of Hospital Care for Children: Guidelines for the Management of Common Childhood Illnesses. 2nd ed. World Health Organization, Geneva, Switzerland, 2013.	Free PDF: http://www.who.int/maternal_child_adolescent/documents/child_hospital_care/en/	MK, PBLI, SBP
World Health Organization topic-specific manuals	Disease/topic-specific guidelines provided by the WHO	View http://www.who.int/publications/en/ for options	MK, PBLI, SBP
TRAINING MATERIALS FOR HEALTH WORKERS			
Global Health Media Project	Offers online videos aimed at increasing health worker knowledge, mostly related to perinatal/infant health and breast-feeding.	http://globalhealthmedia.org/videos/	Variable, mostly MK
Global Health eLearning Center (via USAID)	Online courses and certificate programs aimed at increasing knowledge in a variety of GH technical areas	https://www.globalhealthlearning.org	Variable, mostly MK
Hesperian Health Guides	Health care guides for low-resource settings and a wide range of provider literacy levels	Accessible at: http://hesperian.org/books-and-resources/	MK, PBLI, SBP
Providing Culturally Effective Care Toolkit	This toolkit is a practical, hands-on resource to help practicing pediatricians and their office staff provide culturally effective care to patients and families.	AAP Culturally Effective Care Toolkit	PC, MK
University of Washington I-TECH Clinical Education modules	Online modules to support education and advancement of LMIC health workers. Some content has associated fees.	https://edgh.washington.edu/series/clinical-education-modules	Variable
GH-RELATED CONFERENCES AND COURSES			
AAP Section on International Child Health GH Program and other NCE events	GH research, workshops, and other presentations for pediatric health care providers. Occurs annually in fall.	http://aapexperience.org/	Variable
AAP GH Advocacy Training	Opportunities for training in Washington, DC vary annually.	https://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Pages/GlobalChildHealth.aspx	Variable
American Society for Tropical Medicine and Hygiene conferences	Conference content designed for researchers, academia, government and public health officials, military personnel, and clinicians	http://www.astmh.org/	Variable
Consortium of Universities for Global Health conference	GH research, workshops, and other presentations for academic institutions. Occurs annually in spring.	http://www.cugh.org/annual-conference	Variable
Gorgas Courses in Clinical Tropical Medicine	English-based tropical medicine courses offered in Lima, Peru	https://www.uab.edu/medicine/gorgas/	Variable
Pediatric Academic Societies conference	GH research, workshops, and other presentations for academicians. Occurs annually in spring.	https://www.pas-meeting.org/	Variable

Unite for Sight Global Health and Innovation conference	Participants from all sectors of GH	http://www.uniteforsight.org/conference/	Variable

MAPPING GH OBJECTIVES TO BOARD SPECIFICATIONS

The American Board of Pediatrics prepares a content outline for the purpose of developing certification examinations for pediatricians. Residency curricular content in GH may help achieve competence in many of the categories listed in that document. GH content may provide particular benefit in addressing the following topic domains:

- Nutrition and nutritional disorders
- Preventive pediatrics (immunizations)
- Infectious diseases
- Environmental exposure to hazardous substances
- Psychosocial issues
- Ethics

Regarding trainee assessment, no standardized tool currently exists for Tier 1 trainees pertaining to GH-specific competency-based objectives. However, a milestone-based assessment tool developed by a group of GH educators is described in the literature; although it was designed specifically for GH electives, it could be modified for stateside assessments.[12]

CHAPTER 3
Local Global Health

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KEY POINTS

- Global health emphasizes the health of all people, both internationally and locally.
- Local GH topics encourage trainees to "think globally, act locally" in the care of underserved children and migrant populations.
- Unique competencies are required for pediatricians to care for local global pediatric populations, including refugees, immigrants, internationally adopted children, and victims of human trafficking. Competency-based objectives for local GH training programs are offered in this chapter.
- Challenges inherent to the development of community partnerships need to be mindfully considered and discussed with institutions, partners, and trainees.

The term "global health" is intentionally not "international health," because the field emphasizes the health of all, regardless of location or ethnicity. Many of the educational objectives and practical learning that are met through GH experiences — such as an appreciation for social determinants of health, a preventive focus, and engagement with vulnerable populations — can be met through immersive experiences in underserved communities domestically. It is notable that:

- ✓ The overall health of the U.S. population continues to rank low on many measures compared with 29 other developed countries, including infant mortality rates.[13,14]
- ✓ One in five U.S. children lives in poverty.[15]
- ✓ Ethnic minority children have higher rates of many chronic illnesses (asthma, obesity, developmental delay) and hospitalization than their white counterparts, even after controlling for socioeconomic characteristics, including poverty and parental education.[16,17]

Additionally, there are unique health considerations for migrant populations (travelers, adoptees, refugees, immigrants, and victims of human trafficking), summarized in Table 5.

Table 5: Health Considerations Associated with Human Migration

MIGRATION TYPE	DEMOGRAPHICS AND DISPARITIES
Immigrants[18–20]	An estimated 18.4 million U.S. children (25% of all U.S. children) live in an immigrant family; 89% of these children were born in the United States to undocumented immigrants. Many of these suffer from: ▪decreased access to preventive care ▪higher rates of emergency room use for ambulatory-sensitive conditions

	▪adverse mental health and poorer developmental, behavioral, and socio-emotional outcomes. Exacerbating factors include: ▪limited parental English proficiency ▪unemployment/underemployment ▪low parental educational attainment.
Undocumented immigrants[15]	Undocumented immigrants are twice as likely to: ▪be uninsured ▪live below the federal poverty level ▪lack early education ▪have low income benefits. Childhood health issues associated with the threat of deportation include: ▪anxiety, depression ▪poor school performance ▪disruptions in sleeping and eating patterns. Family issues associated with deportation include: ▪family disruptions ▪loss of income ▪housing and food instability.
Unaccompanied alien children (UAC)[21]	As many as 70,000 UAC cross the borders to enter the United States every year, with many having experienced: ▪abuse ▪exploitation ▪serious trauma.
Refugees[22]	Climate changes, natural disasters, war, conflict, political unrest, and persecution result in constantly increasing numbers of refugees. In 2016: ▪1 person was displaced every 20 minutes ▪1 in 113 persons was a refugee/internally displaced asylum seeker ▪1 in 50 persons lived outside their country of origin ▪51% of the world's refugees were children.
Trafficked children[23]	On any given day in 2016, more than 1 million children worldwide were victims of sexual exploitation[24]; it is estimated that over 244,000 children in the US are at risk for human trafficking every year.[25]
International adoptees[26]	More than 5,000 children are adopted annually in the United States, all of whom require individualized health screening.
Traveling children[18]	While traveling: ▪children are at high risk (60%) of becoming ill ▪19% of children need medical attention during or after travel ▪the risks are highest for children of immigrants traveling abroad to see relatives.

Given the magnitude of health disparities in the United States and the health-related implications of human migration, it is apparent that pediatricians must be carefully trained to provide comprehensive, coordinated, culturally and linguistically effective care for diverse U.S. pediatric populations.[18,27,28] To do so, many residency programs offer domestic or "local global" experiences,[29] loosely defined here as **a 1- to 6-week community/field elective with clinical and nonclinical components, with an emphasis on topics such as public health, socioeconomic and political sciences, medical sciences, and health management.** A local GH elective should be designed to equip pediatric trainees with the tools, resources, knowledge, and ethical conduct needed to identify and address causes of suboptimal health outcomes for underserved populations and improve health equity in U.S. communities.

"My career goal is to work in primary care with underserved populations. The global health opportunities allow us to learn about caring for patients in resource-poor settings, both nationally and internationally, so we feel more comfortable in practice when confronted with various scenarios. It is valuable to experience medical practice outside the walls of Children's to see how patients are cared for elsewhere and also expand our knowledge on how to improve care in other settings."
~Anonymous trainee

Opportunities to consider for local GH field experiences include but are not limited to the following:

- **Clinical experiences**: federally qualified health center clinics, public health department sites, specialty clinics serving underserved populations, travel clinics, international adoption centers, child abuse centers, foster care clinics, Native American Reservation clinics, rural underserved clinics
- **Community site visits**: organizations working with refugees, immigrants, and underserved populations, including Family Health Clinics, refugee resettlement agencies, Job and Family Services offices
- **Guided visits:** shelters, family drug court, food banks, substance abuse and recovery programs
- **Home visits:** accompany case workers assigned to refugee families
- **Shadowing of clinical interpreters**
- **Tutoring:** English as a Second Language (ESL) classes, training sessions for refugees on U.S. health care, exercise and nutrition classes
- **Poverty simulation**: trainees use specific tools to travel by public transportation to a patient's neighborhood and assess the environment, available grocery options, quality of green spaces, etc.

An example of a 1-week local GH elective schedule provided by Cincinnati Children's Hospital Medical Center and Children's Mercy Kansas City is in Appendix D.

CHALLENGES OF LOCAL ENGAGEMENT

Challenges to effective local engagement need to be mindfully addressed by institutions, community partners, GH educators, and trainees, as definite harm can be done with unethical, non-sustained, and/or paternalistic pursuits with community partners, both locally and internationally.[30] These real and perceived barriers can include but are not limited to:

- Process-related issues (need for permits, bureaucratic barriers, etc)
- Lack of time/infrastructure/funding to support community partnerships
- Skepticism from community partners
- Trainee misperception of lesser importance/glamor/meaning/value of local engagement compared with international engagement
- Trainee misperception that local projects are more difficult to complete.

The process of developing and sustaining a mutually beneficial, ethically sound community partnership is outside of the scope of this chapter, but such partnerships are a fundamental foundation for successful trainee community engagement.

The author team offers local GH competency-based objectives for integration into pediatric training programs (Table 6) to be paired with GH objectives that were previously described in Chapter 2. Notably, there are some areas of overlap between the objectives provided in Chapter 2 and those in Table 6. This is intentional, but the author team opted to highlight the local GH objectives in this chapter as a separate entity to assist programs that are creating this specific arm of their GH training infrastructure.

COMPETENCY-BASED OBJECTIVES FOR RESIDENT PARTICIPANTS IN LOCAL GLOBAL HEALTH ELECTIVES

Table 6: Local Global Health Competency-Based Objectives

PATIENT CARE
Demonstrate competence in providing comprehensive, affordable, culturally effective health care services to patients from a variety of cultural and socioeconomic backgrounds. • Perform essential components of a history and physical examination for children with immigrant or refugee status (including utilization of trauma-informed care) and identify unique considerations for providing a medical home for these children, such as language and cultural barriers, and a differential diagnosis that reflects understanding of epidemiology based on a patient's country of origin. • Reflect on and describe how fragmented family units contribute to health and illness, particularly in relation to immigrant and refugee children and adoptees that are separated from their biological parents and explore pertinent questions regarding primary caretakers and relationships among those who form the family unit. • Demonstrate willingness to adapt clinical practice to acknowledge the patient's and family's culture, values, and view of the world and to team with community organizations in advocating for a successful integration of patients and families in the society, with better educational attainment, and better health outcomes. • Create efficient and cost-effective diagnostic and management plans in light of a patient's financial capabilities, insurance, availability of transportation, and access to health care services. • Explain essential components of a comprehensive evaluation of a child/youth traveling internationally, including evidence-based preparatory guidance to traveling patients and diagnosis and treatment of conditions acquired during travel.
MEDICAL KNOWLEDGE
Demonstrate knowledge of established and evolving biomedical, epidemiological, cultural, and psychosocial information as it pertains to patients from a variety of cultures and socioeconomic backgrounds. • Demonstrate knowledge of the social, economic, and political factors that influence patients' burden of disease, access to care, and health outcomes. • Identify the potential contributions of social sciences to clinical care: housing, immigration status, limited access to insurance and health care, language and literacy barriers leading to misunderstanding of treatment, disruptions in medical care created by mistrust between patients and physicians, race and poverty and their impact on morbidity and mortality, and environmental regulations. • Identify the major obstacles to achieving optimal health outcomes for patients, including poverty, fear and stigma, high mobility, limited English proficiency, lack of information or misunderstanding about how the U.S. health care system works, and lack of insurance and/or access to care. • Describe the specific health needs, necessary health screenings, and mental health problems of vulnerable children who are immigrants, refugees, internally displaced, or orphans, based on their country of origin and their travel itinerary. Understand the process that a refugee goes through in relocating to the United States. • Discuss the impact of victimizing activities such as trafficking, child labor, political conflict, and warfare. • Explain the impact of culture and diversity (religious, sexual orientation, ethnic minorities) on health care receipt and delivery and health outcomes. • Explain how poverty influences health, and list resources available to the poor locally and nationally.

INTERPERSONAL AND COMMUNICATION SKILLS
Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; communicate effectively with physicians, other health professionals, community organizations, and health-related agencies. • Display effective communication skills (including both spoken language and nonverbal cues) with patients and families across language and cultural barriers and humility when discussing medical information with families from different cultures, particularly those for whom English is a second language. • Intuitively develop communication strategies, including effective use of an interpreter, appropriate to site and patient needs. • Show interest in understanding the role of community partners and community health resources in identifying and addressing a community's health problems and in working with and learning from other health professionals. • Effectively communicate educational messages and deliver anticipatory guidance to patients and families with limited health literacy and/or across communication barriers.
PROFESSIONALISM
Demonstrate humanism, compassion, integrity, and respect for others based on the characteristics of an empathetic practitioner; demonstrate a sense of duty and accountability to patients, society, and the profession; be able to accept that ambiguity is part of clinical medicine and to recognize the need for and to utilize appropriate resources in dealing with uncertainty. • Demonstrate caring and respectful behavior to patients, families, staff, supervisors, peers, and community partners. • Identify the impact of culture-based gender roles within family and society as it applies to the physician-parent interaction, as well as how the gender of a child may affect health-seeking behaviors and outlook. • Describe common ethical dilemmas that arise in the care of diverse patient populations, particularly those who may face discrimination based on race, religion, ethnicity, sexual orientation, or gender identity. Adhere to ethical principles by showing respect and understanding for cultural and psychosocial beliefs, health and illness experiences, and perceptions. • Reflect on and describe personal biases that may affect decision-making when caring for diverse and vulnerable populations and develop strategies to avoid them. • Anticipate ambiguity and uncertainty when working with under-resourced populations.
PRACTICE-BASED LEARNING AND IMPROVEMENT
Identify strengths, deficiencies, and limits in one's knowledge and expertise. • Reflect on individual patient encounters to thoughtfully address strategies to strengthen health systems. Work collaboratively with health care team members and community partners to improve patient care practices. • Enhance awareness of and sensitivity to the diversity of cultures, languages and health beliefs of patients with diverse cultural and socioeconomic backgrounds. • Communicate (attitude, behavior) an openness to different cultures. • Adapt clinical practice to acknowledge a patient's and family's culture. • Demonstrate commitment to professional development aimed at acquiring new cultural competence knowledge and skills.
SYSTEMS-BASED PRACTICE
Demonstrate an understanding of the larger health care system and utilize available community resources to provide optimal care; advocate for high-quality patient care and optimal care systems.
• Identify the multiple barriers that immigrants and refugees encounter when accessing health care systems in the United States. Demonstrate knowledge of policies affecting immigrant and refugee care. • Describe the interplay between culture and health, including reasons for the use of alternative or traditional medicine, atypical therapies, and delays in seeking care. Recognize traditions

and practices of cultural groups in your area of practice as they relate to health practices and health outcomes.

- Describe the impact of the patient's social environment in identifying causes and distribution of disease and in designing solutions for health care problems.
- Provide family-centered and culturally appropriate care, addressing stigma and social concerns when developing patient plans of care, including transportation and cost of medication regimens.
- Ensure the right to respectful and nondiscriminatory care. Display understanding and sensitivity about a patient's unique environment, including family relationships, financial needs, and cultural background.
- Advocate for patients and their families by helping them navigate the health care system, legal system, and available community resources to improve health outcomes.
- Describe the pediatrician's role and influence in community outreach, school-based health, cross-cultural experiences, and involvement/support of government funded programs for the underserved.

CHAPTER 4

Going Global: Training Program Preparation

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KEY POINTS

- Training programs that offer GH electives need to ensure that a minimum infrastructure is in place to support an ethically sound, safe training experience with appropriate pre-departure, on-site, and post-return support. A comprehensive checklist and programmatic recommendations are provided in this section.
- Identifying safe, ethically sound elective options for trainees is difficult and will likely require departmental investment in the development of training partnerships and/or trainee investment in elective fees.
- Debriefing and evaluation are important components of the GH elective that are frequently overlooked; suggestions for both are offered.

GH electives are frequently requested by trainees and have the potential to serve as both a capstone and a transformative experience for trainees with GH interests. However, they also require a great deal of preparation, consideration, oversight, and investment on the part of the trainee, the training program, the institution, and the host partner. The purpose of this section is to provide a summary of the minimum infrastructure recommended for training programs to offer GH electives. Chapter 5 will summarize the fundamental components for trainee preparation for GH electives.

For the purposes of this chapter, the authors define a GH elective as one that occurs in a setting with relative resource limitations (compared with a trainee's home institution), either internationally or domestically outside of the trainee's usual setting (eg, an Indian Health Services clinic). This chapter does not sufficiently cover recommendations for trainees who are pursuing electives in other high-resource but culturally different settings (eg, an elective at a European tertiary care hospital), although many principles covered here can be used for those experiences. The recommendations provided are applicable to the typical duration of GH electives (4-8 weeks); longer experiences require additional consideration that are outside of the scope of this guide, although many of the same principles apply.

Notably, the ideal duration of a GH elective is unclear, but for multiple reasons the authors suggest a minimum of 4 weeks and longer if feasible, while recognizing the time constraints inherent to pediatric training. This suggestion stems from the following logic:

- A minimum of 4 weeks has previously been recommended by GH education leaders in the pediatric community;[31]
- Trainees demonstrate a learning curve that improves proportionately with time on-site, particularly pertaining to patient care efficiency;[32]
- There are emerging opinions from host institutions that GH electives less than 4 weeks are insufficient and do not allow visitors time to acclimate and become contributing members of the team;[33,34]
- Although it has not been studied, anecdotal evidence suggests that trainees struggle most with culture shock during the first 1 to 3 weeks of their elective, thereby placing them at risk for needing to leave at the peak of their frustration/culture shock if their elective is less than 4 weeks;
- GH electives are associated with high costs of travel, making short trips less cost-effective;
- Particularly for trainees rotating at partnership sites, there are often projects (community-based, advocacy, research, or other) that are initiated or continued as part of the sustained institutional collaborations. In order to contribute to such projects, a trainee usually needs to have at least 4 weeks on-site.

GH Elective Site: Easier Said Than Done

The authors recognize that this guide would be especially useful if there were a list of GH elective sites that offered free, supervised, safe, short-term training opportunities. However, that sort of list is not feasible for many reasons, which include but are not limited to the following:

- Visiting trainees utilize host resources and time due to multiple factors, including housing, orientation, supervision, language barriers, differences in clinical practice, clinical resource utilization, and the trainee's obligate (and sometimes difficult) process of adjusting to the new setting. Those are a few of the many reasons why host institutions cannot open their doors to all visiting trainees.
- There is very little direct benefit to the host institutions who accommodate short-term visiting trainees, unless it is part of a larger partnership agreement that offers bidirectionality or other incentives (such as academic collaboration, elective fees, donations, etc).
- Training programs that do offer GH electives at partnership sites are hesitant to advertise the opportunities to other training programs because (1) their institutions are investing significant resources to ensure that the partnership is mutually beneficial; (2) they usually have a careful preparation process to best support their trainees and minimize the host burden (and they cannot ensure that other training programs will provide similar preparation); (3) there is usually not enough capacity at the host site to support multiple visitors; and (4) few institutions have the administrative infrastructure to coordinate logistical support (scheduling, pre-departure training, on-site support, and post-return debriefing) for trainees outside of their institutions.

In short, if an institution is seeking GH electives to offer to trainees, there are currently three options:

1. Develop and sustain a partnership with a host institution to support short-term electives for trainees under an agreement that is mutually beneficial for both institutions.
   - Partnerships require significant investments of time, resources, and ongoing communication and evaluation from both institutions.
   - Partnership agreements (memoranda of understanding) vary based on the goals and needs of both institutions. An example is offered in Appendix Y.
   - For more information on bidirectional partnerships, refer to Chapter 10.
   - For an overview regarding principles of global partnerships and best practices for global partnerships, refer to Steenhoff et al, *Pediatrics*, 2017.[46]
2. Develop and sustain a stateside partnership with a program that has an ongoing global partnership and create a mutually beneficial plan to engage trainees in global health electives through the training partnership.
3. Seek an opportunity from organizations that offer GH electives that are associated with fees to support the host institutions (examples in Appendix M).
   - Fees can range significantly, from $100 to $1,000 per week, so investigation into the fee structure is necessary.
   - These opportunities require careful vetting to ensure that there are appropriate experiences and supervision for visiting trainees.

Determining partnerships appropriate for GH electives can be daunting for faculty without prior GH experience, as many relationships are initially formed through existing institutional or personal contacts.[35] A needs and assets assessment can be helpful to define successful relationships. Expectations of both the host and home institutions should be clearly stated, and appropriate supervision should be available for the duration of the trainee's elective.[36] Assessing a cost-benefit ratio to the trainees, program, host institution, and the patient population will help guide the choice of a partnership and elective site.

A comprehensive checklist of considerations for GH electives is offered in Table 7 to help guide the process of choosing a GH elective and/or training partnership for both trainees and program directors. Please refer to that checklist throughout Chapters 4 and 5. An additional checklist for bidirectional partnerships is offered in Chapter 10.

Table 7: Checklist of Considerations for Program Directors and Trainees Pertaining to GH Electives and Partnerships *(Note: This list is not exhaustive and will vary based on the type of elective and nature of the partnership.)*

HOME INSTITUTION & TRAINEE CONSIDERATIONS	
Home institution	☐ Review the Working Group on Ethics Guidelines for Global Health Training (WEIGHT) guidelines for institutions engaging in GH electives[36] ☐ Trainee application/screening process ☐ Site safety assessment (local contacts, State Department Travel Advisories) ☐ Trainee salary support +/- travel stipend ☐ Trainee malpractice insurance coverage ☐ Trainee disability insurance coverage ☐ Trainee emergency contact information ☐ Occupational exposures guidelines for trainees on GH electives (example in Appendix G; also consider host institution-specific occupational exposure guidelines) ☐ 24/7 emergency access line for trainees on GH electives (many home institutions have GH elective phone triage guidelines for access points such as their emergency department, patient intake line, call center, paging operator, etc.) ☐ Program Letter of Agreement/Memorandum of Understanding (Appendix Y) and consideration of a bidirectional training partnership (Chapter 10) ☐ Consider developing institution-specific: risk reduction agreements, photography guidelines, donation guidelines, social media and professionalism guidelines (refer to appendices for examples; when possible, develop in collaboration with global partners) ☐ Preparation mentorship & curriculum ☐ On-site support mechanisms ☐ Debriefing process
Trainee	☐ Review the Working Group on Ethics Guidelines for Global Health Training (WEIGHT) guidelines for trainees engaging in GH electives[36] ☐ Start planning >1 year in advance (refer to sample planning timeline and checklist in Appendix Q) ☐ Develop learning objectives pertinent to the global experience (and review with home and host institutions prior to departure) ☐ Site safety assessment (local contacts, State Department Travel Advisories) ☐ Application (institution-specific) & identification of personal goals and objectives ☐ Passport (that will not expire within 6 months of return travel) and with a minimum of 4 blank pages ☐ Visa, if applicable ☐ Enroll in State Department Smart Traveler Enrollment Program ☐ Emergency identification card ☐ Pertinent phone numbers (in-country and home institution) ☐ In-country communication plans (eg, international calling plan; local cell phone; SIM card; etc.) ☐ Medical licensure in-country, when applicable

	☐ Travel clinic (vaccines, malaria prophylaxis, post-exposure prophylaxis, health self-assessment, etc.) and review of CDC country-specific guidelines ☐ Medical & evacuation insurance while away ☐ Packing list (refer to Appendix N for a template)/logistical preparation/travel coordination ☐ Participation in preparation mentorship and curriculum ☐ Site-specific preparation (cultural, legal, ethical, language, and clinical; when possible, meet with people who have lived and/or worked in the destination country) ☐ Participation in a debriefing meeting with faculty mentor ☐ Post-return presentation if applicable ☐ Post-return evaluation with occupational health (including tuberculosis test)
ELECTIVE SITE CONSIDERATIONS	
Safety	☐ State Department Travel Warnings or other alerts ☐ Site-specific safety considerations (eg, frequency of safety issues, access to security services if needed, safety of transportation services)
Health	☐ Assessment of potential health risks, including but not limited to: malaria, occupational exposures, travel-related accidents, climate considerations ☐ Site-specific health policies (eg, occupational exposure guidelines) ☐ Access to healthcare for routine health issues or emergencies ☐ Access to safe food and water
Language	☐ Languages spoken at the site ☐ Access to interpreters, if applicable (important to avoid using local providers as interpreters, as it detracts from their work)
Culture & Law	☐ Local cultural, religious and legal factors that may influence specific populations, including women and LGBTQ visiting trainees ☐ Dress code and culturally appropriate dress considerations
Ethics	☐ Supervision for the visiting trainee ☐ Sustainability plan for patients and institutional interventions ☐ Donation guidelines for the visiting trainee ☐ Professional boundaries with visitor/local relationships ☐ Avoidance of imposition of religious/faith preferences
Travel	☐ Visa requirements ☐ Ease of travel to elective site (and cost of travel) ☐ In-country transportation options and safety
Costs	☐ Elective fees and/or donation requests
Housing	☐ Housing logistics (location, safety, etc.) ☐ Amenities (running water, electricity, internet, etc.)
Food	☐ Access to grocery store or other local sources of food ☐ Food options at hospital and at housing
On-Site staffing & supervision	☐ On-site preceptorship (for duration of GH elective) ☐ Overall staffing (patient volume, nurse:patient ratios, etc.)
Clinical	☐ Specific skills or competencies needed to rotate at site ☐ Expectations of the visiting trainee (patient load, caring for children and/or adults, training level at which the visitor will be functioning, hours, call, procedures, access to mentor/attending, etc.) ☐ Overview of clinical resources (pharmacy, laboratory, radiology, supplies, intensive care unit, consultants, etc.) ☐ Overview of reference materials (textbooks, manuals, online clinical resources, local protocols, etc.) ☐ Consider maintenance of a patient log
Projects or research	☐ Engage host institution stakeholders in project development, implementation, interpretation, and dissemination of results, including co-authorship

	☐ On-site review and approval at early stage, including IRB when pertinent, for any projects or research that will be performed during the elective ☐ Home institution IRB approval, when applicable
Communi-cation	☐ Trainee access to phone, internet services ☐ Communication/professionalism guidelines for trainee (pertaining to social media, photography, etc.) ☐ Communication plan with home mentor and on-site mentor/supervisor ☐ Communication options between on-site supervisor and home mentor ☐ Pre-return trainee debriefing with on-site supervisor
Partnership	☐ In-country partner who expresses interest in and commitment to a sustained partnership ☐ Approval from the in-country program director and departmental chair, when applicable ☐ Mutually beneficial partnership agreement ☐ Administrative infrastructure to support logistical coordination for the elective and/or larger partnership
Evaluation	☐ On-site competency-based objectives pertinent to the GH elective ☐ Trainee assessment (for on-site supervisor to complete, refer to Chapter 6) ☐ Assessment of value of the program to the host institution ☐ Elective site evaluation (for trainee to complete, refer to Chapter 6)

Home Institution Considerations Prior to Offering GH Electives

Prior to offering GH electives to trainees, authors recommend that home institutions have the following minimum infrastructure in place for the trainee before and during the GH elective:

- ✓ Salary support
- ✓ Malpractice and disability insurance coverage
- ✓ Review process for the elective site (safety, supervision, etc.; refer to Table 7)
- ✓ Trainee application/screening process that reviews goals and objectives
- ✓ Program Letter of Agreement with host institution that outlines supervisory plans for the visiting trainee (and a Memorandum of Understanding with the host institution if part of a larger partnership)
- ✓ Safety guidelines and emergency protocols (including communication plans)
- ✓ Pre-travel health assessments (eg, travel clinic) and on-site health protocols (eg, occupational exposure guidelines)
- ✓ Pre-departure training that at minimum includes: travel logistics, health, safety, culture shock, site-specific mentorship, professionalism, and ethics
- ✓ On-site support, communication & supervision
- ✓ Debriefing & evaluation processes
- ✓ Post-travel health assessment

Salary Support, Malpractice and Disability Insurance Coverage

The ability to provide salary support and coverage for malpractice and disability insurance during GH electives varies by institution, for a variety of reasons that are beyond the scope of this guide. The authors strongly encourage training programs to ensure that their malpractice and disability insurance policies provide coverage for trainees engaged in off-site electives, including international locations. This may require close communication with the graduate medical education office to navigate coverage options. The author team does not have a list of vendors that provide short-term malpractice or disability coverage for trainees on GH electives. The decision whether to pursue a GH elective when salary and/or insurance support is absent is at the discretion of the trainee, the residency program, and the graduate medical education office. Notably, ensuring salary support for trainees on GH electives may require advocacy with the home institution and its department of pediatrics. Advocacy tools have been offered in the literature to assist educators in recruiting resources for GH education.[37]

Program Letter of Agreement/Memorandum of Understanding

A program letter of agreement (PLA) and a memorandum of understanding (MOU) are useful tools to lay out mutually agreed upon terms for training and institutional partnerships. A PLA is recommended by the ACGME for trainee off-site electives. A PLA is not intended to be a legal document but is instead an educational agreement that does the following: [38]

- ✓ Identifies the faculty members who will assume both educational and supervisory responsibilities for trainees
- ✓ Specifies these faculty members' responsibilities for the teaching, supervision, and formal assessment of trainees
- ✓ Specifies the duration and content of the educational experience
- ✓ States the policies and procedures that will govern trainee education during the assignment.

If there are additional details that are pertinent to the nature of a training partnership, then institutions may opt for a memorandum of understanding or a contract that outlines the expectations of the partners (eg, who pays for the visiting trainee, who provides malpractice insurance coverage, etc). Additional details can be added depending on the nature of the partnership. An example of an MOU for a bidirectional training partnership is provided in Appendix Y. MOUs and PLAs are institution-specific and should be developed in collaboration with the Risk Management office, graduate medical office, GH educators, host institutions, and other pertinent parties.

Safety Considerations

International travel involves an inherent increase in safety risks, particularly pertaining to physical illness and injury and psychological trauma. According to Galvin et al, the risk of having any type of illness during international travel approaches 50%. The leading causes of mortality during GH electives are motor vehicle crashes and drownings.[39] The Galvin report provides prevention strategies for global medical education programs that are summarized in Figure 3. Many institutions address safety concerns through pre-departure education, on-site safety recommendations, and requirement of the purchase of supplemental evacuation insurance (Appendix E). Additionally, some institutions request that trainees review and sign a "Risk Reduction Agreement" prior to their GH electives and review safety concerns with the host supervisor upon arrival. Because motor vehicle and motorcycle crashes are the leading cause of morbidity and mortality for travelers, many institutions either forbid or strongly discourage trainees from driving themselves (and instead suggest hiring in-country drivers who are familiar with local traffic customs and terrain and avoiding motorcycles as modes of transport).

An example of a risk reduction agreement can be found in Appendix F.

Figure 3: Safety recommendations during GH electives. This figure was designed by the author team, but the content was derived from Galvin et al, 2012, and represents their recommendations for trainee safety strategies with a few additions.

Health Considerations

Trainees should be strongly encouraged to consider any personal health issues prior to travel, as exacerbations of underlying physical or mental health issues are common during travel.

Appendix H offers an example of a health self-assessment form for trainees to consider bringing to their pre-travel health care appointments at either a travel clinic or with their primary care physician.

Trainees should obtain the following at their pre-travel health care visits:

- ✓ Destination-specific health information (refer to CDC travel medicine guidelines)
- ✓ Vaccines pertinent to the destination site (refer to CDC travel medicine guidelines)
- ✓ Malaria prophylaxis, if applicable (refer to CDC travel medicine guidelines), and guidance on strategies to avoid mosquito bites (netting, repellent, etc)
- ✓ Standard travel prescriptions (refer to CDC travel medicine guidelines)
- ✓ Occupational exposure guidelines and HIV post-exposure prophylaxis prescription. **Refer to Appendix G for an example of GH elective post-exposure prophylaxis guidelines that can be**

adapted to meet specific institutional needs.[40] Some host institutions may have their own occupational exposure guidelines that can be reviewed by the home institution to ensure that appropriate resources and recommendations are in place for trainees.

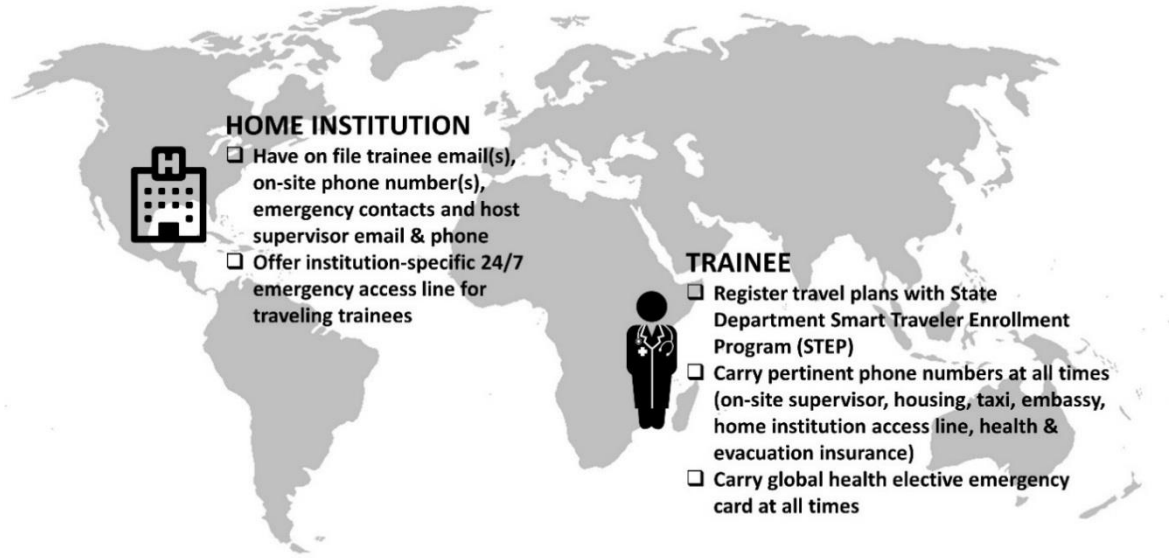
- ✓ Guidance pertaining to prevention and management of hemorrhagic fevers if traveling to an endemic region
- ✓ Anticipatory guidance about staying healthy while traveling (peeling fruits, not using ice, what to do if diarrhea develops, avoiding risk-taking behaviors, avoiding substance abuse, etc).

Additionally, trainees are encouraged to discuss potential health concerns with their host institution prior to departure to ensure that they bring appropriate supplies. Pregnancy in particular is an important consideration for female and male trainees, and travel plans should be carefully considered based on stage of pregnancy, future plans for pregnancy, destination (eg, regions of Zika risk or where malaria is endemic), access to emergency health care services at the elective site, and personal/family concerns.

Emergency Considerations

Trainees are susceptible to a number of emergencies during their travel, including political unrest, natural disasters, motor vehicle accidents, and many more. Programs are encouraged to establish emergency safety nets and clear options for communication with trainees abroad as outlined in Figure 4. Some institutions provide phones for trainees to use during electives to ensure ease of communication. Additionally, the authors recommend that trainees purchase evacuation insurance if not already covered under their health insurance policies. Details regarding this and additional coverage options are provided in Appendix E.

Figure 4: Emergency Communication Safety Nets



An example of a Global Health elective emergency card can be found in Appendix E.

Pre-Departure Training

The authors strongly recommend that programs offer pre-departure training prior to GH electives, either through their own institution or by referring trainees to free online training materials. At minimum, such training should cover logistical, health, safety, ethical, professional, and cultural considerations pertinent to working at the destination site and specific to the host population and resources. More details regarding pre-departure training components and resources are provided in Chapter 5.

Supervision During GH Electives

Supervisory arrangements for the visiting trainee should be outlined in the institutional program letter of agreement and should provide detail from the host site regarding which provider(s) will be available as supervisors for the duration of the elective. When determining oversight plans for GH electives, program directors must be aware of the following:

- It is not uncommon for providers in low-resource settings to maintain both private and public employment and thus be present at one clinical setting in the morning and a different setting in the afternoon. If, for example, a trainee will be working in a public hospital, it is important to determine who is available for preceptorship during the entire time that the trainee is at the facility, including any times that the primary supervisor may be absent.
- It is not uncommon for hospitals in low-resource settings to be staffed primarily by medical officers. These are physicians who enter into clinical practice directly after medical school and 1 to 2 years of internship but do not specialize via specific residency training programs. In those settings, pediatricians usually serve as consultants, with rounding models and in-hospital presence that vary based on the clinical setting. It is not uncommon for visiting trainees to work primarily alongside the medical officers (or clinical officers, who are similar to mid-level providers), as opposed to the pediatricians. Although the on-site officers have superior experience with local practice and care guidelines, there may at times be a mismatch in pediatric-specific knowledge and practices. It is important to determine, prior to the elective, a chain of oversight for the visiting trainee if/when any clinical differences of opinion or concerns arise.

- It is not uncommon for tertiary facilities in low-resource settings to be staffed with only one pediatrician at a time, often while balancing multiple competing activities (teaching, research, administration, etc).
- Training programs are encouraged to create a plan for the visiting trainee if the identified preceptorship for the elective has an unexpected absence. This will vary by institution, but the authors strongly discourage training programs from allowing an elective to continue if an on-site provider is not available to facilitate mentorship, given that practice paradigms, diagnoses, and resources can be distinctly different from those in-home settings.
- Remuneration agreements for host supervisors vary based on pre-existing partnership agreements and host institution policies. There is not a unified approach to remuneration across institutions, but it is important to engage in discussions regarding support of host supervisors, as significant time is invested in coordinating electives and hosting visiting trainees.
- Requirements for what credentials are necessary for on-site supervisors are determined by the trainee's institution (eg, MD versus pediatric-trained versus advanced practice provider [APP]). The authors recommend that, at minimum, an MD should be identified for preceptorship, unless in a low-acuity, community-based setting where an APP could be appropriate. In high-acuity settings (such as a PICU or hospital ward), the authors recommend that someone with pediatric-specific training at least be available for consultation when needed for complicated cases.

In some instances, trainees travel with supervisors from their home institution, and those supervisors accompany them for part or all of their elective. When those supervisors already have experience working at the host site, this can be greatly beneficial to the trainee and partnership, as it allows the visiting supervisor to assist with trainee orientation and onboarding and promotes ongoing faculty-level communication and collaboration.

Projects During GH Electives

Some training programs have a scholarly project requirement during GH electives. Recently, the University of Minnesota conducted a review of the 67 GH track resident projects that occurred over a period of 10 years and included efforts related to quality improvement (42%), education (27%), clinical research (21%), and service projects (7%).[41] In addition to addressing the ACGME requirement that residents participate in a scholarly activity, these projects offer trainees an opportunity to collaborate cross-culturally, develop skills in different areas of scholarship (eg, project development, implementation, evaluation, and/or dissemination) and identify a focus area for their elective experience.

Scholarly projects can be widely variable in scope. Invariably, priority must be placed on ethical integrity during the processes of planning, implementation, and dissemination, and projects should ideally engage host institution personnel as co-leaders whenever feasible. Of particular importance are the principles of beneficence – ie, ensuring that projects are able to provide substantial benefit to the participants involved. Additionally, visiting trainee projects should not impose on projects or mentorship that are needed for local trainees. In light of these priorities, it can understandably be argued that less than 4 weeks is an insufficient amount of time to engage trainees in a scholarly project, particularly as they are navigating new systems and likely experiencing culture shock.

Additionally, it is of the utmost importance that there is ample time preceding the intended time of project implementation to communicate sufficiently with the host institution to determine a mutually beneficial project proposal that would be mentored, sustainable, approved by all pertinent parties (including home and on-site IRBs, when applicable), and not drain local resources. The time commitment needed to pursue a well-crafted and executed project cannot be minimized, as there are myriad additional steps (and probable delays) compared to those associated with U.S.-based scholarly projects. Some of these include in-depth conversations with host country partners about local needs and priorities, which may also include conducting a formal needs and assets assessment to help guide project ideas. Even if a project idea is developed prior to the elective (often informed by communication with the host institution and/or with trainees who visited the site previously), the project frequently changes once the trainee is on-site and has an opportunity to perform a more thorough needs assessment.

Once a project idea is created, considerable time needs to be invested into the development of a rigorous project proposal for initial review by both partners. This proposal can serve as a baseline document for IRB determination of projects involving human subjects research that need formal IRB review. A standard template for a proposal should at minimum include the following elements (with additional components at the discretion of the host supervisor):

- **Objectives, background, hypothesis, significance, methods**
- **Timeline**: What is a *realistic* estimate of the time needed to carry out every step of the project? (This can be done with the project advisor to review the trainee's clinical commitment.)
- **Additional resources and identified funding**
- **Contingency plan**: Of particular importance, this is a secondary plan for achieving project objectives and/or an alternative project plan, given the tenuous nature of funding, personnel, and infrastructure that may be available in global, low-resource settings.
- **Dissemination**: Trainees should be required to not only present results to their U.S.-based institution but also to identify a venue or manner in which they will share with host country partners and discuss how host partners will be engaged in the project and may use the results to benefit the involved community. Trainees should engage host institution partners in co-authorship whenever applicable, and authorship criteria should be discussed in advance of the project.

Author experience suggests that if scholarly projects are required during GH electives, they are most successful with advance planning of at least a year. Many institutions require extended timelines for IRB reviews, have lower thresholds for requiring IRB review, require IRB fees, and have different review structures (eg, national review as opposed to institutional review). Projects are best conducted under the auspices of sustained institutional partnerships, where trainee presence is more consistent, there is a trusting relationship between institutions, there is a higher likelihood of on-site collaborators, and where trainees can hand off projects to future visiting trainees and/or on-site colleagues to ensure sustainability. Careful monitoring and ongoing communication with the host institution is necessary to ensure that the projects are ethically sound and mutually beneficial.

It is also important to note that time for project dissemination, not solely implementation, should be carefully articulated. It is advisable that issues regarding authorship, travel award beneficiaries, and any other personal "benefits" of project dissemination be discussed as early as possible in the process. All pertinent parties, including personnel from the host institution who were actively engaged in the project, should be involved in analysis of findings, co-authorship, and dissemination of findings in presentations, abstracts, and/or manuscripts. Table 8 offers opportunities for scholarly dissemination of GH elective project results.

"Overall, this elective provided an opportunity for me to see what clinical care and public health efforts can look like in a limited resource setting with cultural barriers to allopathic medicine, yet in my own language. When I engage in Global Health in the future I will take this example as a benchmark for quality care. I am grateful for the experience; it was an excellent learning opportunity."
~ Leah Phillippi, MD, MPH

Table 8: Opportunities for Scholarly Dissemination of Projects Completed During GH Electives

APPROXIMATE ABSTRACT SUBMISSION DEADLINE	CONFERENCE
September	Consortium of Universities of Global Health (CUGH)
October	Global Health and Innovation Conference (Unite for Sight GHIC)
January	Pediatric Academic Societies (PAS) Association for Pediatric Program Directors (APPD) Academic Pediatric Association Global Health Special Interest Group
February	American Public Health Association (APHA)
April	American Academy of Pediatrics (AAP) National Conference and Exhibition Section on International Child Health H Program American Society for Tropical Medicine and Hygiene (ASTMH)
Variable	International pediatric or multi-specialty conferences (particularly for organizations affiliated with the host country)

Ethical Concerns During GH Electives

Working in areas with resource limitations, particularly where patient morbidity and mortality can be high and trainee emotions may be labile, involves a heightened risk of ethical concerns related to the trainee's presence and interventions. These include but are not limited to:

- ***Donations***: Many health systems utilize a pay-for-service model, so trainees encounter scenarios where there are urgent or life-threatening conditions and the patient cannot afford the diagnostic evaluation and/or treatment. Although the knee-jerk response for trainees is often to cover the costs, there are significant downstream effects to direct payment, including unsustainable precedent setting and undermining the local social support infrastructure for the hospital. To best prepare for these scenarios, some institutions provide guidelines for donations for their trainees, an example of which can be found in Appendix K.
- ***Sustainability***: Issues surrounding sustainability of interventions arise frequently with short-term GH work, including whether there are local providers (and resources) to sustain treatment plans that are initiated by the visitor (eg, continuation of antihypertensive medications, monitoring of a condition post-procedure, etc). Partnership with local providers and the local health systems infrastructure, discussion about these items during the pre-trip orientation, and continued communication with the host institution after departure can help to mitigate those concerns.

- ***Scope of expertise***: Although uncommon, there are instances when trainees pursue GH electives for the opportunity to perform procedures or other medical treatments that are outside of their usual scope of practice in the United States. These unethical intentions

should be actively screened for with GH elective application processes, the development of individual trainee goals and objectives, and pre-departure mentorship.

- ***Standards of care***: Trainees may at times experience complacency due to resource limitations and may perceive that the only option is to accept a substandard level of care compared with that in their home institutions. This can be detrimental to health systems and patient care. Accountability to appropriate standards of care can be encouraged through pre-departure expectation setting and careful on-site mentorship.
- ***Respect for faith/religion***: In many instances, the religious beliefs among the patient population during the GH elective are different than those of the visiting trainee. Discussions of the visitor's religious preferences can impose on patient comfort and rights, as patients are in the vulnerable position of requiring medical care regardless of religious status.
- ***Unprofessional relationships with locals***: Many issues can arise when relationships extend beyond standard professional boundaries during the trainee's elective. Examples include engaging in sexual relations or when a local patient, villager, or member of the health care team requests the visiting trainee to extend monetary or other support (eg "sponsor" a visit to the United States or pay for a specific expense).

Crump and colleagues provide helpful analyses pertaining to ethical considerations for GH electives and propose best practices for trainees and institutions that warrant careful review in pre-departure training and mentorship meetings.[36] Additionally, bidirectional training partnerships should be considered if both institutions are seeking exchange opportunities for their trainees (Chapter 10).

On-Site Support

Logistically, it is often difficult to maintain regular communication with trainees during their GH electives — time zone differences, busy schedules, and internet access can all create barriers. Interestingly, though, GH electives have the potential to be the most vulnerable, dangerous, and life-changing months of a trainee's career, which argues for establishing checkpoints to ensure that things are going smoothly. For trainees who participate in an elective that is part of a larger institutional partnership, there are usually established venues for communication as well as safety nets, whereby on-site supervisors can more easily access stateside mentors if there are concerns.

However, this is more difficult in non-partnership GH electives. Program directors may want to consider some of the following communication strategies:

- Schedule phone calls at the beginning, middle, and end of the elective, in addition to providing ongoing emergency access options for trainees to access a stateside faculty mentor (scheduled check-ins and emergency access can be logistically very difficult because of time zone differences and an unpredictable schedule for the trainee)
- Facilitate email communication at the beginning of the elective and at least weekly. Some GH educators provide weekly guided questions for their trainees to promote reflection. Examples from Cincinnati Children's Hospital Medical Center Global Health Education Program are as follows:
    - **Week 1**: Describe initial impressions of your host site, medical setting, or any aspects of host culture that have particularly made an impression on you.
    - **Week 2**: Describe the benefits and challenges you have encountered in your work experience AND/OR describe the benefits and challenges you have encountered in your experience outside of work.

  - **Week 3**: Describe an experience that challenged your perceptions/values/morals or a specific interaction where cultural differences were apparent and left you discouraged. How did you work through this experience?
  - **Week 4/Final week**: Describe your feelings about leaving your site. What are the challenges, what are the joys? AND/OR describe what challenges you anticipate upon arriving home and how you anticipate sharing your experiences with friends/family and colleagues.

- Create a private blog for trainees to utilize to facilitate communication with home mentors and colleagues
- If part of a larger partnership, consider establishing routine collaborative teleconferences, such as morning reports
- When feasible, encourage trainees to schedule meetings with their on-site supervisor at the beginning of the elective (to discuss goals and objectives), middle, and end (for a pre-return debriefing). Trainees should also have full contact information for their host supervisor(s).

Debriefing

When trainees return from their GH electives, they often experience reverse culture shock, which is a complicated reintegration emotional experience in which readjustment to their home setting (both personally and professionally) is difficult. It is not uncommon for them to feel frustrated about the amount of resources that are utilized for clinical care at their home institutions and also to have difficulty communicating about their GH elective experiences to friends, family, and colleagues. The authors recommend that within 2 weeks of their return trainees have a debriefing meeting (minimum of 1 hour) with a faculty mentor who has experience working in GH settings. If an experienced faculty member within the department is not available, consider pursuing mentors from other departments for assistance. Additionally, many helpful debriefing resources exist, including online guides and service learning reflection toolkits.[42,43]

"My clinical experience of working in both a rural clinic and a regional hospital in Uganda was invaluable to expanding my clinical knowledge and ability to provide care to critically ill children with minimal and inconsistent resources. Locally, I worked with a refugee organization, Pan-African Community Association, to develop a pediatric health education curriculum for community health promoters to improve pediatric health literacy in the local refugee population. The skills I have gained from working both locally and internationally have expanded my clinical skills and knowledge especially of typical tropical diseases as well as atypical or late presentation of more common diseases, such as cancer or sepsis. I also gained skills as a clinical instructor by teaching both basic exam and neonatal resuscitation skills which I plan on continuing in the future."

~ Vanessa Thomas, MD

The authors also recommend that returning trainees set up similar debriefing meetings with close family and friends because the typical circumstances of responding to a "How was your trip?" question in a hurried setting will not be sufficient for them to process the often complicated and complex experiences that they had during their electives.

Although it is important for the debriefing meeting to feel like a safe, informal, and open venue for the trainee, some GH educators also find benefit in providing guiding questions during the meeting. Such questions include but are not limited to the following:

- Describe two patient stories or interactions that resonated with you.
- Reflect on two cultural or interpersonal interactions that had an impact on you.
- How has the transition back to your home institution been going?

- Using a few cases, describe some of the differences between clinical practice at the elective site compared with your home institution.
- Many trainees who have shared similar experiences had an adjustment period when they returned from their GH elective. Have you experienced any of the following (eg, sadness, frustration, irritability, sleep disturbance, hypervigilance, difficulty concentrating, etc)? In what settings did these occur? How are you working through those feelings?

Additionally, some GH educators encourage trainees to respond to reflection questions during their elective (eg, weekly) and/or to write a reflective essay upon their return. Examples of post-return guided essay questions, provided by Cincinnati Children's Hospital Medical Center, include:

- How has your participation in a GH elective affected your career decisions, if at all, and how?
- How did your experience impact your approach to or thoughts on providing care to families in the United States?

The debriefing meeting is also an important opportunity to remind trainees to complete their evaluations and to schedule an appointment with occupational health if there were any exposures during the elective. Trainees should also have a repeat interferon gamma release assay (eg, QuantiFERON) or PPD test approximately 3 months post-return because of the possibility of TB exposure.

Finally, it is important to find time to debrief with the host supervisor(s) after the trainee's return, both to obtain feedback on the trainee's experience and also to inform modifications for future trainee electives, particularly in the context of training partnerships.

"I am truly thankful to have had this experience. It has demystified the practice of medicine in a developing country, opened my eyes to a new way of living, and helped me to fully grasp the concept of disparity. I think the latter, grasping the concept of disparity, is what has struck me the most. There is not an American counterpart to compare to the degree of poverty that people experience here. Or degree (and frequency) of loss. Or lack of access to food, basic services, and affordable health care. I did not understand disparity until I came here. How could I from the eyes of America? It is like trying to feel cold when you are sitting in a sauna." ~ Anonymous trainee

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Post-Return Presentations

Many trainees provide presentations (eg, morning reports, grand rounds, case conferences, reflection pieces published in a local venue) pertaining to their GH elective experience upon their return. The authors strongly recommend that trainees design their presentation as if members of the host institution were in the audience. Furthermore, it is recommended that they review their presentations first with a GH faculty mentor and if possible also with their host site supervisor or other host site contact (either in person prior to departure or by email), to ensure that photos, descriptions, tone, and case discussions are appropriate, demonstrate cultural humility, and are ethically sound.

Trainee Assessment

Assessment of the trainee during a GH elective is complicated by many factors, most notably because the on-site supervisors are usually in-country physicians who are busy and often unfamiliar with standard milestones-based assessment paradigms. The authors encourage the use of multiple touchpoints for obtaining evaluative data, including stateside faculty interactions with the trainee during preparation and debriefing sessions; on-site communication; trainee self-assessments; abbreviated written assessments from in-country supervisor(s); and, when possible, verbal discussions regarding the trainee's performance with in-country partners. Additional details pertaining to trainee assessment are provided in Chapter 6.

CHOOSE YOUR OWN ADVENTURE: GH ELECTIVE CASE SCENARIOS FOR RESIDENCY PROGRAM DIRECTORS

Included in Appendix P are a number of case scenarios, many of which are based on true situations, to assist program directors as they develop their foundations and policies surrounding GH electives at their institutions. These cases are not intended to provide an exhaustive list of all possible scenarios that trainees may encounter but are instead meant to prompt a critical approach to developing a strong infrastructure for preparation, on-site, and post-return support for GH electives at each institution.

CHAPTER 5

Going Global: Trainee Preparation

Nicole St Clair, MD

KEY POINTS

- There are many considerations for trainee preparation for GH electives, including logistics, personal motivations, safety, health, emergencies, ethics, sustainability, resources, culture, culture shock, language, and professionalism. This chapter offers a "top ten" list to help structure pre-departure preparation and mentorship.
- Culture shock is frequently experienced by trainees during GH electives, and the phenomenon is summarized here in an effort to optimize pre-departure training and on-site mentorship.

The purpose of this chapter is to outline important trainee considerations for GH elective preparation. Chapter 4 provided a summary of the minimum infrastructure necessary for training programs to offer GH electives, whereas this chapter highlights trainee-specific considerations. It should be noted that there is a great deal of overlap, and much of the content of this chapter can be incorporated into pre-departure, on-site, and post-return training and mentorship programs.

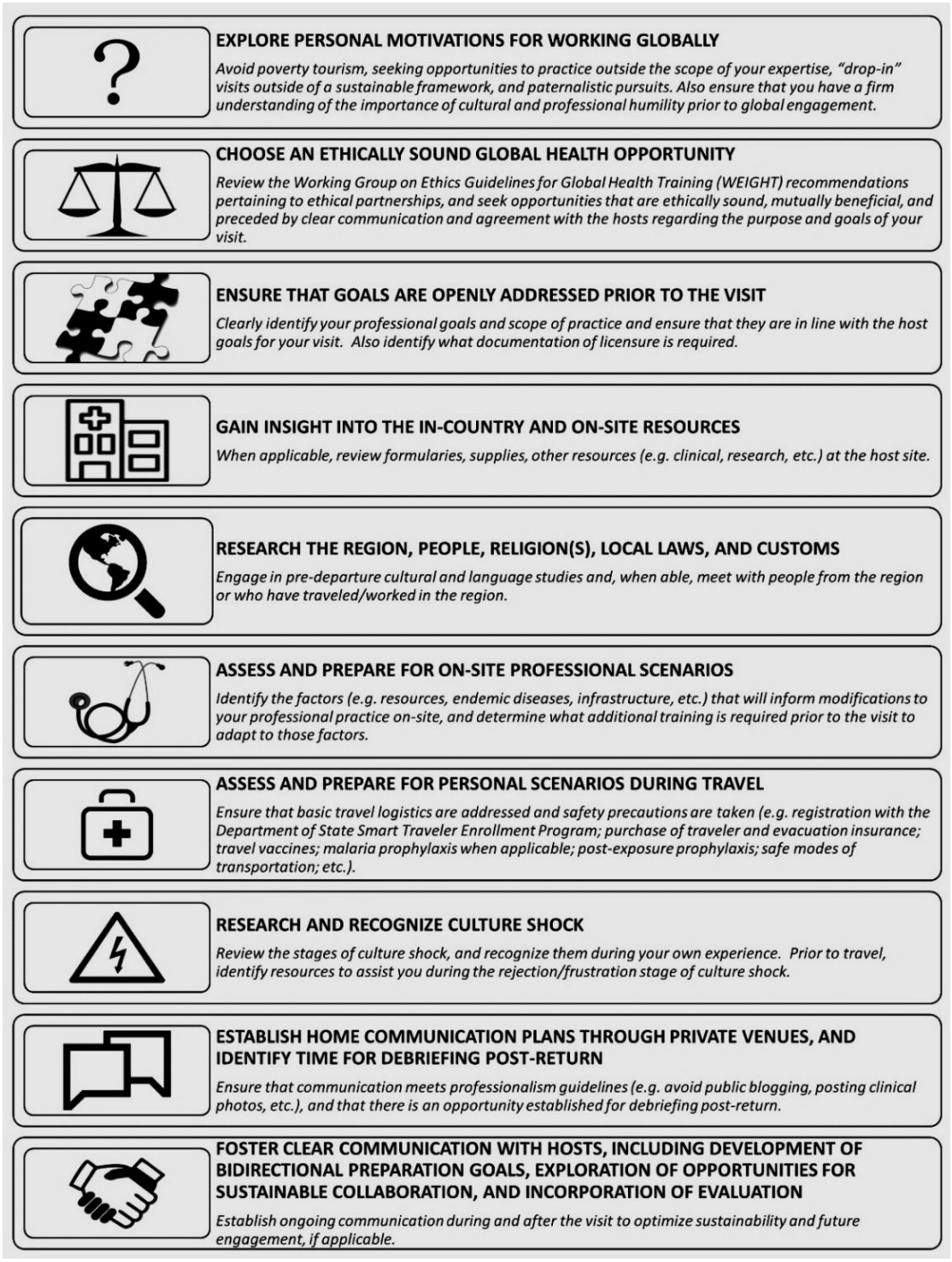
Preparation for short-term GH electives is an evolving field within GH, as the ethical, sustainability, and cultural implications of short-term engagement can be profound. To best prepare trainees for participating in GH electives, the authors suggest developing a mentorship program and curriculum that at minimum address the "top ten" considerations for GH elective preparation (Figure 5).[44]

A more thorough list of best practices that have been proposed in the literature for preparation is included in Appendix O.

Programs that do not have the infrastructure to prepare trainees for GH electives through a combined mentorship and curriculum model may consider publicly available preparation resources, including but not limited to:

- SUGAR PREP: Created by the Midwest Consortium of Global Child Health Educators and Affiliates, this website offers educators free comprehensive preparation curricula through the combination of (1) SUGAR (Simulation Use for Global Away Rotations); (2) PEARLS (Procedural Education for Adaptation to Resource Limited Settings); and (3) S-PACK (SUGAR's Pre-Departure Activities Curricular Kit).
- Global Child Health Educational Modules Project (GCHEMP) "Preparation for Global Health Electives" module and preparation packet and "Culture in Global Health" module (1-hour free online modules designed specifically for pediatric residents)
- Boston University Practitioner's Guide to Global Health (online GH elective preparation training course)

Figure 5: Top Ten Considerations for Short-Term GH Elective Preparation
Source: Content for this list is adapted from St Clair et al, Pediatrics, 2017,[44] and modified into a figure for the purpose of this chapter.



Additional details pertinent to trainee preparation are highlighted in the following sections and can be paired with the institutional considerations outlined in Chapter 4 if a program develops an infrastructure for preparation training.

Trainee Prerequisites for Participation in a GH Elective

Prerequisites are determined by the individual training program and vary depending on the GH elective patient population and preferences of the training institution and the host site. For GH electives where patient volume and acuity are high, the authors suggest that institutions restrict participation to trainees who have completed at least 18 months of training, including experience in the pediatric and neonatal intensive care units prior to participation.[31] The host institution should also have the opportunity to restrict participation based on level of training.

Pre-Travel Trainee Motivations, Goals, and Objectives

Part of the vetting process prior to enrolling a trainee in a GH elective should include an exploration of his or her motivations. A known phenomenon is that of "medical voluntourism," loosely defined as health professionals seeking experiential or altruistic alternatives to traditional vacations for a variety of personal motivations. Understandably, critics argue that the short-term, often voyeuristic nature of medical voluntourism carries with it significant ethical, sustainability, professional, cultural, and patient safety concerns. An additional common motivation for trainees is to have an opportunity to "make a positive difference" during their GH elective, which is almost universally misaligned with reality, as the short-term nature of their elective, in addition to the burden that they place on the local infrastructure, will rarely have a true positive impact on the hosts and host patient population and more often has a positive impact on the trainee. A third, and more dangerous motivation, involves trainees seeking to "practice" procedures that they cannot normally do at their home institution. Those trainees should be discouraged from participation, as the ethical, medicolegal, and patient safety implications of extending their clinical practice outside of their scope of expertise, and with suboptimal supervision, are profound.

It is critical for pre-departure motivations to be explored, examined, and aligned with the realistic constraints of a short-term training experience in an unfamiliar setting. In addition to direct discussions with the trainee about motivations, a helpful resource is to view the 45-minute documentary "First Do No Harm". Additionally, it is important to have the trainee develop a personal list of goals and objectives for a GH elective that they cannot otherwise achieve with a stateside elective; these goals and objectives should be reviewed with the trainee's stateside faculty mentor and the in-country host supervisor(s).

Application for a GH Elective

Application processes vary based on institutional requirements. At minimum, the authors recommend having trainees submit a signed program letter of agreement that specifies a supervisory agreement with a host supervisor for the entirety of the trainee's elective and outlines the trainee's expected roles during the elective. It is also strongly encouraged for training programs to require a formal application that solicits motivations for participation, goals and objectives, and emergency contact information. Through the application process, trainees can also be educated on policies and expectations at the host institution. Trainees should start their planning process at least a year prior to the elective, and a timeline-based checklist is offered in Appendix Q. Programs are encouraged to share trainee application materials with the host institution so that they have access to their goals and objectives and important personal information (eg, training level/allowed scope of practice, emergency contact information, emergency medical insurance, health-related information, etc).

Costs of a GH Elective

Expenses for GH electives can vary widely, usually from $1,000 to $6,000, depending on the location and the associated fees (airfare, housing, visa, medical licensure, in-country transportation,

food, immunizations, medications, evacuation insurance, gifts, donations, elective fees, etc). Few national funding opportunities are available, the most notable being the American Academy of Pediatrics International Travel Grant. Some institutions have the resources to offer stipends to offset the cost of GH electives, but in the majority of cases careful trainee budgetary planning is required.

Safety, Health, and Emergency Considerations

These considerations were thoroughly outlined in Chapter 4, both from an institutional and trainee perspective, and are core components of preparation training.

Special Considerations for Non-U.S. Residents

Non-U.S. residents who are enrolled in training programs on J-1 or other visas may encounter logistical problems associated with their travel plans, and potential issues will vary based on the GH elective destination. This topic is beyond the scope of this guide, but best practices for foreign medical graduates include the following:

- Refer to travel regulations through the State Department and elective site country
- Review any pertinent information in the Exchange Visitor Sponsorship Program travel webpage
- Trainees should carry both their passport and their current DS-2019 during all travel. The DS-2019 must be validated by the Responsible Officer at the Educational Commission for Foreign Medical Graduates (ECFMG) no more than 1 year prior to travel. Only the original DS-2019 is accepted upon re-entry into the United States.
- Trainees should communicate closely with their Graduate Medical Education Office regarding any travel plans.

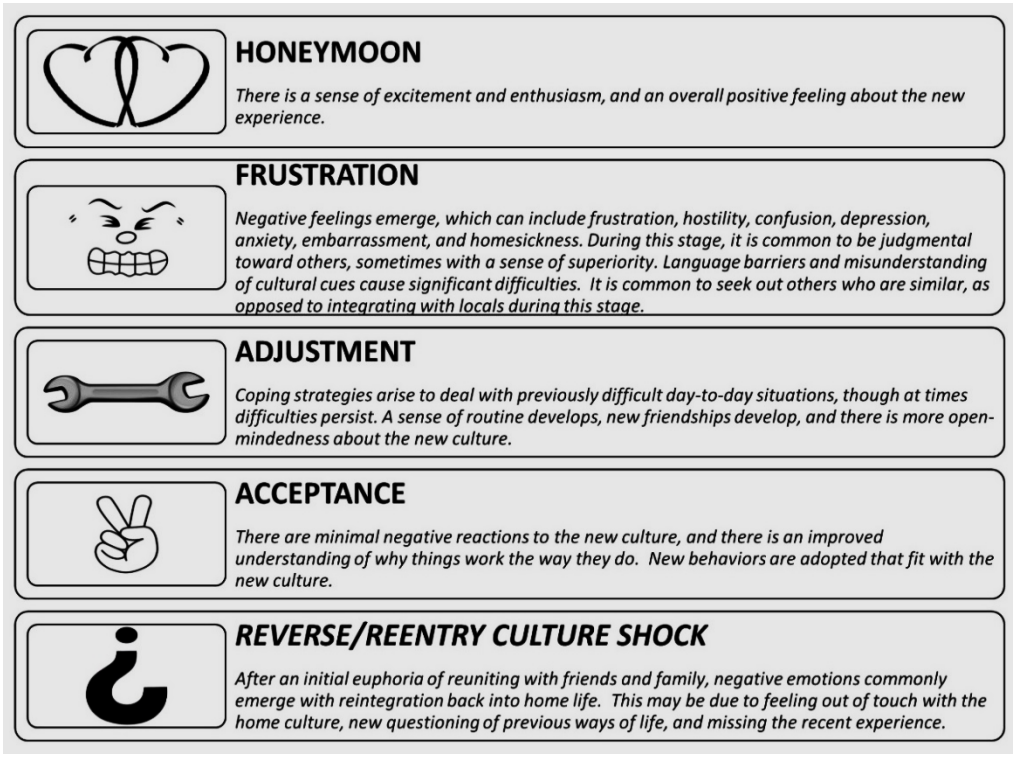
Culture Shock and its Impact on Trainee Experience and Professionalism

The intensity of the immersive experience of GH electives can result in highly charged emotional responses from trainees, including but not limited to: critical judgments about local practice methodologies; frustration about resource limitations or perceived slower pace of clinical care; anger about higher levels of acuity and mortality; frustration about different professional standards; and feelings of helplessness in difficult clinical situations. Many of these emotions are closely linked with the phenomenon of culture shock, which entails a fairly predictable, stage-like process of adapting to a new environment (Figure 6). The "frustration" stage of culture shock is associated with the greatest risk of visiting trainees displaying unprofessional behavior, which can be manifested in judgment, criticism, and negative behaviors. In addition to the professionalism concerns surrounding the on-site behavior of trainees during this difficult transition period, there are also concerns pertaining to their communication methods with friends and family, particularly with regard to the use of social media and photography.

- ***Social media***: Trainees frequently document their experiences through the use of a blog, email, Instagram, Facebook, and other outlets. During the frustration stage of culture shock, it is not uncommon for them to utilize judgment terms such as "primitive" when referencing medical care with resource limitations — likely without recognizing the impact of such statements on the host institution, host government/Ministry of Health, providers, and patient population.
- ***Photography***: Trainees frequently forget about patient privacy guidelines surrounding patient photos and fail to inquire with the host institution about photo policies.

Some institutions approach these issues with pre-departure training pertaining to culture shock, communication, professionalism, and wellness while abroad (Appendix I) and also have their trainees review and sign a Professionalism Agreement (or Code of Conduct). An example can be found in Appendix J; these agreements can be developed in collaboration with host partners. Whenever possible, it is also helpful to discuss general communication and behavior styles at the host country (typical approaches to conflict management, dress code, communication dynamics in a hierarchical structure, etc).

Figure 6: Stages of Culture Shock



Ethics

Specific ethical concerns pertinent to GH electives were highlighted in Chapter 4, particularly related to donations, sustainability, and scope of expertise. In addition to the suggestions for institutions to offer pre-departure ethics training, trainees should seek input from peers, mentors, global partners, and other training resources to best prepare for some of the scenarios that they may encounter in resource-limited, high-acuity settings that likely have markedly different health systems.[36,45] Online modules offered by Johns Hopkins Berman Institute of Bioethics provide case examples for trainees to navigate through various ethical scenarios pertinent to short-term GH electives.

"In three days, I coded three children, and all of them died. I know the meaning of futility, and loss. I know how it feels to hold a dead child in my arms and present her to her mother. I know what it's like to go home at night and predict which children will probably die… It is so unlike home…Strange, I thought that with such futility I would become violently angry over the circumstances. But you adjust so quickly to a new 'norm,' one of knowing your resources, and recognizing when you can do no further. It is an entirely new experience for me."

~ Anonymous trainee

CHAPTER 6

Evaluation and Assessment: Who, What, Where, Why, and How

Stephanie Marton, MD & Gordon Schutze, MD

KEY POINTS

- There are four areas of assessment and evaluation to consider with GH training: (1) assessment of the trainee, (2) evaluation of the GH training program; (3) evaluation of the GH elective; and (4) evaluation of outcomes of the GH training program.
- Assessment of trainee performance during a GH elective can be difficult to obtain due to time limitations of the host supervisor as well as the length of standard stateside assessment forms. Innovative strategies for obtaining assessment data surrounding the GH elective and from the host supervisor are offered.

As with all training programs, assessment and evaluation are fundamental components for continual optimization. With regard to GH training for U.S. residency and fellowship programs, there are four realms of evaluation and assessment to consider:

1. **Assessment of the trainee**, particularly pertaining to performance surrounding the GH elective experience and, if enrolled in a GH track or fellowship, a milestones-based evaluation throughout training
2. **Evaluation of the GH training program**, particularly for institutions that offer tracks, additional years for GH training, GH fellowships, or other GH-specific curricula
3. **Evaluation of the GH elective**, including feedback on the preparation process, the on-site experience, and the debriefing
4. **Evaluation of outcomes** of the GH training program.

A fifth realm is evaluation of the impact of global training partnerships, which is pertinent if trainees are traveling under the auspices of a partnership. This includes assessment of the impact of individual visiting trainees on host institutions, as well as a more comprehensive periodic partnership-specific evaluation. This fifth realm is outside of the scope of this chapter but should be considered for ongoing partnerships.[46]

Assessment of the Trainee

The assessment of trainees during GH experiences can be done in a manner similar to that which the training program has in place for other electives or programs. There are many different tools available for assessing trainees. Some of the methods that have been utilized by programs offering GH electives are listed below.[3]

- Knowledge assessments such as a pre-and post-assessment of specific topics
- Competency-based assessments
- A procedure log or patient diagnosis log
- Simulation-based assessments
- Trainee self-assessments
- Qualitative assessments such as essays written during and after the elective
- Mentorship meetings

Although many of the above formats are utilized throughout training, some special considerations should be taken into account when obtaining GH elective evaluations. Competency-based

assessments typically require obtaining written feedback from an international site — usually communicated electronically, via facsimile, or via written documentation transported by the trainee. Additionally, there may be different options for who should complete the evaluation; typically, someone who has directly observed the trainee's clinical skills will provide the most useful feedback. Although traditional pediatric competency-based assessments are often used and modified for GH tracks,[4] some programs use an abbreviated assessment tool that focuses on key milestones and offers an opportunity for open-ended input.[12] In such situations, the home country's GH faculty must use that abbreviated assessment and translate it into the comprehensive milestones-based assessment that is used at the home training institution.

In situations where the host site evaluator is uncomfortable with the requested assessment tool or when language barriers or lack of familiarity with the pediatric milestones prevent a thorough evaluation,[12] trainee self-assessment and stateside mentor assessments can be useful. Pre- and post-elective mentorship meetings offer an opportunity for stateside faculty to assess trainee performance and progress surrounding the GH elective, particularly pertaining to professionalism. Appendix R offers examples of GH-specific self-assessments and learner assessments pertinent to GH electives. Ideally, assessment tools would be created in collaboration with the host supervisors whenever possible, and host supervisors should have access to the trainee goals and objectives to help inform their assessments. Additionally, trainees should give the assessment to the host supervisors at the beginning of the elective so that the supervisors can be aware of assessment priorities (and modify the tool in collaboration with the home institution if warranted).

Assessment tools may also vary depending on the duration of the elective. Qualitative assessments such as personal reflections can provide more in-depth insights only realized by the learner after several weeks on the elective. Procedure logs allow trainees to have a method to validate competencies in new procedures learned. A patient diagnosis log, maintained daily with patient age and primary diagnoses may also be helpful to the trainee once they return, allowing them to document and recall the management of cases that they may not have been exposed to in their home country.

Evaluation of the GH Training Program

If a program offers additional training (other than GH electives), annual evaluations should be conducted. Examples of useful components of a GH training program evaluation include but are not limited to:

- Perceived impression of whether participation in GH training has positively influenced knowledge base, clinical skills, advocacy skills, career trajectory, etc
- Utility of curriculum and other training modalities (eg, journal clubs, simulation sessions, trainee conferences, pre-departure sessions)
- Availability of local GH experiences
- Availability of international GH electives
- Comprehensiveness of pre-departure training for international electives
- Evaluation of program leader(s) (communication skills, teaching skills, etc)
- Opportunities for GH-related scholarly work
- Most helpful aspects of program
- Most surprising aspects of program
- Program aspects that should change
- Impact of the program on post-residency career plans.

Evaluation of the GH Elective

Trainees should have the opportunity to evaluate their GH elective site as well as their experiences with preparation and debriefing. The site evaluations are particularly pertinent for institutions with existing partnerships in order to promote continual modifications and improvements[34] but are also applicable for non-partnership electives so that other trainees can have insight into their peer

experiences. All efforts should be made to return feedback obtained from the trainee to the host faculty in a timely fashion. Elective site evaluations should seek input on details that include the following:

- Host faculty
  - Was there sufficient communication prior to the start of the elective?
  - Were expectations communicated at the beginning of the elective?
  - Were expectations appropriately aligned with trainee scope of expertise?
  - Was the level of supervision appropriate?
  - Was teaching suitable to the learner's level of knowledge?
  - Did supervising physicians treat the learner with respect?
  - Was feedback provided during and after the elective?
  - Did the host faculty/trainees extend hospitality?
- Site
  - Ease of transition to and from international site?
  - Availability of safe, affordable, and appropriate housing?
  - Opportunities for self-learning outside of clinical hours (eg, community activities, cultural activities)?
- Stateside faculty
  - Accessibility during elective?
  - Thoroughness of pre-departure meetings?
  - Usefulness of post-return debriefing meeting?

Additional components pertinent to the specific partnerships should be periodically assessed for the purposes of quality improvement, which should include seeking evaluations from the host faculty regarding the GH elective and ongoing partnership.

Evaluation of GH Training Outcomes

GH electives have increased in popularity in the past 10 years, and over half of pediatric residency programs now offer GH electives.[47] Administration of GH electives can be labor-intensive, and allowing trainees to be away from their home training site may add additional burdens to the training programs. It is therefore critical for programs to show the value of these electives to both an individual trainee as well as to the medical community as a whole.

Immediate trainee outcomes can be obtained through either knowledge-based assessments or trainee self-assessments. Knowledge-based assessments could include review of specific sections of pediatric in-service examinations, review of specific categories of resident PREP question completions, or specific knowledge questions designed for a GH elective. Self-assessment survey questions could include the following:

- Which of the following do you feel more confident in managing after your time abroad (eg, TB, HIV, malnutrition, pneumonia, diarrhea, etc)?
- Which of the following skills do you feel more confident in managing after your time abroad (eg, intravenous access, withdrawing blood, lumbar punctures, resuscitation, etc)?

Long-term outcomes of GH training are harder to assess but equally important. It has been shown that trainees who have spent time abroad are more likely to continue their work with the underserved, either at home or abroad.[48] Additionally, there is evidence to support that trainees with GH exposure during residency are more likely to pursue careers with a significant GH component.[49]

To evaluate GH training program outcomes, follow-up trainee surveys can be conducted by either the training program or by larger groups such as the APPD, AAP, and ABP. Example questions include:

- Are you engaged in full or part-time care abroad?
- Are you engaged in caring for local-global populations in the United States (eg, refugees, immigrants)?
- Are you engaged in care of the underserved in your medical practice?
- Are you engaged in policy making at either an international level or at the local level that focuses on the underserved?
- Are you engaged in advocacy regarding care of underserved populations?

Innovative strategies for evaluating outcomes of GH training continue to be explored by the GH education community, and educators are encouraged to collaborate with other programs to measure the impact of both stateside training and GH electives.

CHAPTER 7

Accreditation and Certification Considerations

Gordon Schutze, MD

KEY POINTS

- At present, individuals who take more than 6 months of clinical electives away from a training program (such as a GH elective) require review and approval by the ABP, unless they are enrolled in an ACGME-approved GH program.
- GH tracks are usually developed within the confines of standard residency training, and individuals enrolled in tracks do not require ABP approval unless they impinge on the aforementioned 6-month rule.
- Although the ACGME and ABP expect that almost all clinical training in the United States will be supervised by board-certified or board-eligible providers, this is not feasible nor required during GH electives. However, programs are expected to seek supervisors who routinely provide health care to infants and children.

The Accreditation Council for Graduate Medical Education (ACGME) accredits all training programs, whereas the American Board of Pediatrics (ABP) certifies individual physicians. In order for a physician to be approved for the initial certifying examination, training must be completed in an ACGME-accredited program and the individual must satisfactorily complete all requirements and be evaluated as competent by the program director on the final Verification of Competence Form.

Time Away During Training

In 2017, both the ACGME and the ABP increased the allowed time away from the parent program from 3 to 6 months as part of the new 6-month individualized curriculum. Individuals who spend more than 6 months away from the primary or affiliated training site require review and approval by the ABP.

GH Tracks

Many residency programs are developing GH tracks, with the majority occurring within the standard 36 months of pediatric residency training. The Baylor College of Medicine/Texas Children's Hospital Kelly DeScioli Global Child Health residency program is an example of a 4-year program that allows the resident to spend a year working in a resource-limited area while fulfilling all other criteria required to be considered a board-eligible pediatrician. This program was vetted and approved by the ACGME prior to accepting the first resident. The ABP has no concerns about GH tracks or programs approved by the ACGME, even if they add additional time to the resident's training as outlined above, as long as the trainee meets all of the core requirements in the 36 months of accredited training. For those individuals who may want to develop their own GH experience outside of their ACGME-approved residency program, the ABP would need to approve that individual's training prior to sitting for the board examination. Supplemental experiences such as these cannot be considered as replacements for the core training that residents experience at their parent program.

Supervisor Requirements During GH Electives

The ACGME and ABP expect that almost all clinical training in the United States will be supervised by board-certified or board-eligible physicians and must meet all other requirements set forth by these accrediting bodies (goals and objectives, milestones, etc). Clinical experiences outside the United States would most likely be supervised by local practitioners who would not be eligible to sit for the ABP examinations because their training did not occur in the United States. These practitioners should, however, routinely provide health care to infants and children and therefore be able to provide adequate supervision for and evaluation of the trainee working in the resourced-limited area.

CHAPTER 8

Fellowship Opportunities in Global Health

Heather Crouse, MD, Jennifer Watts, MD, MPH, Marideth Rus, MD, MEd, Andrew Steenhoff, MBBCh

KEY POINTS

- There are many opportunities to participate in GH during fellowship training. A spectrum from electives abroad to formal GH fellowships within subspecialty and general pediatric fellowships is available.
- Examples of GH training opportunities and important information for fellowship program directors are offered in this section.

In response to demands of trainees and faculty, GH electives are now offered by many medical schools and residencies, and formal GH tracks are offered by 25% of pediatric residencies. Trainees with early interest and exposure to GH bring their passion for improving child health globally with them into their fellowship and faculty careers and the natural question then becomes: "Where do I go from here?" Programs are responding to the demand for post-residency opportunities by creating GH training pathways in both general pediatrics and subspecialty fellowships.[1,2,7,47,50,51]

MODELS FOR INCORPORATING GH INTO FELLOWSHIPS

There are a variety of approaches to incorporating GH experiences into fellowships. Some fellows desire a fellowship with focused GH training within general pediatrics, others wish to complete a pediatric subspecialty fellowship in the standard time frame with the opportunity for GH electives within the fellowship, and others desire a subspecialty fellowship that affords them additional time for formal GH training or a degree.

General Pediatrics GH Fellowships

These fellowships seek to train a cadre of academic pediatricians who have the skills and experience necessary to embark on a career in the field of pediatric GH and to become the future leaders of that field. Although the emphasis varies between programs, they generally all focus on developing GH skills in each of the following core areas: clinical topics unique to GH; teaching GH both internationally and in the United States; research skills (which may include public health, quality improvement, epidemiology, or other); leadership; and advocacy. The format of these mentored fellowships varies in duration, curriculum, and location. Fellowships are generally 2 to 3 years in length, and fellows spend anywhere between 40% and 95% of their time living at an international partner site. Didactic training is offered, but the type of training varies between programs: from full master's degrees (eg, in public or global health) to selected summer GH content, public health, or epidemiology courses. Depending on the funding mechanism, some fellowships require clinical work in the United States, whereas in others all clinical work is done in a global setting. All general pediatrics GH fellowships accept board-eligible pediatricians. Some also accept pediatricians who have completed subspecialty fellowship training, which gives this group of subspecialists an opportunity to complete a rigorous pediatric GH fellowship during which they can also focus their clinical, teaching, and research skills in their chosen subspecialty. For an example of a curriculum in a general pediatrics GH fellowship, refer to Appendix S.

GH Electives Embedded Within Standard Subspecialty Fellowship Training

GH electives are available for many standard-track pediatric subspecialty fellows. This may be most appropriate for fellows who do not want to dedicate additional time for more formal GH training and

yet desire GH experiences or in institutions where formal GH fellowships are not available. These electives may be developed in many ways: collaboration with existing institutional resident GH tracks to create fellowship opportunities; utilizing existing institutional global partners; or seeking training opportunities through personal faculty connections. Some institutions have an established GH educator who oversees the GH elective experiences for residents and/or fellows.

The amount of time spent abroad varies depending on the fellow, but it should occur during elective time and the opportunities should be tailored to a fellow's specific interest. Examples include:

- *Pediatric Emergency Medicine Fellow interested in International Disaster Relief*:
    1. Attend a Disaster Management course
    2. Spend 1 month applying lessons learned with an international disaster response medical team.
- *Pediatric Developmental-Behavioral Fellow interested in GH*:
    1. Spend 4 to 6 weeks internationally in a general pediatrics setting with an emphasis on diagnosing behavioral and developmental disorders and additional time in specific international autism centers.

With appropriate supervision, subspecialty fellows can also provide invaluable education to international general pediatricians who may lack subspecialty exposure. Time spent internationally is typically organized and arranged through the program director of the subspecialty fellowship as well as the institution's GH educator (if applicable) to ensure that the fellow is meeting the requirements of the fellowship and of the GH elective (supervision, safety, etc)

Best practices for fellowship GH elective preparation, on-site support, debriefing, and partnerships are consistent with those described in Chapters 4, 5 and 10. When working globally, fellows should continue to receive supervision and mentorship. It is recommended that fellows provide a biweekly report on their activities to the GH and subspecialty fellowship program directors, as well as to their mentors. Communications should be regular and can be via email, video conferencing, or social media.

Combined Subspecialty-GH Fellowships

Many trainees entering a subspecialty fellowship program also have a strong interest in strengthening their foundation and preparing for a career in GH beyond the elective opportunities allowed within the standard constraints of the subspecialty fellowship. Such training is intended for those seeking a career that incorporates both a pediatric subspecialty and GH. Combined subspecialty-GH fellows can complete the standard ACGME-accredited subspecialty fellowship training and additionally receive supplementary non-accredited GH training, either interspersed throughout or added after the subspecialty fellowship time. For the interspersed model, programs usually include an additional 1 to 2 years of training into the total time of the fellowship (for example, a neonatology fellow may spend 3 months a year globally and 9 months a year in the United States, completing core requirements for 4 years total). For the second model, fellows complete the entire subspecialty fellowship with minimal GH time and then complete an additional 1 to 2 years with focus on GH after the subspecialty fellowship is complete. A combination of these two approaches is also possible. For example, a combined subspecialty-GH fellow may complete all required aspects of the subspecialty fellowship curriculum and receive supplementary GH training and experience interspersed throughout the subspecialty fellowship time by utilizing elective and research time for GH experiences. Fellows then commit an additional year following completion of

the subspecialty fellowship that integrates faculty-level work in the subspecialty and additional GH training. These models typically vary between institutions and may depend on each fellowship's funding mechanism. Regardless of the additional GH training time, these combined programs must abide by ACGME requirements and ABP standards for the non-GH subspecialty curriculum to ensure that subspecialty certification requirements are met at the end of training (see "Accreditation and Certification" section below).

Many combined subspecialty-GH fellowships prepare trainees for more than one aspect of GH. Fellows spend time working abroad clinically, learning how to adapt clinical care for their subspecialty into environments with different disease processes or resources. Fellows also receive training on conducting research in global settings, including performing needs assessments, coordinating multiple IRBs, and collaborating with multiple partners. Additionally, some fellows opt to seek additional degrees such as a master's in public health or education. Other advanced coursework directed toward the fellow's specific learning needs may include courses in disaster relief, quality improvement, or education.

Appendix T includes a sample of goals/objectives for a combined subspecialty-GH fellowship and how they integrate into ACGME competencies; Appendix U includes an example of a formal combined subspecialty-GH fellowship curricular pathway.

ACCREDITATION AND CERTIFICATION OF FELLOWS ENGAGING IN GH ACTIVITIES

Mentorship is crucial for both general pediatrics GH fellowships and GH experiences in subspecialty fellowships. It is key during GH work abroad and includes oversight of scholarly activity, clinical care, and research and quality initiatives. Faculty oversight at international locations should always be present and vetted in advance. Fellows should have significant research oversight both in the United States and internationally, with GH experts sitting on the Scholarship Oversight Committee (SOC) and research committees for the fellows. Scholarly activity that meets ABP requirements for subspecialty fellowship training may be conducted in global settings with appropriate oversight and supervision.

General Pediatrics GH Fellowships

General academic pediatric fellowships, including those focused on GH, are not accredited by the ACGME. For general pediatrics GH fellowships, as for other non-ACGME accredited fellowships, the graduate medical education office at each individual institution assesses, vets, supports and provides leadership to ensure quality for the fellowship curriculum. Similarly, on completion of the fellowship and with the recommendation of the fellowship director, most institutions provide a certificate certifying completion of a "general pediatrics global health fellowship" at that institution. Graduation requirements vary by institution but generally require demonstration of expertise in the core areas mentioned above.

GH in Subspecialty Fellowships

In order to meet ABP standards for pediatric subspecialty fellowship training, completion of all ACGME-required core curricular subspecialty fellowship requirements should occur in the United States at pre-approved program sites — none internationally. International electives should occur only during elective and scholarly activity/research time in fellowship. Continuity clinic requirements should not be decreased or waived for subspecialty fellows completing GH activities; thus, it is recommended that fellows participate in GH during elective time. All SOC meetings should occur while fellows are in the United States, per ABP requirements. The ABP feels strongly that fellows must have robust oversight by the fellowship director to make sure they are meeting the same requirements as other trainees.

Pediatric subspecialty fellowships are accredited by the ACGME once program requirements are met. However, the ACGME does not accredit GH fellowships nor the GH portion of a subspecialty fellowship. As for other non-ACGME-accredited fellowships, the fellowship office at each individual institution assesses, vets, supports and provides leadership to ensure quality for the fellowship curriculum. Similarly, on completion of both the subspecialty and GH portions of fellowship and with the recommendation of the fellowship director, most institutions provide a certificate certifying completion of a "combined pediatric subspecialty-GH fellowship" at that institution. Graduation requirements vary by institution but generally require demonstration of expertise in the core areas mentioned above.

SCOPE OF CLINICAL PRACTICE INTERNATIONALLY (GENERAL PEDIATRICS AND SUBSPECIALTY)

Time abroad generally includes a combination of clinical care, teaching, advocacy, and research (which varies significantly from translational research, including epidemiology, public health, and quality improvement work). Clinical care may be in- or outpatient, and there is significant variation even in the level of inpatient care, from general pediatrics hospitalist to newborn to subspecialty areas when available. A detailed, well-mentored international orientation is crucial to ensure a smooth transition for the fellow. High-quality, successful, and sustainable international experiences depend on vetted on-site clinical and advocacy mentors. Established, involved on-site research collaborators partnered with experienced home institution mentors maximize both the feasibility and potential impact of a fellow's scholarly work. Notably, the mentors can be on-site clinicians and do not need to be board certified.

DURATION OF GH TIME DURING TRAINING

General Pediatrics GH Fellowships

Time abroad varies by program, with fellows spending between 40% and 95% of their fellowship at an international site. There are advantages and disadvantages to spending more time internationally, and fellow candidates should weigh these during the application process as they consider what they seek from their fellowship experience.

GH in Subspecialty Fellowships

GH electives within standard subspecialty fellowship training average 1 to 2 months total. Combined subspecialty-GH fellows typically average from 6 to 12 months abroad, distributed over the entire combined subspecialty-GH fellowship training period. The length of each individual elective depends on the institution and subspecialty fellowship requirements. For fellows spending more than 6 months cumulative time during the subspecialty training abroad, program directors must petition the ABP for a non-standard training pathway (see details below).

PROCESS FOR APPLYING FOR A NON-STANDARD TRAINING PATHWAY (for ABP-approved subspecialty programs)

For GH fellowships combined with subspecialty fellowships with ABP oversight, program directors must petition the ABP for permission to create a non-standard training pathway for fellows spending more than 6 months cumulative time during the subspecialty training abroad. This is most appropriate for subspecialty fellowships that have GH tracks embedded within their programs and not separated afterward and should occur before or during the first year of fellowship training. The ABP approves individuals (not programs) for non-standard training pathways, and therefore petitions are required for each fellow.

The application should be addressed to the ABP Vice President of Credentialing and Initial Certification and should include a letter of petition as well as a draft schedule or block diagram of expected subspecialty and GH electives during training. (Appendices V and

W contain a template petition.) Once the petition is approved, the Verification of Competence Form that is completed at the end of fellowship can include specifics about what the fellow has actually done during fellowship, including amount of time away and how much was clinical or devoted to research, the nature of his/her scholarly work and the oversight provided, and whether the fellow has completed his/her scholarly work to the satisfaction of the SOC.

CHAPTER 9

Post-Graduate Fellowship and Work Opportunities in Global Health

Trish McQuilkin, MD, Chuck Schubert, MD, & Jennifer Watts, MD, MPH

KEY POINTS

- There are many post-graduate opportunities in GH within the realms of clinical practice, policy, advocacy, research, and education. Examples are offered in this section.

With an increasing number of trainees receiving GH education, the natural question becomes "Where do they go from here?" Fortunately, there are many opportunities available for pediatricians with an interest in GH. Chapter 8 provided details regarding GH fellowships. Additionally, there are GH opportunities in academics and careers where graduates can utilize all of their learned skills in either international settings or local/domestic settings. Some careers focused on the underserved blend international and domestic work for specific populations.[49] Table 9 provides a brief summary of post-graduate opportunities, with additional details and resources outlined in Appendix X.

"I have valued my time in the Global Health Track and feel that it has had a positive impact on my knowledge of health disparities, my abilities to address them, and my ability to see the broader problem, and not "fail to see the forest for the trees." I hope to continue to work in low resource settings for the rest of my career. I feel that this work helps my diagnostic skills, problem solving, and overall improves my practice as a compassionate physician and person. I do intend to do a subspecialty, but feel that the ability to spend a portion of my time working with communities that have fewer resources will be an important part of my life in the future, and am thankful for the global health track for its education in how to effectively practice in these areas."

~Anonymous trainee

Table 9: Post-Graduate Career Opportunities in GH

TYPE OF EXPERIENCE	EXPLANATION	EXAMPLE
GH Fellowship Training (general or embedded in a subspecialty fellowship; refer to Chapter 8)	Formal GH training can be achieved in both general or subspecialty-focused GH fellowship programs. General fellowships are usually 2 years and can be paired with another degree, such as a master's in public health. Subspecialty experiences include protected time abroad for clinical or research experiences.	▪ General Pediatric GH Fellowship ▪ Subspecialty Fellowship with GH Training ▪ globalhealthfellowships.org
Clinical GH Work - NGOs	Several NGOs hire board-certified pediatricians for clinical work abroad. These positions usually require at least a 6- to 12-month commitment.	▪ Partners in Health ▪ Médicins Sans Frontières ("Doctors Without Borders") ▪ Seed Global Health ▪ Faith-based NGOs ▪ Indian Health Service

Clinical Work Abroad - Academic Affiliated	Several medical schools are involved in international workforce capacity building projects abroad and hire pediatricians to work clinically.	▪ Baylor International Pediatric Aids Initiative (BIPAI) ▪ Texas Children's Global Health Corps ▪ Human Resources for Health - Rwanda ▪ Health Workforce Program - Liberia
Policy Work and/or Public Health	Internships at national or international policy organizations are a potential gateway to careers in these organizations.	▪ World Health Organization ▪ CDC ▪ UNICEF ▪ CDC EIS program
Research	Opportunities that fund GH-related research training.	▪ NIH K awards ▪ Fogarty Research
Academics	Scholarly networks of educators and researchers can be found in several national organizations.	▪ Association of Pediatric Program Directors Global Health Learning Community ▪ American Academy of Pediatrics Section on International Child Health ▪ Academic Pediatric Association Global Health Special Interest Group

PREFACE TO CHAPTER 10: PARTNERSHIPS AND BIDIRECTIONAL TRAINEE EXCHANGES

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This chapter is one of the invaluable resources incorporated into the ABP program director's guide to GH education.

The presence of faculty and trainees on the ground in a resource-limited setting fills a much-needed expertise gap, even if it is for a short time. In the specific case of my institution, visiting trainees on GH electives have served as moderators during tutorials and bedside teaching for students and have been a big source of motivation and inspiration for junior doctors planning to enter residency in pediatrics. This has been very important for us as we have struggled over the years to get medical officers into pediatric residency programs.

Bidirectional exchanges, however, may be the ultimate goal for partners in resource-limited settings hosting trainees from resource-rich settings for GH electives. This offers trainees/faculty from a host institution the benefit of seeing health care in a different perspective and learning/observing practice from an organized health system perspective. It builds trust in the relationship and gives them the feeling that their site is not just a receiving end but an integral part of the partnership.

Even though the bidirectional exchange may be spelled out in an initial memorandum of understanding (MOU) signed by both partners, there are generally obstacles that may impede the participation of partners from resource-limited settings. These may include but are not limited to costs involved in travel, acquiring travel visas (generally a bigger problem for trainees than faculty), selection of the appropriate person for the program (many settings may not have residents and there is a real challenge that lower cadre of staff will not be granted travel visas), and finding a reliever in situations where the partner may be the only clinician for the institution.

The authors of this chapter have expertly delineated the benefits derived from bidirectional exchanges and the challenges that are likely to be encountered. They have also offered possible solutions to the challenges.

I do believe that this will serve as a great resource, both for professionals already involved in global partnerships/bidirectional exchanges and those who are yet to get involved. I also believe it is the way forward for the future of global partnerships in GH education.

CHAPTER 10

Partnerships and Bidirectional Trainee Exchanges

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KEY POINTS

- It is important to strive for mutually beneficial partnerships with global colleagues with agreement on and alignment of goals, clear expectations, and frequent communication.
- For some global partners, that mutuality may include the establishment of bidirectional trainee and faculty exchanges, which confer many known benefits to both partners as summarized in this chapter.
- Obstacles to bidirectional exchange implementation will vary at each institution. Common challenges are summarized here, and solutions as well as implementation strategies are offered, including the establishment of a stateside consortium to support global partnerships.

The previous chapters described the fundamental substrates necessary to build an ethically sound platform to support GH training in residency. The importance of mutually beneficial partnerships with global colleagues is emphasized throughout those chapters. An increasing body of literature delineates better practices for establishing and maintaining global partnerships[46] (see Appendix O). Well-functioning partnerships require agreement on and alignment of goals and objectives, clear expectations of roles and responsibilities of both partners, and frequent communication, whether via formal evaluation or informal conversations and debriefing.

Some research shows that the majority of such partnerships are built on relationships and networks of individual faculty members, and that the goals of the partnerships may evolve over time.[35] Faculty may require institutional support in the form of funding and travel time to develop and maintain such partnerships. For partnerships requiring sustained commitment of personnel (such as education-based capacity development initiatives), many programs have found benefit in developing a consortium with other U.S.-based institutions to support global partnerships.[52,53]

Many global partnerships will include the development of bidirectional exchanges of trainees. In these experiences, rather than merely sending trainees from resource-rich to resource-limited settings, the flow of learners goes in both directions. In this chapter, the authors briefly highlight some of the documented benefits of bidirectional exchanges and provide an overview of challenges for their implementation paired with strategies to overcome them. This chapter will focus only on bidirectional trainee exchanges, which are a small subset of global partnership opportunities. Principles of partnership, partnership best practices, medicolegal aspects of hosting trainees (eg, as observers versus clinicians), and sources of funding to support partnerships (including funding for the exchange of trainees) are outside of the scope of this chapter.

Benefits of Bidirectional Exchanges

Programs that have participated in bidirectional exchanges note several of the same benefits for international trainees as those that have been reported for trainees traveling from resource-rich to resource-limited settings. In addition to the international trainees gaining medical knowledge, increasing awareness of other health systems and cultures, and bringing changes back to their home institutions, there are other programmatic benefits of engaging in these exchanges.

Just as international host faculty often cite the benefit of new perspectives and peer education on rounds, hosting international colleagues provides an opportunity to integrate a GH perspective into rounds and teaching conferences such that even those who do not plan to engage in international field work are able to gain insight into different approaches to care. Exploring how differing values affect care can yield insights that are also relevant domestically, particularly introducing cultural humility. Presence of the exchange may improve the experience for both sets of trainees when they themselves travel to participate, and the collaboration of the exchange may strengthen commitment from both parties. Moreover, these exchanges set the stage for ongoing needs assessments and provide opportunities to ensure that the goals and objectives of both partner institutions are being fulfilled. Table 10 provides a brief summary of reported benefits to both institutions of engaging in bidirectional exchanges.

Table 10: Benefits of Bidirectional Exchanges of Learners Within GH Partnerships
Revised from: Arora G, Russ C, Batra M, Butteris S, Watts J, Pitt M. Bi-Directional Exchange in Global Health – Moving Towards True Global Health Partnership. American Journal of Tropical Medicine & Hygiene. E-pub ahead of print April 24, 2017.[54]; and *Pitt MB, Gladding SP, Butteris SM. Making Global Health Rotations a Two-Way Street – A Model for Hosting International Residents. Glob Pediatr Heal. 2016;3:1–7.*[55]

Benefit	EXPLANATION
Strengthens ethical partnership	Allows for ongoing needs assessment in a richer context of the partnership
	Supports learning from each other, reducing promotion of a false teacher/student paradigm
	Builds trust and improves communication within the partnership
Supports education of the global workforce	Offers learning opportunities that may not be available in trainee's country, including expanding knowledge and skills, alternative approaches to clinical management and introduction to new resources
	Provides exposure to additional teaching methods, methods for providing feedback, and awareness of learning styles
Promotes innovation	Encourages opportunities for novel approaches to clinical, educational, and systems-based approaches to be implemented at home institution (eg, adoption of new educational sessions)
Improves development opportunities at hosting institution	Provides exposure to host trainees and faculty about alternate approaches to care through perspective of visiting learner
	Supports formation of new collaborations in research and education, and lays the foundation for future meaningful collaborative work
	Improves experience of future learners traveling to partner institution, as they may know someone there already
	Can offer more time for host trainees (due to additional staffing provided by the visiting trainees)
	Increases opportunities for hosts (in education, clinical care, and research, depending on the visiting trainee's level of engagement)

Challenges and Possible Solutions
As with any new initiative, obstacles can be expected when initiating the hosting of international trainees. Although no system will likely be the same, the growing number of these exchanges provides proof that the obstacles can be overcome. Table 11 provides a summary of obstacles encountered during the implementation of a bidirectional exchange between Lurie Children's Hospital in Chicago and Bugando Medical Centre in Mwanza, Tanzania, and offers the approach they took to overcome each challenge. Table 12 provides a timeline used by Indiana University in preparation for hosting residents from Kenya as part of an established bidirectional exchange. These tables are intended to serve as examples, with the caveat that different countries and partnerships bring unique strengths and challenges, and there is no "one size fits all" approach to bidirectional partnerships.

Table 11: Obstacles and Solutions Encountered During Implementation of Bidirectional Exchange Between Lurie Children's Hospital and Bugando Medical Centre (BMC)
Reproduced with permission from: Pitt MB, Gladding SP, Butteris SM. Making Global Health Rotations a Two-Way Street – A Model for Hosting International Residents. Glob Pediatr Heal. 2016;3:1– 7.[55]

CATEGORY	SPECIFIC CHALLENGE	RESPONSE/SOLUTION
Administrative	Large workload of planning for visitors (logistics, schedule, curriculum)	▪ Protected FTE for faculty to serve as director of GH education and assist with implementation of both sides of the exchange
	Desire for bidirectional input	▪ Frequent email communication/internet calls between leaders from both sites ▪ Director of GH education travels to BMC annually
Funding	Cost of travel prohibitive for BMC to fund its residents' travel	▪ Provide BMC residents the same grant ($2,500) from the department of pediatrics that Lurie Children's residents receive ▪ Solicit donations from private companies/individuals ▪ Fund-raising by Lurie Children's residents to fill budget gaps
Housing/Meals	Difficult to consistently secure volunteers from Lurie Children's residents or faculty to provide housing	▪ Worked with local youth hostel to secure low rate for housing that includes breakfast, some dinners, and several social outings
	Cost of meals for the month could become prohibitive for BMC residents	▪ Initially breakfast and dinner at host's home; currently breakfast provided at hostel ▪ Cafeteria card loaded for lunches ▪ Residents/faculty host several dinners/outings
Visa Status	Early in process residents occasionally had difficulty obtaining visas	▪ Worked with medical school's Center for Global Health to provide formal letter of invitation on letterhead 4 months in advance to assist in visa process ▪ Offer coaching for visa applicants prior to their formal visa interview ▪ See Umoren et al[56] for a thorough description of visa requirements for international residents
Cultural/Logistical Challenges on Arrival	For many of BMC residents, this was the first time traveling outside of Africa. Challenges included lack of familiarity reading street maps, navigating public transportation, understanding the role of tipping, etc.	▪ Comprehensive orientation on the first day addressing logistics and cultural differences ▪ Weekly debriefings with faculty member about cultural challenges
Health Screening/Health Issues	BMC residents had different vaccine availability and coverage than that required to rotate at the hospital (eg, no access to influenza vaccine)	▪ Worked with occupational health to determine minimum vaccine coverage needed, which typically included MMRV (given based on titers) and influenza with a declination form available for hepatitis B ▪ Occupational health agreed to cover these costs
	Residents often had prior TB exposure	▪ Residents are screened for TB on arrival with follow up CXR if necessary
	Health issues emerge during visit (eg, one resident had excruciating toothache on arrival)	▪ Recommend traveler's insurance for visiting residents ▪ If possible, work with colleagues to provide pro bono care

Elective Challenges	BMC residents unable to perform direct patient care	▪ Elective experiences developed that focused on educational opportunities and clinical shadowing
	Difficult to schedule multiple aspects of complex curriculum that requires specially trained faculty to administer (ie, library skill session, simulation)	▪ The fact that the number of visiting residents was small allowed for all the BMC residents to rotate during the same month. The residents reported that having the travel partners made the experience more enjoyable, and the hosts cited the benefit of allowing for the experience to be offered once per year instead of on a rolling basis.

Table 12: Suggested Timeline for Implementation from Model Exchange at Indiana University
Reproduced from Umoren RA, Einterz RM, Litzelman DK, Pettigrew RK, Ayaya SO, Liechty EA. Fostering reciprocity in global health partnerships through a structured, hands-on experience for visiting postgraduate medical trainees. J Grad Med Educ. 2014;6(2):320-325.[56]
***Abbreviations**: SEVIS=Student and Exchange Visitor Information System; IUPUI=, Indiana University-Purdue University Indianapolis; OIA=Office of International Affairs; IU=Indiana University; ID=identification*

TIME BEFORE ARRIVAL	ACTIVITY
3 Months	▪ Kenya registrar obtains passport and provides personal data to U.S. program
2 Months	▪ Program manager completes SEVIS application ▪ A DS-2019 application form, accompanied by a letter of invitation, is forwarded to the IUPUI OIA ▪ The OIA provides a completed DS-2019 application and Certificate for Eligibility for a J-1 visa
1 Month	▪ Registrar schedules a J-1 visa exit interview with the U.S. Embassy in Nairobi, Kenya ▪ Immunization requirements met ▪ Once the original J-1 visa application and official invitation from the sponsoring institution is received in Kenya, the registrar proceeds with the visa interview ▪ At IU, division heads are contacted to establish elective dates for each registrar
2 Weeks	▪ An IU affiliate status is obtained to create a student ID and email address for each registrar and a bursar account for direct deposit of funds ▪ Pre-departure orientation
1 Week	▪ After receiving visa, registrars provide in-Kenya travel arrangements to Nairobi
Arrival	▪ Airport pick-up, accommodation, and in-country orientation

Most hospitals and health systems have strict observation requirements limiting the opportunity for visiting trainees to have hands-on clinical encounters. State laws vary regarding this, and there may be an opportunity for legislative advocacy if applicable. However, this need not be a barrier to providing meaningful experiences when hosting international trainees. Trainees are able to participate in existing educational conferences and clinical rounding/shadowing, and with minimal planning one can arrange valuable one-off experiences ranging from working with a radiologist to read plain films (often these trainees work in settings without access to a radiologist), working in pediatric subspecialties that may not exist in the trainee's home country, or meeting with a scientific librarian to review options for answering clinical questions online. Table 13 provides a summary of the 4-week curriculum used by Lurie Children's Hospital for its exchange program.

Table 13: Example of 4-Week Curriculum for Visiting Trainees (From Lurie Children's Hospital/BMC Exchange)
Reproduced with permission from: Pitt MB, Gladding SP, Butteris SM. Making Global Health Rotations a Two-Way Street – A Model for Hosting International Residents. Glob Pediatr Heal. 2016;3:1– 7.[55]

CATEGORY	COMPONENTS	DESCRIPTION
Clinical Exposure	Hospital shadowing	• One week on general medicine team • One week rounding in NICU and PICU, shadowing in emergency department • Two half-days shadowing in radiology with a focus on reading plain films
	Clinic shadowing	• One week of specialty clinics based on interest • At least 1 day in HIV clinic
	Special training	• One day of exposure to transport team, survey of crash cart components, basic life support
	Shadowing TBD	• One week left open at end of month to revisit areas of interest
Educational Opportunities	Conference participation	• Attend morning report, firm rounds, board review, trainee conference, grand rounds
	Teaching opportunities	• Present/discuss a case at a trainee conference with faculty mentorship/feedback
	Library skills training	• One day session with librarian teaching how to answer clinical and research questions online
	Simulation training	• Dedicated sessions in simulation lab focusing on teamwork and communication • Participation with Lurie Children's residents in their weekly simulation sessions
Social/Cultural	Social outings	▪ Attend dinners, museum outings, sporting events hosted by residents/faculty
	Debriefing sessions	▪ Meet with pediatric faculty throughout month to debrief about challenges, culture shock, etc.

Global Partnerships Models
Although this chapter focused primarily on single institutional partnerships, there are many models of partnerships that exist for US training programs, including but not limited to the following:

- **Stateside consortia with a single international partner (or an international consortia partner)**: There are several successful models that involve collaboration between U.S. Academic Medical Centers (AMCs) to share training partnerships. Such collaborations have multiple benefits, including offsetting logistical burdens of partnership coordination, providing more consistent staffing by visiting trainees and faculty when desired by global partners, and offering more diversity of engaged collaborators across disciplines.[5]
- **Tripartite (or more) partnerships**: A single international partner may be engaged in collaborations with multiple institutions. In such cases, it is important to have transparency of discussions and for all partners to be mindful of intercountry and local dynamics.

•**Academic–NGO partnerships**: Some U.S. training programs partner with NGOs that are closely affiliated with global partners to support training collaborations.

Summary

Offering to host trainees from global partner institutions that host trainees themselves is a step toward true parity in these GH experiences and an emerging best practice. Although obstacles exist when implementing these bidirectional exchanges, they are surmountable and often mirror the challenges that partner institutions in resource-limited countries take on when hosting trainees. Table 14 provides a summary checklist to consider when pursuing a bidirectional exchange.

Table 14: Checklist for Implementing a Bidirectional Exchange

CONSIDERATIONS WHEN PURSUING A BIDIRECTIONAL EXCHANGE	
Terms of Agreement	☐ Ensure that the international partner leadership is interested in having their trainees participate in the exchange ☐ Agree on logistics such as duration, frequency, and how visiting trainees will be accepted ☐ Develop a budget (most exchanges cite costs between $1,500 and $3000, depending on where the trainee is coming from) and be creative in pursuing funding (eg, all stateside traveling trainees must contribute to a fund) ☐ Determine the observation logistics for your institution, including regulations pertaining to hands-on clinical care ☐ Create and obtain mutual agreement on a MOU that outlines the responsibilities of the sending institution, the visiting trainee, and the host institution (example provided in Appendix Y)
Pre-Arrival Logistics	☐ Designate a faculty or trainee lead for the experience ☐ Secure safe room and board (options include hosting faculty/trainees, campus housing, youth hostels, etc) ☐ Work with trainee(s) to coordinate travel arrangements, including travel health insurance while in the United States ☐ Draft an invitation letter template for the visiting trainee(s) to use for J-1 visa application ☐ Provide hospital-specific immunization requirements to trainee(s) ☐ Work with partner to develop a skeletonized schedule that can be adjusted based on individual trainee goals ☐ Strategize how to evaluate the exchange with the partner institution
Post-Arrival Logistics	☐ Coordinate final hospital rounding logistics based on institution (badge access, in-person health screening such as TB testing, etc) ☐ Designate faculty/trainee lead to help coordinate in-country transportation (including airport pick-up) and hospital and cultural orientation (including discussions pertaining to culture shock) and to check in frequently regarding goals, objectives, and well-being ☐ Engage trainees from your institution who will be traveling to the international trainee's home institution to host social/cultural outings

Program Readiness Assessment for GH Training

A snapshot "readiness assessment" checklist for training programs navigating development of a GH training infrastructure is located in Appendix L.

ABBREVIATIONS

AAP	American Academy of Pediatrics
ABP	American Board of Pediatrics
ACGME	Accreditation Council for Graduate Medical Education
ACU	Acute Care Unit
AIDS	Acquired Immunodeficiency Syndrome
ALT	Alanine Aminotransferase Test
AMSPDC	American Medical School Pediatric Department Chairs
APA	Academic Pediatric Association
APLS	Advanced Pediatrics Life Support
APP	Advanced Practice Provider
APPD	Association of Pediatric Program Directors
APS	American Pediatric Society
AST	Aspartate Aminotransferase Test
ASTMH	American Society of Tropical Medicine and Hygiene
BIPAI	Baylor International Pediatric AIDS Initiative
BU edX	Free online courses from Boston University
CDC	Centers for Disease Control and Prevention
CGHI	Center for Global Health Initiatives
CHIFA	Child Healthcare Information for All
CPS	Canadian Pediatric Society
CSF	Cerebrospinal Fluid
CUGH	Consortium of Universities for Global Health
DIO	Designated Institutional Official
EIS	Epidemic Intelligence Service
ELEC	Global Health Elective
ER	Emergency Room
ETAT	Emergency Treatment and Triage
FBC	Fluid Blood Count
FOPO	Federation of Pediatric Organizations
FTE	Full-Time Equivalent
GCHCM	Global Child Health Curriculum Modules
GCHEMP	Global Child Health Education Modules Project
GH	Global Health
GHC	Global Health Council
GHLO	Global Health Learning Opportunities
GHTF	Global Health Task Force
GPEDS	Global Pediatrics Education Series
HBB	Helping Babies Breathe
HCG	Human chorionic gonadotropin
Hep B cAb	Hepatitis B core antibody
Hep B sAb	Hepatitis B surface antibody
Hep B sAg	Hepatitis B surface antigen
Hep C	Hepatitis C Virus (HCV)
HIC	High-Income Country

HIPAA	Health Insurance Portability and Accountability Act
HIV	Human Immunodeficiency Virus
HNN	Healthy Newborn Network
ICS	Interpersonal and Communication Skills
HIS	Indian Health Services
IMCI	Integrated Management of Childhood Illness
IPA	International Pediatric Association
IRB	Institutional Review Board
LCPS	Liberia College of Physicians and Surgeons
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer and/or Questioning
LMIC	Low- or Middle-Income Country
MAP	Medical Assistance Program International
MDGs	Millennium Development Goals
MK	Medical Knowledge
MMWR	Morbidity and Mortality Weekly Report
MOOCs	Massive Open Online Courses (BU)
MSF	Médecins Sans Frontières (Doctors Without Borders)
NGO	Nongovernmental Organization
NRP	Neonatal Resuscitation Program
OpSmile	Operation Smile
OSAC	Overseas Security Advisory Council
PALS	Pediatric Advanced Life Support
PAS	Pediatric Academic Societies
PBLI	Problem-Based Learning and Improvement
PC	Patient Care
PCR	Polymerase Chain Reaction
PEP	Post-Exposure Prophylaxis
PICU	Pediatric Intensive Care Unit
PPD	Purified Protein Derivative
PPE	Personal Protective Equipment
PR	Professionalism
PREP	Pediatrics Review and Education Program
PTSD	Post-Traumatic Stress Disorder
RPD	Residency Program Director
SBP	Systems-Based Practice
SDGs	(UN) Sustainable Development Goals
SOICH	Section on International Child Health (within AAP)
SPR	Society for Pediatric Research
STEP	Smart Traveler Enrollment Program
SUGAR	Simulation Use for Global Away Rotations
TB	Tuberculosis
TD	Track Director
TPD	Track Program Director
UNICEF	United Nations International Children's Emergency Fund
UNOPS	United Nations Office for Project Services

USAID	United States Agency for International Development
UW I-TECH	University of Washington International Training and Education Center for Health
WEIGHT	Working Group on Ethics Guidelines for Global Health Training
WHO	World Health Organization
WHO EPI	World Health Organization Expanded Programme on Immunization

REFERENCES

1. Beaglehole R, Bonita R. What is global health? *Glob Health Action*. 2010;3. doi:10.3402/gha.v3i0.5142
2. Stanton B, Huang C-C, Armstrong RW, et al. Global health training for pediatric residents. *Pediatr Ann*. 2008;37(12):786-787, 792-796. http://www.ncbi.nlm.nih.gov/pubmed/19143329. Accessed January 17, 2017.
3. Suchdev PS, Shah A, Derby KS, et al. A Proposed Model Curriculum in Global Child Health for Pediatric Residents. *Acad Pediatr*. 2012;12(3):229-237. doi:10.1016/j.acap.2012.02.003
4. Howard CR, Gladding SP, Kiguli S, Andrews JS, John CC. Development of a Competency-Based Curriculum in Global Child Health. *Acad Med*. 2011;86(4):521-528. doi:10.1097/ACM.0b013e31820df4c1
5. Campagna AM, St. Clair NE, Gladding SP, Wagner SM, John CC. Essential Factors for the Development of a Residency Global Health Track. *Clin Pediatr (Phila)*. 2012;51(9):862-871. doi:10.1177/0009922812450507
6. Watts J, Russ C, St Clair NE, Uwemedimo OT. Landscape Analysis of Global Health Tracks in United States Pediatric Residencies: Moving Toward Standards. *Acad Pediatr*. 2018;18(6):705-713. doi:10.1016/j.acap.2018.03.009
7. Pitt MB, Gladding SP, Suchdev PS, et al. Pediatric Global Health Education. *JAMA Pediatr*. 2016;170(1):78. doi:10.1001/jamapediatrics.2015.2368
8. Anspacher M, Frintner MP, Denno D, et al. Global Health Education for Pediatric Residents: A National Survey. *Pediatrics*. 2011;128(4):e959-e965. doi:10.1542/peds.2011-0129
9. Williams B, Morrissey B, Goenka A, Magnus D, Allen S. Global child health competencies for paediatricians. *Lancet*. 2014;384(9952):1403-1405. doi:10.1016/S0140-6736(14)61128-4
10. Audcent T, Audcent TA, Macdonnell H, Samson L, Brenner JL. Global Child Health Education in Canadian Paediatric Residency Programs. *Educ Heal @BULLET*. 2013;26(2). doi:10.4103/1357-6283.120693
11. Battat R, Seidman G, Chadi N, et al. Global health competencies and approaches in medical education: a literature review. *BMC Med Educ*. 2010;10(1):94. doi:10.1186/1472-6920-10-94
12. Arora G, Condurache T, Batra M, et al. Miles Away Milestones: A Framework for Assessment of Pediatric Residents During Global Health Rotations. *Acad Pediatr*. 2017;17:577-579. doi:10.1016/j.acap.2016.12.018
13. OECD Multilingual Summaries Health at a Glance 2015 OECD Indicators. doi:10.1787/health_glance-2015-en
14. Kasper J, Greene JA, Farmer PE, Jones DS. All Health Is Global Health, All Medicine Is Social Medicine. *Acad Med*. 2016;91(5):628-632. doi:10.1097/ACM.0000000000001054
15. Proctor BD, Semega JL, Kollar MA, et al. Current Population Reports. 2016. https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf. Accessed September 9, 2017.
16. Cheng TL, Emmanuel MA, Levy DJ, Jenkins RR. Child Health Disparities: What Can a Clinician Do? doi:10.1542/peds.2014-4126
17. Flores G. Racial and Ethnic Disparities in the Health and Health Care of Children. *Pediatrics*. 2010. doi:10.1542/peds.2010-0188
18. Providing Care for Immigrant, Migrant, and Border Children. doi:10.1542/peds.2013-1099
19. Linton JM, Choi R, Mendoza F. Caring for Children in Immigrant Families. *Pediatr Clin North Am*. 2016;63(1):115-130. doi:10.1016/j.pcl.2015.08.006
20. Kan K, Choi H, Davis M. Immigrant Families, Children With Special Health Care Needs, and the Medical Home. *Pediatrics*. 2016;137(1). doi:10.1542/peds.2015-3221
21. Southwest Border Migration | U.S. Customs and Border Protection. https://www.cbp.gov/newsroom/stats/sw-border-migration. Accessed September 9, 2017.
22. UNHCR - Global Trends: Forced Displacement in 2016. http://www.unhcr.org/5943e8a34. Accessed September 9, 2017.
23. Chung RJ, English A. Commercial sexual exploitation and sex trafficking of adolescents. *Curr Opin Pediatr*. 2015;27(4):427-433. doi:10.1097/MOP.0000000000000242
24. *Global Estimates of Modern Slavery FORCED LABOUR AND FORCED MARRIAGE In Partnership With*. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_575479.pdf. Accessed August 29, 2018.
25. Barnert E, Iqbal Z, Bruce J, Anoshiravani A, Kolhatkar G, Greenbaum J. Commercial Sexual Exploitation and Sex Trafficking of Children and Adolescents: A Narrative Review. *Acad Pediatr*. 2017;17(8):825-

829. doi:10.1016/j.acap.2017.07.009
26. Annual Report on Intercountry Adoptions Narrative Efforts to Maintain Intercountry Adoption as a Viable Option for Children. https://travel.state.gov/content/dam/aa/pdfs/AnnualReportonIntercountryAdoptions6.8.17.pdf. Accessed September 9, 2017.
27. Guidelines: Domestic Medical Exam Newly Arriving Refugees | Immigrant and Refugee Health | CDC. https://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/domestic-guidelines.html. Accessed September 9, 2017.
28. Lukolyo H, Dean AL. Global Is Local: July at a Teaching Hospital in Texas. *Hosp Pediatr*. 2017;7(7):419-420. doi:10.1542/hpeds.2017-0012
29. Butteris SM, Schubert CJ, Batra M, et al. Global Health Education in US Pediatric Residency Programs. *Pediatrics*. 2015;136(3):458-465. doi:10.1542/peds.2015-0792
30. Rowthorn V. Global/Local: What Does It Mean for Global Health Educators and How Do We Do It? *Ann Glob Heal*. 2015;81(5):593-601. doi:10.1016/j.aogh.2015.12.001
31. Torjesen K, Mandalakas A, Kahn R, et al. International Child Health Electives for Pediatric Residents. *Arch Pediatr Adolesc Med*. 1999;153(12):1297. doi:10.1001/archpedi.153.12.1297
32. Keating EM, Lukolyo H, Rees CA, et al. Beyond the learning curve: length of global health electives. *Int J Med Educ*. 2016;7:295-296. doi:10.5116/ijme.57c1.4e07
33. O'Donnell S, Adler DH, Inboriboon PC, Alvarado H, Acosta R, Godoy-Monzon D. Perspectives of South American physicians hosting foreign rotators in emergency medicine. *Int J Emerg Med*. 2014;7:24. doi:10.1186/s12245-014-0024-5
34. Lukolyo H, Rees CA, Keating EM, et al. Perceptions and Expectations of Host Country Preceptors of Short-Term Learners at Four Clinical Sites in Sub-Saharan Africa. *Acad Pediatr*. 2016;16(4):387-393. doi:10.1016/j.acap.2015.11.002
35. Eneriz-Wiemer M, Nelson BD, Bruce J, Chamberlain LJ. Global Health Training in Pediatric Residency: A Qualitative Analysis of Faculty Director Insights. *Acad Pediatr*. 2012;12(3):238-244. doi:10.1016/j.acap.2012.02.005
36. Crump JA, Sugarman J, (WEIGHT) the WG on EG for GHT. Ethics and Best Practice Guidelines for Training Experiences in Global Health. *Am J Trop Med Hyg*. 2010;83(6):1178-1182. doi:10.4269/ajtmh.2010.10-0527
37. Pitt MB, Moore MA, John CC, et al. Supporting Global Health at the Pediatric Department Level: Why and How. *Pediatrics*. 2017;139(6):e20163939. doi:10.1542/peds.2016-3939
38. Common Program Requirements FAQs Common Program Requirements Frequently Asked Questions ACGME. 2017. http://www.acgme.org/Portals/0/PDFs/FAQ/CommonProgramRequirementsFAQs.pdf. Accessed September 10, 2017.
39. Galvin Dr. S, Robertson Dr. R, Hargarten S. Injuries occurring in medical students during international medical rotations: A strategy toward maximizing safety. *Fam Med*. 2012.
40. Mohan S, Sarfaty S, Hamer DH. Human immunodeficiency virus postexposure prophylaxis for medical trainees on international rotations. *J Travel Med*. 2010;17(4):264-268. doi:10.1111/j.1708-8305.2010.00421.x
41. Pitt MB, Slusher TM, Howard CR, Cole VB, Gladding SP. Pediatric Resident Academic Projects While on Global Health Electives: Ten Years of Experience at the University of Minnesota. *Acad Med*. May 2017:1. doi:10.1097/ACM.0000000000001727
42. Facilitating Reflection - Campus Compact. https://compact.org/global-sl/toolsandsyllabi/facilitating-reflection/. Accessed February 11, 2018.
43. Gateway Technical College. Service Learning Reflection Toolkit. 2013. https://www.gtc.edu/sites/default/files/files/documents/Service_Learning_Reflection_Toolkit.pdf. Accessed February 11, 2018.
44. St Clair NE, Pitt MB, Bakeera-Kitaka S, et al. Global Health: Preparation for Working in Resource-Limited Settings. *Pediatrics*. October 2017:e20163783. doi:10.1542/peds.2016-3783
45. Crump JA, Sugarman J. Ethical considerations for short-term experiences by trainees in global health. *JAMA*. 2008;300(12):1456-1458. doi:10.1001/jama.300.12.1456
46. Steenhoff AP, Crouse HL, Lukolyo H, et al. Partnerships for Global Child Health. *Pediatrics*. 2017;140(4):e20163823. doi:10.1542/peds.2016-3823
47. Butteris SM, Schubert CJ, Batra M, et al. Global health education in US pediatric residency programs. *Pediatrics*. 2015;136(3):458-465. doi:10.1542/peds.2015-0792
48. Drain PK, Primack A, Hunt DD, Fawzi WW, Holmes KK, Gardner P. Global Health in Medical Education: A Call for More Training and Opportunities. *Acad Med*. 2007;82(3):226-230. doi:10.1097/ACM.0b013e3180305cf9
49. Russ CM, Tran T, Silverman M, Palfrey J. A Study of Global Health Elective Outcomes. *Glob Pediatr Heal*.

2017;4:2333794X1668380. doi:10.1177/2333794X16683806
50. Nelson BD, Lee AC, Newby PK, Chamberlin MR, Huang C-C. Global health training in pediatric residency programs. *Pediatrics*. 2008;122(1):28-33. doi:10.1542/peds.2007-2178
51. Crouse HL, Mullan PC, Macias CG, et al. A Novel Approach to Combining Pediatric Emergency Medicine and Global Health Fellowships. *Pediatr Emerg Care*. 2016;32(3):157-162. doi:10.1097/pec.0000000000000247
52. Heartt Foundation |. http://www.hearttfoundation.org/. Accessed April 19, 2018.
53. St. Damien Collaborative. http://www.stdamiencollaborative.org/. Accessed April 19, 2018.
54. Pitt M, Watts J, Russ C, Arora G, Butteris S, Batra M. Bidirectional Exchange in Global Health: Moving Toward True Global Health Partnership. *Am J Trop Med Hyg*. April 2017:16-0982. doi:10.4269/ajtmh.16-0982
55. Pitt MB, Gladding SP, Majinge CR, Butteris SM. Making Global Health Rotations a Two-Way Street: A Model for Hosting International Residents. *Glob Pediatr Heal*. 2016;3(0):2333794X16630671. doi:10.1177/2333794X16630671
56. Umoren RA, Einterz RM, Litzelman DK, Pettigrew RK, Ayaya SO, Liechty EA. Fostering Reciprocity in Global Health Partnerships Through a Structured, Hands-On Experience for Visiting Postgraduate Medical Trainees. *J Grad Med Educ*. 2014;6(2):320-325. doi:10.4300/JGME-D-13-00247.1
57. Einterz RM, Kelley CR, Mamlin JJ, Van Reken DE. Partnerships in international health. The Indiana University-Moi University experience. *Infect Dis Clin North Am*. 1995;9(2):453-455. http://www.ncbi.nlm.nih.gov/pubmed/7673682. Accessed September 12, 2017.
58. Purkey E, Hollaar G. Developing consensus for postgraduate global health electives: definitions, pre-departure training and post-return debriefing. *BMC Med Educ*. 2016;16(1):159. doi:10.1186/s12909-016-0675-4
59. Lukolyo H, Rees CA, Keating EM, et al. Perceptions and Expectations of Host Country Preceptors of Short-Term Learners at Four Clinical Sites in Sub-Saharan Africa. *Acad Pediatr*. 2015;16(4):387-393.

APPENDIX A: Global Health Tracks in Pediatric Residency Programs (click here to return to text)

This list was obtained from a 2013-14 survey of U.S. residency programs, with a 99% response rate.[4] Since this survey, many other pediatric residencies now also offer a GH track. Residency applicants interested in GH should ask for details at their program(s) of interest.

1. Advocate Christ Medical Center (College of Medicine at Chicago)
2. Atlantic Health Program
3. Baylor College of Medicine/Texas Children's Hospital
4. Boston Combined Residency Program in Pediatrics
5. Brown Medical School
6. Case Western Reserve University/Rainbow Babies
7. Children's Hospital at Dartmouth
8. Children's Hospital Los Angeles
9. Children's Hospital of Michigan
10. Children's Hospital of Philadelphia
11. Children's Mercy Hospital - Kansas City
12. Children's National Medical Center/George Washington University
13. Cincinnati Children's Hospital Medical Center
14. Connecticut Children's Medical Center
15. Creighton/Nebraska Universities
16. Eastern Virginia Medical School
17. Emory University
18. Georgetown University
19. Grand Rapids Medical Education Partners/Helen DeVos Children's Hospital
20. Goryeb Children's Hospital/Atlantic Health System
21. Hofstra Northwell School of Medicine at Cohen Children's Medical Center
22. Indiana University School of Medicine
23. Lurie Children's Hospital, Northwestern University
24. Medical College of Wisconsin – Children's Hospital of Wisconsin
25. Nationwide Children's Hospital
26. Nemours Children's Health System
27. Oregon Health Sciences University
28. Phoenix Children's Hospital
29. Stanford University
30. SUNY Upstate Medical University
31. Texas Tech University Health Sciences Center, Paul L. Foster School of Medicine (El Paso)
32. University at Buffalo
33. University of Alabama
34. University of California Davis
35. University of California Los Angeles
36. University of California San Francisco
37. University of Florida
38. University of Illinois at Chicago
39. University of Kentucky
40. University of Louisville School of Medicine
41. University of Maryland
42. University of Massachusetts Medical School
43. University of Minnesota
44. University of Missouri at Kansas City
45. University of Nebraska Medical Center
46. University of Rochester

47. University of Utah
48. University of Virginia
49. University of Washington – Seattle Children's Hospital
50. University of Wisconsin
51. Western Michigan University School
52. Yale-New Haven Children's Hospital
53. Washington University in St. Louis

APPENDIX B: Position Description for a Global Health Track Director (template) (click here to return to text)

GH Curriculum Development and Coordination for All Pediatric Trainees

- Develop and revise GH curriculum as appropriate on an ongoing basis. Responsibilities include but are not limited to:
    a. Develop objectives for core GH curriculum
    b. Recruit, assist, and introduce presenters for the GH presentations
    c. Incorporate board questions into GH presentations
    d. Develop pre/post knowledge assessments for GH presentations
    e. Gather evaluations for all GH presentations for the purposes of quality improvement and feedback to presenters.

Track-Specific Training Opportunities

- Plan and attend GH track sessions, which can include but are not limited to:
    - Journal clubs
    - Visiting speakers (eg, evening sessions, grand rounds, etc)
    - Trainee-led sessions (including didactics and post-elective presentations)
    - Simulation sessions (eg, SUGAR [Simulation Use for Global Away Rotations]).

GH Track Mentorship

- Identify and mentor scholarly opportunities for interested track residents, including but not limited to:
    - Mentorship for local, regional, and national presentations
    - Engaging in local GH advocacy projects
    - Participating in research endeavors.
- Identify GH faculty mentors for track residents.
- Mentor track residents in their clinical and personal growth, including assisting with future career plans as able.

GH Elective Coordination

- Advocate with local leadership for trainee GH elective opportunities during training, including salary coverage, insurance coverage, and travel stipends.
- Assist trainees in identifying ethically sound, supervised, safe, and clinically appropriate short-term GH elective opportunities.
- Develop and maintain partnerships with elective sites to ensure mutually beneficial training relationships, including ongoing evaluation of the partnerships.
- Develop additional local GH training partnerships when able.
- Liaise with medical education and the graduate medical education office to ensure proper completion of trainee applications for global electives and to verify that there will be appropriate on-site supervision.
- Ensure that there will be salary coverage during the elective and insurance coverage for the following: malpractice, disability, health, and evacuation.

Visiting Speakers

- As budget allows, invite and host GH grand rounds speakers.

Resident Recruitment and Orientation

- Assist with providing informational materials annually during resident interview season.
- Be available for GH-related questions from resident applicants.
- Consider playing a role in the intern selection committee and interviewing team.
- Provide an annual introduction to the GH track to new pediatric interns.
- Review GH track applications annually, communicate with applicants, and develop track rosters.

GH Track Best Practices

- Gather annual feedback from track residents, global partners, medical education leadership, and faculty mentors for the purposes of quality improvement.
- Connect with regional and national colleagues to optimize educational offerings.

GH Track Budget

- Manage annual budgetary submissions in collaboration with medical education leadership, including funding for the following: FTE for track director, FTE for administrative support (when applicable), budget for GH grand rounds speaker(s), APPD spring meeting attendance (when applicable), regional meeting attendance (when applicable), global travel for partnership maintenance (when applicable), and routine operating expenses.

Additional Opportunities (If Time/Interest Allows)

- Collaborate with the Association of Pediatric Program Directors Global Health Educators Group, the American Academy of Pediatrics Section on International Child Health, and the Consortium of Universities for Global Health.
- When able, host social gatherings (welcome events and graduation events).
- Collaborate with the local GH affiliates.
- Create a GH e-newsletter (periodicity depends on time available).

APPENDIX C: Position Description for a Global Health Track Program Coordinator (template) (click here to return to text)

1. Provide intermittent email communication with GH track members regarding deadlines, upcoming events, attendance records, and announcements.
2. Assist with coordination of the GH program budget and expense reimbursements (including and processing basic payment requests, requisitions, and invoices).
3. Provide clerical assistance for office tasks (copying, faxing, scanning, etc).
4. Organize internal and external meetings, site visits, and special events.
5. Coordinate and maintain a calendar of events, appointments, meetings, and travel itineraries for GH program faculty and GH track residents.
6. Order pertinent supplies for the GH track.
7. Liaise and coordinate when appropriate with the residency program, the graduate medical education office, the medical school, and other affiliates.
8. Assist with coordinating visiting speakers.
9. Assist with the coordination of local, regional and (when applicable) national meetings.
10. Collate program and presentation evaluations pertinent to the pediatrics GH track.
11. Assist with special projects when needed.
12. Develop and maintain online platforms for the GH track, including an informational web page, evaluation tracking system, and online platform for accessing GH videos and curriculum materials.
13. Maintain GH track rosters.
14. Maintain a record of trainee participation in GH activities and provide the GH track faculty with a quarterly audit of participation.
15. Maintain records of GH track resident projects, accomplishments, and individualized curriculum plans.
16. Ensure that all GH track members complete the necessary paperwork to secure memberships to the American Academy of Pediatrics Section of International Child Health (SOICH) and the Center for Universities for Global Health (CUGH).
17. Assist GH track members in completing the process of applying for an international health elective by providing the necessary paperwork and ensuring timely completion; collect site and emergency contact information for each trainee prior to travel.
18. Maintain a database of trainee participation in GH electives, as well as elective site information.
19. Maintain contact lists for GH track alumni.
20. Collaborate on the development of GH track materials including educational materials, websites, forms, and reports.
21. Coordinate track outreach activities, including acting as a liaison with community-based organizations.
22. Assist with the coordination of academic projects for GH track residents.
23. Prepare pediatrics GH track data and progress for stakeholders.

APPENDIX D: Local Global Health Electives (1-week schedule examples) (click here to return to text)

In 2012, both Cincinnati Children's Hospital Medical Center and Children's Mercy Kansas City combined their GH and advocacy curricula. Examples of a 1-week snapshot of the local GH elective at each institution are provided below.

Cincinnati Children's Hospital and Medical Center

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:30 AM – 12:00 PM *Free Store Food Bank* **1:00 – 5:00 PM** Clinic	**8:00 – 9:00 AM** *Grand Rounds* **9:00 – 10:00 AM** *Rez Hope – Video* **10:00 – 11:30 AM** *Risk Management* **1:00 – 2:00 PM** *Legal Adv* **2:30 – 3:00 PM** *Career Dev and Res* **3:00 – 5:00 PM** *Dental Emergencies*	**8:00 – 10:00 AM** *SIM* **10:00 – 11:00 AM** *Car Seat Safety* **11:00 AM – 12:00 PM** *CBPR* **1:00 – 5:00 PM** *School Advocacy*	**8:00 – 9:00 AM** *FIRM* **9:00 – 10:00 AM** *Health Literacy* **10:00 – 11:30 AM** *Tuskegee Video* **1:00 – 2:30 PM** *Inst Racism/History* **2:30 – 4:30 PM** *Soc Det of Health*	**8:00 – 9:00 AM** *Nutrition* **9:00 – 10:30 AM** *American Winter Video* **10:30 – 11:00 AM** *Video Discussion* **11:00 AM – 12:00 PM** *Online Modules* **1:00 – 5:00 PM** *Clinic*

Children's Mercy Kansas City

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:30 AM – 11:30 AM *Down Syndrome Guild* **12:00 – 1:00 PM** *Professor Rounds* **1:00 – 5:00 PM** *Clinic*	**9:30 – 11:00 AM** *Consejo* **1:00 – 3:00 PM** *Catholic Charities Refugee Orientation*	**8:30 AM – 12:00 PM** *Healthy Departures Clinic* **2:30 – 4:30 PM** *CBPR* **5:30 – 7:00 PM** *ESL Tutoring – Dan Bosco*	**8:30 AM – 12:00 PM** *Lead Home Visit* **3:00 – 5:00 PM** *Operation Breakthrough*	**8:30 AM – 12:00 PM** *Legislative Activity* **9:00 – 10:30 AM** **1:00 – 5:00 PM** *International Adoption Clinic*

APPENDIX E: Evacuation Insurance and Emergency Contact Card

Evacuation insurance: When traveling abroad, it is important to obtain medical evacuation insurance, which provides coverage if a trainee needs to be transported out for medical care. This type of insurance includes a call center staffed 24/7 that an insurance cardholder may call for a variety of types of emergencies. The insurance carrier will assist with in-country care (advising where to seek care) as well as evacuation to the nearest appropriate medical center. Insurance carriers often cover a variety of other types of problems as well. There are numerous carriers that provide coverage for travelers in the event of an emergency, including but not limited to those listed in the table below. It should be noted that there are large variations in the types of services provided, as well as the distance allowance for the evacuation (eg, to the closest medical center, which is associated with lower premium costs compared with a U.S.-based institution, which is costlier). Because this product is both inexpensive and critical in the unlikely event of an emergency, some institutions also consider purchasing it for their trainees as an add-on to existing institutional insurance coverage. It is important that trainees not only have the coverage but also that they can describe what they would do in the event of an emergency. (click here to return to text)

Additional insurance: There are a number of types of travel insurance beside the standard evacuation insurance, including coverage for hazardous activities (eg, scuba diving, working in war zones, etc), ransom, accidental death and dismemberment, and repatriation of remains.

Examples of Travel Insurance Vendors (no single vendor is endorsed by the authors)

For a comprehensive comparison website for insurance vendors, see http://www.squaremouth.com		
Travel Assist Network Corporation South Bend, IN 866-500-0333 or 574-272-5400 info@travelassistnetwork.com	Cultural Insurance Services International (CISI) Stamford, CT 800-303-8120 or 203-399-5130 http://www.culturalinsurance.com/	OnCall international Salem, NH 800-575-5014 or 603-328-1926 http://www.oncallinternational.com/

Global Health Elective Emergency Card

The below card should be copied—carry with you at all times during your elective and provide a copy to your on-site mentor.

✂----------

IN CASE OF EMERGENCY, PLEASE CONTACT:

_____

_____

See reverse side for additional emergency information

Emergency Medical Insurance:

Vendor: _____
Phone: _____
Policy #: _____

Name: _____
Passport #: _____
U.S. Residency Program Phone: _____
U.S. Faculty Mentor Phone: _____
Local Program Phone: _____
Local Faculty Mentor Phone: _____
US Emergency Contact(s): _____
_____
Host Site Contact(s): _____
_____
US Embassy Contact Number: _____
Allergies/Conditions: _____
_____

✂----------

This card was adapted from Global Child Health Educational Modules Project (GCHEMP) Preparation packet for GH electives. St Clair N, Chan K, Kuzminski J, Pak-Gorstein S, Staton D. 2013 and the Medical College of Wisconsin Office of Global Health.

(click here to return to text)

APPENDIX F: Risk Reduction Agreement (template)

(click here to return to text)

Adapted from the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP and CUGH, 2013.

According to the WHO, injuries are the leading cause of preventable death in travelers. From 2003 to 2005, an estimated 2,276 U.S. citizens died from injuries and violence while in foreign countries (excluding deaths occurring in Iraq and Afghanistan). Road traffic crashes led the list of causes (34%), followed by homicide (17%) and drowning (13%). Depending on travel destination, duration, and planned activities, other common injury and safety concerns include natural hazards and disasters, civil unrest, terrorism, hate crimes against Americans, falls, burns, poisoning, drug-related overdose, and suicide.

Traveling by car in the developing world is markedly more dangerous than traveling by car elsewhere. Travelers should be aware of the increased risk of certain injuries while traveling abroad, particularly in low-income countries, and be prepared to take preventive steps to avoid them (Sleet, 2009). By following the risk reduction agreement outlined below, travelers can significantly decrease their personal risk for a preventable injury.

Personal Health

- I will arrange an appointment with my primary medical doctor or, if available, a travel clinic, to ensure that pre-travel vaccinations, medications, malarial prophylaxis, and other essential medications are obtained prior to departure.
- If I have psychiatric or other health issues that may be exacerbated under stressful and unfamiliar situations, I will meet with my therapist and/or personal physician to weigh the benefits and risks of participating in a GH elective.

Occupational Standards

- I have reviewed my institution's occupational exposure guidelines and will bring a filled prescription for post-exposure HIV prophylaxis if recommended by my institution in the event of an exposure.
- I will bring a supply of fitted N95 masks and gloves and will utilize universal precautions at all times.

Travel and Recreational Safety

- I will wear safety belts in vehicles when a belt is available.
- I understand that my institution recommends against traveling on motorcycles, in the open back or tops of vehicles and trains, and at dusk or nighttime. I will participate in those modes of travel at my own risk.
- I will utilize a helmet when riding a bicycle.
- I will avoid travel after the consumption of alcohol.
- When engaging in water sports, I will wear personal flotation devices, will avoid hazardous or unknown conditions, and will not consume alcoholic beverage while on the water. I will not operate watercraft or participate in scuba diving without proper training.

Resources

1. This risk reduction agreement was adapted with permission from a similar document at the Medical College of Wisconsin
2. David A. Sleet, L.J. David Wallace, David R. Shlim, CDC Yellow Book, Centers for Disease Control and Prevention, 2009.
3. Elaine Jong and Christopher Sanford, The Travel and Tropical Medicine Manuel, 4th ed., Saunders Inc., 2003.

APPENDIX G: Post-Exposure Guidelines for Global Health Electives (template) (click here to return to text)

This example was adapted from the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP and CUGH, 2013.

Resources for developing institution-specific post-exposure guidelines during GH electives include the following:

1. Kuhar, et al. 2013. "Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Postexposure Prophylaxis." https://stacks.cdc.gov/view/cdc/20711
2. Mohan S, Sarfaty S, Hamer DH. Human immunodeficiency virus postexposure prophylaxis for medical trainees on international rotations. *J Travel Med*. 2010 Jul-Aug;17(4):264-268.

Please also refer to your institution's guidelines, if available.

Health care workers are at risk for HIV transmission by percutaneous and mucous membrane exposures. In the United States, the risk of HIV transmission via percutaneous exposure to HIV-infected blood is 0.3% (95% CI = 0.2%-0.5%), and risk is increased with direct insertion into vein/artery, deep injury, or if the source was suffering from terminal illness. The risk of transmission with HIV-infected fluids via mucous membrane exposure is 0.09% (CI 0.006%-0.5%). In areas where the prevalence of HIV is higher, the risk of transmission also increases.

Prior to departure, meet with a travel specialist to obtain the following pertaining to occupational exposures:

- A 4-week (minimum of 1 week) supply of HIV post-exposure prophylaxis (speak with a travel specialist about whether to obtain a basic two-drug or expanded three-drug regimen, based on the prevalence of HIV at the GH site)
- Hepatitis B serology testing to ensure pre-departure immunity (if not previously documented)
- Possible hepatitis C and HIV serology testing (to document pre-departure status in the event of an exposure)
- PPD testing (if not done within the year prior to travel) or interferon gamma release assay (eg, QuantiFERON)

Note: Before purchasing medications, please note that your program may already have developed a protocol and have supplies available for HIV post-exposure prophylaxis for an established partner site.

In the event of an exposure, proceed through the following protocol:

1. **Irrigate and cleanse the wound.**
2. **Determine if the source is potentially infectious. If yes, proceed to step 3.**
   - Potentially infectious fluids: blood, CSF, synovial fluid, pleural fluid, pericardial fluid, amniotic fluid
   - NOT potentially infectious unless containing blood: feces, nasal secretions, saliva, sputum, sweat, tears, urine, vomitus
3. **Evaluate the source.**
   - If HIV positive, proceed to step 4.
   - If HIV status unknown, have someone coordinate testing of the source (HIV rapid testing and HIV PCR) and proceed to step 4 **WITH THE ASSUMPTION THAT THE PATIENT IS HIV POSITIVE UNTIL PCR TEST RESULTS RETURN.**
4. **Determine the appropriate medication regimen based on exposure and source** (refer to CDC guidelines, https://stacks.cdc.gov/view/cdc/20711).
5. **Contact the PEPline (888-448-4911) to discuss medication planning if needed.**

6. **Initiate a medication regimen AS SOON AS POSSIBLE (within 1 to 2 hours of the exposure) FOR A DURATION OF 4 WEEKS**. (The regimen may be discontinued if both the rapid HIV testing and the HIV PCR are negative for the source patient.)
7. **Contact your home institution's faculty mentor (or emergency line for trainees, if available)** to discuss the extent of the exposure and determine whether you should return early from the elective.
8. **Obtain laboratory monitoring after the exposure** (initiate at the elective site and continue with occupational health upon return).

TIME AFTER EXPOSURE	TAKING PEP	NOT TAKING PEP
Day 0	Rapid HIV test, urine HCG, ALT, AST, FBC; consider utility of sending Hep B sAb	Rapid HIV test, ALT, AST, urine HCG; consider utility of sending Hep B sAb
2 weeks	Rapid HIV test, urine HCG, ALT, AST, FBC	
6 weeks	Rapid HIV test, urine HCG, ALT, AST, FBC	Rapid HIV, urine HCG if at risk for pregnancy
12 weeks	Rapid HIV test, urine HCG, ALT, AST, FBC	
6 months	Rapid HIV test, ALT, AST, FBC, Hep C, Hep B sAg, Hep B cAb, Hep B sAb	Rapid HIV, Hep C, Hep B sAg, Hep B cAb, Hep B sAb

Table adapted with permission from the University of Wisconsin, with additional acknowledgment of Dr. Brian Jack and colleagues at Boston University

FOLLOW UP WITH OCCUPATIONAL HEALTH UPON RETURN AND SUBMIT AN INCIDENT REPORT REGARDING THE EXPOSURE.

9. **Special conditions:**
    a. Source with known antiretroviral resistance: PEP should be tailored depending on resistance patterns, if known
    b. Pregnancy: Refer to medication side effect profiles
    c. Breast-feeding: Discontinue breast-feeding if initiating PEP after an exposure
10. **Medication side effects**: A substantial proportion of health care personnel do not complete the recommended 4-week course of post-exposure prophylaxis due to side effects, which most commonly include nausea, diarrhea, malaise and fatigue.
    PLEASE TRY TO ADHERE TO THE RECOMMENDED REGIMEN.
11. **Other risks associated with blood-borne exposures**:
    a. Hepatitis B: Minimal risk if you are vaccinated and serology-proven immune, but risk of seroconversion is 10% to 30% if you are not immune. If you have not been vaccinated prior to travel, obtain hepatitis B vaccination and consider traveling to an area where you can receive hepatitis B immune globulin.
    b. Hepatitis C: 1.8% (range 0 to 7%) risk of seroconversion after percutaneous exposure from an infected source. There is no available post-exposure prophylaxis. Obtain post-exposure serology testing as detailed in the laboratory monitoring section above.
12. **Emergency Contacts:**
    a. National HIV/AIDS Clinicians' Consultation Center (PEPLine): http://www.nccc.ucsf.edu/hiv_clinical_resources/pepline_guidances_for_occupational_exposures : **888-448-4911**
    b. HIV/AIDS Treatment Information Service: http://aidsinfo.nih.gov
    c. Inquire with your home institution prior to departure to determine if there is an emergency contact number for traveling trainees.

APPENDIX H: Global Health Elective Pre-Travel Health Self-Assessment (template) (click here to return to text)

Adapted from the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP and CUGH, 2013.

- This form is voluntary and is intended to help identify potential physical or mental health issues that may be exacerbated by working in an unfamiliar setting. Please consider completing this form and taking it to your physician at your travel medicine appointment. Please also feel free to consult with your program director (or international elective advisor) about any medical or mental health questions or concerns that you may have related to your travel and international work.
- You should be aware that elective sites may not be able to accommodate your individual needs or circumstances.
- Failure to report a medical condition could impair the ability of your residency training program to assist in the setting of an emergency.

MEDICAL HISTORY

___ Yes ___ No 1. Do you have any medical conditions or physical disabilities? If yes, please list.
   a. _____
   b. _____
   c. _____

___ Yes ___ No 2. Have you ever been treated or are you currently being treated for any mental health conditions, including but not limited to depression and anxiety? If yes, please list and note whether you are currently receiving treatment.
   a. _____
   b. _____

___ Yes ___ No 3. Do you take any medications? If yes, please list.
   a. _____
   b. _____
   c. _____

___ Yes ___ No 4. Do you have any allergies? If yes, please list.
   a. _____
   b. _____

___ Yes ___ No 5. Have you have had any major injuries, disease, or ailments in the past 3 years? If yes, please list.
   a. _____
   b. _____

___ Yes ___ No 6. Do you have a history of substance abuse and/or using substances to cope with stressful situations? If yes, please list and indicate current status.
   a. _____
   b. _____

7. Other Comments: _____

If you answered yes to any of the questions above, you are strongly advised to investigate whether the clinical elective site will have the resources necessary to care for you in the event of a physical or mental health illness exacerbation.

APPENDIX I: Culture Shock and Communication
Avoiding Misadventures in Cross-Cultural Relations

(click here to return to text)

Adapted with permission from an original document written by Sabrina Butteris, MD, and James Conway, MD, for the University of Wisconsin's Global Health Institute; revised 3/12/18. Also referenced in the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP and CUGH, 2013.

Congratulations! You are about to embark on a memorable and valuable experience. The purpose of this guide is to help you begin to think about and prepare for the feelings you are likely to experience during your time abroad and to understand the rationale behind the guidelines for communication for participants in GH elective electives. Although no two people have the same experience or react in the same way, there are general patterns that apply to everyone. Culture shock is a well-described phenomenon that affects all travelers to varying degrees. Whether you are a seasoned traveler, or this is your first trip, you may find that the natural adjustments that occur during your time in your host community are amplified. You will be living in a new place and adapting to a new work environment.

Being cognizant of your feelings and emotions as they relate to situations you encounter during your GH elective will help you to moderate your reactions, improve your interactions with colleagues, and walk away with a more complete picture of the community in which you will be spending time. Private documentation of your reflections throughout your elective will provide you with some protection from unnecessary cultural misunderstandings and offenses.

CULTURE SHOCK: AN OVERVIEW

What Is It?

"The loss of emotional equilibrium that a person suffers when he moves from a familiar environment where he has learned to function easily and successfully to one where he has not." – Arthur Gordon

Why Does It Happen?

Over the course of our lives, our own culture becomes deeply engrained via habitual, learned behaviors. Our culture quickly becomes invisible to us. We believe that the way we have grown to know life is the way that it should be, that it is "normal." Without knowing it, our ways of living become ingrained as moral claims. When we enter a new culture, we experience an abrupt loss of familiarity. We try to understand the different norms and guidelines that dictate life in the new culture. We are forced to re-learn how to live day to day. Although we strive to do what is appropriate, we often don't know exactly what that is. This creates a sense of social isolation, and differences subconsciously become classified as senseless, irrational, or even immoral.

What Are the Signs and Symptoms?

As with many conditions, culture shock is manifested on a spectrum ranging from mild uneasiness to unhappiness to true psychological panic. Although the list below is not exhaustive, it is likely that you will experience some of the following:

- Frustration
- Irritability
- Hypersensitivity
- Mental fatigue
- Boredom
- Lack of motivation
- Physical discomfort
- Disorientation about how to work with/relate to others

- Suspicion (feeling like everyone is trying to take advantage of you)
- Excessive concern for cleanliness
- Loss of perspective

Stages of Culture Shock

There are many different versions of the stages of culture shock; however, they vary mostly in complexity rather than true content. The most commonly used stages are described as follows:

- Honeymoon – new things seem exciting; see similarities
- Rejection (shock) – everything feels difficult; see only differences
- Regression – glorification of home; critical of new things; superior attitude develops
- Acceptance/negotiation – routine develops; sense of humor returns
- Reverse culture shock – incorporating the "new" you into your "old" life.

Distilled into its most basic form, the stages of culture shock can be simplified as follows:

- At first, we think it is charming
- Then we think it is evil
- Then we think it is different.

(From William Drake & Associates, Managing Culture Shock)

Reactions

Typical reactions include assuming the problem lies with everyone else (ie, something is wrong with "them," not "us"), overvaluing our own culture, defining our culture in moral terms (natural, rational, civilized, polite), undervaluing the new culture and seeing it as chaotic or immoral, and stereotyping in an attempt to make the world predictable.

When Culture Shock Leads to Cultural Insensitivity

How we react to the culture shock we are experiencing is the crux of what causes well-intentioned people to display unsavory behaviors. Culturally insensitive and inappropriate situations arise when our behavior, actions (or reactions), and responses reflect the stage of culture shock that we are experiencing. To make matters worse, when we are feeling the most frustrated, we have the least amount of information available to help us understand why things happen the way that they do. Although our understanding of the system increases over time, it is impossible to fully understand the complex set of interactions occurring simultaneously. Being aware of our emotional reactions and always attempting to increase our understanding will not only enhance the experience but also decrease the likelihood that something we do will reflect poorly on our program, our colleagues, or ourselves.

Culture Shock and the Internet

In today's world of email, social media, and blogs, the public sharing of thoughts, ideas, and feelings has become commonplace. As opposed to individualized personal communication (phone calls or letters), these modes of communication allow for complete, real-time transparency of thought. In the context of GH experiences and reactions to the stages of culture shock, this level of transparency can be damaging. With an incomplete understanding of the culture in which one is living, a well-intentioned writer may unintentionally use descriptors that are culturally insensitive or unacceptable. The thoughts, perceptions, and feelings about a host community will inevitably change as a visitor passes through the various stages of culture shock. Reflecting on these emotions and experiences in a forum that could be available to others not only poses ethical and professional dilemmas but also has the potential for lasting cultural misunderstandings and transgressions that will impact the individual as well as the institution. As the sharing of information becomes increasingly easy, the risk for inadvertent viewing of that same material also increases. Far too often, communication intended for family or friends is forwarded or accessed by those who may not fully understand or appreciate the context.

Successfully Navigating the Seas of Cultural Humility

Culture shock affects even the most seasoned and experienced traveler. All writers feel that they have been both self-aware and sensitive as they are creating and sharing their observations. However, the process of culture shock involves shifting perceptions of one's surroundings over time. This constantly evolving experience and the ease of information dissemination makes the risks associated with electronic sharing of critical importance for all partners in GH relationships.

Although culture shock is an unavoidable phenomenon, understanding how the adjustment to a new culture can affect thoughts and behaviors may allow visitors to better moderate their reactions. Incorporating this knowledge into private and thoughtful reflection is a key element of developing cultural humility. Combined with patience and adaptability, this practice can lead to meaningful, lifelong relationships between global partners.

Commitment to Professionalism: Communication Guidelines

First and foremost, remember that you are a visitor and a guest. Your role during your GH experience should reflect this attitude. You are to uphold the highest standards of professionalism, respect, and courtesy.

Throughout your GH elective, you will be acting not only as an ambassador on behalf of your training program but also of the United States. Your behavior during your field experience not only has the ability to impact the health of the partnership with your host site but also directly reflects on the character of those from your training program.

Prioritizing the privacy of host communities and individuals within those communities and a commitment to developing culturally sensitive collaboration require the use of great discretion when communicating details of your experience with those outside of the host community. Refer to your training program's privacy policies regarding patient information and patient photography and uphold the same privacy standards at your host site. The use of internet-based venues for communication is strongly discouraged. Full disclosure and transparency of purpose must be provided to those being photographed (including how the photograph may be used and who will be able to see it) and permission should always be obtained from both the patient (or parent) and the hosting institution.

Resources and Further Reading around Culture Shock

1. Foster J. Cultural Humility and the Importance of Long-Term Relationships in International Partnerships. JOGNN. 2009;38:100-107.
2. Kamei R. Why Dying Doesn't Seem to Matter: The Influence of Culture on Physicians in Bali, Indonesia. Acad Med. 2003 Jun;78(6):635.
3. Koehn P. Globalization, Migration Health, and Educational Preparation for Transnational Medical Encounters. Globalization and Health. 2006;2(2).
4. Kumagai A, Lypson M. Beyond Cultural Competence: Critical Consciousness, Social Justice, and Multicultural Education. Acad Med. 2009 Jun;84(6):782-787.
5. Levi A. The Ethics of Nursing Student International Clinical Experiences. JOGNN. 2009;38:94-99.
6. Pedersen, Paul. The Five Stages of Culture Shock: Critical Incidents Around the World. Contributions in Psychology, No. 25. Westport, Conn: Greenwood Press, 1995.
7. Tervalon, Melanie (1998). Cultural Humility versus Cultural Competence: A Critical Distinction in Defining Physician Training Outcomes in Multicultural Education. Journal of Health Care for the Poor and Undeserved 9 (2): 117–125.
8. The Cultural Orientation Resource Center: www.cal.org/CORC
9. Culture Crossing Guide: http://guide.culturecrossing.net/
10. Kwintessential Guide: http://www.kwintessential.co.uk/resources/country-profiles.html
11. Communication styles: Getting to Si, Ja, Oui,Hai, and Da. Meyer, E. Harvard Business Review. Dec 2015. https://hbr.org/2015/12/getting-to-si-ja-oui-hai-and-da?utm_campaign=HBR&utm_source=facebook&utm_medium=social

Finally, presentations given on return should be mindful of portraying the host community in a way that would be considered respectful and culturally appropriate in that setting. Presentations should be reviewed with your GH faculty mentor and/or the host institution prior to being delivered.

APPENDIX J: Professionalism Agreement/Code of Conduct (template) (click here to return to text)

Adapted from the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP and CUGH, 2013. Content was adapted from codes of conduct from the following institutions: Medical College of Wisconsin, University of Wisconsin, University of Minnesota, and UW-Milwaukee.

Professionalism and Behavior

- As a representative of my institution, I will hold myself to the highest standards of professionalism, respect, and courtesy.
- I will always act in the best interests of my patients and hosts.
- I recognize that personal and professional behaviors, clinical skills, and competencies are culturally framed and resource dependent. I will therefore refrain from passing judgment or expressing opinions that are insensitive to those contextual frameworks.
- I will minimize the burden of my presence on my host institution. Specifically, I will be mindful of their resources when I order tests or medications for patients; arrange for an interpreter when needed and not use nursing or other staff unless their services are offered; not impose on the training of others; be mindful of host time limitations; and ensure that I pay a stipend for meals and housing as needed.

Clinical Care

- I will care for patients under the direct supervision of my faculty mentor or local preceptor within the limitations established by my level of training.
- I will not make any promises to patients or local clinicians regarding allocation of resources at the local institution or financial assistance from my institution.
- I will not make direct donations to a patient or other individual, as I understand that it would compromise the patient-clinician working relationship and would also set a precedent for future visiting clinicians. If I would like to contribute to a patient's care, I will do so in an anonymous manner through the host administration.

Social Media

- I will respect the privacy of my host community and individuals and will not post patient or clinical information on social media (eg, public blogs, Facebook, Instagram, Twitter, etc).
- I understand that social media posts might be misinterpreted. I will use good judgement when posting about my host institution or colleagues on any social media and will limit any negative comments about the experience to a personal journal or private communication with family and friends by phone call or text message.
- I understand the importance of respect and how others might perceive my social media posts. I understand that such posts can damage relationships with host sites, undermine reputations, and discourage teamwork. I will ensure that with all posts I would be comfortable posting the same information about people from my home institution.
- I will check the accuracy of everything I post. I understand that I am in-country on behalf of my institution and that others may assume that I am representing the views of my institution. I will be aware of the privacy status of sites where I am posting content about my experience. I understand that posted content is difficult to remove completely and that even when deleted the data may be stored where I may not have anticipated.

Photography

- I will use discretion in taking photographs both for clinical and social media use. I will seek permission (with full transparency of purpose) from individuals being photographed and from

my host institution prior to taking any photographs. I will be aware of and comply with my host institution's policy for taking photographs of patients and facilities.
- When taking photographs, I will protect patients' privacy by taking photos that do not show their faces. I will be considerate during private moments of grief and not be intrusive. I will build a relationship of mutual understanding with my subject and not be a stranger from a distance.
- I will examine my motives for taking a photograph. I will attempt to inspire hope or understanding and not simply try to gain pity for my subjects, which is dehumanizing. I will never portray my subjects as useless or inadequate.
- I will not stereotype or make false generalizations. I will use captions to contextualize images. I will use my photos to raise public awareness, not to exploit public sympathy. I will edit my photos carefully to avoid misrepresentation and ensure that my photos document what I believe is the real situation of my subjects.

Personal Conduct

- I will respect and comply with the rules, regulations, and cultural standards of both the United States and my host country and institution, and I will attend to any legal problems that I encounter. My host institution is not responsible for providing legal assistance for any legal issues that are secondary to misconduct on my behalf.
- I will refrain from participating in political activity.
- I will dress in a culturally appropriate and professional manner.

Research and Teaching

- I will consult with a faculty mentor if I am interested in conducting research or obtaining data for publication during my global health elective to ensure that I obtain IRB approval.
- When providing educational presentations, I will be mindful of resource limitations and will incorporate teaching points that utilize local resources and local expertise.

Resources

1. Social media and photography guidelines were taken from an unpublished best practices resource (Keating, Lukolyo, Crouse, Pitt, St Clair, & Butteris)
2. Global Health Education Consortium Code of Conduct for Teaching and Service (no longer available online)
3. Crump JA, Sugarman J. Ethical Considerations for Short-term Experiences by Trainees in Global Health. JAMA. 2008;300(12):1456-1458
4. Crump JA, Sugarman J. Ethics and Best Practice Guidelines for Training Experiences in Global Health. Am J Trop Med Hyg. 2010 Dec;83(6):1178-82.
5. Philpott J. Applying Themes from Research Ethics to International Education Partnerships. American Medical Association Journal of Ethics. 2010; 12, Number 3: 171-178. (http://virtualmentor.ama-assn.org/2010/03/pdf/medu1-1003.pdf)
6. Pfeiffer J, Johnson W, Fort M, Shakow A, Hagopian A, Gloyd S, Gimbel-Sherr. Strengthening health systems in poor countries. A code of conduct for nongovernmental organizations. Am J Pub Health. 2008; 98 (12):2134-2140 (NGO Code of Conduct: http://ngocodeofconduct.org/)
7. WHO Global Code of Practice on the International recruitment of health personnel. 2011; (http://www.who.int/hrh/resources/guide/en/)
8. Unite for Sight photography guidelines: (http://www.uniteforsight.org/global-health-university/photography-ethics).

APPENDIX K: Guidelines for Donations and Customs Considerations (click here to return to text)

Adapted from the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP, and CUGH, 2013, and with permission from Sabrina Butteris, MD, Ann Behrmann, MD, and James Conway, MD, University of Wisconsin Department of Pediatrics

Donations are generally discouraged and should be neither an expectation nor a requirement for trainees participating in field experiences. This document provides some guidelines for those who choose to provide gifts or donations.

Categories of Donations and Potential Pitfalls

Material Goods and Gifts

It is often customary to bring gifts to the family or professional who is hosting a trainee. When a gift is something particularly requested by the host or is an item that holds meaning for the visitor, it can have a long-lasting positive impact for both the host and visitor.

Giving material goods or gifts to patients, strangers, and colleagues can pose ethical dilemmas. The giving of gifts by a visiting physician in a medical setting jeopardizes the professional relationship that exists between patient and medical personnel. Even small gifts can alter the therapeutic relationship and establish unrealistic expectations for future visitors (eg, the expectation of hospitalized children that all visitors will bring toys, stickers, or pens based on their experience with a prior visiting trainee who brought them these items). A similar phenomenon may exist when gifts are given to strangers or acquaintances in the community. For group travel, the coordination of gifts for hosts will avoid embarrassment or misunderstandings.

Money and Scholarship Requests

For many participating in a field experience, there will be a large discrepancy between the wealth and resources available to visiting trainees and the people with whom they will work. The cost of a trainee's plane ticket alone may surpass the annual salary of some patients or hosting colleagues. This disconnect may create an undeniable but often unspoken difficulty for both the host and visitor. Visitors may encounter situations in which they are asked for money or sponsorship/scholarship for a co-worker, patient, or friend. The limitations, future obligations, and sustainability of such donations are frequently problematic. Additionally, differentiating between multiple requests or escalating requests creates ongoing difficulty for visitors. Again, the expectation that all visitors will provide similar support creates the potential for difficulty for future visitors.

Medical Supplies and Equipment

Medical supplies and equipment are commonly donated by both individuals and institutions. However, the donation of medical equipment may present challenges. Items may be inappropriate for the setting (testing for a disease for which treatment is not readily available), require substantial training for appropriate and safe use (ventilators that require multidisciplinary training and expertise), be dependent on another product to function (laboratory equipment that requires reagents for use), require specialized parts or maintenance (patient monitors that require a technician for repair or diagnostic support), be single-use products (resulting in problems for safe disposal), require a significant entry tax, or be unable to be safely adapted (electronics with differing voltages or connections), to cite just a few examples of the possible complications related to donated items. Although the person donating or bringing an item has often gone to great trouble to ensure its safe transport and delivery, their good will can result in complications they could not have predicted. Medical supplies should only be brought pursuant to the request of the host institution, with attention to the logistical challenges previously noted.

Trainees may consider bringing current medical or surgical texts (written in or translated to the appropriate language, if necessary) to donate to the hosting supervisor or preceptor for use in the clinic or hospital library. Although CD-ROM versions of medical texts may be useful and light to carry, it is important to keep in mind that computer access may be limited by electrical outages or prohibitive user fees.

Pharmaceuticals

Donations of medications are a particularly problematic category that deserves special attention. Downstream complications of donated pharmaceuticals can be costly, both financially and individually. Inappropriate use of medications can result in disability and death. What may seem obvious in one setting can be much less clear in an alternate environment.

Common pitfalls related to donations of pharmaceutical products include the following:

- Labeling that may be unclear or in a language difficult to understand
- Double standard for safety (eg, expired drugs)
- Samples provided when no option exists for continued prescription (eg, sample medications for hypertension given to a patient who has chronic hypertension)
- Drugs not relevant to the situation (eg, drugs for dementia sent to a children's hospital)
- Facility lacks capacity to store or safely prepare medications (eg, lack of refrigeration, lack of clean water to prepare suspensions)
- Drugs unknown to the local health professionals and patients (eg, prescribed or used inappropriately, side effects not appreciated or inability to monitor for side effects if required laboratory testing is not available, "benign" medications such as vitamins or ibuprofen that can be taken in excess and have significant side effects)
- No system in place for safe dispensing of donated drugs (eg, no syringes or dispensing cups, no staff to sort, illiterate patient population requiring pictographs rather than written instructions)
- Sorting of donated medications requires substantial time and effort
- Disposal of unused or inappropriate medications (eg, may require substantial cost for safe disposal such as incineration)
- Drugs do not reach intended recipients (eg, they are sold in unregulated or "black" markets)
- Drugs do not comply with local policies or standard treatment guidelines.

It is typically less expensive to purchase drugs locally or from specialist nonprofit procuring agencies closer to the site. Local procurement, which involves only a fraction of the transport costs, encourages locally sustainable drug availability. Provision of funds for direct procurement from specialist nonprofit agencies such as the IDA Foundation is the most helpful strategy when supplies are not available locally.

Five Core Principles for All Donations

(adapted from WHO Guidelines for Drug Donations, revised 1999)

All donations should:

1. Be of maximum benefit to the recipient
2. Respect the wishes and authority of the recipient
3. Not create double standards in quality or sustainability
4. Result from effective communication between donor and recipient
5. Not create future expectations that cannot be met.

Guidelines and Recommendations Regarding Donations

Many potential pitfalls exist with respect to well-intended donations and gifts. The following guidelines should be used to minimize unforeseen complications.

- Give your host the opportunity to guide you to ensure that your gift is welcome, appropriate, and needed. Recognize that the initial communication should be worded in a way that allows you to

inquire about what is needed or desired by your hosts without committing you to bringing things that you cannot reasonably provide.
- Employ the five core principles cited above. Prior to any donation, ask yourself if the donation meets all five principles. If it does not meet the core principles, strongly consider leaving it home.
- Do not distribute gifts or donations directly to patients. If you do bring things with you to donate, consider giving them to your hosting supervisor or the head of the hosting organization and asking them to distribute the donations as they see fit.
- Avoid all drug donations. If you are ever in a situation where drug donation is essential, abide by all elements of the WHO *Guidelines for Drug Donations*.
- Prior to making a donation, research what the in-country tax will be for each donation and determine who will cover those costs.

Customs Considerations for Donations

It is not uncommon for medical supplies and pharmaceuticals to be confiscated and/or taxed heavily by customs officials. If you are bringing supplies, it is very useful to have the following available for customs officials:

- A letter from a government representative stating that they are aware of the incoming supplies and are interested in having them brought in-country for the purposes of health care at a local clinic or hospital
- A letter from the host recipient (eg, hospital administrator) stating that they are aware of the incoming supplies and are interested in using them
- Any pertinent information regarding the supplies (eg, instructions, warranties, expiration dates, original packaging, original medication bottles, etc)
- If applicable, an informational letter from the stateside donor or source of supplies
- Funds available to cover in-country taxes.

Resources

1. IDA Foundation (formerly the International Dispensary Association): https://www.idafoundation.org/
   Note: WHO approved Interagency Emergency Health Kit
2. UNICEF - Supply catalogue
   Note: Useful only if you are working with a NGO registered with UNICEF with specific emergency packs containing medical supplies or medical equipment, pharmaceuticals, nutritional rehabilitation, education, shelter, and sanitation.
3. MAP Travel Packs https://www.map.org/medicines.

APPENDIX L: Program Readiness Assessment for Global Health Training (click here to return to text)

This checklist is intended to be a snapshot "readiness assessment" for training programs as they navigate development of a GH training infrastructure. It is recommended that all programs strive for completion of the components in Step 1. Completion of the Step 2 checklist is pertinent for programs that engage their trainees in GH electives. The Step 3 checklist is useful for programs creating or maintaining a GH track or fellowship (with additional checklist components individualized to the institution).

STEP 1: Curriculum Development

- ☐ Core curriculum integrated into standard residency training (trainee conferences) and potentially into morning report and an advocacy curriculum (see Chapters 1, 2, and 3)
    - Harness local expertise among faculty and in the community for curricular content
- ☐ GH faculty champion(s) identified. This is critically important for successful development of GH training in a residency program. This person does not have to be an associate program director (APD), but an APD can be very advantageous in helping to focus the program on GH.

STEP 2: GH Elective (see Chapters 4 and 5)

- ☐ All of the above and:
- ☐ GH director
    - Additional GH mentors for the trainees is ideal
- ☐ Checklist components in Table 7 (for the institution and the trainee)
- ☐ Debriefing process
- ☐ Evaluation process (Chapter 6)
- ☐ +/- Bidirectional training partnership (checklist in Chapter 10)

STEP 3: GH Track or Fellowship (see Chapter 1)

- ☐ All of the above and:
- ☐ Support of leadership (including residency program, department, hospital, and institution)
- ☐ GH program director and core GH faculty assembled
    - More extensive mentorship process in place
- ☐ GH program coordinator
- ☐ Determination of required activities
- ☐ Expanded curriculum and consideration of the "individualized curriculum"
    - eg, boot camp, GH simulation sessions
- ☐ Competencies identified and linked to curricular and experiential elements
- ☐ GH sites: consideration of a true partnership with sites, including bidirectional exchanges (refer to checklist in Chapter 10)
- ☐ Scholarly project process
- ☐ Fellowship-specific considerations, if applicable (Chapter 8)
- ☐ Pre-graduation evaluation

APPENDIX M: Resources for Finding a Global Health Elective

(click here to return to text)

Adapted from the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP and CUGH, 2013. Additions and edits for this list are welcome; please contact nstclair@wisc.edu.

1. Explore options available at your training program, hospital, medical school, or university

- If your residency program does not offer a GH elective, investigate what GH projects or partnerships exist in other hospital departments. Surgeons, emergency medicine physicians, ophthalmologists, anesthesiologists, infectious disease physicians, and many others often participate in GH work or volunteer projects overseas.
- Investigate what programs are available to local medical students; such programs often offer clinical, public health, community-based, or research opportunities for trainees as well.
- Investigate whether any other departments at local universities have global programs for their undergraduate and graduate students. If there is no multidisciplinary GH center or division, consider contacting schools of nursing, pharmacy, engineering, agriculture, veterinary medicine, etc. Efforts to improve GH do (and must) involve other disciplines beyond medicine.

2. Partner with other area training programs that have established GH electives

- Find out what other trainees are doing in GH. Emergency medicine, family practice, internal medicine, surgery, ob-gyn, and other pediatric programs may have partner sites for electives abroad or may at least have had some trainees arrange overseas electives. Contact their chief residents or program directors to learn more.

3. Network through professional organizations in which students, residents, fellows and faculty are involved in global health work to identify elective opportunities

Examples include the following:

- The Consortium of Universities for Global Health (CUGH)
  Website has many free online resources for teaching GH, including a list of GH training programs worldwide.
- **The American Academy of Pediatrics** (AAP) Section on International Child Health (SOICH)
  Access many resources, including travel grants for international electives. Additionally, the SOICH listserv is sometimes helpful for identifying elective opportunities (you must be an AAP SOICH member to use the listserv)
- Two other groups important to resident education (although residents are not generally members) are the GH groups within the **Academic Pediatric Association** (APA) and the **Association of Pediatric Program Directors** (APPD). Members in each of these groups are pediatricians with expertise in the practice and teaching of GH and make excellent mentors for residents with GH interests. Find out who in your area belongs to these organizations and reach out to them.
  - APA Special Interest Group on International Health
  - APPD has a Global Health Learning Community with representation from most pediatric programs. This group provides an academic home for GH educators and houses many helpful educator resources on its website: https://appdgh.wordpress.com/
- **The American Pediatric Surgical Association** has a Global Paediatric Surgery Network (GPSN)
- **The American College of Emergency Physicians** (ACEP) Section on International Emergency Medicine

4. Investigate established electives offered by other training institutions

An internet search will yield many GH elective opportunities offered through training institutions, often associated with elective fees. It is important to carefully research those opportunities and review them with faculty mentors who are knowledgeable about GH. Of course, you will need to seek approval from and coordinate with your own program advisor.

Examples include the following:

- **Global Health Learning Opportunities** (GHLO, pronounced "glow")
  An international elective application service offered through the Association of American Medical Colleges (AAMC). The service is available to those at participating institutions.
  https://www.aamc.org/services/ghlo/
- **Baylor International Pediatric AIDS Initiative** (BIPAI)
  Offers learning experiences for over 100 learners (students and residents) annually. Available spots are typically filled 8 to 10 months in advance.

5. Investigate established electives offered by NGOs and others

Frequently, electives offered by NGOs are associated with elective fees, which support the NGO and training costs. The programs listed below are just some examples. You will need to seek approval from and coordinate with your own program advisor. (Note: Inclusion in the list does not constitute endorsement by the authors).

Examples include the following:

- CFHI, Child Family Health International (Bolivia, Mexico, India, Ecuador, S. Africa)
- Concern America. Offers immersion programs that can be customized for individual or small groups of learners.
- Roatán Volunteer Pediatric Clinic, Roatán Public Hospital, Honduras. Takes senior residents (second-year residents if near end of year) for 4-week+ electives.
- INMED, Institute for International Medicine. For international electives, click on Service-Learning on the left, then Electives.
- International Health Central American Institute. Click on "International Medical Students Clinical Rotation…" then scroll down to Community Based Clinical Rotation for Residents, P 08.
- International Service Learning (ISL), Kenya and Uganda programs
- OmniMed Program (Uganda) Website also offers a database of GH service opportunities.
- Association of Reproductive Health Professionals; click here for their Go Tool.
- Student National Medical Association. This group focuses on the needs and interests of medical students of color. See opportunities under International Affairs, or from the home page click on Programs, then National Committees, then International Affairs.
- Christian Medical and Dental Associations. Scroll to the bottom, and check links under Serve, then Center for Medical Missions. See pdf of *Student and Resident Mission Opportunities*. Scholarships are also available.
- Ghana Health and Education Initiative. Program began at the University of Maryland and is geared for undergraduate students, but opportunities for residents can be arranged.
- Health Horizons International. Click on Get Involved, then Internships for information about their 7-week programs in the Dominican Republic for health professionals.

6. Contact NGOs and medical volunteer organizations that permit trainees to participate in their programs

The following websites offer lists of organizations that, in addition to their overseas work, may accept trainees for short-term elective periods.

- Operation Giving Back; the American College of Surgeons
- International Health Electives for Medical Students; on AMSA website (great searchable database)
- University of Massachusetts International Healthcare Opportunities Clearinghouse

- Massachusetts Medical Society's Global Medicine Network (many links). Click on Resources on the left, then Resident Section.
- Family Practice Residencies with International Rotations. See also Global Health Service and Educational Opportunities on left sidebar.
- Mission Finder.org. Extensive directories of Christian-oriented mission opportunities, including scholarships.
- University of Washington's International Health Group. Lists opportunities by global region.

7. Consider participating in a short-term medical mission appropriate for trainees

The type of work varies, and groups should be carefully examined to ensure that proper supervision will be available and that the work provides an appropriate educational experience.

***Examples include the following*:**

- Operation Smile: Plastic and reconstructive surgery teams that also offer educational experiences for pediatric residents (and fourth-year medical students). Apply for their Regan Scholarship here.
- MEDICO (Medical, Eye, and Dental International Care Organization) conducts short-term trips to Honduras.

8. Contact religious/missionary groups with which you would be comfortable working

Examples include the following:

- American Jewish World Service. A 2-month commitment may be required; assignments are individualized for the volunteer.
- Christian Medical and Dental Association
- Catholic Medical Mission Board Medical Volunteer Program (many require a 1-year commitment)
- World Medical Mission/Samaritan's Purse.

9. Consider a foreign language study/clinical care combined elective

Examples include the following:

- Interhealth South America. International health and medical Spanish (fourth-year students and residents, with a summer program for first-year medical students). Elective takes place in Ecuador, with different levels for beginner/intermediate speakers.
- Mayan Medical Aid. Medical and dental Spanish, combined with clinical care, in Guatemala. See Global Health Education Projects.
- SALUD Medical Spanish and Portuguese Programs. Programs also offered in India, Kenya, and Brazil.
- University of Nebraska Medical Center's "Medical Spanish/Global Health" program. See heading on right side of webpage. Course is in Leon, Nicaragua; clinical component involves primary and community health care.
- Asociacion Pop Wuj. Medical Spanish Program combined with clinical care.

10. If research is your passion, potential projects and mentors might be found among GH research organizations

Help address the 10/90 gap with work on matters relevant to resource-limited settings. Only an estimated 10% of the total global funding for health research ($160+ billion annually) is used for research into the major health problems affecting 90% of the world's population.

Examples include the following:

- Ohio University Tropical Disease Institute, Tropical Disease Research Program; and International Research Training Workshop (1 month in summer).
- Global Forum for Health Research. Click on About, then Our Team for a network of researchers.

- Programme for Global Paediatric Research, started by Dr. Alvin Zipursky, Toronto. Meets at the PAS meetings each spring.
- Canadian Coalition for Global Health Research.

11. Consider a local GH elective

You may be able to work at a clinic or program in your own community that serves the needs of immigrant or refugee populations. You might also consider a border health elective or working with the Indian Health Service (see below).

***Examples include the following*:**

- STEER Program (South Texas Environmental Education and Research)
  Offers an international experience without leaving the United States with a 1-month, community-based educational experience in the study of border health. For students, residents, and practicing physicians interested in learning how environment, public health, and medicine shape health for those on the U.S.-Mexico border. Two sites, with over 25 contributing expert faculty.
- Indian Health Service (IHS)
  Offers medical student and resident elective opportunities on or near Alaskan Native or Indian American reservations.
- AMSA Global Health Scholars Program
  During residency in the United States, work with an assigned program mentor to broaden your views and experiences in GH education. Program is 6 months and consists of conference calls, attending a national conference, and advocacy work.

APPENDIX N: Packing List (template) (click here to return to text)

Adapted from the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP and CUGH, 2013.

(Note: This list is not exhaustive, and not all listed items need to be packed. The list is provided as a guide for what to consider packing for a GH elective.)

DOCUMENTS

- ☐ Airline tickets
- ☐ Business cards
- ☐ Calling cards/access numbers
- ☐ Cash (local currency and crisp U.S. $5, $20, and $100 bills issued **after** 2003)
- ☐ Identification (eg, driver's license)
- ☐ Itinerary
- ☐ All immunization records (eg, yellow book), including **documentation of yellow fever** vaccine if applicable
- ☐ Copy of medical license
- ☐ Copy of malpractice insurance coverage
- ☐ Passport **with at least four blank pages** and should not expire within 6 months of travel. Also bring several copies of passport.
- ☐ 2 to 4 extra passport photos
- ☐ Credit cards/debit cards
- ☐ Visa (if required for country; some allow purchase upon entry)
- ☐ Letters for customs if bringing supplies (should include a letter specifying contents; a letter of request for the contents from host site; and a letter of permission from local government, if warranted)

TRAVEL EQUIPMENT

- ☐ Adaptors and chargers
- ☐ Air mattress, if needed
- ☐ Backpack/suitcase
- ☐ Canteen/water bottle
- ☐ Cooking equipment, if needed
- ☐ Day pack
- ☐ Earplugs
- ☐ Headlamp/flashlight
- ☐ Garbage bags/Ziplock bags
- ☐ Linens, if needed
- ☐ Pillow, if needed

PERSONAL ITEMS

- ☐ Clothes pegs, scrub brush, laundry detergent
- ☐ Condoms/contraceptives
- ☐ Deodorant
- ☐ Feminine hygiene products
- ☐ Glasses
- ☐ Hand gel sanitizer/wipes
- ☐ Hair clips, bands, etc
- ☐ Hairbrush/comb
- ☐ Facial tissues
- ☐ Lotion/powder
- ☐ Mirror (small)
- ☐ Nail clipper
- ☐ Needles/sewing kit
- ☐ Razors
- ☐ Shampoo/conditioner/soap
- ☐ Sunglasses
- ☐ Sunscreen/lip balm
- ☐ Toothbrush/toothpaste/floss
- ☐ Towel
- ☐ Tweezers

MISCELLANEOUS

- ☐ Batteries
- ☐ Binoculars
- ☐ Books/textbooks
- ☐ Calculator
- ☐ Camera and memory cards
- ☐ Candies/food
- ☐ Computer/computer files
- ☐ Donated supplies (see "letter for customs" in documents section)
- ☐ Elastic bands
- ☐ Ziplock bags
- ☐ Games/playing cards
- ☐ Gifts for hosts and thank you cards
- ☐ Money belt
- ☐ Map guides/Language book
- ☐ Medical equipment (eg, blood pressure cuffs, stethoscope, pulse oximeter, penlight, trauma scissors, reflex hammer, extra thermometers (Celsius), hand sanitizer, alcohol swabs, code card, reference manuals, gloves

CLOTHING

- ☐ Underwear
- ☐ Dresses
- ☐ Hat/cap
- ☐ Jeans
- ☐ Long-sleeved shirts
- ☐ Pajamas
- ☐ Pants
- ☐ Rain jacket
- ☐ Scrubs, if worn at host site
- ☐ Short-sleeved shirts
- ☐ Shorts
- ☐ Socks
- ☐ Skirts/sarongs
- ☐ Sweater
- ☐ Sweatshirt
- ☐ Swimsuit
- ☐ T-shirts
- ☐ Walking shoes/sandals

OTHER

- ☐ Purchase bottles and jugs of water after arrival
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- ☐ Sleeping bag/blankets, if needed
- ☐ Tent, if needed
- ☐ Umbrella
- ☐ Water filter
- ☐ Watch/travel alarm

MEDICATIONS/HEALTH

- ☐ Acetaminophen/ibuprofen
- ☐ Antibiotic ointment
- ☐ Antibiotics, consider antifungal
- ☐ Antihistamine
- ☐ Antimalarials
- ☐ Adhesive bandages
- ☐ Cold/flu pills
- ☐ Repellent/DEET
- ☐ First-aid kit
- ☐ HIV post-exposure prophylaxis
- ☐ Hydrocortisone cream
- ☐ Laxative
- ☐ Loperamide
- ☐ Mosquito nets
- ☐ Motion sickness pills
- ☐ Oral rehydration powder
- ☐ Personal medications
- ☐ +/- pulse oximeter
- ☐ Thermometer (with Celsius)
- ☐ Traveler's diarrhea medication (fluoroquinolone or azithromycin)
- tongue blades, fitted TB mask, other masks, etc)
- ☐ Music player
- ☐ Pictures/postcards/books of home
- ☐ Project materials
- ☐ Radio (short-wave), if needed
- ☐ Rope
- ☐ Surge protector
- ☐ Swiss army knife (in checked bags)
- ☐ Tape (duct, electrical)
- ☐ Writing material (journals, pens)

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

APPENDIX O: Themes and Best Practices Identified in the Literature for Short-Term Global Health Engagement

(click here to return to text regarding Going Global)
(click here to return to text regarding Partnerships)

Source: St Clair et al. Global Health: Preparation for Working in Resource-Limited Settings. Pediatrics, e20163783. https://doi.org/10.1542/peds.2016-3783.

The table below summarizes themes identified in the literature (obtained from a collective literature search performed by manuscript authors pertaining to preparation recommendations for providers across all specialties) and provides examples of recommendations to address those themes. For the citations pertinent to each recommendation, refer to the original manuscript.

LOGISTICS AND SAFETY	PREPARATION RECOMMENDATIONS IN THE LITERATURE
Personal Health (physical and mental)	• Review basic and site-specific health precautions related to international travel and working in different clinical settings (eg, malaria prophylaxis, water and food safety, post-exposure prophylaxis, occupational exposures, recreational exposures [including sexually transmitted infections], pre-travel immunizations, and health insurance). • Consider personal medical and psychiatric history, as exacerbations of physical and mental illness are common during GH experiences.
Safety	• Research safety issues and travel warnings pertinent to the host site. • Create strategies for risk reduction, including for transportation, environment, food, risk-taking behaviors, and recreational activities, and emphasize that local laws (eg, seatbelts, restricted areas) apply to all visitors. If applicable in the training institution or partnership, consider signing a risk reduction agreement. • Identify emergency contacts, register with the local embassy, enroll in the Smart Traveler Enrollment Program (STEP), and develop an evacuation plan (including evacuation insurance) in the event of a natural disaster, political unrest, or personal emergency. • Recognize the importance of personal protective equipment (PPE), even in areas with resource limitations, and pack PPE supplies. • Review pertinent guidelines regarding occupational exposures, such as needlesticks. • Share in-country travel plans and emergency contacts with the host institution.
Travel Logistics	• Identify passport, visa, and customs requirements. • Arrange in-country transportation, money exchange plans, phone and internet communication, and housing (including alternative options). • Pack appropriate supplies.
Medical Licensure	• Contact the host site and the government to determine requirement for licensure, work visas, and registration to provide clinical care.
Malpractice Insurance	• Determine personal malpractice coverage while working internationally and in-country insurance recommendations.

KNOWLEDGE AND SKILLS	PREPARATION RECOMMENDATIONS IN THE LITERATURE
Medical Knowledge	• Participate in a comprehensive, longitudinal curriculum that addresses diagnosis and management of common illnesses encountered in resource-limited settings (particularly diagnoses endemic to the region of interest). • Seek educational opportunities that improve knowledge, attitudes, and skills pertaining to the *Interprofessional Global Health Competencies*. • Identify local factors that may influence epidemiology of diseases in the host population (eg, water sanitation, vector-borne illnesses, etc). Become familiar with local disease patterns, reference materials, on-site formularies, and clinical practice guidelines, including resources available through the WHO. • If engaging in humanitarian disaster response efforts, review the Sphere Project Humanitarian Charter and Minimum Standards in Humanitarian Response.
Health Systems Knowledge	• Seek an overview of core concepts in preventive health, public health, and health development, particularly if engaging in humanitarian disaster relief. • Engage in local advocacy efforts to reduce health disparities. • Become familiar with the host site health systems organization, standard practices, resources, and challenges.[58,59]
Procedural and Practice Skills *(if applicable)*	• When applicable, refresh procedural skills for tasks that may be expected at the host site (eg, phlebotomy, intravenous access, lumbar puncture, etc). • Refresh general practice skills (if normally practicing as a subspecialist), given the likelihood of needing a wider breadth of competency in resource-limited settings. • Utilize simulation, case-based, and video-based modules that highlight creative approaches to diagnosis and management in resource-limited areas.
ATTITUDES AND BEHAVIORS	**PREPARATION RECOMMENDATIONS IN THE LITERATURE**
Personal Motivations	• Encourage introspection regarding personal motivations for engaging in GH experiences and discourage participation if paternalistic attitudes prevail and/or individuals plan to practice outside of their scope of expertise without appropriate supervision.
Learner Humility	• Recognize that learning and teaching styles may vary significantly in different cultural paradigms, that host time for teaching is often limited, and that visitors may place a burden on host time and productivity. • Embrace the "observer" role during a GH experience, particularly for trainees and/or if requested by the host institution and prioritize the needs of local trainees. • Respect the depth of understanding that local health care professionals have of the local health care system, resources, diagnoses, and challenges.
Cultural Humility	• Recognize that behaviors, skills, and competencies of local providers are culturally based and resource dependent, and avoid comparison to home institutions, superior or judgmental attitudes, or denunciations regarding differences in clinical care.

	• Seek training in cross-cultural communication and culturally appropriate norms (eg, for interactions, personal dress, patient privacy, personal conduct within and outside of the clinical setting).
Understanding of Culture Shock and Re-entry shock	• Gain a basic understanding of culture shock. • Schedule a post-return debriefing with trusted mentors or colleagues to discuss the experience and the re-entry.
Professionalism and behavior	• Recognize that professionalism paradigms may be defined by culture, and perceptions of professional versus unprofessional behavior may differ. Identify strategies for navigating differences in professional behaviors, particularly pertaining to patient care and communication. • Inquire about cultural norms for patient-clinician and clinician-clinician interactions. • Consider signing a professional code of conduct (if applicable).
LOCAL RESOURCES	**PREPARATION RECOMMENDATIONS IN THE LITERATURE**
Clinical Resources	• Become familiar with the host site formulary, laboratory supplies, radiology capabilities, medical technology, medical transportation services, patient costs, and patient payment models prior to departure in order to best inform adaptations in diagnostic evaluations and management.
Human Resources	• Estimate staffing at the host site, including nurse/patient ratios, number and type of subspecialists (if applicable), level of training and roles of different providers, presence of trainees, etc.
Needs and Assets	• Engage in discussions with host personnel prior to departure to determine if there are specific projects or initiatives for which they are seeking one's involvement and identify/clarify specific expectations.
PEOPLE	**PREPARATION RECOMMENDATIONS IN THE LITERATURE**
History, Politics and Economics	• Research the general history, political structure, and economic situation of the destination country and surrounding region. • Become familiar with local laws.
Culture	• Research local culture, health beliefs, and customs. • Meet with people from the host country and/or people who have previously worked there. • Identify potential risks associated with discrimination in-country for visitors (including gender, race, religious beliefs, disabilities, and sexual orientation).
Religion	• Become familiar with local religions and associated practices.
Local Health Beliefs	• Inquire about traditional medical practices and beliefs in the region.
Language	• Determine the language(s) utilized at the host site and attempt to develop basic communication skills prior to travel when feasible. • Arrange plans for interpreter services during the visit if needed, and recognize burdens imposed on local health professionals when assisting with interpretation. • Seek training on how to effectively work with an interpreter.
ETHICS	**PREPARATION RECOMMENDATIONS IN THE LITERATURE**
Donations	• Communicate with the host site prior to gathering and bringing donations to determine what is desired/needed. • Follow host institution guidelines and accepted international guidelines regarding the donations of medications, technology, and supplies. • Become familiar with local fee-for-service models and, if compelled to assist patients with personal donations, work with the local institution

	to ensure that the donor source is anonymous in order to avoid setting precedents and undermining local staff.
Research and Projects	• Obtain both home and host site approval for all research- and project-based initiatives. • Ensure that plans for projects, research, presentations, and manuscripts recognize contributions from international partners, including authorship when applicable.
Patient Privacy	• Uphold standards for patient confidentiality and patient photography that are similar to the standards at one's home institution, including use of patient information in online media and during presentations on return.
Patient Care with Resource Limitations	• Review case scenarios pertinent to the care of patients with resource and health system limitations and recognize ethical dilemmas inherent in practicing medicine in similar settings.
Scope of Practice	• Approach all patient care encounters with the principle of "first do no harm," particularly in the setting of unfamiliar diagnoses, differences in scope of practice, high/emergent acuity, and limited resources. • Clearly communicate one's level of training (prior to and during the visit), identify roles that one will play (eg, observer versus clinical provider), and practice within one's scope of expertise. • Disclose one's level of training to patients with the same transparency as is used at one's home institution.
Supervision	• Ensure that appropriate administrative and logistical support and supervision is available for trainees during GH electives without diverting supervisory resources from local trainees.
Sustainability	• When making patient care decisions, ensure that interventions are appropriate to local context and will have sustained care and follow-up.
Impact on Hosts	• Establish supervisory and hosting agreements that recognize the burden that visiting health care providers place on hosts and offer appropriate compensation. • Choose a visit time and duration that is tailored so that the burden to the host is minimized.
COMMUNICATION	**PREPARATION RECOMMENDATIONS IN THE LITERATURE**
Pre-departure, On-site, and Post-return Communication	• Establish plans for routine communication, both with the traveler and, if applicable, between institutional partners. • Create an access line at the traveler's home institution for trainees and clinicians to contact in the event of an emergency. • Identify host personnel who are available to discuss situations of concern or conflict, both for the visitor or pertaining to the visitor. • Schedule a meeting with returning travelers in order to assess their wellness, provide an opportunity for debriefing of the experience, obtain input on the program/partnership strengths and weaknesses, and determine impact of the experience on clinical practice and career plans.
PARTNERSHIPS	**PREPARATION RECOMMENDATIONS IN THE LITERATURE**
Choosing Opportunities	• Research GH opportunities and attempt to engage in experiences that are part of sustained, mutually beneficial partnerships that have explicit agreements pertaining to institutional and individual roles and responsibilities. • Communicate with host sites to determine whether they are amenable to visiting trainees or clinicians and if there is an

	appropriate fit between the host expectations and the visitor's goals and areas of expertise, including an infrastructure for supervision when applicable.
Pre-departure Selection Processes	• Encourage application processes for GH experiences, including evaluation of goals and objectives. Select providers whose skill sets are appropriate for the site and who are adaptable and demonstrate cultural sensitivity and humility. Discourage participation for those with paternalistic attitudes and/or those seeking to practice outside of their scope of expertise.
Clear Expectations	• Provide transparent goals and objectives (visitors and "sending" institutions) and ensure that the host institution has an opportunity to review them and modify if necessary. • In mutually beneficial partnerships, ensure that all parties have a clear delineation of roles and responsibilities, including "sending" institutions, host institutions, and visitors, with terms outlined in a memorandum of understanding.
Evaluation	• Encourage venues to provide the visitor with ongoing and timely feedback regarding performance, issues, or concerns. • Complete evaluations of the experience if requested by the host site, the partnership, and/or the training institution. • Utilize debriefing sessions as an opportunity to obtain feedback and inform changes for training partnerships. • Develop regular opportunities for partnerships and programs to participate in joint/mutual evaluation, review of agreements, and improvement.

APPENDIX P: Choose Your Own Adventure
Case Scenarios Pertaining to GH Electives

(click here to return to text)

These cases were utilized at an APPD workshop in 2015 (led by Drs. Butteris, St Clair, Arora, Batra, Kuzminski, Pitt, Russ, and Schubert). They are not meant to be all-inclusive but are instead intended to prompt residency program directors regarding important considerations in the development of an infrastructure for GH electives.

CASE	TOPIC	THEME(S)
1	ACCIDENTS AND EVACUATION	Safety
2	CULTURE SHOCK, MENTAL HEALTH (PRE-EXISTING CONDITIONS)	Health, Culture Shock
3	COMMUNICATION WHILE ON SITE (PHOTOS, BLOGS, EMAILS, FACEBOOK)	Professionalism
4	HEALTH PROBLEMS WHILE ON SITE AND INJURY RELATED TO RISK-TAKING BEHAVIOR	Health, Safety
5	POTENTIAL IMPACT OF DONATIONS AND THE ROLE OF THE TRAINEE	Donations, Ethics
6	SIGNIFICANT OTHERS ON ELECTIVES	Logistics, Professionalism
7	TRAINEES AND RESEARCH	Ethics
8	PRESENTATIONS ON RETURN	Professionalism, Ethics
9	RETURNED TRAVELER WITH FEVER (MALARIA)	Health
10	HIV EXPOSURE; POST-EXPOSURE PROPHYLAXIS	Health, Safety
11	DEATH AND DYING	Culture Shock, Ethics, Professionalism, Debriefing
12	PRACTICING OUTSIDE OF SCOPE OF TRAINING	Ethics
13	PANIC DURING NATIONAL ELECTION	Safety
14	ELECTIVE "FALLS THROUGH" AFTER ARRIVAL	Logistics, Ethics

CASE 1: ACCIDENTS AND EVACUATION

One of your residents is participating in an elective in Uganda. Her elective site is in a moderately large city that is 2 to 3 hours by bus from Kampala (the capital city). She decides to travel back and forth between where she is staying and her elective site by boda-boda (motorcycle taxi).

- What reasons might a resident have for choosing this particular mode of transportation?
- What reasons might you as the faculty member have for not wanting the resident to choose this mode of transportation?

While on her way home from the hospital one evening, her boda-boda is hit by a car. She has no helmet and is thrown from the boda-boda in the collision.

- If this were a resident at your institution, what would happen next?
- Who would the resident call and how would she contact them?
- How would this change if the resident was unable to make the phone call (eg, unconscious or head injury)?

Considerations:

- Trainee expense related to in-country travel: boda-boda or matatu (bus) ~$0.50; car taxi $5
- Safety and convenience of foot travel versus vehicle
- Evacuation insurance details (What does it cover? How is it accessed? Why is it essential?)
- Emergency communication process: Who does the resident call and how? Is there someone at your home institution available 24/7? If so, is this person prepared to deal with this situation? Who should be notified on the resident's behalf (parents, spouse, etc) and do you currently collect this information? Who would be an in-country emergency contact to assist the resident?
- Importance of an emergency card for resident to carry on person at all times (Appendix E)

CASE 2: CULTURE SHOCK, MENTAL HEALTH (PRE-EXISTING CONDITIONS)

One of your residents is participating in a GH elective in an urban area in a large city in India. You receive an email from the faculty supervisor at the site informing you that the supervisor has not seen the resident in a few days. The supervisor is concerned and is wondering if you have heard from the resident.

- What would you do next?

You decide to call the faculty supervisor in India. The supervisor tells you that the resident was a bit quiet at the start of the elective and seemed to be affected by jet lag, as he frequently excused himself from the clinic in the afternoon to return home to sleep. His performance and behavior have been somewhat erratic. He has now been absent for the last 3 days.

- What do you think is likely going on with this resident?
- What would you do next?

You alert the residency program director, who is visibly concerned to learn that the resident has not shown up at the elective site for the last 3 days. You decide together to call the resident's spouse to tell her about the situation and see if she has heard from the resident. Unfortunately, she has not heard from the resident. She shares with you that the resident has a past history of anxiety and depression that have seemed to be better controlled recently. He has a strong family history of psychiatric illness, including schizophrenia and bipolar disorder.

- How does this information change your approach to the current situation?
- Is there anything that could have been done prior to the resident's trip that would have been helpful?

Institutional and trainee considerations:

- Pre-departure health self-assessment (and discussion with personal physician and/or psychiatrist) (Appendix H)
- Pre-departure culture shock training (Appendix I)
- Pre-determined check-ins with home mentors and in-country supervisors

CASE 3: COMMUNICATION WHILE ON SITE (PHOTOS, BLOGS, EMAILS, FACEBOOK)

As a residency program director, you have made an effort to "friend" your residents on Facebook to assist them in ensuring that their Facebook posts are professionally appropriate during the time they are in residency. One of your residents currently participating in an elective in Liberia has been posting updates to her Facebook page during the course of her elective. Although her initial posts included a note to all that she had arrived safely and a link to her personal blog, her subsequent posts have included comments about her frustration in dealing with the care that is being provided (or more importantly is unable to be provided) at her hospital site.

- What might be some potential consequences of this resident posting comments on Facebook during the elective?
- How do you expect that the resident's comments might change over the course of her elective?

Her elective is taking place during the midst of interview season at your home institution, and you just haven't had time to look at her blog, but because of her recent Facebook comments you now decide to do so. She has blog entries starting the month prior to departure, when she set up the blog to communicate with her friends and family and has written in her blog regularly since that time. Her blog entries from Liberia begin with a detailed account of her flight, arrival in the airport in Liberia, vivid description of the hospital, the patients, and the place where she is staying. In the entries that follow, she details experiences from the wards at the hospital. She includes pictures of school-age children with severe hydrocephalus and tells their stories as well as stories of the care that they have received (which she laments is substandard and primitive). She wishes that these children had the opportunity to receive the type of care available at her home institution, as she is certain that they would have had the opportunity to lead very different lives if they had.

- What do you think the resident is trying to convey in these blog posts?
- What could be the potential impact of this resident's blog?
- Would this be different if the resident had sent emails to a mailing list of friends and family?
- What could be done prior to a resident's trip to minimize problems with respect to how residents communicate while abroad?

Considerations:

- Importance of pre-departure education pertaining to use of social media and institutional social media guidelines
- Potential consequences of posting on Facebook: public versus private profiles (even if private, if residents become “friends” with host institution personnel, they would then be able to view those comments)
- How comments may change: predictable phenomenon of culture shock, which is experienced by all travelers (even seasoned ones); adjectives/descriptors change throughout an experience based on reaction to various phases of culture shock
- Photography guidelines
- Potential pitfalls of email communication (eg, proud family member forwards a note to church)
- Consider development of social media guidelines, photography guidelines, professionalism guidelines/code of conduct (Appendix I and Appendix J)

CASE 4: HEALTH PROBLEMS WHILE ON SITE AND INJURY RELATED TO RISK-TAKING BEHAVIOR

While participating in an elective in Nepal, one of your residents develops fever and diarrhea.

- Based on what you do at your institution with respect to preparation, what do you think the resident is likely to do next?
- What steps do you hope the resident would take?

The resident goes to a local clinic, has stool studies performed, and is prescribed a course of antibiotics. He completes the antibiotics, and his symptoms resolve. By this time, his elective is coming to an end and he has decided to use his vacation time at the end of the elective to travel around with some U.S. students that he met at a club one night earlier during his elective. He has stayed in contact with the students, who are there studying abroad for the year. The students have planned a trip to go whitewater rafting on the Sun Kosi River near the border with Tibet, one of the best whitewater rafting sites in the world. Your resident decides to go with them.

- What problems might there be with respect to the resident's plan?
- What could have been done prior to the resident's elective that may have helped him make a different decision?

Considerations:

- When residents become ill, where should they seek care?
- Will they have to pay out of pocket?
- How will they find an appropriate clinic?
- Should they contact you?
- What guidance would you give via email?
- What should they bring with them in anticipation of common illnesses (eg, oral rehydration salts, antibiotics, etc)?
- Risk-taking behavior (transportation, water sports, recreational activities, sexual activity, etc) and lack of emergency medical system infrastructure
- Consider developing a risk reduction agreement for trainees (Appendix F)

CASE 5A: POTENTIAL IMPACT OF DONATIONS AND THE ROLE OF THE TRAINEE

One of your residents is participating in an elective in rural Honduras. The clinic site is one the resident has been to previously in the context of mission trips with a church. Unbeknownst to you, the resident has been collecting supplies to bring along for the last few months. The supplies include sheets, clothes, medications, gloves, stethoscopes, an x-ray viewing box, and books. The resident is very excited about how successful the donation collection has been and tells you this in passing the week before the trip.

- What would you want to know from the resident about these donations?
- Are there any potential problems associated with the resident bringing these items?
- Do you have any guiding principles with respect to donations?
- What information could you give residents related to donations and gifts?

Considerations:

- Did the host institution ask for these items to be collected? It is important that hosts identify their needs because of difficulties associated with donated items and need to dispose of things that don't work/can't be used.
- Issues with medications: expired/expiring, possible side effects, labeling and instructions with language barriers or low health literacy, sustainability, site provider familiarity
- Practical issues: customs may not allow medications or supplies to be brought in; supplies may require adapters and converters; in-country personnel may not be trained to use the medications or supplies
- Precedent setting for future visitors
- Although heavy, books can be a good thing to bring and leave (if appropriate for the site)
- Consider developing institution- and partnership-specific guidelines for donations (Appendix K)

CASE 5B: POTENTIAL IMPACT OF DONATIONS AND THE ROLE OF THE TRAINEE

A resident returns from a GH elective in sub-Saharan Africa at a site that your program has recently started to engage in discussions about establishing a formal affiliation agreement. She had a wonderful experience, and during morning report she described several cases that highlighted the difficulties of caring for patients in low-resource settings. During that discussion, she mentioned that she paid for the testing and medications for several patients who couldn't otherwise afford it. Her resident colleagues nodded their heads eagerly in support of her generosity and compassion.

- What might be some negative consequences of her approach to assisting with the cost of the care for those patients?
- How might her actions influence the experience for future residents who rotate at that site?
- In the future, how might you advise residents regarding the use of donations to assist with patient care during GH electives? Consider developing guidelines for donations, Appendix K).

CASE 6: SIGNIFICANT OTHERS ON ELECTIVES

One of your residents is participating in an elective in Port-au-Prince, Haiti. He has decided to bring his fiancée with him on the trip. She has not traveled previously and is not in the medical field. He is passionate about a career that involves GH and would like her to be part of this experience in hopes that she will be as excited as he is about the possibility of living and working abroad after he completes residency.

- How would you counsel this resident?
- What does he need to consider?
- What do you need to consider?
- If this were a homosexual trainee, what issues might he encounter in bringing a same-sex partner?
- Without regard to partners, what concerns might you have for a trainee who is a member of the LGTBQ community participating in GH electives?

Considerations:

- Potential impact on the fiancée: Is she prepared for this? What will she do while the resident is at work? Does the fiancée have evacuation coverage?
- Potential impact on the resident: Will it interfere with elective responsibilities/experience?
- Potential impact on the host: Will it cause strain/stress for staff/hosts (housing/food/transportation considerations, etc)
- Unique issues for LGTBQ trainees during GH electives

CASE 7: TRAINEES AND RESEARCH

While participating in an elective in Ghana, your resident notices that a large number of children in the spina bifida room of the neonatal ward come from a similar region, which the resident learns from a colleague has quite a few industrial mines. During further discussion, the resident and colleague start to wonder whether the spina bifida cases have anything to do with the mines. The resident develops a spreadsheet to gather information on the affected children and begins reviewing their charts for more information. The colleague helps them ask the mothers of the children a number of different questions about their pregnancies, their husband's occupations, and their other children. Your resident has collected a large amount of data during the 8-week elective and returns home excited to analyze the data. The resident meets with you to discuss the initial findings and asks you to review an abstract that the resident would like to submit to PAS about the findings.

- What are your concerns?
- What might have been done before the resident left for the elective that would have been helpful?

Considerations:

- Research ethics and IRB requirements (both at home and in-country institutions)
- Who owns the data?
- Who gets credit for the work?

CASE 8: PRESENTATIONS ON RETURN

Just last week the residents in your program who have completed GH electives in the last year presented about their experiences at your university's campus-wide GH symposium. Yesterday, while waiting for your next APPD workshop to start, you received an email from a social worker at the hospital where you work. She attended the GH symposium and listened to a presentation from one of your residents who did an elective in Ethiopia earlier this academic year. The social worker is originally from Ethiopia and found the presentation insensitive, offensive, and personally insulting. She has copied your chair, the organizers of the GH symposium, and the resident.

- What would you do next?
- What impact could such an email have for your program?
- What effect do you think this email may have on the resident?

You called the social worker yesterday to discuss her concerns further. She expresses frustration that the resident's presentation painted a picture of her country that she does not believe to be

accurate. She describes statements that the resident mentioned in the presentation about family dynamics in relation to feeding practices and distribution of work that she does not believe apply to all families. Furthermore, she expresses deep frustration with the many pictures of "starving children with big bellies and dirty, torn clothing." She feels that this left the audience with an inaccurate impression of Ethiopia and its people and reinforced many of the stereotypes about Africa as a whole that exist in the media in the United States.

- What do you think the resident's intentions were with respect to her presentation?
- What could this resident have done differently in her presentation?
- What process exists at your institution with respect to presentations on return from electives?
- What impact might a resident's presentation on return have on other residents or your program?

Considerations:

- Resident perspective: overwhelmed by degree of illness and malnutrition, wanted to inspire others to get involved, wanted to paint a picture of what they experienced, still processing the experience themselves and unable to see how the presentation may have been insensitive
- Consider requiring residents to meet with a faculty mentor prior to any presentations to discuss content and topics. Encourage the resident to provide a background of the country, a disclaimer with respect to their experiences and lack of generalizability, and a balanced overview of positive experiences as well as challenges, and to design the presentation as if it were being given at the host site.

CASE 9: RETURNED TRAVELER WITH FEVER (MALARIA)

One of your residents recently returned from a 6-week elective in Tanzania. In your weekly meeting with your chief residents, they mention to you that they have used the back-up system multiple times this week because the resident has been in bed with the flu for the last few days. They aren't sure whether the resident is simply tired after returning from the GH elective and starting immediately on an inpatient month, and they wonder whether you think they should ask the resident to switch a week with another resident who is not on back-up so that they can stop using the back-up person.

- What are you most worried about in this situation?
- What could have been done prior to this resident's trip to address your worries?
- Are there other health considerations that can affect residents returning from an elective that are worth discussing/including in your pre-trip preparation?

Considerations:

- Fever in the returned traveler and the need for residents to have a high index of suspicion for malaria on return (discuss risks and signs/symptoms ahead of time and ensure awareness of potential consequences of incomplete prophylaxis)
- Other health considerations: TB testing after return and (depending on area) consider guidance about schistosomiasis or intestinal parasites (both in terms of prevention and recognition after return)
- If resident if not febrile, don't forget about mental health and the possibility that the resident may have physical manifestations of the emotional stress of reverse culture shock
- Importance of a debriefing meeting and wellness check-in

CASE 10: HIV EXPOSURE; POST-EXPOSURE PROPHYLAXIS

One of your residents is working in the nursery of a large hospital in sub-Saharan Africa on a Saturday night. As she draws blood from a neonate, the needle slips and penetrates her skin. Maternal and newborn infectious disease screening is not routinely done and is not available. The laboratory technologist who does HIV screening will return on Monday morning. The faculty did not bring PEP, and there is none available in the hospital.

- What are the next steps?

Considerations:

- Importance of pre-travel occupational exposure counseling, traveling with post-exposure prophylaxis, and institution-specific post-exposure guidelines
- Pre-travel assessment of in-country resources (HIV testing capabilities, PEP medications, etc)

CASE 11: DEATH AND DYING

You are rounding in an acute care unit with your Ugandan colleague and your U.S. senior resident. You stop at a long table where five seriously ill children are being attended by their parents. You notice that the smallest one, a young infant, is in respiratory distress. Nearby is a self-inflating bag and mask, both of adult size. No oxygen is available. The mother stands anxiously by as the infant begins to gasp. Bag and mask ventilation followed by chest compressions is not successful. You look up, and tears are streaming down your resident's face.

- How do you prepare your residents for working in resource-limited settings where they will likely witness mortality?
- What coping strategies would you suggest for this resident?
- How do cultural perceptions of death and dying differ at the host country?

Considerations:

- Importance of scheduled home mentor check-ins with trainees and open communication with on-site supervisor
- Facilitation of reflection essays and written communication, perhaps with guided questions
- Pre-departure emotional preparation through simulations (eg, SUGAR http://www.sugarprep.org/), case scenarios, mentorship

CASE 12: PRACTICING OUTSIDE OF SCOPE OF TRAINING

Your resident returns to the guest house at the end of an inpatient day at the regional referral hospital in East Africa. She is quiet and reflective. After dinner, everyone is sitting on the porch debriefing and cooling off in the late afternoon. Your resident says that she has been asked to perform a procedure that she has not been trained to do. A 9-year-old boy who is febrile and cachectic has a hard, cervical mass. Lymphoma is suspected. Your resident, who is senior on the ward team, has been asked by the junior residents to do a bedside biopsy of the mass the following day. She has not done a biopsy before. In addition, there is no plan for anesthesia. She feels uncomfortable about the procedure but does not want to let her team down.

- What is your advice?
- What strategies can be used to avoid trainees getting into situations like this?

Considerations:

- Pre-departure ethical and communication training regarding scope of expertise
- Consider nightly debriefings, if feasible (with peers, on-site mentors, stateside mentor, etc)

CASE 13: PANIC DURING NATIONAL ELECTION

Your residents are planning to travel to sub-Saharan Africa. The country in which they will be living for 2 months will hold a presidential election while they are there. You contact the State Department and your colleagues in-country. Both recommend that the residents do not change their plans because the risk of violence is considered low. Prior to leaving the United States, your residents watch the film "Hotel Rwanda." They arrive and settle to work in a country close to Rwanda. During a day trip to a nearby city, their car is surrounded by people who are demonstrating in a show of support for the opposition to the present government. Their friends, who invited them on the trip and are from their host country, reassure the residents. However, the incident reminds the residents of a scene from "Hotel Rwanda" and they become fearful. In addition, several host faculty express concern about the upcoming events of the election, although other faculty show no concern. Six weeks short of elective completion, your residents call to say that they are coming home.

- How does your institution determine if it is safe for a resident to travel to a given country and at a given time?

- How do you best prepare residents for something like the situation described?
- How does your institution facilitate emergency evacuations when necessary?

Considerations:

- State Department Overseas Security Advisory Council (OSAC)
- Prepare for emergencies:
    - Resident should register travel plans with the State Department Smart Traveler Enrollment Program
    - Emergency evacuation insurance
    - 24/7 access line at home institution

CASE 14: ELECTIVE "FALLS THROUGH" AFTER ARRIVAL

Two of your best senior residents travel to East Africa following a "crash course" in diagnoses that they might encounter for the first time. You are not personally familiar with the elective site, but you are not worried because a trusted colleague tells you that it is a good site for residents in pediatrics. Your residents arrive, are oriented for 1 day, and suddenly find themselves in charge of pediatrics in the small hospital where they are working. Their exhausted preceptors have taken vacation. Your residents call you for advice.

- How do you advise them?
- What strategies can help to prevent something like this from happening?

Considerations:

- Whenever possible, have residents participate in GH electives at partnership institutions where supervision is available
- Clear commitments regarding supervision plans with signed memorandum of understanding
- Importance of contingency plans

APPENDIX Q: Trainee Planning Timeline and Checklist (template)

(click here to return to text)

Adapted from the Global Child Health Educational Modules Project "Preparation for Global Health Electives" preparation packet, St Clair et al, AAP and CUGH, 2013

For residents whose programs have established GH electives, refer to program-specific checklists.

PERSONAL REFLECTIONS AND REVIEW OF MOTIVATIONS

- ☐ Why do you want to do this? Can your goals be accomplished in a local elective?
- ☐ Will you be able to carry out this elective in a way that emphasizes a respectful, mutually beneficial partnership with the host institution and staff, without imposing burdens on the local health facilities?
- ☐ Are you willing to put time into preparing adequately for this experience, including clinical and cultural preparation?
- ☐ Have you considered your tolerance for travel uncertainties and risks, uncomfortable living conditions, challenging cultural expectations, disease and injury exposure, high morbidity and mortality, and frustrations about inabilities to help?

12 TO 16 MONTHS PRIOR TO DEPARTURE

- ☐ Ensure that your residency program can offer salary support during a GH elective
- ☐ As soon as you are interested in a GH elective, begin networking with potential mentors (faculty and other residents)
- ☐ Schedule call-free elective time (consider season and travel challenges at host site if possible)
- ☐ Consider where you would like to work and what you would like to do (if elective sites are not already offered through your program). Your options may be influenced by language abilities, preferences for hospital or clinic work/urban or rural setting, and availability or lack of appropriate supervision on site. After identifying your goals and preferred elective site characteristics, contact your program's GH advisor, if there is one, and/or organizations and other academic institutions offering GH elective opportunities.
- ☐ Consider expenses and apply for funding if available

8 TO 12 MONTHS PRIOR TO DEPARTURE

- ☐ Select your U.S.-based GH faculty mentor
- ☐ Consider your goals and objectives (keeping in mind the goal of a mutually beneficial partnership between you and your institution and the host institution) and review with your mentor
- ☐ Based on your personal goals (and institutional partnerships, when applicable), choose an elective opportunity that is best aligned with your goals
- ☐ Contact the host supervisor at the elective site to inquire about availability and suitability based on their structure and your timeline/interests
- ☐ Acquire and begin work on necessary applications, noting deadlines and requirements
- ☐ Determine who will be your supervisor at the host site
- ☐ Submit any required forms to your program (eg, applications, program letter of agreement, etc). Note that submission deadlines will vary by institution.
- ☐ Begin reading/viewing recommended readings, videos, and learning modules pertinent to your GH elective
- ☐ Start language training if needed. Note that learning basic courtesy phrases at the least is very helpful.
- ☐ Dialogue with someone who has worked at your host site
- ☐ Learn more about the country's health status, disease profile, health priorities, political structure, and priority issues, as well as about the city and community that you plan to visit

6 MONTHS PRIOR TO DEPARTURE

- ☐ Secure your housing and daily transportation arrangements to/from the workplace (housing arrangements may not be feasible this far out in some regions, and may need to be arranged closer to the date)
- ☐ Apply for a medical license or work permit if required (may require copies of your current license, Drug Enforcement Administration [DEA] card and diplomas)
- ☐ Apply for a passport or ensure that yours will not expire for at least 6 months after you return. Note: Ensure that you have at least four blank pages in your passport (and more if you plan to travel through multiple countries) to allow for country entry/exit stamps
- ☐ Determine how to obtain a visa, if applicable, and how long this will take
- ☐ Make an appointment with the travel clinic for immunizations, malaria prophylaxis, and HIV post-exposure prophylaxis, and to review your current health and routine medications. Check the CDC website for outbreaks or special recommendations.
- ☐ Check for U.S. State Department travel advisories or warnings. Discuss any concerns with your mentors.
- ☐ Determine what diagnostic resources will be available on site. Collect helpful books and resources to take with you.
    - Consider purchasing the WHO manual "*Pocket Book of Hospital Care for Children: Guidelines for the Management of Common Illnesses with Limited Resources (2nd ed)*" (or download the free PDF)
- ☐ If necessary, begin collecting purchased or donated supplies (eg, gloves, masks, syringes, etc) for your personal use and/or for the host site. Review precautions regarding donated medical supplies (Appendix K).

3 MONTHS PRIOR TO DEPARTURE

- ☐ Plan itinerary and purchase airline tickets
- ☐ Obtain emergency medical evacuation insurance (if not already covered by your institution), and submit a copy to your faculty mentor
- ☐ Make sure you understand your health, disability, and malpractice insurance coverage
- ☐ Obtain an international driver's license (if you will be driving; try to avoid driving if at all possible for safety reasons)
- ☐ Review packing list and begin collecting necessary items (some resources or items may need to be ordered)
- ☐ Inquire about cell phone availability (international plan for your cell phone or borrowing/purchasing phone on site) and determine plans for communication with home contacts
- ☐ Identify who your on-site interpreter will be, if needed
- ☐ Ensure clinical coverage in your absence, including notifying continuity clinic of planned elective dates
- ☐ Ensure that all paperwork has been submitted to the host institution and residency program
- ☐ Begin preparations for specific responsibilities and academic projects at the elective site

2 MONTHS PRIOR TO DEPARTURE

- ☐ Confirm lodging and travel plans (pick up at airport; have a back-up plan if no one shows up)
- ☐ List your emergency contacts (home and on site) for your advisor or program coordinator
- ☐ Set up a secondary email account (eg, Gmail) because professional accounts can be problematic in certain settings
- ☐ Scan important documents such as passport, itinerary, evacuation insurance card/information, and medical license and email copies to yourself, your emergency contact, and your faculty mentor (including secondary email account) so that they are available electronically wherever you are
- ☐ Meet with your advisor to update your personal and educational objectives. Ensure that a discussion occurs pertaining to coping skills surrounding death and dying in resource-limited settings.

1 MONTH PRIOR TO DEPARTURE

- ☐ Make arrangements to maintain your home life (pet care, house maintenance, etc)
- ☐ Purchase trip-specific items (mosquito net, luggage locks, headlamp, etc) and continue working on the packing list
- ☐ Register online with the U.S. State Department STEP program (formerly known as "registering with the embassy," now the Smart Traveler Enrollment Program).
- ☐ Review occupational exposure guidelines from your institution
- ☐ Obtain any necessary prescription and nonprescription personal medications, including post-exposure prophylaxis, malaria prophylaxis, bed nets, and other routine medications
- ☐ Obtain cash after determining what type of currency is needed for exchange in your country of destination. Most countries require newer (and crisp) U.S. dollar bills issued after 2003 and will not exchange bills less than $20. In some areas, you should also have numerous small-denomination bills available. Speak with others who have traveled to the site to determine how much cash to have on hand. Consider bringing at least several $100 bills for back-up cash. Visit travel websites (eg, Fodor's) for information about exchanging money while abroad, and also seek country-specific advice, as the availability of automated teller machines varies widely.
- ☐ Schedule your debriefing interview and any required presentations with your faculty mentor
- ☐ Recheck for new travel advisories pertaining to your elective site

1 TO 2 WEEKS PRIOR TO DEPARTURE

- ☐ Review luggage restrictions and items not permitted
- ☐ Finish as much of packing as possible to determine items still needed
- ☐ Confirm emergency contact information (at home and at site)
- ☐ Confirm your arrival with site officials (and confirm your back-up plan for airport pick-up)
- ☐ Weigh your luggage to make sure it does not exceed the limit
- ☐ Finish any notes, charts, dictations, or patient-related follow-up or sign-out
- ☐ Set auto-reply for emails
- ☐ Download or print any resources/documents that are important for your work, as internet access and speeds will likely be unreliable
- ☐ Stop your postal mail delivery
- ☐ Start your malaria prophylaxis when indicated
- ☐ Call credit and debit card issuers to arrange for payments during your absence and to notify them of planned international travel
- ☐ Pack your emergency contact card in a location that will be on your person at all times (Appendix E)
- ☐ Pay other bills as necessary

AFTER YOU RETURN

- ☐ Allow extra time for rest and reflection
- ☐ Expect "reverse culture shock"
- ☐ Debrief with your faculty mentor to review the patient log and overall experience, including cases involving mortality
- ☐ Seek friends and colleagues who are eager to hear about your experiences
- ☐ Summarize and present your experience as required by your program
- ☐ Complete evaluation forms
- ☐ Provide feedback to others who may be going to that site
- ☐ Obtain PPD testing or interferon gamma release assay (eg, QuantiFERON), per your occupational health department) 3 months after you return
- ☐ Meet with occupational health if there were any occupational exposures during your elective

APPENDIX R: Trainee Assessments for Global Health Electives (templates) (click here to return to text)

Example 1: Resident Reflection Self-Assessment

Example of a reflective exercise for residents/fellows providing care for pediatric patients with HIV infection. This can be modified to fit with characteristics specific to the trainee's elective site.

Name of resident:	Date completed:
Please describe (age, gender, HIV stage, illness, and other co-morbid conditions) up to five patients you counseled about starting antiretroviral therapy.	
Please describe (age, gender, HIV stage, illness, and other co-morbid conditions) up to five patients you started on antiretroviral therapy, including five younger than 12 months of age if applicable.	
Please reflect on up to five antiretroviral adherence counseling sessions and describe what you learned from each situation.	
Please describe how you disclosed the diagnosis of HIV/AIDS to up to five patients older than 12 years of age.	
Please describe how you disclosed the diagnosis of HIV/AIDS to up to five patients younger than 12 years of age.	
Please describe any challenges/limitations in caring for HIV/AIDS patients due to culture, language, resources, or other reasons.	
Please describe how you participated in community-based education and clinical care with outreach teams.	

Example 2: Resident Assessment

Global Health Elective Evaluation Form

Name of resident:	Date completed:
Elective start date:	Elective end date:
Name of evaluator:	Email:

Thank you for participating in the education of our residents during their elective. We would appreciate your feedback about their performance during the elective. Please complete the following form and place it in a sealed envelope with your signature over the flap to return with the resident. We would appreciate if you would provide verbal feedback to the resident when you return the form to them. If there are any questions or issues that you would rather share privately via email, please contact the elective directors (insert names). Thank you for your time!

Please rate this resident's competencies using the following numeric scale:
(1 = lowest [worst] competency; 5 = highest [best] competency)
Examples of the criteria for ratings of 1, 3, and 5 are provided below each scale.

Patient care: Address cultural and language barriers to gather important and accurate information about the patient
Performance level of this resident (please circle one)

1	2	3	4	5	Unable to assess

Examples of 1, 3, and 5 rating criteria:
1: Cannot overcome cultural and language barriers, resulting in poor ability to provide effective patient care

3: Overcomes barriers enough to gather some information to develop a basic differential diagnosis and management plan
5: Overcomes barriers enough to gather detailed information to develop a sophisticated differential diagnosis and management plan

Patient care: Adapt to an unfamiliar health care system to organize and prioritize responsibilities to provide patient care that is safe, effective, and efficient
Performance level of this resident (please circle one)

1	2	3	4	5	Unable to assess

Examples of 1, 3, and 5 rating criteria:
1: Unable to adapt to a new health system and differing resources to provide safe, effective, and efficient patient care
3: Able to occasionally adapt to a new health system and differing resources to provide safe, effective, and efficient patient care
5: Consistently adapts to a new health system and differing resources to provide safe, effective, and efficient patient care

Practice-based learning and improvement: Identify strengths, deficiencies, and limits in knowledge and expertise in a resource-limited setting
Performance level of this resident (please circle one)

1	2	3	4	5	Unable to assess

Examples of 1, 3, and 5 rating criteria:
1: Unable to manage patients with limited technology and limited access to consultants
3: Able to manage most aspects of patient care with limited technology and limited access to consultants
5: Able to effectively use available resources to manage all aspects of patient care with limited technology and limited access to consultants

Practice-based learning and improvement: Identify and perform appropriate learning activities to guide personal and professional development/self-improvement
Performance level of this resident (please circle one)

1	2	3	4	5	Unable to assess

Examples of 1, 3, and 5 rating criteria:
1: Does not seek additional resources or participate in projects for self-improvement
3: Occasionally seeks some additional resources and participates in some projects for self-improvement
5: Consistently seeks additional resources and participates in projects for self-improvement

Professionalism: Demonstrate humanism, compassion, integrity, and respect for patients through advocating for their well-being despite resource limitations
Performance level of this resident (please circle one)

1	2	3	4	5	Unable to assess

Examples of 1, 3, and 5 rating criteria:
1: Does not advocate for patients
3: Occasionally advocates for patients
5: Consistently advocates for patients

Professionalism: Demonstrate a sense of duty and accountability to patients and the profession
Performance level of this resident (please circle one)

1	2	3	4	5	Unable to assess

Examples of 1, 3, and 5 rating criteria:
1: Was not reliable and did not collaborate to strengthen the health system
3: Was occasionally reliable and occasionally collaborated in efforts to strengthen the health system
5: Was very reliable and collaborated consistently to strengthen the health system

Interpersonal and communication skills: Communicate effectively and respectfully with physicians, other health professionals, and health-related agencies in an unfamiliar system
Performance level of this resident (please circle one)

1	2	3	4	5	Unable to assess

Examples of 1, 3, and 5 rating criteria:
1: Does not show interest in working with other health professionals or those in systems different from the trainee's
3: Communicates fairly well with some other health professionals or those in systems different from the trainee's
5: Actively interacts and communicates in a respectful way with other health professionals and those in systems different from the trainee's

Interpersonal and communication skills: Able to manage emotions in a positive way when working within a different setting during stressful situations
Performance level of this resident (please circle one)

1	2	3	4	5	Unable to assess

Examples of 1, 3, and 5 rating criteria:
1: Unable to manage emotions and becomes frustrated easily during stressful situations
3: Able to manage some emotions during stressful situations
5: Able to effectively manage emotions and assist colleagues during stressful situations

Additional comments:
_____
_____
_____

Example 3:
Note: This example is less preferable than Example #2 above but should be considered for evaluators who are not familiar with competency-based assessment tools.

Resident Assessment
Thank you for participating in the education of our residents during their elective. We would appreciate your feedback about their performance during the elective. Please complete the following form and place it in a sealed envelope with your signature over the flap to return with the resident. We would appreciate if you would provide verbal feedback to the resident when you return the form to them. If

there are any questions or issues that you would rather share privately via email, please contact the elective directors (insert names). Thank you for your time!

Elective Dates	From:	To:
Resident Name:		
Location:		
Faculty Supervisor:		

ASSESSMENT OF RESIDENT COMPETENCIES

	Not observed	Needs improvement	On target/at expected level	Advanced	Unable to assess
Respect for and recognition of cultural differences					
Understanding of cultural differences					
Communication skills, including effective listening					
Interactions with co-workers					
Interactions with clients, patients, or community members					
Flexibility in cross cultural settings					
Reliability					
Initiative					
Effectiveness					
General knowledge of discipline					
Awareness of other pertinent information					
OVERALL					

Written assessment of resident:

Additional suggestions or comments:

APPENDIX S: Curriculum for a General Pediatrics Global Health Fellowship (example) (click here to return to text)

This curriculum was created for a general pediatrics GH fellowship. It is provided only as an example. Training programs would need to adapt their curriculum to meet their specific subspecialty and trainee needs.

Example 1: Curriculum of a 2-year general pediatrics GH fellowship: 6 months internationally, 6 months in the United States

FELLOWSHIP YEAR 1: JULY - DECEMBER		
	Fellow 1: U.S.-Based	**Fellow 2: Abroad**
Clinical	• Pediatric urgent care clinic • Emergency department urgent care • Hospitalist coverage	International elective #1 x 5 to 6 months • Liberia • Haiti • India • Ecuador • Kenya
Academic	GH boot camp Master of Public Health courses (Fall) Fellowship seminars Project development with mentor	GH boot camp (July/August) Online coursework Digital portfolio Project development at site
Teaching	Pediatric GH track GH pathways	Mentor U.S. pediatric and med/peds residents at site Teaching at international site

FELLOWSHIP YEAR 1: JANUARY – JUNE		
	Fellow 2: U.S.-Based	**Fellow 1: Abroad**
Clinical	• Pediatric urgent care clinic • Emergency department urgent care • Hospitalist coverage	International Elective #1 x 5 to 6 months • Liberia • Haiti • India • Ecuador • Kenya
Academic	Master of Public Health courses (Spring) Fellowship seminars Project development with mentor	Online coursework Digital portfolio Project development at site
Teaching	Pediatric GH track GH pathways	Mentor U.S. pediatric and med/peds residents at site Teaching at international site

Note: Second-year schedule is similar to first-year schedule in terms of time spent in United States and abroad.

Example 2: Curriculum of a 2-year general pediatrics GH fellowship: 11 months internationally, 1 month in the United States

	United States	**International Site**
Fellowship Year 1	1-month orientation	11 months 4 months clinical 1 month vacation 5 months research 1 month teaching
Fellowship Year 2	1 month Conferences Home leave Meet with U.S. mentors	11 months 4 months clinical 1 month vacation 5 months research 1 month teaching

APPENDIX T: Goals/Objectives for a Combined Subspecialty-Global Health Fellowship (example) (click here to return to text)

These goals and objectives were created for a combined pediatric emergency medicine/GH fellowship. They are provided only as an example. Training programs would need to adapt their goals and objectives to meet their specific subspecialty and trainee needs.

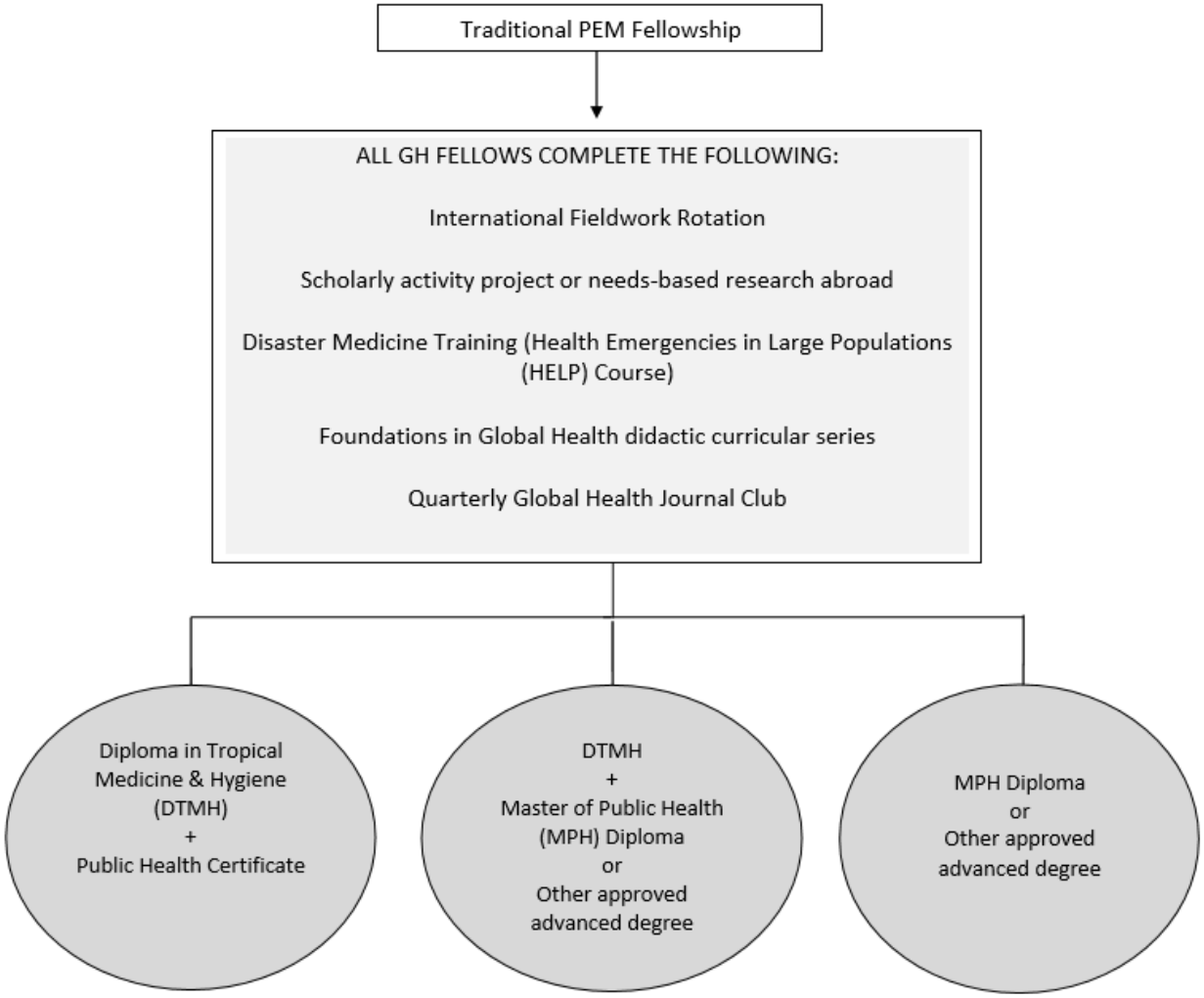
Combined Pediatric Emergency Medicine-GH (PEM-GH) Fellowship Goals/Objectives		
GOALS		
Assess GH systems to identify pertinent pediatric and/or emergency health issues and gaps in delivering high-quality care.		
Design sustainable, effective, culturally acceptable pediatric and/or emergency health programs that address collaboratively identified needs.		
Implement pediatric and/or emergency medicine GH programs abroad and integrate them into existing health systems.		
Evaluate quality and defining structural, process, and outcomes metrics for the GH programs implemented.		
OBJECTIVES	**ACGME Competencies**	**Curriculum Components**
Participate actively in international field projects that incorporate ACGME core competencies	Patient care Medical knowledge Practice-based learning and improvement Systems-based practice Interpersonal and communication skills Professionalism	International fieldwork elective Academic research conducted abroad
Develop fundamental knowledge in global public health and education, tropical medicine, and/or disaster medicine	Medical knowledge Practice-based learning and improvement Systems-based practice	Master of Public Health (MPH) Public Health Certificate Master of Education (MEd) Diploma in Tropical Medicine and Hygiene (DTMH) Health Emergencies in Large Populations (HELP) course Foundations in Global Health (FIGH) didactic curricular series
Conduct research and/or scholarly activity in pediatric emergency medicine	Practice-based learning and improvement Systems-based practice Professionalism	Academic research conducted abroad Mentorship
Obtain a working knowledge of university, governmental, and nongovernmental GH organizations	Systems-based practice	International fieldwork elective MPH Public Health Certificate HELP course
Gain knowledge regarding development, funding, and sustainability of international programs	Systems-based practice	International fieldwork elective Academic research conducted abroad MPH Public Health Certificate Mentorship

Begin networking necessary for a successful career in GH through mentoring and partnership development	Interpersonal and communication skills Professionalism	International fieldwork elective Academic research conducted abroad FIGH didactic curricular series GH journal club Other formal lectures Mentorship

APPENDIX U: Combined Subspecialty-Global Health Training Pathway (example) (click here to return to text)

This training pathway was created for a combined pediatric emergency medicine/GH fellowship. It is provided only as an example. Training programs would need to adapt their training pathways to meet their specific subspecialty and trainee needs.

Proposed Curriculum Pathways for the
Combined Pediatric Emergency Medicine-GH (PEM-GH) Fellowship



APPENDIX V: Sample Non-Standard Training Pathway Petition Letter to the ABP (to seek credit for GH training during accredited pediatric subspecialty training)

(click here to return to text)

This petition letter was created for a combined pediatric emergency medicine - GH fellowship. It is provided only as an example. Training programs would need to adapt their petition letters to meet their specific subspecialty and trainee needs. Additional details can be found at the ABP website.

Date:

Re: Fellow name, Pediatric Emergency Medicine – Global Health Fellowship Pathway Approval
To the American Board of Pediatrics Vice President of Credentialing and Initial Certification,

The Baylor College of Medicine Pediatric Emergency Medicine (PEM) fellowship program is seeking retroactive approval for Dr. ** to complete a Global Health (GH) track during her standard PEM fellowship training. As this fellowship track involves potentially 8 months abroad during her 3 years of training, we would like to take a moment to review the goals, objectives, and structure of this combined program.

The Baylor Pediatric Emergency Medicine - Global Health fellowship track was established in 2005 in response to growing interest in GH among applicants applying to our Pediatric Emergency Medicine (PEM) fellowship program. Fellows complete the standard PEM curriculum in 3 years but receive supplementary training and experience in GH intermittently throughout the 3 years of PEM, as well as an additional year as PEM faculty. It is intended for those who are seeking an academic career in pediatric emergency medicine with a focus on global (domestic and international) health disparities. Individuals completing the fellowship will acquire skills in the development, integration, and evaluation of health care programs on a local, national, and global scale. Seven fellows have graduated from this program, and we currently have four combined fellows in the PEM-GH track. We have attached a manuscript describing our experience with the PEM-GH fellowship track to provide more details about what the electives look like, structure of time abroad, oversight/supervision while gone, etc. Also included is how the GH portion of the fellowship aligns with ACGME competencies.

Key points for our PEM-GH fellows:

- All GH track fellows complete all core requirements for PEM fellowship in 3 years, completing all required PEM hours at Texas Children's Hospital.
- International electives occur only during elective and scholarly activity time in fellowship.
- All GH track fellows complete all ACGME/ABP-required core curricular PEM electives in the United States at BCM/TCH and affiliated accredited hospitals.
- PEM fellows have no required continuity clinic that they would miss during international electives.
- The maximum time out of the country is 3 months/year during fellowship and on average is about 2 months/year, as some time is allocated for advanced degree coursework in the United States. Time abroad is no more than 2 months consecutively.
- GH fellowship work abroad can be a combination of clinical care, education/quality initiatives, and clinical research.
- Fellows work as general pediatricians when working clinically at global sites. Faculty oversight at international locations is always present and has been vetted in advance. No core PEM electives are completed globally.
- GH fellows have significant research oversight, both in the United States and internationally with GH experts sitting on their Scholarship Oversight Committee (SOC).

- When working globally, fellows provide a biweekly report on their activities to the GH and PEM fellowship directors, as well as to their mentors. They check in with the GH fellowship director and mentors biweekly by email and intermittently via video conferencing.
- All SOC meetings occur while fellows are in the United States, per ABP requirements.

We thank you in advance for your consideration of this unique training opportunity for Dr. ** Please do not hesitate to contact me for further questions.

Program Director Name, Degree
Title
Contact information

APPENDIX W: Draft Schedule/Block Diagram for a Fellow to Include with ABP Petition Letter (template)

(click here to return to text)

This schedule was created for a combined pediatric emergency medicine - GH fellowship. It is provided only as an example. Training programs would need to adapt their schedules to meet their specific subspecialty and trainee needs.

Below is a detailed description of Dr. **'s GH elective training that occurred during her Pediatric Emergency Medicine fellowship July 2014 to June 2017. Please find the block diagram of all her PEM fellowship required electives below.

GH Track Electives

YEAR 1:

- May 15 to June 30, 2015 (6 weeks): International Fieldwork Elective
    - Worked clinically in Gaborone, Botswana, at Princess Marina Hospital (a district referral hospital) in the accident and emergency (A&E) department under the direct supervision of an emergency medicine-trained physician (NAME OF SUPERVISOR), with remote supervision from the United States
    - Delivered several lectures related to PEM topics to local pediatric and emergency medicine residents

YEAR 2:

- October 2015 (3 weeks), February 2016 (3 weeks)
    - Worked clinically in Lilongwe, Malawi, at Kamuzu Central Hospital (KCH, a district referral hospital) in pediatric acute care areas under the direct supervision of the chair of the department of pediatrics (NAME OF SUPERVISOR), with remote supervision from U.S. program directors and mentors
    - Delivered several lectures related to PEM topics to local pediatric providers
    - Was asked by the department of pediatrics at KCH to develop a locally relevant pediatric resuscitation training program. Curriculum development and plan for implementation and evaluation occurred with oversight of supervisors in Malawi and GH experts in Houston. IRB was passed in both countries.
- June 2016 (2 weeks)
    - Attended Health Emergencies in Large Populations (HELP) course in Geneva, Switzerland. Received public health instruction in complex humanitarian emergencies.

YEAR 3:

- September to October 2016 (6 weeks), January 2017 (1 month)
    - Worked clinically in Lilongwe, Malawi at Kamuzu Central Hospital (KCH, a district referral hospital) in pediatric acute care areas under the direct supervision of the Chair of the Department of Pediatrics (NAME OF SUPERVISOR) with remote supervision from U.S. program directors and mentors.
    - Delivered several lectures related to PEM topics to local pediatric providers
    - Continued work to develop a locally relevant pediatric resuscitation training program, including pilot trainings. Curriculum development and plan for implementation and evaluation occurred with oversight of supervisors in Malawi and GH experts in Houston. IRB was passed in both countries April 2017.
- February 2017
    - Attended 2-week module at Baylor's National School of Tropical Medicine, with core content needed to receive a Diploma in Tropical Medicine and Hygiene

	YEAR 1 TRAINEE	YEAR 2 TRAINEE	YEAR 3 TRAINEE
July	PEM*	PEM	PEM/OB
August	½ Sedation ½ PEM	PEM	PEM
September	½ Anesthesia ½ PEM	Ultrasound Labor	½ PEM ½ Global Health
October	PEM	¾ GH ¼ PEM	GH
November	PEM	PEM	PEM
December	PEM	Adult EM*	PEM
January	Toxicology	PEM	GH
February	Adult EM	¼ PEM ¾ GH	½ GH ½ PEM
March	PICU	PEM Fellows conference	EMS/ Transport
April	PEM	PEM	Adult EM
May	½ PEM ½ GH	PEM	½ Ortho ½ PEM
June	GH	½ GH	½ Child abuse ½ Radiology

*PEM = Pediatric Emergency Medicine; EM = Emergency Medicine

APPENDIX X: Global Health Resources After Residency Training (click here to return to text)

CLINICAL WORK

Abroad

There are many opportunities for board-eligible or board-certified pediatricians to work abroad clinically. Several medical schools have ongoing projects in developing countries and hire pediatricians to work clinically or to provide teaching and training. Programs such as the Baylor Pediatric Aids Initiative or the Rwanda HRH program hire and send pediatricians to their sites for 1 year or longer. Many NGOs, including faith-based organizations, also hire pediatricians to work abroad. Organizations such as Partners in Health and Doctors without Borders hire pediatricians to work at international sites and may include disaster relief. These positions usually require at least a 6- to 12-month commitment.

Links:
www.bipai.org
www.globalhealth.texaschildrens.org
www.seedglobalhealth.org
www.msf.org
Samaritan's Purse
Catholic Medical Mission

Domestically

Some residents who choose to work solely within the United States find unique avenues to continue their GH interest. These positions can include working with the Indian Health Service, recent immigrants, refugees, international adoptions, pre-travel screenings, or even in a general pediatrics clinic with a predominately underserved population.
www.ihs.gov

POLICY WORK

Residents who are interested in working on GH policy with organizations such as the WHO or UNICEF can explore these opportunities through internships as a way to learning more about careers in these fields. The CDC also has a training program, the EIS program, which trains candidates for a career with the CDC.

Links:
www.who.int
www.unicef.org
www.cdc.gov/eis

RESEARCH

Several research training opportunities are available for trainees who want to explore a career in GH research. The Fogarty scholars program provides funding for research training for early career research scholars. The Doris Duke foundation has a similar program for early stage investigators.
https://www.fic.nih.gov/Programs/Pages/scholars-fellows.aspx

GH IN ACADEMICS

With the surge of interest in GH, many pediatric residency training programs are incorporating formal GH programs into their residency programs. Many medical schools also have developed GH pathway programs within their medical school curriculum. Trainees who are interested in pursuing an academic career may wish to incorporate GH into their career by serving as faculty in these programs. In addition, graduates can join/support a professional organization with a focus on GH.

- Association of Pediatric Program Directors (APPD)
- Section on International Child Health (SOICH within AAP)
- Academic Pediatric Association (APA)
- GH Learning Opportunities (GHLO within AAMC)
- Consortium of Universities for Global Health

OTHER RESOURCES

The following organizations can be resources for residents who are interested in pursuing a career in GH:

- Global Health Council
- ExploreHEALTHcareers.org
- GlobalHealthHub.org
- UNOPS (the operational arm of the United Nations)
- Center for Global Health Initiatives
- American Society of Tropical Medicine and Hygiene
- The Consortium of Universities for Global Health (CUGH) recently created an online resource to assist students and trainees in building their CV in GH. CUGH has provided a series of steps designed to build and organize a GH curriculum vitae, further develop current interests in GH, and discover the areas of particular interest or passion within GH.

Books providing comprehensive descriptions of GH opportunities and job opportunities include the following:

- Caring for the world: a guidebook to global health opportunities
  by Paul Drain, Stephen Huffman, Sara Pirtle, and Kevin Chan (2008)
- Developing global health programming: a guidebook for medical and professional schools by Jessica Evert, Paul Drain, and Thomas Hall (2013)
- Global health training in graduate medical education: a guidebook
  by Jack Chase and Jessica Evert (2011)

Helpful GH-related listservs include the following:

- Global Health Now
- CHIFA (Child healthcare information for all)
- ONE
- Healthy Newborn Network
- WHO calendar
- American Academy of Pediatrics SOICH (Section on International & Child Health). Requires AAP membership. ICHMEMBERS@LISTSERV.AAP.ORG
- Association of Pediatric Program Directors Global Health Pediatric Education Group listserv. Requires APPD membership. APPD-GlobalHealth-PEG@listserv.appd.org

APPENDIX Y: Memorandum of Understanding (example)

(click here to return to text regarding Home and Institution)
(click here to return to text regarding Program Letter of Agreement)
(click here to return to text regarding Table 14)

Sample provided with permission by Cincinnati Children's Hospital Medical Center.

This is pertinent for bidirectional trainee partnerships and could be simplified to meet the basic ACGME requirements for non-partnership elective program letters of agreement (see Chapter 4). Any MOU should be generated by your institution's medicolegal team and reviewed by institutional leadership and the graduate medical education office. This template is not specifically endorsed by the ABP or other affiliates.

Memorandum of Understanding

Between [YOUR INSTITUTION] and [INTERNATIONAL INSTITUTION]
This document serves as a Memorandum of Understanding (MOU) to outline the agreement between [YOUR INSTITUTION] and [INTERNATIONAL INSTITUTION]

Purpose

[YOUR INSTITUTION] and [INTERNATIONAL INSTITUTION] enter into this Memorandum of Understanding to establish and maintain a collaborative program for medical education and exchange of pediatric residents. The goals of this program are to share medical information and knowledge to improve child health in _____ and the United States and to exchange pediatric education and training of residents in both countries.

Education and Training Exchange Program

[YOUR INSTITUTION] and [INTERNATIONAL INSTITUTION] encourage pediatric residents to participate in a health care experience abroad. [YOUR INSTITUTION] and [INTERNATIONAL INSTITUTION] will together identify training opportunities for qualified pediatric residents to experience an international elective at _____.

International electives for pediatric residents from [INTERNATIONAL INSTITUTION]

- As many as __ pediatric residents from [INTERNATIONAL INSTITUTION] may train at [YOUR INSTITUTION] each year as part of the elective in global child health.
- Specific educational objectives will be identified with appropriate faculty input from both institutions.
- The resident and [INTERNATIONAL INSTITUTION] will be responsible for funding travel and living expenses, including visa application fees, health and evacuation insurance coverage, and other related expenses for the resident and any dependents.
- English language proficiency (verbal and written) is required to ensure optimal learning.
- [YOUR INSTITUTION] will provide training opportunities to [INTERNATIONAL INSTITUTION] pediatric residents based on the resident's field of interest, qualifications, and availability and capacity at [YOUR INSTITUTION] to provide an appropriate mentor and residency experience.
- [YOUR INSTITUTION] will serve as the primary coordinator and host of all logistics and activities for [INTERNATIONAL INSTITUTION] residents, providing documentation to support the visa application, advising on housing options and local transportation, ensuring compliance with licensure requirements (if permitted), ensuring compliance with employee health requirements, providing orientation to policies and procedures, etc.
- Residents will be subject to the local licensing requirements and regulatory and institutional policies of the hosting organization.

- The hosting institution will orient exchange visitors to appropriate regulatory and institutional policies, including privacy and confidentiality regulations.
- Exchange visitors must be in compliance with local employee health requirements to ensure the protection of patient and employee populations from exposure to communicable diseases.
- Professional liability coverage must be verified with risk management in each institution for individuals involved in direct patient care.
- Collaborative research, presentations, and/or publications will recognize and credit all parties involved.

International electives for pediatric residents from [YOUR INSTITUTION]:

- As many as __ pediatric residents from [YOUR INSTITUTION] may train at [INTERNATIONAL INSTITUTION] each year as part of the elective in global child health.
- Specific educational objectives will be identified with appropriate faculty input from both institutions.
- The resident and [YOUR INSTITUTION] will be responsible for funding travel and living expenses, including visa application fees, health and evacuation insurance coverage, and other related expenses for the resident and any dependents.
- The resident must be proficient in the language commonly used for professional medical interactions at [INTERNATIONAL INSTITUTION].
- [INTERNATIONAL INSTITUTION] will provide training opportunities to [YOUR INSTITUTION] pediatric residents based on the resident's field of interest, qualifications, and availability and capacity at [INTERNATIONAL INSTITUTION] to provide an appropriate mentor and residency experience.
- [INTERNATIONAL INSTITUTION] will serve as the primary coordinator and host of all logistics and activities for [YOUR INSTITUTION] residents, providing documentation to support the visa application, advising on housing options and local transportation, ensuring compliance with licensure requirements (if permitted), ensuring compliance with employee health requirements, providing orientation to policies and procedures, etc.
- Residents will be subject to the local licensing requirements and regulatory and institutional policies of the hosting organization.
- The hosting institution will orient exchange visitors to appropriate regulatory and institutional policies, including privacy and confidentiality regulations.
- Exchange visitors must be in compliance with local employee health requirements to ensure the protection of patient and employee populations from exposure to communicable diseases.
- Professional liability coverage must be verified with risk management in each institution for individuals involved in direct patient care.
- Collaborative research, presentations, and/or publications will recognize and credit all parties involved.

Term of the Agreement

This agreement takes effect on the date it is signed by representatives from both institutions and will continue in effect for _____ years. The terms of this agreement may be modified at any time by mutual agreement, and either party may cancel the agreement at any time, with or without cause, and without any obligation beyond those that may be established by subsequent additional agreements. Furthermore, this agreement shall not be construed as exclusive, such that either or both organizations may enter into similar agreements with other parties as they solely may deem appropriate.

Use of Names
Both parties agree that they will not use each other's names, logos, registered trademarks, or other symbols in signatures, headings, letterhead, brochures, or announcements or in any other way without prior written consent from the affected party.

Correspondence
Correspondence related to changes in this agreement must be sent to [YOUR INSTITUTIONAL CONTACT].

English Language
This Agreement and all correspondence between the parties related to this Agreement, including and without limitation all records, and information of both parties required or permitted to be generated pursuant to this Agreement, shall be produced in the English language. International partners are permitted to translate such documents, records, or information to other languages as required to accomplish the objectives of this Agreement.

This Agreement, effective the _____ day of _____, 20___, is entered into by and between [YOUR INSTITUTION], [YOUR INSTITUTION'S ADDRESS]

On behalf of [YOUR INSTITUTION'S APPROPRIATE RESPRESENTATIVE]
_____

On behalf of [INTERNATIONAL INSTITUTION'S APPROPRIATE REPRESENTATIVE]
_____ .