

Boston Children's Hospital
Division of Emergency Medicine
Harvard Medical School

International Pediatric Emergency Medicine Fellowship Program Description

Overview

The Boston Children's Hospital International Pediatric Emergency Medicine Fellowship prepares physicians to become pediatric emergency medicine (PEM) physicians and leaders in global health and international emergency systems. Fellows develop a broad range of clinical, research, teaching, and administrative skills in program design, implementation science, humanitarian aid and disaster response, emergency systems development, health program administration, funding, cross-cultural collaboration, international public health, and human rights.

The fellowship program is designed for pediatricians or emergency medicine physicians interested in a career in pediatric emergency medicine focused on academic international pediatric emergency medicine and/or medical leadership and research in international health organizations.

Goals

The goal of the integrated fellowship is to train leaders in international pediatric emergency medicine who are able to:

1. Advance the specialty of pediatric emergency medicine worldwide.
2. Lead effective humanitarian relief and disaster response efforts in conjunction with international aid organizations and local governments.
3. Develop, fund, implement, and evaluate international pediatric emergency medicine and health programs.
4. Conduct clinical and field research based on solid epidemiologic and biostatistics methods.
5. Maintain a working knowledge of international public health issues
6. Maintain a working knowledge of government, non-governmental and international organizations and infrastructure around the world.
7. Understand international humanitarian law and human rights as they relate to conflict, humanitarian crises, and global health.
8. Use leadership, teaching, and clinical skills to advance the practice of pediatric emergency medicine globally.

Fellowship Structure

The integrated pediatric emergency medicine and global health fellowship begins the first week of July of each year and lasts four to five years (dependent on masters degree status). A fellow who already has an MPH/MSc will require only four years. The fellowship encompasses all requirements for board certification in pediatric emergency medicine and global health curriculum. Non-PEM fellowship requirement time is divided between research, Harvard T.H Chan School of Public Health Master of Public Health (MPH) degree coursework, field work and clinical time.

The curriculum is tailored to fellow's individual interests and is divided into 6 areas outlined below; (1) International Fellowship Specific Curriculum (2) International Field Work (3) Harvard School of Public Health (4) Research (5) Clinical Medicine (6) Humanitarian Aid and Disaster Response.

(1) International Curriculum

Fellows take courses at the Harvard T.H. Chan School of Public Health and participate in other educational programs that focus on international pediatric emergency medicine topics. Fellows prepare educational conferences, grand rounds presentations and participate in lectures and teaching conferences at Harvard University, affiliated medical centers, and other institutions.

Fellows attend the Humanitarian Response Intensive Course (HRIC) offered by the Harvard Humanitarian Academy at Harvard Humanitarian Initiative in Boston. This two-week course prepares aid workers for international disaster and humanitarian crisis response. The course includes a three-day field simulation of a complex humanitarian emergency. More information is available on the course website: <http://www.humanitarianacademy.harvard.edu/humanitarian-response-intensive-course>.

Fellows interested in furthering their understanding of humanitarian response can also attend the Health Emergencies in Large Populations (H.E.L.P.) course offered by the International Committee of the Red Cross at 10 locations worldwide. This interactive two-week course is designed to promote professionalism in humanitarian assistance in conflict and disasters. Costs of attending the course are covered by the fellowship program. For more information visit <https://www.icrc.org/en/document/helpcourse>.

Fellows interested in emergency systems and department management have the option of attending the International Emergency Department Leadership Institute's (IEDLI) emergency department/care systems leadership course and advanced leadership courses. <http://www.iedli.org>

Other opportunities for Global Health course work include diplomas in tropical medicine & hygiene. Two options include the London School of Tropical Medicine and Hygiene (<https://www.lshtm.ac.uk/study/courses/short-courses/DTMH>) or Gorgas Course in Clinical Tropical Medicine (<https://www.uab.edu/medicine/gorgas/>)

Additional course work can be identified to support specific fellow's research interests in methodology, study design or grant writing.

(2) International Field Work

Fieldwork time will increase over the course of the fellowship from one month annually up to five months by the end of fellowship depending on the nature of the projects and MPH coursework schedule.

Fieldwork is arranged and coordinated by the fellows under the supervision of the fellowship director and faculty. Fieldwork can be conducted at Boston Children's Hospital affiliated sites, in partnership with other universities or organizations or at a site the fellow has prior affiliation/work with. Fieldwork should encompass the following core areas:

- International emergency systems evaluation, research and development
- Humanitarian assistance, disaster response and refugee health
- Health and human rights policy and development
- International public health
- Pediatric emergency medicine education and residency program development
- International medical provider training
- Health system development and emergency care systems for children

Field experiences are designed to increase the fellow's knowledge base and opportunity to practice acquired skills. Fellows are expected to take an active leadership role during field experiences. Past fellows have developed post conflict educational programs in Liberia, assessed medical humanitarian aid provision in Syria, conducted urban violence assessments in Honduras, and developed emergency services provider training in Pakistan, conducting research on quality in Liberia/Tanzania, taught pediatric resuscitation in Rwanda/Palestine and support UNICEF in undertaking nutrition studies.

(3) Harvard T. H. Chan School of Public Health

The Harvard T. H. Chan School of Public Health provides a world-class education for future leaders in international health. Fellows typically enroll in the Global Health concentration of the Master of Public Health (MPH) program and complete their degree requirements as part-time students over the two-year fellowship period. If the fellowship applicant already has an MPH degree a four-year fellowship is available.

There are 45 and 65 credit MPH degree options for Master of Public Health in global health, clinical effectiveness, health management, health policy, epidemiology, health and social behavior, quantitative methods and occupational and environmental health. The current degree guides can be viewed here: <https://www.hsph.harvard.edu/office-of-education/master-of-public-health/mph-curriculum-guides/>

Fellowship candidates must apply separately to the Harvard School of Public Health MPH program by the December 15 deadline during their third year of fellowship. Costs of required

tuition, and fees are covered by the fellowship program. Admissions information and the online application are available at www.hsph.harvard.edu/admissions/.

(4) Research

Fellows are required to complete at least one international pediatric emergency medicine research project of publishable quality during the fellowship. Fellows may participate in ongoing projects led by Harvard faculty or develop their own projects with the Fellowship Director and program faculty. Potential topics include:

- Emergency health systems
- Epidemiology
- Humanitarian assistance
- Educational initiatives
- Disaster response
- Public health

In addition, fellows are strongly encouraged to complete at least one grant proposal during the fellowship. The Fellowship Director and the Division of Emergency Medicine's grants administrator are available to guide fellows through the process.

Fellows are also affiliates of the Harvard Humanitarian Initiative (HHI) and its Children in Crisis Program, a program developed to encourage university-wide collaboration among Harvard faculty promoting research, training, and policy development in humanitarian assistance and conflict studies. HHI provides an excellent resource for field projects and research. Visit www.hhi.harvard.edu for more information. Fellows also collaborate with the Brigham and Women's Hospital Department of Emergency Medicine Division of International Emergency Medicine and Humanitarian Programs (<https://www.brighamandwomens.org/emergency-medicine/international-emergency-medicine-and-humanitarian-programs>)

(5) Clinical Medicine

Boston Children's Hospital (BCH) is a leader in tertiary care and is a Level I Trauma Center. During fellowship years 1 and 2 the fellow will serve in the role of fellow seeing the most acute cases in the department, performing procedures and teaching residents. During year 3 the fellow transitions to an independent attending. As attending physicians, fellows supervise residents and junior fellows in the BCH emergency department. The 52-bed ED serves 65,000 patients per year. The Boston Combined Residency Program (pediatrics), two different Harvard Affiliated Emergency Medicine Residencies and other affiliated emergency medicine programs include over 200 residents who rotate through the BCH ED annually, many of whom have a strong interest in international health. During fellowship years 4 and 5, the fellow continues to be an independent teaching attending with faculty appointment at Harvard Medical School and a reduced clinical workload to support international fellowship requirements.

Fellows receive clinical and academic appointments at Boston Children's Hospital and Harvard Medical School. Fellows are expected to participate in academic activities and are encouraged to attend Division of Emergency Medicine faculty meetings and teaching conferences as their

schedules allow. Fellows in years 4 and 5 provide clinical coverage, on average working seven 10-hour shifts per month (varies annually and based on fellow's goals).

(6) Humanitarian Aid and Disaster Response

The BCH Emergency Department and Global Health Program as well as the emergency medicine faculty of the Brigham and Women's emergency medicine faculty of the Division of International Health and Humanitarian Programs are actively involved in humanitarian emergency response. The Global Health Program coordinates the deployment of personnel to disasters and humanitarian emergencies in partnership with other Harvard teaching hospitals, non-governmental organizations or international agencies.

Strong support from the emergency medicine faculty provides ED schedule flexibility that allows last minute fellow deployment to disaster areas (as chosen by the fellow). Through the fellowship, fellows interested in this acute response experience are expected to be prepared to travel for up to two months with as little as 48 hours notice.

Structure of Curriculum

Year 1

Clinical: Full time clinical at BCH, standard first year fellow curriculum (ED x 4, ED/Research x 2, Ultrasound/Radiology, Sports Medicine, Anesthesia, PICU, Toxicology, Adult ER Month) with 1 month vacation.

Scholarly Activity: Initiation of Scholarship Oversight Committee (SOC)-approved PEM research project.

Protected Time: individualized

Coursework: None.

Mentorship: PEM Fellowship Director (biannual meetings) and Primary Research Mentor.

Biannual meeting with IPEM Director to initiate plan for following year(s).

Year 2

Clinical: Full time clinical at BCH, adapted second year fellow curriculum (ED x 5, Child Protection/Transport, ED/Research x 2, Adult ER Month, Trauma month, elective month) with 1 month vacation.

Scholarly Activity: Continue SOC-approved PEM research project

Protected Time: Two weeks to complete Humanitarian Intensive Response Course. One month elective time that can be used for field work. Begin attending Division of Emergency Medicine and Humanitarian Program and/or Harvard Humanitarian Initiative meetings as available.

Coursework: Humanitarian Response Intensive Course (HRIC) (2 weeks in April)

Mentorship: PEM Fellowship Director (biannual meetings) and Primary Research Mentor.

Meeting(s) with IPEM Director biannually.

Year 3

Clinical: Attending role at BCH (ED/Research x 8 months, 2 one-month electives/International) vacation x 1 month.

Scholarly Activity: Complete SOC-approved PEM fellowship project by the end of fellowship year three. Begin or continue global health research and scholarly activity started in earlier years.

Protected Time: Clinical schedule to protect 2 months for field work, HELP Course attendance, conference attendance.

Coursework: Health Emergencies in Large Populations (HELP) Course (2.5 weeks June). Teaching as part of the Humanitarian Response Course (last weekend of April)

Mentorship: PEM Fellowship Director (biannual meetings) and begin regular meetings with IEM Program Director to guide HSPH coursework and guidance on IEM projects.

**May sit for the Pediatric Emergency Medicine boards after year 3*

Year 4

Clinical: Attending shifts in BCH Emergency Department (approximately 880 hours/year).

Scholarly Activity: Ongoing development and implementation of IPEM projects. Grant writing to support project work. Availability to travel with less than 48 hours notice, for up to two months to provide humanitarian aid in response to any disaster should fellows choose that experience.

Protected time: 2-3 months for field work - coursework dependent.

Coursework: Begin MPH with summer session at HSPH, then continued part-time MPH coursework during year.

Mentorship: Ongoing meetings with IEM Program director (every 1-2 months) and PEM Fellowship Director (bi-annually).

Year 5

Clinical: Attending shifts in the BCH Emergency Department (880 hours/year).

Scholarly Activity: Presentation or authorship of a scholarly work of publishable quality.

Protected time: Completion of IPEM projects, disaster response as needed, grant activities

Coursework: Completion of remaining requirements for MPH at HSPH.

Mentorship: Regular Meetings with IEM Program director (every 1-2 months) and PEM Fellowship Director (bi-annually).

Evaluations

Fellows meet with the fellowship directors regularly and receive a formal written evaluation every six months. The PEM fellowship director reviews the fellow's progress towards meeting requirements and achieving milestones for PEM board certification. Once the fellow is in his/her attending years, the fellowship director continues to provide feedback on performance in the attending role. The International fellowship director meets with the fellow to review international fellowship curriculum every six months to ensure progress towards those goals. Reviews will include clinical, academic, research and field experience.

International Pediatric Emergency Medicine Faculty

Harvard is rich with international experts and leaders in many areas relevant to the fellowship. Fellows have access to a wealth of resources included the faculty at Harvard Medical School, the Harvard School of Public Health, the John F. Kennedy School of Government, Harvard Business School and Harvard Faculty of Arts and Sciences. Partner faculty include members of the BCH Global Health Program, the BWH Division of International Emergency Medicine and Humanitarian Programs and the Harvard Humanitarian Initiative.

Fellowship Benefits

Fellows receive standard PGY 4-6 compensation and benefits for fellowship years 1-3 that are focused on meeting PEM board certification requirements. During this time fellows receive a standard fellow educational fund. During years 4 and 5 a competitive International Emergency Medicine salary is paid with full coverage of: tuition and fees for Harvard School of Public Health MPH degree, cost of attending the ICRC's HELP course, the Humanitarian Intensive Response Course, the International Emergency Department Leadership Institutes Essentials Course. Fellowship related travel including airfare, room/board for project work is paid out of the fellow's expanded educational fund in years 4 and 5 or by program/project partners. Global malpractice and medical evacuation coverage is paid by the department. Four weeks of vacation are allowed per year each year of fellowship.

Application Requirements

Applicants must be board certified or board eligible in pediatrics or emergency medicine when they begin the fellowship. Successful applications (1) must complete year one of the fellowship without any clinical concerns (2) receive a clinical appointment at Boston Children's Hospital in year 4 and 5 (3) receive a faculty appointment by the Harvard Medical School (4) obtain a Massachusetts medical license and (5) be accepted to the MPH program by the Harvard School of Public Health.

Fellowship applicants should submit the following materials by September 3rd 2019 at 12pm EST.

1. Application Form
2. CV
3. Personal statement for International Pediatric Emergency Medicine
4. One letter of recommendation pertaining to your global health work from a faculty member

Applications can be submitted via email to:

- Address the letter to Dr. Michelle Niescierenko
- Submit it via email to globalhealth@childrens.harvard.edu

Thank you for your interest in our program. Please feel free to contact us with any questions you may have about the fellowship or the fellowship application.

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