



Brigham and Women's Hospital
Harvard Medical School
Department of Emergency Medicine
Division of International Emergency Medicine and Humanitarian
Programs



International Emergency Medicine Fellowship Program Description

Overview

The Harvard International Emergency Medicine Fellowship prepares physicians to become leaders in international health and international emergency systems. Fellows develop a broad range of clinical, research, teaching, and administrative skills in humanitarian aid and disaster response, emergency systems development, health program administration and funding, cross-cultural collaboration, international public health, and human rights.

The fellowship program is designed for emergency physicians preparing for a career in academic international emergency medicine and/or medical leadership and research in international health organizations.

Goals

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

1. Advance the specialty of 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 emergency medicine and health programs.
4. Conduct clinical and field research based on solid epidemiologic methods and biostatistics.
5. Maintain a working knowledge of international public health issues and government and non-governmental organizations and infrastructure around the world.
6. Understand international humanitarian law and human rights as they relate to conflict, humanitarian crises, and global health.
7. Use leadership, teaching, and clinical skills to advance the practice of international emergency medicine.

Fellowship Structure

The fellowship begins July 1 and lasts two years. A fellow who already has an MPH degree will complete a one-year fellowship. Fellows divide their time between international projects and research, Harvard School of Public Health classes, and clinical work in the ED.

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

(1) International Curriculum

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

Fellows 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 paid by the fellowship program. For more information, visit: <https://www.icrc.org/en/document/helpcourse>.

Fellows also attend the Humanitarian Response Intensive Course offered by the Humanitarian Academy at Harvard 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>.

(2) International Field Work

About three to four months per year are spent working abroad. Overseas projects typically last from two weeks to two months depending on the nature of the project and the fellow's MPH class schedule.

Fieldwork is arranged and coordinated by the fellows under the supervision of the Fellowship Director. Fieldwork encompasses the following core areas:

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

Field experiences are designed to increase the fellow's knowledge base and provide an opportunity to practice acquired skills. Fellows are expected to take an active leadership role during field placements. Past fellows have responded to the conflict in South Sudan, earthquakes in Haiti, Japan, and Pakistan, and the Ebola crisis in Liberia, conducted research at the Thai-Burmese border, created a trauma registry in

South Sudan, and evaluated refugee health programs in Tanzania, Mozambique, and Cameroon. Our program prides itself on a wide range of placements.

Travel medicine experience is also available through the Department of Emergency Medicine for interested fellows who elect to serve for one month as expedition physicians.

(3) Harvard School of Public Health

The Harvard 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. (A one-year fellowship for applicants with an MPH degree is available).

A minimum of 42.5 credits is required for the MPH degree. Core requirements of the MPH in Global Health are listed below. In addition, fellows may choose to pursue the Interdisciplinary Concentration in Humanitarian Studies, Ethics, and Human Rights. Further information on the MPH program and courses is available in the MPH Curriculum Guide at <https://www.hsph.harvard.edu/admissions/degree-programs/master-of-public-health/>.

Core Requirements: MPH in Global Health (credits)

Ethics of Public Health Practice (2.5)

Practice and Culminating Experience (3.75)

Biostatistics (5.0)

Epidemiology (2.5)

Environmental Health Sciences (2.5)

Health Services Administration (2.5)

Social and Behavioral Sciences (2.5)

Fellowship candidates must apply separately to the Harvard School of Public Health MPH program by the December 1 deadline. Costs of required textbooks (up to \$1,000), tuition, and fees are paid 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 emergency medicine research project of publishable quality during the fellowship. Fellows may participate in ongoing Harvard faculty projects or develop their own projects with the Fellowship Director. 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 Emergency Department's grants administrator are available to guide

fellows through the process.

Fellows are also affiliates of the Harvard Humanitarian Initiative (HHI), 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.

(5) Clinical Medicine

Brigham and Women's Hospital (BWH) is a leader in tertiary care and is a Level I Trauma and Burn Center. As attending physicians, fellows supervise residents in the BWH emergency department. The 54-bed ED serves 59,000 patients per year. The Harvard Affiliated Emergency Medicine Residency (<http://haemr.org/>) is a PGY 1-4 program with 60 residents, many of whom have a strong interest in international health.

Fellows receive clinical and academic appointments at Brigham and Women's Hospital and Harvard Medical School. Fellows are expected to participate in academic activities and are encouraged to attend Emergency Department faculty meetings as their schedules allow. Fellows provide clinical coverage equal to 0.6 FTE each year and typically work eight or nine nine-hour shifts per month when they are not traveling overseas.

(6) Humanitarian Aid and Disaster Response

The emergency medicine family of the Division of International Emergency Medicine and Humanitarian Programs at Brigham and Women's Hospital (<https://www.brighamandwomens.org/emergency-medicine/international-emergency-medicine-and-humanitarian-programs>) is actively involved in humanitarian emergency response. The Division coordinates a hospital-wide disaster response roster and sends faculty and fellows into disaster areas as the need arises.

Through collaborations with a number of international aid organizations—including the International Rescue Committee, Oxfam, Save the Children, CARE, Red Cross/Red Crescent, Médecins Sans Frontières, Samaritan's Purse, Emergency, and Catholic Relief Services—the fellowship provides substantive field experiences and excellent learning opportunities for fellows.

Strong support from the emergency medicine faculty provides ED schedule flexibility that allows last-minute fellow deployment to disaster areas. Throughout the fellowship, fellows are generally expected to be prepared to travel for up to two months with as little as 48 hours' notice.

Evaluations

Fellows meet with the Fellowship Director regularly and receive a formal written evaluation every six months. The Chairman of Emergency Medicine reviews fellows' clinical performance. International fieldwork is evaluated by field personnel and fellowship faculty. The fellowship curriculum is reviewed every six months by the Fellowship Director to ensure relevance to fellowship goals. The fellow will review clinical, academic, and field experiences regularly with the Fellowship Director.

International 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 including faculty at Harvard Medical School, the Harvard T.H. Chan School of Public Health, the John F. Kennedy School of Government, Harvard Business School, and the Harvard Faculty of Arts and Sciences. Current international emergency medicine faculty in the Department of Emergency Medicine at Brigham and Women's Health Care include the following:

Stephanie Kayden, MD, MPH

- Vice Chair, Department of Emergency Medicine
- Chief, Division of International Emergency Medicine and Humanitarian Programs
- Director, International Emergency Department Leadership Institute
- Director, Lavine Family Humanitarian Studies Initiative, Humanitarian Academy at Harvard
- Assistant Professor of Emergency Medicine, Harvard Medical School
- Assistant Professor of Global Health and Population, Harvard T.H. Chan School of Public Health

Sean Kivlehan, MD, MPH

- Director, International Emergency Medicine Fellowship
- Division of International Emergency Medicine and Humanitarian Programs
- Instructor of Emergency Medicine, Harvard Medical School

Philip Anderson, MD

- Director, International Collaborations, Emergency Medicine International (EMI@BWH)
- Course Director, International Emergency Department Leadership Institute
- Division of International Emergency Medicine and Humanitarian Programs
- Assistant Professor of Emergency Medicine, Harvard Medical School

Gregg Greenough, MD, MPH

- Research Director, Division of International Emergency Medicine and Humanitarian Programs
- Research Director, Harvard Humanitarian Initiative
- Assistant Professor of Emergency Medicine, Harvard Medical School
- Assistant Professor of Global Health and Population, Harvard T.H. Chan School of Public Health

Trish Henwood, MD

- Division of Emergency Ultrasound
- Instructor of Emergency Medicine, Harvard Medical School

Jennifer Leaning, MD, SMH

- Director, FXB Center for Health and Human Rights, Harvard University
- Associate Professor of Emergency Medicine, Harvard Medical School
- François-Xavier Bagnoud Professor of the Practice of Health and Human Rights, Harvard T.H. Chan School of Public Health

Luis Lobón, MD, MS

- Chair, Department of Emergency Medicine, Brigham and Women's Faulkner Hospital
- Course Director, International Emergency Department Leadership Institute
- Instructor of Emergency Medicine, Harvard Medical School

Regan Marsh, MD, MPH

- Division of International Emergency Medicine and Humanitarian Programs

Instructor of Emergency Medicine, Harvard Medical School

Kelli O’Laughlin, MD, MPH

Division of International Emergency Medicine and Humanitarian Programs
Assistant Professor in Emergency Medicine, Harvard Medical School

Phuong Pham, PhD, MPH

Division of International Emergency Medicine and Humanitarian Programs
Assistant Professor of Emergency Medicine, Harvard Medical School
Assistant Professor of Global Health and Population, Harvard T.H. Chan School of Public Health

Shada Rouhani, MD, MPH

Division of International Emergency Medicine and Humanitarian Programs
Instructor of Emergency Medicine, Harvard Medical School

Hanni Stoklosa, MD, MPH

Division of International Emergency Medicine and Humanitarian Programs
Instructor of Emergency Medicine, Harvard Medical School

Michael VanRooyen, MD, MPH

Chair, Department of Emergency Medicine, Brigham and Women's Hospital
Director, Harvard Humanitarian Initiative
Director, Humanitarian Academy at Harvard
Professor of Emergency Medicine, Harvard Medical School
Professor of Global Health and Population, Harvard T.H. Chan School of Public Health

Patrick Vinck, PhD, MSc

Division of International Emergency Medicine and Humanitarian Programs
Assistant Professor of Emergency Medicine, Harvard Medical School
Assistant Professor of Global Health and Population, Harvard T.H. Chan School of Public Health

Eric Nilles, MD, MSc

Director, Program on Infectious Diseases and Humanitarian Emergencies, Harvard Humanitarian Initiative
Division of International Emergency Medicine and Humanitarian Programs
Member of the Faculty at Harvard Medical School

Ronak Patel, MD, MPH

Director of Urbanization and Resilience Program, Harvard Humanitarian Initiative
Division of International Emergency Medicine and Humanitarian Programs
Member of the Faculty at Harvard Medical School

Erica Nelson, MD, PhD

Division of International Emergency Medicine and Humanitarian Programs
Attending Physician, Department of Emergency Medicine, South Shore Hospital
Instructor, Harvard Medical School

Scott Weiner, MD

Division of Health Policy
Assistant Professor of Emergency Medicine, Harvard Medical School

Current Fellows

Megan Rybarczyk, MD '17-19
Res: Boston Medical Center Emergency Medicine Residency
MD: John Hopkins University School of Medicine

Jonathan Dyal, MD, MPH '18-19
Res: Baylor College of Medicine
MD: Johns Hopkins University School of Medicine

Past Fellows

Evelyn Wong, MBBS, FRCS (Edin) (A&E), FAMS '99-00
Senior Consultant
Department of Emergency Medicine, Singapore General Hospital, Singapore
MD: University Medical Center, Singapore

Hilarie Cranmer, MD, MPH '00-01
Director, Global Disaster Response
Harvard University / Massachusetts General Hospital, Boston, MA
Res: Harvard Affiliated Emergency Medicine Residency
MD: Washington University School of Medicine

Irfana Ali, MD '01-02
Attending Physician
Sibley Hospital, Washington, DC
Res: University of Massachusetts Emergency Medicine Residency
MD: University of Maryland School of Medicine

Ondrej Mach, MD, MPH '01-03
General Health Scientist
Centers for Disease Control and Prevention, Geneva, Switzerland
MD: Charles University Medical School, Prague

Miriam Aschkenasy, MD, MPH '01-03
Deputy Director, Global Disaster Response
Harvard University / Massachusetts General Hospital, Boston, MA
Res: University of Connecticut Emergency Medicine Residency
MD: Sackler School of Medicine, Tel Aviv University/New York Program

Rachel T. Moresky, MD, MPH '01-03
Director, International Emergency Medicine
Columbia University Medical Center, New York, NY
Res: University of Illinois at Chicago Residency in Emergency Medicine
MD: Technion Israel Institute of Technology Faculty of Medicine, Haifa, Israel

G. Bobby Kapur, MD, MPH '02-04
Chief of Emergency Medicine
Jackson Memorial Hospital, Miami, FL
Res: Yale-New Haven Hospital Emergency Medicine Residency

MD: Baylor College of Medicine

David Presser, MD, MPH '03-05

Attending Physician

Torrance Memorial Hospital, Torrance, CA

Res: UCLA/Olive View Emergency Medicine Residency

MD: University of California, San Francisco School of Medicine

Stephanie Kayden, MD, MPH '04-06

Vice Chair, Department of Emergency Medicine

Chief, Division of International Emergency Medicine and Humanitarian Programs

Harvard University / Brigham and Women's Hospital, Boston, MA

Res: Yale-New Haven Hospital Emergency Medicine Residency

MD: Albert Einstein College of Medicine

Susan Bartels, MD, MPH '05-07

Clinician-Scientist, International Emergency Medicine

Queens University, Kingston, ON, Canada

Res: Queen's University Emergency Medicine Residency, Canada

MD: Memorial University of Newfoundland School of Medicine, Canada

Raul Ruiz, MD, MPP, MPH '06-07

Congressman Representing the 36th District of California

U.S. House of Representatives, Washington, DC

Res: University of Pittsburgh Affiliated Residency in Emergency Medicine

MD: Harvard Medical School

Jennifer Chan, MD, MPH '07-08

Director, Global Emergency Medicine

Northwestern University Feinberg School of Medicine, Chicago, IL

Res: Harvard Affiliated Emergency Medicine Residency

MD: Northwestern University Medical School

Mamata Kene, MD, MPH '07-09

Attending Physician

Fremont Medical Center, Fremont, CA

Res: University of California, San Diego Medical Center

MD: University of California, San Diego School of Medicine

Parveen Parmar, MD, MPH '08-10

Director, International Emergency Medicine

Keck School of Medicine, University of Southern California, Boston, MA

Res: UCLA/Olive View Emergency Medicine Residency

MD: Northwestern University Medical School

Stephen Morris, MD, MPH '09-11

Director, Academic International Emergency Medicine

University of Washington, Seattle, WA

Res: Yale-New Haven Hospital Emergency Medicine Residency

MD: University of Washington School of Medicine

Brian Sorensen, MD, MPH '10-12
Medical Director, Waters Trauma Center
Hendrick Medical Center, Abilene, TX
Res: Yale University Emergency Medicine Residency
MD: University of Vermont College of Medicine

Pooja Agrawal, MD, MPH '10-12
Director, Global Health Education
Yale-New Haven Medical Center, New Haven, CT
Res: Harvard Affiliated Emergency Medicine Residency
MD: Case Western Reserve University School of Medicine

Maya Arii, MD, MPH '11-13
Humanitarian Policy Officer
Office of Emergency Programmes, UNICEF, New York, NY
Res: Yale University Emergency Medicine Residency
MD: Keio University School of Medicine, Tokyo

Shawn D'Andrea, MD, MPH '12-14
Chief of Emergency Medicine
Tsehootsooi Medical Center, Fort Defiance, AZ
Res: LSUHSC Emergency Medicine Residency
MD: University of Colorado School of Medicine

Usha Periyamayagam, MD, MPH '13-14
Director of Research
Global Emergency Care Collaborative, Nyakibale, Uganda
Res: Northwestern University Emergency Medicine Residency Program
MD: Northwestern University Feinberg School of Medicine

Payal Modi, MD, MS '14-15
Assistant Professor of Emergency Medicine
University of Massachusetts Medical School, Worcester, MA
Res: Brown University
MD: Baylor College of Medicine

Kayla Enriquez, MD, MPH '14-16
Assistant Professor of Emergency Medicine
University of California San Francisco, San Francisco, CA
Res: Highland Hospital / University of California San Francisco
MD: George Washington School of Medicine

Sean Kivlehan, MD, MPH '15-16
Associate Director, International Emergency Medicine Fellowship
Harvard University / Brigham and Women's Hospital, Boston, MA
Res: University of California San Francisco
MD: New York Medical College

Harveen Bergquist, MD, MSc '16-17
Assistant Professor of Emergency Medicine
Keck School of Medicine, University of Southern California, Los Angeles, CA

Res: Cooper University Hospital Emergency Medicine Residency
MD: University of Pennsylvania Perelman School of Medicine

Nirma Bustamante, MD, MPH '16-18
Epidemic Intelligence Service Fellow, Global Emergency Response and Recovery Branch
Centers for Disease Control and Prevention
Res: Harvard Affiliated Emergency Medicine Residency
MD: University of Texas Southwestern Medical School

Fellowship Benefits

Fellows receive a competitive salary and generous package of faculty benefits and CME funds. Full tuition and fees related to the Harvard School of Public Health MPH degree program, including the cost of required textbooks (up to \$1,000), are covered by the fellowship. Costs of attending the ICRC's H.E.L.P. course, the Humanitarian Response Intensive Course, and the International Emergency Department Leadership Institute's Essentials Course are also fully paid. Fellowship-related travel costs are paid, including airfare, room and board, global malpractice insurance coverage, and international medical and evacuation insurance. Two weeks of vacation and two weeks for educational pursuits are allowed per year.

Application Requirements

Applicants must be board certified or board eligible in emergency medicine when they begin the fellowship. Successful applicants must also (1) receive a clinical appointment by Brigham and Women's Hospital, (2) receive a faculty appointment by Harvard Medical School, (3) obtain a Massachusetts medical license, and (4) be accepted into the MPH program by the Harvard School of Public Health.

Fellowship candidates must submit the following materials via the International Emergency Medicine Fellowships website (<http://www.iemfellowships.com/>) by the September 28 application deadline. Please see the application for further details.

1. Application form
2. Letter of interest
3. CV
4. Personal statement
5. Three letters of recommendation (one from residency director or current chairman)
6. Official USMLE transcript

Fellowship candidates must also apply separately to the MPH program of the Harvard School of Public Health by the December 1 deadline. For application information and instructions, visit www.hsph.harvard.edu/admissions/.

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

Sean Kivlehan, MD, MPH
Fellowship Director
Division of International Emergency Medicine and Humanitarian Programs

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