

The left side of the cover features a teal background with several stylized, cut-out illustrations of pathogens. These include red, blue, and green rod-shaped bacteria, and orange and blue spherical viruses with spikes. At the bottom of this section is a large, light blue hand sanitizer bottle with a white pump dispenser.

BOSTON  
UNIVERSITY

Center on Emerging Infectious Diseases

# ANNUAL REPORT

AY 25-26

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# LETTER FROM THE DIRECTOR

August 2026



NAHID BHADELIA,  
MD, MALD

The year 2026 has crystallized the challenges ahead of us in preparing for and responding to infectious disease threats. The Andes virus outbreak aboard the MV Hondius, the Bundibugyo virus outbreak in the Democratic Republic of the Congo, the expanding territory of New World screwworm in the United States, and the cyclosporiasis and Salmonella food-borne outbreaks over this summer all drive home one point: emerging biological threats don't care about political cycles. Not investing in programs that address these threats doesn't lessen them; it just leaves us less prepared. Globally, vaccination coverage is falling, food and animal health systems are strained, global health financing is in retrenchment, and surveillance networks are underfunded. This year clarifies the mission: we need to continue showing up for the actual public health work, continue to study its impact honestly, and practice humility even as we communicate its importance.

This is the work CEID was built for. Centers focused on basic and foundational science, however essential, cannot by themselves answer the questions that determine whether a society weathers an infectious disease threat or succumbs to it. What distinguishes CEID is its focus on operational global health security research, where the questions are defined by what responders urgently need to know and the answers have to arrive while the crisis is still unfolding. That capability comes directly from the experience of our faculty, who have provided direct care during outbreaks, responded to new crises with critical just-in-time analysis, and aided in the development of public health policy. This year also marked one year for BEACON, our open-access surveillance program, which now has users in over 200 countries and territories. We have tracked and analyzed all of the threats described above and deepened partnerships with the WHO, the World Organisation for Animal Health, CEPI, and CDC. We built a surveillance portfolio for the FIFA World Cup, covering every host city across three countries, that was used by more than 50 public health departments.

In April, Boston University renewed CEID for five years. That renewal reflects the work of a community, not of any one program or person. Our external reviewers saw what we see inside the center every day: core faculty drawn from nine schools and colleges across both campuses, including Boston Medical Center, who choose to work across disciplines when it would be easier not to; affiliate faculty at other institutions and in other countries who give their time to our reports, our events, and our students; a small staff carrying a workload that would be heavy even with a team three times the size; and students who ask questions we had not thought to ask. I draw inspiration from this incredible community as we embark on the next five years, and I invite you to join us in our mission.

Sincerely,  
Nahid Bhadelia, MD, MALD  
Founding Director

# OVERVIEW OF CEID

## MISSION

Boston University's Center on Emerging Infectious Diseases (CEID) is a university wide center focused on global health security and linking technical knowledge to policy issues related to emerging pathogens and epidemic threats. CEID's core mission is to improve resilience against the threat of emerging & epidemic infectious diseases worldwide through public health and policy research, global and local capacity strengthening, training, evidence generation for policy support, and community engagement.

Our work focuses on two overarching questions: How should public resources, public health and medical system responses, and public policies be shaped and focused between and during infectious diseases threats to decrease our vulnerabilities as a society? And what evidence do we have to support the decisions?

The center's faculty represent 8 BU Schools and Colleges as well as external and international affiliates, bringing expertise from clinical infectious diseases, infection control, global and national policy, to communications, law, bioethics, epidemiology, and data sciences.

CEID's work includes multidisciplinary research (funded in part by the National Institutes of Health and National Science Foundation as well as private foundations), technical assistance and training (including a Fogarty International Center funded training program in Liberia, and technical partnerships with national and international organizations), policy support to local and national elected representatives, and impactful public communications in media and through public facing events. The center is a member of the World Health Organization's Global Outbreak Alert and Response Network (GOARN) and the National Special Pathogens Training and Education Center (NETEC), a US based network funded by Department of Health and Human Services.



*CEID faculty, staff, and students gathered in June 2026 to celebrate the center's 5-year anniversary.*

# METHOD

We approach our work with GRIT. Just as the root causes that give rise to pandemics are multi-factored, our efforts to combat them must be multidisciplinary. That's why we've centered our work around four pillars which we refer to as "GRIT": Governance, Resilience, Innovation, & Trust.

## **Governance**

We examine the impact of local, national, and international policies, and how these help and hinder global responses to new infectious disease threats. Simultaneously, we work to find novel ways to connect stakeholders with legislators in real time to provide scientific knowledge, policy recommendations and impact assessments for a variety of legislation.

## **Resilience**

Our researchers center their work around keeping our communities safer and better preparing our healthcare systems. We believe resilience against novel infectious diseases requires engagement of a wide range of partners from both of these settings. Outbreaks fracture us along known fault lines. Hence, we believe achieving health equity is an essential requirement for global health security.

## **Innovation**

We believe investment in new biomedical, technical, and social innovations can significantly impact the discovery of emerging pathogens and enhance our response. We examine the societal and policy impact of new research; study challenges of deploying new diagnostics, vaccines, and treatments; and identify best practices for evaluating efficacy of new interventions during public health emergencies. Our researchers also evaluate social innovation strategies in response to emerging and reemerging infectious diseases, and work to identify novel surveillance strategies.

## **Trust**

Building trust between scientists, governments, public health organizations, and affected communities is a cornerstone of responsible pandemic preparedness and response. Misinformation and disinformation sow confusion, lead to detrimental effects on individual health, and delay the end of public health emergencies. We examine the evolution of the role of misinformation and disinformation during infectious diseases emergencies, and their public health impact. Our research focuses on identifying evidenced-based strategies for dispelling misinformation and combatting disinformation. We're examining the role of social media platforms and misinformation, addressing vaccine hesitancy and cyber information exchange networks, exploring the role of geopolitics in the use of disinformation, identifying best practices for communication of scientific uncertainty, and reimagining media and public health interactions during outbreaks.

# AY 2025-2026 BY THE NUMBERS

**6810** CEID SOCIAL MEDIA FOLLOWERS

**2794** BEACON SOCIAL MEDIA FOLLOWERS

**\$2.7 MILLION** IN FUNDING THIS YEAR

**224** PUBLICATIONS

**203** FACULTY MEDIA APPEARANCES

**66** FACULTY & BEACON EXPERTS

**730** EVENT ATTENDEES

# OUR TEAM

## LEADERSHIP & STAFF

As a University-wide research center, CEID reports to BU's Office of Research. Under the leadership of Founding Director Dr. Nahid Bhadelia and Dr. Kenneth Lutchen, Vice President and Associate Provost for Research at BU, the Center is supported by four full-time staff members, Anna Bakanova, Emily Goldsmith, Cassandra Kennedy, and Oona Moorhead. Together, our core team has worked tirelessly to develop CEID's overall research, finance, and communications strategies.



**NAHID BHADELIA,  
MD, MALD**  
FOUNDING DIRECTOR



**KENNETH LUTCHEN,  
PHD, MS**  
VP & ASSOCIATE PROVOST  
FOR RESEARCH, BU



**ANNA BAKANOVA, M.ED.**  
ASSOCIATE DIRECTOR,  
FINANCE &  
ADMINISTRATION



**EMILY GOLDSMITH,  
MALD**  
PROGRAM MANAGER,  
BEACON



**CASSANDRA  
KENNEDY, MPH**  
COMMUNICATIONS &  
OUTREACH MANAGER



**OONA MOORHEAD,  
MPH**  
PROGRAM ASSOCIATE,  
BEACON

## RESEARCH CORE DIRECTORS



**NAHID BHADELIA, MD, MAlD**  
LEAD, PUBLIC HEALTH, MEDICAL  
PREPAREDNESS, AND RESPONSE TO  
EIDS CORE;  
ASSOCIATE PROFESSOR, CAMED



**DAVID HAMER, MD**  
CO-LEAD, EIDS, CLIMATE CHANGE, &  
ONE HEALTH CORE  
PROFESSOR, GLOBAL HEALTH;  
SPH & CAMED



**TRACI HONG, PHD, MA**  
LEAD, TRUST & PUBLIC HEALTH  
COMMUNICATION CORE;  
PROFESSOR, MEDIA & SCIENCE,  
COM



**BRITTA LASSMANN, MD**  
CO-DIRECTOR, BEACON;  
RESEARCH ASSOCIATE PROFESSOR,  
CAMED



**KAYOKO SHIODA, PHD, DVM, MPH**  
CO-LEAD, EIDS, CLIMATE CHANGE, &  
ONE HEALTH AND DATA SCIENCE &  
SURVEILLANCE CORES;  
ASSISTANT PROFESSOR, SPH

---

## CORE FACULTY



**LUIS ALVAREZ-HERNANDEZ,  
PHD, MSW**  
ASSISTANT PROFESSOR, SSW



**JOHN CONNOR, PHD**  
ASSOCIATE  
PROFESSOR, CAMED



**ROBERT DAVEY, PHD**  
DIRECTOR AD  
INTERIM, NEIDL



**MICHAEL DIETZE, PHD**  
PROFESSOR, CAS



**KEVIN GALLAGHER, PHD**  
DIRECTOR & PROFESSOR,  
GDP CENTER, PARDEE



**JOSEPH HARRIS, PHD**  
ASSOCIATE  
PROFESSOR, CAS



**ANDREW HENDERSON, PHD**  
PROFESSOR, CAMED



**PATRICIA HIBBERD,  
MD, PHD**  
PROFESSOR, SPH & CAMED

## CORE FACULTY (CONTINUED)



**ADAM HUME, PHD**  
RESEARCH ASSISTANT  
PROFESSOR, CAMED



**JUWON HWANG,**  
**PHD, MA**  
ASSISTANT PROFESSOR COM



**JESSICA IBIEBELE,**  
**PHD, MPH, RN**  
POSTDOCTORAL FELLOW



**ROBIN INGALLS, MD**  
PROFESSOR, CAMED



**ANOOP JAIN,**  
**DPH/DRPH**  
ASSISTANT PROFESSOR,  
SPH



**JESSICA LEIBLER,**  
**DRPH, MS**  
ASSOCIATE PROFESSOR, SPH



**MAGGIE LIND,**  
**PHD, MPH**  
ASSISTANT PROFESSOR, SPH



**JAI MARATHE, MD, MS**  
ASSISTANT PROFESSOR,  
CAMED



**NINA MAZAR, PHD**  
PROFESSOR, QUESTROM



**BROOKE NICHOLS,**  
**PHD, MSC**  
ASSOCIATE PROFESSOR,  
SPH



**YANNIS PASCHALIDIS,**  
**PHD**  
DIRECTOR, HARIRI  
INSTITUTE;  
PROFESSOR, ENG



**CASSANDRA PIERRE,**  
**MD, MPH, MSC**  
ASSISTANT  
PROFESSOR,  
MEDICINE, CAMED



**KATHERINE REIFLER,**  
**MD, MS**  
ASSISTANT  
PROFESSOR,  
MEDICINE, CAMED



**PRANAY SINHA, MD**  
ASSISTANT  
PROFESSOR,  
MEDICINE, CAMED



**ANDREW STOKES, PHD**  
ASSISTANT PROFESSOR,  
GLOBAL HEALTH, SPH



**GIANLUCA STRINGHINI,**  
**PHD**  
ASSISTANT PROFESSOR,  
ELECTRICAL &  
COMPUTER  
ENGINEERING, ENG

## CORE FACULTY (CONTINUED)



**MICHAEL ULRICH,  
JD, MPH**  
ASSISTANT PROFESSOR,  
HEALTH LAW, ETHICS &  
HUMAN RIGHTS, SPH &  
LAW



**JENNIFER WEUVE,  
SCD, MPH**  
ASSOCIATE PROFESSOR,  
EPIDEMIOLOGY, SPH



**VERONIKA WIRTZ,  
PHD, MSC**  
PROFESSOR, GLOBAL  
HEALTH, SPH



**MUHAMMAD ZAMAN, PHD**  
PROFESSOR, BIOMEDICAL  
ENGINEERING, ENG

## AFFILIATE FACULTY

\*indicates BEACON editorial team

- Salma Abdalla, DrPH, MBBS, MPH, Assistant Professor, School of Public Health Washington University in St. Louis
- Rodgers Ayebare, MB ChB, DTM&H, CIC, MSc, Infectious Diseases Scientist, Infectious Diseases Institute, Makerere University
- John Brownstein, PhD, Co-Director, BEACON; Professor, Biomedical Informatics, Harvard Medical School, SVP & Chief Innovation Officer, Boston Children's Hospital
- Lina Chaito, MPH, Senior Epidemiologist, Lebanon Ministry of Health\*
- Maria Cristina David, DVM, MS\*
- Katinka de Balaogh, DVM, PhD\*
- Thibaut Demaneuf, MSc, Surveillance and Research Officer, Pacific Community (SPC)\*
- Angel Desai, MD, MPH, Assistant Professor, Infectious Diseases, University of California at Davis
- Madeline DiLorenzo, MD, Clinical Assistant Professor of Medicine, NYU Grossman School of Medicine
- Mososka Falla, PhD, MA, MPH, President & CEO, Refuge Place International; Health Security Technical Consultant, World Bank
- Kokulo Franklin, M.Phil, MSocSc, Manager/Co-Lead, Regulatory Compliance & Ethics, FHI Clinical (FHIC) | PREVAIL-Liberia
- Isaac Gikandi, MMSc\*
- Angela Song-En Huang, MD, MPH, Director, Taiwan Field Epidemiology Training Program\*
- Maria Jacobs, MD\*
- Ian Johnstone, JD, LL.M, Professor, International Law, The Fletcher School, Tufts University
- Deborah Kochevar, MGBA, DVM, PhD, Dean Emerita, Cummings School of Veterinary Medicine, Senior Fellow, Fletcher School, Tufts University
- Matthew Levison, MD\*
- Syra Madad, DHSc, MSc, MCP, Senior Director, System-wide Special Pathogens Program, NYC Health & Hospitals
- Larry Madoff, MD, Medical Director, Bureau of Infectious Disease and Laboratory Sciences, Massachusetts Department of Public Health\*
- Kudakwashe Magwedere, BVSc, PGDip, MSc, MPM, PhD, Senior Project Management Specialist for Global Health Security, USAID\*
- Amelie Martin-Darras, DVM, MSc\*
- Leonardo Martinez, PhD, MPH, Assistant Professor, University of California, Berkeley School of Public Health

## AFFILIATE FACULTY (CONT.)

- Preeti Mehrotra, MD, MPH, Senior Medical Director, Division of Infection Control/Hospital Epidemiology, Silverman Institute & Division of Infectious Diseases, Beth Israel Deaconess Medical Center, Harvard Medical School
- Lucas Monje, PhD, Researcher, CONICET\*
- Marjorie Pollack, MD\*
- Nilufar Rakhmanova, MPH\*
- Ma. Ivy Rozeth Saavedra-Iturralde, MD, PHSAE, Epidemiologist, City Government of Zamboanga\*
- Lara Salahi, EdD, Assistant Professor, Journalism, Endicott College
- Lauren Sauer, PhD, MSc, Associate Professor, Department of Environmental, Agricultural and Occupational Health, UNMC College of Public Health
- Jonathan Sleeman, MA, VetMB, Dipl. ACZM, One Health and Wildlife Specialist for the Food and Agriculture Organization, United Nations\*
- Derry Wijaya, PhD, Associate Professor of Data Science, Monash University
- Christina Yen, MD, Medical Director, Maine Medical Center

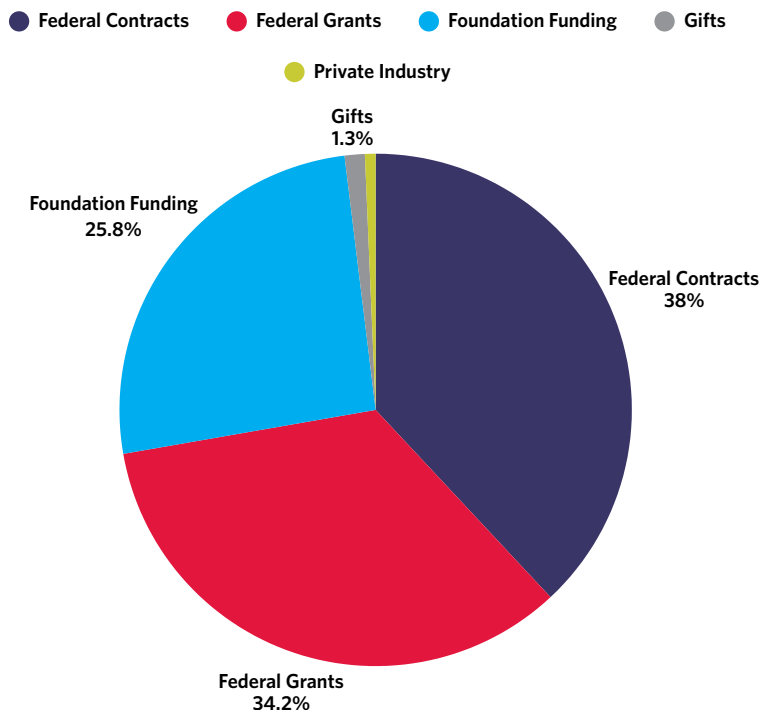
## STUDENTS

Additionally, students at the undergraduate through postdoc levels throughout BU have contributed to CEID's research.

- Quinn Adams (SPH postdoc fellow)
- Nnaemeka Agajelu (Sargent BS student)
- Priyanka Athalye (SPH MPH student)
- Ana Balaci (ENG PhD student)
- Ethan Cadorette (COM BS student)
- Esther Choo (Sargent BS student)
- Lorenza Cuci (CAS BS student)
- Dehao "Billy" Chen (Emory postdoc fellow)
- Tianci Chen (SPH MPH student)
- Sara Cigri (COM BS student)
- Addison Deisher (Emory MPH student)
- Yuejiao Di (COM MS student)
- Mario Fleury (CAS BA student)
- Kanako Fuyama (SPH MPH student)
- Shae Gantt (SPH MS student)
- Anna Geisler (Emerson College BS student)
- Suryakrish Gopikrishnan (MET MS student)
- MacClement Guthrie (SPH MPH student)
- Speshell Hall (COM BS student)
- Rubina Isfahani (COM BS student)
- Katherine Jia (SPH postdoc fellow)
- Reetha Kabbalu Mylaru (SPH MPH student)
- Alexander Kchao (BS student)
- Jongin Kim (CAS PhD student)
- Garima Kohli (CAS PhD student)
- Mayuri Koka-Johnson (Pardee BA student)
- Selin Kubali (UMass Boston PhD student)
- Evelyn Lauren (SPH PhD student)
- Andrew Lay (CAS BS student)
- Ina Lee (SPH MPH student)
- Sophia Leggoe (Johns Hopkins University BA student)
- Grissel Lopes (SPH MPH student)
- Lauren Linde (SPH PhD student)
- Gina Lombard (SPH MPH student)
- Melissa Mezieche (SPH MPH student)
- Nishtha Mistry (SPH MPH student)
- Julia Most (CAS BA student)
- Alma Nieto (SPH MPH student)
- Anthony Omonte (COM BS student)
- Deirdre Otoo (SPH MPH student)
- Danielle Parchure (SPH MPH student)
- Heavenlight Paulo (SPH PhD student)
- Vaishnavi Ravichandran (SPH MPH student)
- Julianna Reyes (SPH MPH student)
- Jason Rutberg (SPH PhD student)
- Palak Shah (CAMED MD student)
- Annie Shapiro (SPH postdoc fellow)
- Alick Sixpence (SPH PhD student)
- Mahtab Talaei (ENG PhD student)
- Yui Tojo (Sargent BS student)
- Aarushi Tuli (SPH MPH student)
- Julia Vaughn (SPH MPH student)
- Lening "Flora" Wang (MET MS student)
- Jingmei Yang (ENG PhD student)
- Amy Zheng (SPH PhD student)
- Ying Zhuang (COM MS student)

# FUNDING

CEID has received over \$2.7 million dollars in new and continued external funding this year, bringing the center's cumulative funding since launch in 2021 to a total of over \$16.5 million. These awards come from sources encompassing federal contracts and grants, foundations, gifts, and private industry. Federal sources of newly awarded funding this year include the National Institutes of Health (NIH), Centers for Disease Control and Prevention (CDC), Fogarty International Center, Department of War, and Administration for Strategic Preparedness and Response (ASPR). Additional funders include International Society of Travel Medicine, Massachusetts Consortium on Pathogen Readiness (MassCPR) through Harvard Medical School, National Emerging Special Pathogen Training & Education Center (NETEC), Coalition for Epidemic Preparedness Innovations (CEPI), and Pax Sapiens.



## FUNDERS



# RESEARCH

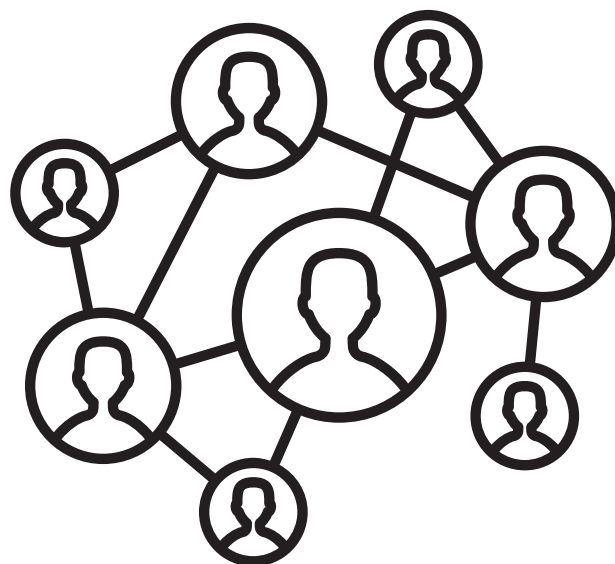
## CORE FOCUS AREAS

CEID's work centers around four core research areas. Core Research Initiatives are meant to accelerate the scholarly activities, grant applications, faculty collaboration, as well as student and stakeholder engagement in a particular area of high priority in the field as it relates to emerging infectious diseases.

### **Data Science and Surveillance**

*Led by Dr. Kayoko Shioda*

The Data Science and Surveillance research core pursued a wide range of research activities in infectious disease surveillance, causal inference, and mathematical modeling during FY2026. This includes developing novel methods for estimating the effective reproductive number ( $R_t$ ) for infectious disease surveillance and outbreak response, evaluating interventions using target trial emulation methods, and leading the SickMix project, which examines social contact patterns among individuals



experiencing acute infection and their close contacts, and incorporates these empirical data into mechanistic transmission models to better understand the impact of behavior change on disease transmission and intervention effectiveness for RSV and rotavirus. All of these projects provided opportunities for student and trainee engagement (see page 10 for all CEID students & trainees). These research activities were supported by the CDC Insight Net (Epistorm), the Gates Foundation, the National Science Foundation (NSF), and other funding sources.

Together with the Department of Global Health at BUSPH, the core co-hosted two research seminars: Dr. Mark Lurie from Brown University about pandemic modeling, and Dr. Kevin McCarthy from the Institute of Disease Modeling about measles modeling. The core also continued to organize and host a monthly seminar series for the BU infectious disease modeling group, which involves faculty, staff, and students across the BU Medical Campus. To strengthen collaboration infrastructure, the core developed a searchable directory of infectious disease modelers across the medical campus, including faculty, staff, and trainees. This resource includes contact information, pathogens of interest, data sources used, modeling methods, and geographic areas of focus, with the goal of fostering interdisciplinary collaboration and mentorship.

# RESEARCH CORE FOCUS AREAS

## **Trust and Public Health Communication**

*Led by Dr. Traci Hong*

Trust in science and in public health institutions and organizations is essential to effectively mobilize citizens to respond to threats to public health and safety. However, over the last few decades, especially during the COVID-19 pandemic, public opinion of science has gradually diminished the ability of organizations and institutions to translate science into practical guidance to promote public health.

This core, through transdisciplinary research, aims to identify the best policies and practices a) to share information with the general public as well as specific stakeholders before and during a fast moving infectious diseases crisis, and b) to build trust in science and public health institutions and organizations, especially as they related to infectious diseases control.

This year, a major activity was the development of TRUSTED: Trust and Understanding of Science Through Engagement and Dialogue, a mixed-methods initiative that integrates computational social media analysis, nationally representative survey research, and qualitative interviews. This core also developed plans for a longitudinal national survey on trust in science and follow-up interviews with underrepresented groups. The core has student involvement in this research both among undergrads and graduate students.

In September 2025, the core hosted Dr. Vish Viswanath from the Harvard T.H. Chan School of Public Health for a guest lecture on countering misinformation. Faculty have presented at seminars on health communication throughout BU and at the University of Oslo.



*Dr. Viswanath (Harvard SPH) giving a guest lecture  
organized by the Trust and Public Health  
Communication core*

# RESEARCH CORE FOCUS AREAS

## **Emerging Infectious Diseases, Climate Change, and One Health**

*Led by Drs. David Hamer and Kayoko Shioda*

CEID's EIDs, Climate Change, and One Health core unites experts from ecology, climate change, One Health, and emerging infectious diseases, along with practitioners and policy experts in public health surveillance and pandemic preparedness, to identify, review, and prioritize research gaps that must be addressed to prevent future global pandemics. The core aims to develop new data sources, methods, and tools to identify, monitor, and characterize emerging infectious disease threats in the era of climate change.



The core has fostered research in this area by awarding two seed grants this year. One is led by Dr. Leonardo Martinez, investigating the impact of wildfire on TB incidence in Brazil. The other is led by Dr. Shioda, investigating the impact of climate change on animal health and human health in rural India. These pilot grants supported the initiation of new interdisciplinary projects focused on climate change and infectious disease, fostering collaborations across departments within the School of Public Health. The awarded funds have been used to generate preliminary data that will support future applications for larger, externally funded research grants.

In other research activity, Dr. Shioda received a grant from the Gates Foundation to predict the enteric disease burden based on climate factors across the world in the next 20 years. Additionally, the core directors have been working on a One Health research project in Bangladesh, investigating the use of antibiotics and antimicrobial resistance in shrimp ponds and surrounding communities.

Building global research relationships, the core also established a new international collaboration with Hiroshima University in Japan, focused on Severe Fever with Thrombocytopenia Syndrome (SFTS) diagnosis. Dr. Toshihito Nomura from Hiroshima University visited CEID and BU for two weeks to initiate collaborative discussions and explore future joint research activities related to emerging infectious diseases and vector-borne pathogens.

# RESEARCH

## CORE FOCUS AREAS

### **Public Health, Medical Preparedness, and Response to EIDs**

*Led by Dr. Nahid Bhadelia*

The focus of the CEID Public Health and Medical Response Core is to link researchers and practitioners from clinical fields, basic and translational sciences, public health and policy sectors to evaluate and understand how diagnostics, vaccines and therapeutics for priority pathogens can be developed and distributed faster and more equitably within the US and globally. This year – defined by outbreaks of hantavirus, Ebola, cyclosporiasis, and more – one of the primary focuses of this core has been supporting medical reporting for BEACON through our faculty's extensive collective expertise.

In response to these outbreaks, some of the core's work has included providing training to US Public Health Uniform Commission corps who are operating the Ebola care unit in Kenya, an analysis and modeling for rapid testing for the Bundibugyo outbreak in the Democratic Republic of the Congo (see page 16), and analysis of regional signals preceding this outbreak, which was published in the [International Journal of Infectious Diseases](#) (see page 21).

Further research includes an analysis of the temporal association between state-level ivermectin-related policy and off-label prescribing of ivermectin by Drs. Nahid Bhadelia, Kayoko Shioda, & Veronika Wirtz, and post-doctoral fellow Dr. Jessica Ibiebele. Dr. Madeline DiLorenzo has led work with NETEC assessing lab capacity for special pathogens across biocontainment units, which was [published](#) in *Infection Control &*

*Hospital Epidemiology*. Additional work includes Africa CDC funded project examining diagnostic capacity in Africa, and a [publication](#) on ethics in biocontainment care.



*Dr. Bhadelia at the [Women Transforming Global Security](#) launch with fellow participants and speakers. Photo on left: Hillary Clinton, Former Secretary of State. Photo on right: Gro Harlem Brundtland, Former Prime Minister of Norway & WHO Director-General and Mary Robinson, Former President of Ireland & UN High Commissioner for Human Rights*

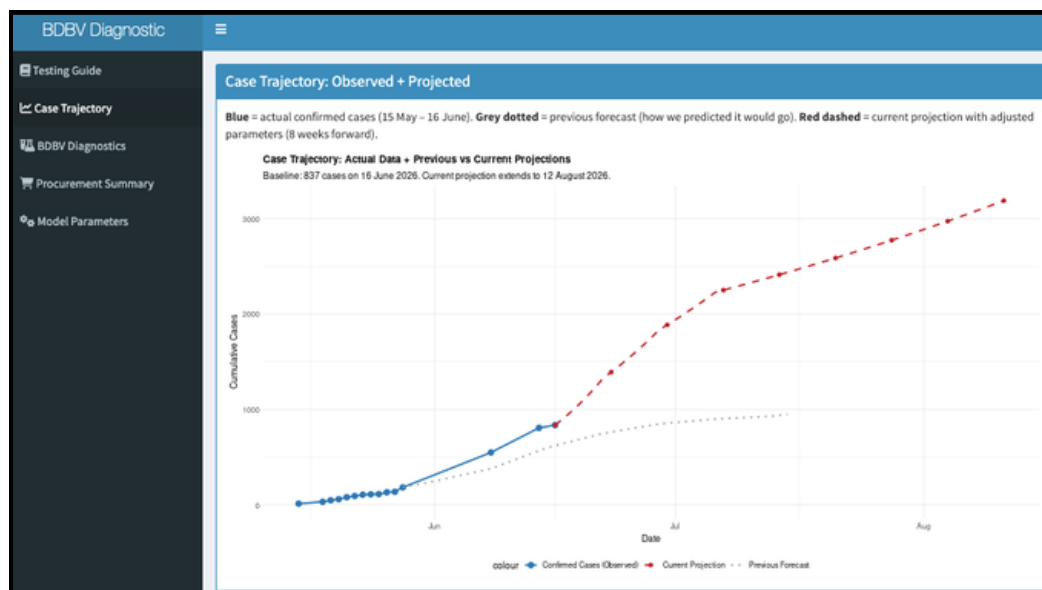
# RESEARCH & INITIATIVES

## SPECIAL PATHOGENS UNIT

In January 2026, Boston Medical Center was selected as a recipient of the National Special Pathogen System (NSPS) Level 2 STAND Award, a funding opportunity provided by the National Emerging Special Pathogens Training and Education Center (NETEC). CEID faculty Dr. Robin Ingalls leads the team of faculty and staff from Boston Medical Center and the Boston University Chobanian & Avedisian School of Medicine, including additional CEID faculty Dr. Jai Marathe and Dr. Cassandra Pierre, to enhance our readiness, training, and infrastructure to safely deliver effective special pathogen care. This award supports our ongoing commitment to strengthening healthcare preparedness and protecting our community during high-consequence infectious disease outbreaks.



## BDBV DIAGNOSTIC PROCUREMENT BRIEF



The current Bundibugyo virus outbreak in the Democratic Republic of Congo has set in motion the familiar machinery of outbreak response: treatment units, contact tracing, and public awareness efforts. But one constraint quietly shapes everything else—the ability to test. In a CEID report, Drs. Brooke Nichols, Nahid Bhadelia,

& collaborators at Amsterdam Institute for Global Health and Development, share results of their modeling which estimates diagnostic test needs in the Bundibugyo virus outbreak in Democratic Republic of Congo in two scenarios where either just nucleic acid amplification tests (such as PCR tests) are deployed or they are deployed with rapid tests. The model provides demand forecasting and makes the case for why investment in rapid tests is important for multiple use cases. This brief models what happens to diagnostic demand under two scenarios: relying on PCR alone, versus pairing it with rapid, point-of-care tests for Bundibugyo and other common fevers. The case for rapid tests is operational as much as clinical.

# RESEARCH & INITIATIVES

## GLOBAL HEALTH POLITICS PODCAST

With funding supported in part by CEID, Dr. Joseph Harris shares conversations on global health and infectious diseases with leading global experts in each episode of the [Global Health Politics Podcast](#). These episodes, produced by a team of students, reach listeners in 114 countries. Guests have included clinicians, sociologists, policy makers, economists, and more. Highlights include former Ebola Response Team Coordinator at the WHO, Dr. Mardia Stone sharing her experience in Liberia's Ebola response; CEID faculty and BUSPH Associate Professor of Global Health Dr. Brooke Nichols and Dr. Beth Cameron, a former Senior Adviser to the U.S. Agency for International Development (USAID) both on the dismantling of the agency, and John Green, the New York Times best-selling author of Everything is Tuberculosis, discussing the global injustice of this curable, yet widespread disease. By platforming global health politics research, the podcast has helped solidify an emerging academic field.



## BUNDIBUGYO VIRUS COMMENTARY



In a commentary for Nature Reviews Microbiology, Dr. Bhadelia emphasizes that managing the Bundibugyo ebolavirus outbreak in the Democratic Republic of the Congo requires rebuilding local health infrastructure, restoring access, and establishing public trust. Because Bundibugyo has only caused two prior outbreaks, it lacks the licensed vaccines and therapeutics available for more common strains



Healthcare workers gear up in PPE to treat patients with highly communicable diseases such as Ebola.

like Zaire and Sudan. Consequently, containment relies heavily on core field interventions: contact tracing, rapid diagnostic testing, and patient isolation. However, active regional conflict and the withdrawal of USAID support have exacerbated local distrust and weakened healthcare access. Dr. Bhadelia warns that relying on reactive foreign aid creates dangerous gaps in response time and resources, with devastating consequences for affected communities.

# TRAINEE RESEARCH

## WORLD CUP PRACTICA

Throughout June and July 2026, North America hosted the 2026 FIFA Men's World Cup: 48 nations competing in 104 matches across 16 cities in Canada, Mexico, and the U.S., which drew more than 5 million fans. The event was one of the largest in sports history, and with so many players, staff, and spectators visiting for the tournament and traveling between host cities, it was clear a coordinated effort was needed to monitor health threats on this scale. CEID compiled daily disease surveillance status



reports to send to public health departments across North America throughout the five-and-a-half week period of the tournament. Assisting with this effort five School of Public Health students completed their MPH practica with CEID. Alma Nieto, MacClement Guthrie, Melissa Mezieche, Deirdre Otoo, and Julianna Reyes (shown left to right in photo above) used BEACON and other resources to compile and verify signals deemed report-worthy.

Each morning, the students, along with CEID faculty and staff, scanned a variety of sources for signals of potential health threats to players and fans, ranging from insect-borne infectious diseases to climate based concerns like extreme heat and air pollution. After meeting to confirm high-priority signals, they spent the day researching to find more context on each signal and writing brief reports summarizing the situation. These analyses were sent at the end of each day in an email digest to over 140 subscribers from health departments ranging from the local to federal levels throughout the US, Canada, and Mexico. Though these daily digests were focused specifically to support health departments, the information and analysis the students contributed also supported BEACON's wider coverage of biological events around the tournament.

*"Over time, we developed a deeper understanding of the patterns and developments within the diseases we monitored most closely. This dynamic strengthened our teamwork, as we came to rely on each other's expertise in specific areas." - Melissa Mezieche*

Fortunately, the tournament was not directly linked to any known widespread transmission of infectious disease. Throughout the event period, some of the major health concerns covered included measles exposures at several host city airports, unspecified illnesses that seemed to be contained among teammates, and non-communicable conditions such as alcohol intoxication, hypertension, and anxiety episodes.

# TRAINEE RESEARCH

## STUDENT RESEARCH PILOT GRANTS

This year we were proud to continue our student research grant program for its third year, awarding two grants of \$5,000 each in support of student research projects. Throughout AY '25-'26, the students who received these grants in Spring 2025 shared their findings with CEID faculty and staff at periodic work-in-progress presentations.

2025 awardee, Amy Zhang, MPH is pursuing a PhD in Epidemiology at the School of Public Health. Zheng's project, under CEID faculty Dr. Leonardo Martinez, evaluates the effectiveness of tuberculosis preventive treatment in carceral settings. This study aims to evaluate the short- and long-term impact of a one-time, prison-wide mass preventive treatment intervention on tuberculosis incidence among four prisons in Pakistan.

In her research over the past year, Garima Kohli, MSc, a neurobiology PhD student in the College of Arts and Sciences, has been investigating the preference of mosquitoes to young children compared to adults to identify the age-specific human body odor cues that drive changes in attraction. This work will inform targeted mosquito control strategies to protect children, the population at highest-risk of fatality from mosquito-borne diseases.



*Kohli sets up an experiment to measure mosquitos' response to smelling a participant through a screen.*

In Spring 2026, CEID awarded two more grants to Léa Feuerbacher, MPH, who is pursuing a PhD in environmental health, and to Dominick Leone, PhD, MPH, a postdoctoral fellow in the School of Public Health's Department of Global Health.

Feuerbacher's research, under CEID faculty Dr. Anoop Jain, focuses on establishing cleanliness standards at shared sanitation facilities in India. Thousands of people rely on shared sanitation systems – facilities used by two or more households - each day, and ensuring that these facilities remain clean and safe is critical for preventing the spread of infectious diseases. By swabbing to test for organic debris concentrations, facility operators receive real-time feedback that helps adjust cleaning protocols to counter the spread of infection.

# TRAINEE RESEARCH

These benchmarks will help global policy makers better understand the conditions under which shared sanitation could be considered 'improved' in order to prevent the spread of infectious diseases through high-touch surfaces.

Leone is conducting a metagenomic respiratory viral survey among malaria-negative children in Malawi to enhance public health surveillance of under-appreciated respiratory tract viruses. Without being able to accurately characterize and detect these viruses, many currently go missed in outpatient settings and contribute to inappropriate antibiotic use.



## CEID POST-DOCTORAL FELLOWSHIP

In Fall 2025, CEID welcomed its first full-time postdoctoral fellow, Jessica Ibiebele, PhD, MPH, RN. Over the past year, Dr. Ibiebele has collaborated with CEID faculty on diverse research intersecting epidemiology and policy. Her projects include analyzing state-level ivermectin policies and off-label prescribing (with Drs. Nahid Bhadelia, Kayoko Shioda, and Veronika Wirtz) and examining social contact behavior during acute illness (with Dr. Shioda). Additionally, her work with Dr. Shioda and Dr. David Hamer on climate-driven



forecasting of vector-borne diseases produced a study, "Diversity in the strength and timing of the dengue response to the El Niño-Southern Oscillation across the Indonesian Archipelago", currently under peer review at GeoHealth.

She oversaw the MPH students' daily reports around the FIFA World Cup (more on pg. 18) and, expanding on this, is publishing an epidemiological summary of infectious disease-related threats amid the FIFA World Cup 2026 with Dr. Bhadelia and Dr. Britta Lassmann.

This April marked one year since launching the Biothreats Emergence, Analysis, and Communications Network (BEACON). Now utilized by over 100 government and multilateral public health organizations, BEACON's insights are directly reaching the public health decision makers who rely on this rapid reporting.

Through its timely alerts, BEACON is driving real world disease response. When BEACON was the first alert system to report on an outbreak of Rift Valley fever in Senegal in fall 2025, [CEPI, the Coalition for Epidemic Preparedness Innovations](#) used BEACON's alerts to help direct novel vaccines against this mosquito-spread disease that can lead to vision problems and, in rare cases, brain inflammation and fatal bleeding.

BEACON has further demonstrated its ability to detect early signals of potential disease outbreaks as evidenced by the 2026 Bundibugyo virus disease (BDBV) outbreak. The World Health Organization (WHO) declared the BDBV disease outbreak in the Democratic Republic of the Congo (DRC) and Uganda a Public Health Emergency of International Concern on May 17, 2026. Retrospective epidemiological analysis shows that the virus had already been circulating since at least April. Analyzing BEACON reports from the months preceding the WHO's declaration, BEACON editorial team members Drs. Nahid Bhadelia, Isaac Gíkandi, and Britta Lassmann detected four unresolved VHF-like signals in the affected region. This analysis, [published in the International Journal of Infectious Diseases](#) highlights possible gaps in follow-up mechanisms for cases negative for common pathogens.

Another of the major outbreaks our team followed in the past year was the hantavirus outbreak linked to the MV Hondius cruise ship. This situation perfectly demonstrates the international nature of infectious disease outbreaks; the ship includes passengers from 23 countries, and the response included several countries' ministries of health as well as the WHO and European Centre for Disease Prevention and Control.

Since its launch in April 2025, BEACON has published 2,783 disease reports. It reaches over 2,400 email subscribers for its disease event digests, available at a weekly or daily frequency, and with global or regional focus, by user preference. These subscribers include users at the WHO, CDC, and over 160 government and health departments ranging from local to national levels, both throughout the US and internationally.

2,783

reports  
published

2,400+

email  
subscribers

246,000+

website users

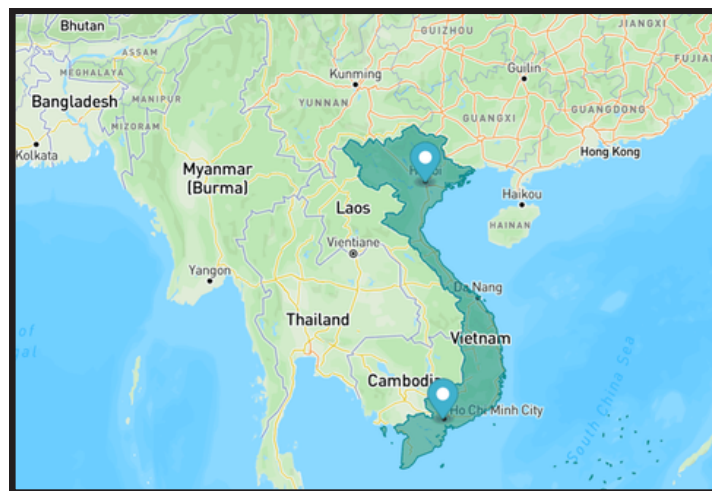
233

countries &  
territories of users

Top user countries: US, UK, Australia, Canada, Germany, Singapore, and India.

BEACON's work has received wide media coverage, with leadership and BEACON reports cited in national and international outlets: [National Geographic](#), [Al Jazeera](#), [Los Angeles Times](#), [Axios](#), [New York Times](#), & [ABC News Australia](#).

Over the past year, the BEACON team has continued to improve the platform beyond the capabilities it offered at its beta launch in April 2025. In the past year, BEACON has improved the website user experience by adding maps to event envelopes and individual reports, which provides better situational context, showing clusters of cases and more precise locations. Other website improvements include the addition first of filters to



help in searching reports, followed by the later addition of open text search. Email subscriber preferences have also been improved with the addition of options to receive digests focused by region or globally. Importantly, the PandemIQ Llama LLM that supports BEACON has been improved upon by a second round of training using additional literature selected by BEACON subject matter experts, with particular focus on enhancing its One Health outputs.

This further training of the LLM was supported in part by a grant from PAX Sapiens received in 2025. This funding allowed us to onboard additional SMEs, based in Thailand and South Africa, with expertise in One Health. In addition to frequently providing high-quality intelligence for the BEACON platform, these experts conducted a comprehensive wildlife disease surveillance gaps and needs assessment across Africa and Asia. This mapping will ensure that future global interventions target the areas where data and resources are needed most. The key findings from this analysis are currently being finalized for publication.

BEACON's impact has continued to expand by collaborating with and supporting the work of fellow global health organizations. Collaborating with the CEPI-sponsored UC Davis [VISTA project](#) has sharpened our reporting, contributing to our reports on critical spillover threats like [hantavirus](#) and [Pteropine orthoreovirus](#). BEACON supports major organizations in the animal health space, including the [Food and Agriculture Organization \(FAO\)](#), the [Wildlife Conservation Society](#), [PADI-Web](#), and the [Southeast Asia One Health University Network \(SEAOHUN\)](#) by sharing data sources and platform insights. In FAO's World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD) [2026 Quarter 1 report on foot-and-mouth disease](#), BEACON reports were cited several times in evidence of the disease's spread so far this year.

BEACON's editorial team spans the globe to provide local context and verify signals with regional partners, covering 10 countries and a combined 18 languages.



Nahid Bhadelia, MD,  
MALD, Director (USA)



Lina Chaito, MPH,  
Outbreak Analyst  
(Lebanon)



Maria Cristina David,  
DVM, MS, Subject  
Matter Expert (USA)



Katinka de Balogh,  
DVM, MS Subject  
Matter Expert (Italy)



Thibaut Demaneuf, MSc  
Outbreak Analyst (New  
Caledonia)



Angel Desai, MD, MPH  
Senior Subject Matter  
Expert (USA)



Isaac Gikandi, MMSc,  
Outbreak Analyst  
(Kenya)



Angela Huang, MD,  
MPH, Subject Matter  
Expert (Taiwan)



Jessica Ibiebele, PhD,  
MPH, RN, Outbreak  
Analyst (USA)



Maria Jacobs, MD,  
Senior Technical Editor  
(Switzerland)



Britta Lassmann, MD,  
Co-Director & Editor-in-  
Chief (USA)



Matthew Levison, MD,  
Senior Subject Matter  
Expert (USA)



Larry Madoff, MD,  
Senior Subject Matter  
Expert (USA)



Kudakwashe  
Magwedere, BVSc,  
PGDip, MSc, MPM,  
PhD, Subject Matter  
Expert (South Africa)



Amélie Martin-Darras,  
DVM, MSc, (Italy)



Lucas Monje, PhD,  
Subject Matter Expert  
(Argentina)



Gustavo Monti DVM,  
MSc, PhD, Subject  
Matter Expert  
(Argentina)



Marjorie Pollack, MD  
Senior Subject Matter  
Expert (USA)



Nilufar Rakhmanova,  
MPH, Outbreak Analyst  
(USA)



Ma. Ivy Rozeth  
Saavedra-Iturralde, MD,  
PHSAE, Outbreak  
Analyst (Philippines)



Arnon Shimshony,  
DVM, Subject Matter  
Expert (Jerusalem)



Kayoko Shioda, PhD,  
DVM, MPH, Subject  
Matter Expert (USA)

#### SME Key

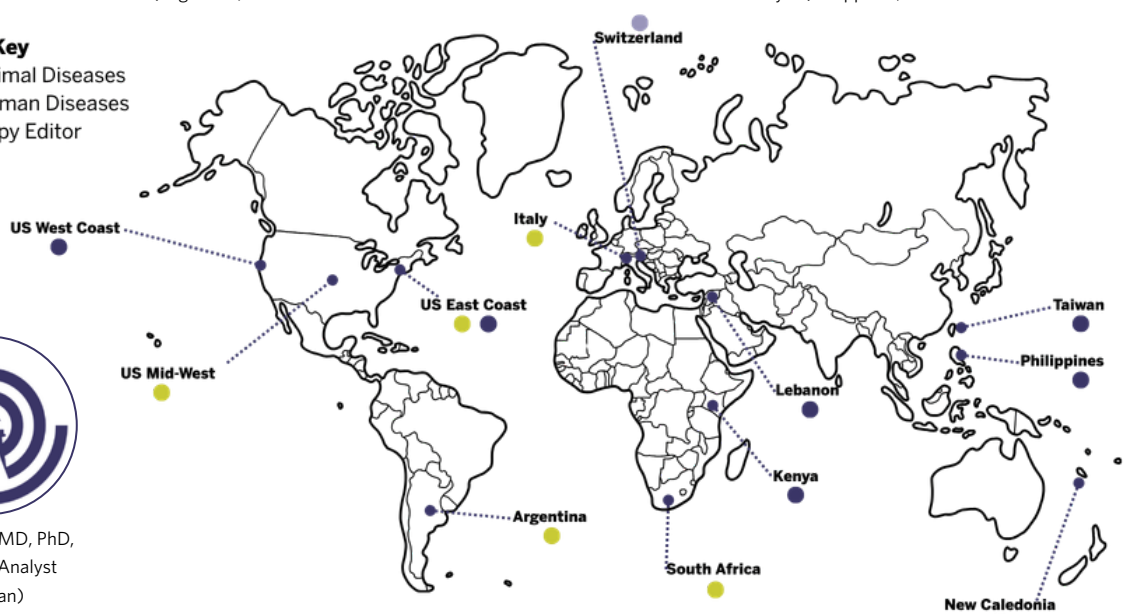
- Animal Diseases
- Human Diseases
- Copy Editor



Jonathan Sleeman, MA,  
VetMB, Dipl. ACZM,  
Subject Matter Expert  
(USA)



Yingshih Su, MD, PhD,  
Outbreak Analyst  
(Taiwan)



# EVENTS

Over the past year, CEID has convened several public events related to emerging infectious diseases. Our events fostered engaging discussions and collaboration throughout the university and with global collaborators.



■ Guest lecture by Dr. Vish Viswanath, Lee Kum Kee Professor of Health Communication at the Harvard T. H. Chan School of Public Health

■ Organized by Trust & Public Health Communications research core

■ 83 attendees

## COUNTERING MISINFORMATION AND BUILDING PUBLIC TRUST IN SCIENCE

Sept. 8, 2025



■ Including remarks from Tim Ritchie (President, Museum of Science) and Senator Ed Markey (D-MA); panel featuring Dr. Marissa Hauptman, Dr. Britta Lassmann, Dr. Syra Madad, & Dr. Benjamin Sovacool, moderated by Dr. Nahid Bhadelia. Keynote address by Dr. Adil Najam

■ Co-sponsored by Boston's Museum of Science

■ 160 attendees (hybrid)

## THE CLIMATE CRISIS AND THE FUTURE OF INFECTIOUS DISEASES

October 30, 2025

# EVENTS



**Vaccine Hesitancy: Past, Present, and Future.**

Wednesday, October 8 1:00 - 2:30 PM ET

**Nahid Bhadelia**  
Boston University School of Medicine Center on Emerging Infectious Diseases

**Rekha Lakshmanan**  
Rice University Baker Institute

**Michael Osterholm**  
University of Minnesota Center for Infectious Disease Research and Policy

**Wendy Parmet**  
Northeastern University School of Law

**Jason Schwartz**  
Yale University School of Public Health

Webinar co-hosted by BU SPH, moderated by Dr. Bhadelia, featuring Rekha Lakshmanan, Dr. Michael Osterholm, Wendy Parmet, and Dr. Jason Schwartz

682 attendees

**VACCINE HESITANCY: PAST, PRESENT, AND FUTURE.**

**October 8, 2025**

**GLOBAL HEALTH POLITICS WORKSHOP:  
"COLLAPSE AND RESILIENCY: THE INSIDE  
STORY OF LIBERIA'S UNPRECEDENTED  
EBOLA RESPONSE"**

**Nov. 13, 2025**

Lecture and workshop with Dr. Mardia Stone

Co-organized by the Pardee School of Global Studies

73 attendees (hybrid)



**Rift Valley Fever in West Africa: A One Health Perspective**

Zoom webinar: Jan. 20th  
12-1 PM EST/5-6PM GMT

**BU** **ceid**  
Boston University Center on Emerging Infectious Diseases

**UC DAVIS** **VISTA**  
Virus Intelligence Strategic Threat Assessment

Webinar co-hosted by UC Davis One Health Institute

Panel featuring Dr. Nicole Lurie, Dr. Brian Bird, Dr. Mathorio Fall, Dr. Moussa Moïse Diagne, & Dr. Britta Lassmann, moderated by Dr. Angel Desai

76 attendees

**RIFT VALLEY FEVER IN WEST AFRICA: A ONE  
HEALTH PERSPECTIVE**

**January 20, 2026**

# MEDIA & PUBLIC ENGAGEMENT

CEID faculty remain trusted experts on critical issues such as public health policy, Ebola, hantavirus, and measles. This year, our faculty and research were featured over 200 times across major media outlets, including:



Additional public engagement has included participation in webinars, workshops, panels and keynote addresses organized by the National Academies of Science, Education, & Medicine, the Providence/Boston Center for AIDS Research (CFAR), Boston Tech Week, ID Week, and the Institute on Health, Safety, Security, and Risk Management.

X followers

2,008

Website visitors  
annually

28,000

Instagram  
followers

453

Bluesky  
followers

768

LinkedIn  
followers

3,278

# SELECTED PUBLICATIONS

In AY '25-'26, CEID faculty and students have produced 220 publications on infectious diseases. Below we have highlighted all publications directly supported by CEID. CEID faculty & trainees are noted in red.

- **Adams QH**, Gause EL, Baker RE, et al. Impact of weather extremes on the spatiotemporal dynamics of visceral leishmaniasis in Brazil. *PLOS Neglected Tropical Diseases*. 2025;19(7):e0013316. doi:10.1371/journal.pntd.0013316
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- Amatya B, Pandey P, McGuinness SL, et al. GeoSentinel Analysis of Travelers' Diarrhea Antimicrobial Resistance Patterns. *JAMA Netw Open*. 2025;8(12):e2551089. doi:10.1001/jamanetworkopen.2025.51089
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*Dr. Pranay Sinha (left) with collaborators in India, installing low-cost air filters to reduce transmission of viruses with pandemic potential.*

# LOOKING FORWARD

CEID was founded during a once-in-a-century pandemic. Five years later, the risks that prompted our founding have not receded, but the ground around them has shifted, and our work now has to address the crises that grow out of gaps in public health systems and policy. A few commitments will shape our programs over next five years.

The first is expanding what makes us different: research and programs that change what happens on the ground in near real time. We built BEACON amid a growing record of outbreaks into a resource open to responders and researchers everywhere. We will add more tools, expand our global team and analysis to help judge how serious a new threat is early on. We will work with healthcare delivery partners to prepare and mobilize our systems of care. We will continue to document how a changing climate is moving disease into new places. And we will study how shifting and increasingly divergent public health guidance affects what people understand and trust.

The second is careers. Our founding charter promised experiential learning and the development of new scholars, and we intend to offer the full range of it: fellowships for postdoctoral researchers, training grants for doctoral students, visiting scholar programs for colleagues in partner countries, mentored research for undergraduates, and continued public programming with the Museum of Science.

The third is partnership. We will expand our advisory boards and bring in voices from policy, philanthropy, and industry. We will work with BU's global sites and widen our partnerships to additional organizations working in human and animal health, food and agriculture, and pandemic preparedness.

Finally, closer to home, we will work on expanding our administrative capacity to aid researchers and students, and to allow us to apply to larger grants and programs. None of this happens without the community described in these pages. Thank you for building it with us.

Nahid Bhadelia, MD, MALD  
Founding Director

# PHOTO CREDITS

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6-9 & throughout: all headshots their own

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22: screenshot from BEACON

24: upper: Kate Kotlyar, middle: Yan Gong Bi, lower: screenshot courtesy of Senator Ed Markey's office

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# CONTACT US

[WWW.BU.EDU/CEID](http://WWW.BU.EDU/CEID)

[CEID@BU.EDU](mailto:CEID@BU.EDU)

[@BUCEID.BSKY.SOCIAL](https://twitter.com/BUCEID)

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**Boston University** Center on Emerging Infectious Diseases  
111 Cummington Mall, Suite 140  
Boston, MA 02115