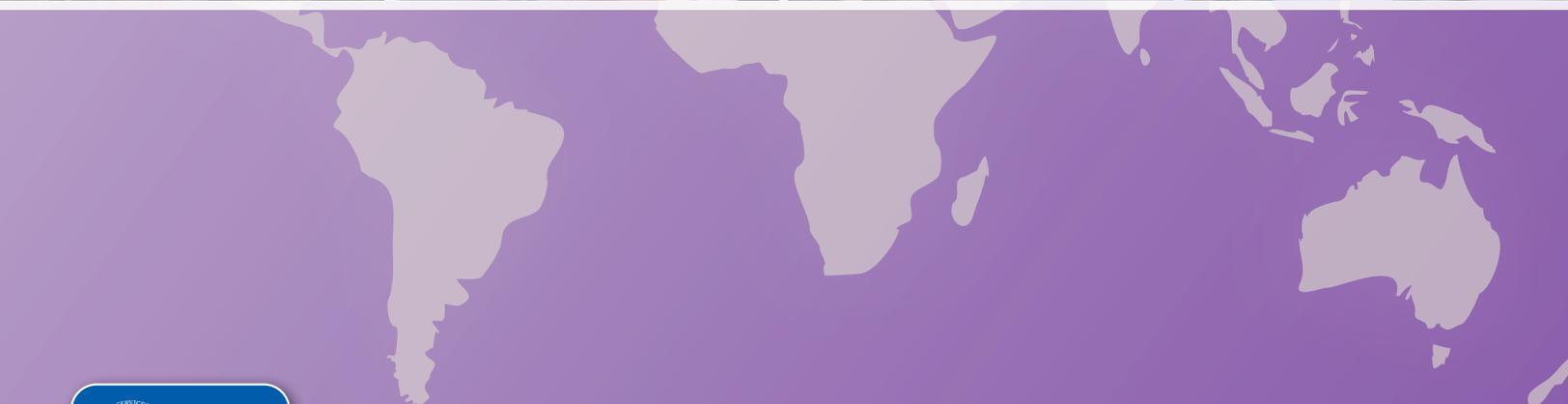


# SCIENTISTS SAVING LIVES

Division of Global Health Protection  
**65<sup>TH</sup> ANNUAL EIS SCIENTIFIC CONFERENCE**  
May 2-5, 2016

Epidemic Intelligence Service Officers, Class of 2016



Centers for Disease  
Control and Prevention  
Center for Global Health

# WELCOME FROM THE DIVISION OF GLOBAL HEALTH PROTECTION

## PROTECTING HEALTH AND BUILDING CAPACITY GLOBALLY

It's my privilege to welcome you to the 65th Annual Epidemic Intelligence Service Conference hosted by the Centers for Disease Control and Prevention (CDC). We look forward to meeting you and learning about your career aspirations during this action-packed week.

I believe that Epidemic Intelligence Service (EIS) experiences influence our professional paths. I know it did for me. One of my first EIS deployments was to Bardera, North-Mogadishu, and Jowar, Somalia, at a time of civil war. While deployed, I identified populations in greatest need of immediate assistance, helped relief organizations reach them, and quantified the impact of civil war and famine on Somali children. Today, as the world continues to struggle with famine and civil strife, EIS is there to respond. Just last month, one of our EIS officers traveled to Greece to conduct a public health assessment of the migrant crisis.

This is an exciting year for us and an ideal time to join our division if you want to stay busy. We are leading CDC's efforts to implement the Global Health Security Agenda (GHSA). GHSA is also supporting EIS positions in global health at CDC this year. At the same time, we are responding to multiple international disease outbreaks, including Zika virus and yellow fever. We offer outstanding opportunities for a rewarding EIS experience. I hope you will consider joining us.

*RADM Jordan Tappero, MD, MPH (EIS '92)*  
Director, Division of Global Health Protection (DGHP)



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*{ The breadth of experiences that DGHP provides to its EIS officers is incredible. }*

*— Andy Boyd, MD (EIS '15) DGHP*

## EIS OFFICER KNIPES JETS TO THE FAR REACHES OF GUINEA'S FOREST REGION

"I was deployed to N'Zérékoré in Guinea's forest region to participate in the Ebola response. Though Guinea had been declared Ebola free a few days prior to my arrival, the country was just beginning their 90-day phase of heightened surveillance. My colleagues from the Democratic Republic of the Congo Field Epidemiology Training Program and I provided technical assistance to partners in the Guinea Ministry of Health and the World Health Organization in their surveillance efforts. We also supervised a pilot study for the Ebola virus rapid diagnostic tests in five regions on the Guinean border with Liberia. One of our pilot hospitals was a very bumpy 6-hour drive away, past coffee, cocoa, and banana plantations."

— *Alaine Knipes, PhD (EIS '15), Emergency Response and Recovery Branch*



*EIS Officer Knipes leaving N'Zérékoré, Guinea, boarding a UN Humanitarian flight headed back to Conakry after a month in the field.*

## BY THE NUMBERS

560 

international trips to work in more than 70 countries in 2015

70+ 

countries have division personnel, projects, and resources planned in 2016

1 

great experience for EIS Officers

## DIVISION OF GLOBAL HEALTH PROTECTION IS:

### PEOPLE

- Connecting with countries to understand and solve their leading health challenges
- Building dynamic partnerships and preparing a global workforce

### SCIENCE

- Detecting and identifying health threats
- Gathering, analyzing, and sharing data
- Communicating science to inform policy

### RESPONSE

- Monitoring and reporting health threats
- Preparing countries to quickly meet their own outbreak and investigation needs
- Standing ready to deploy rapid response teams

### SYSTEMS

- Supporting a network of public health institutes
- Creating cross-cutting laboratory systems
- Implementing the Global Health Security Agenda

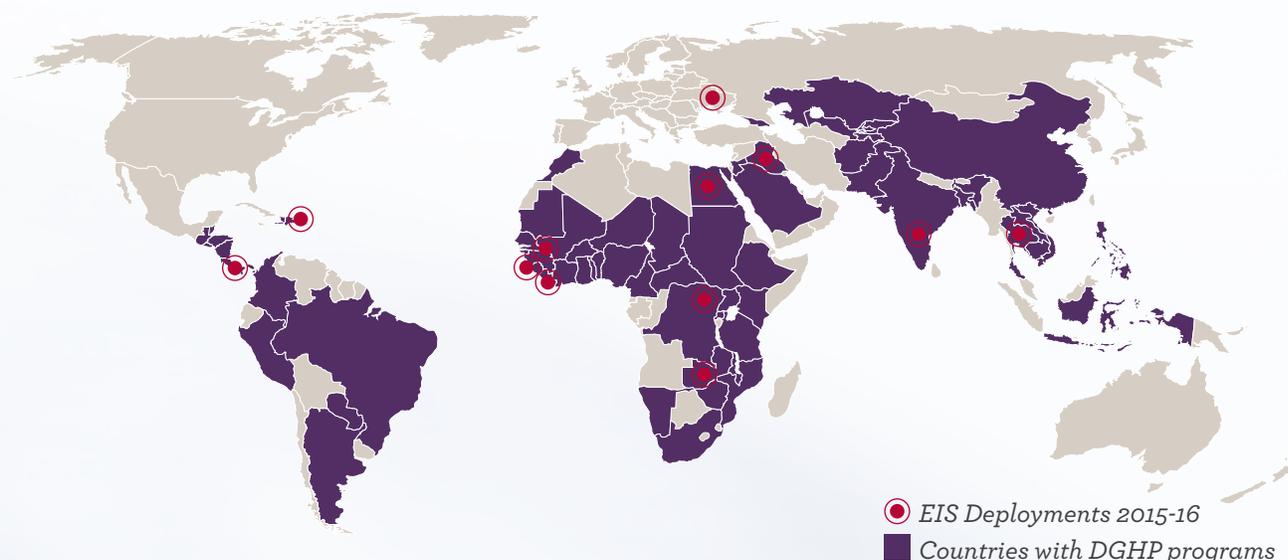
## HOW WE ARE ORGANIZED:

Global health protection is about more than one country, one issue, or one pathogen. Many factors affect our health security, like infectious diseases, humanitarian crises, and the growing burden of non-communicable diseases. No matter what the cause, the Division of Global Health Protection (DGHP) and its partners across CDC and the globe are working to protect health and save lives. Our programs have resources supporting more than 70 countries, with partnerships and technical support that reach even further.

- **Emergency Response and Recovery:** Improves the health of people affected by complex humanitarian emergencies, including natural disasters and conflicts.
- **Global Disease Detection:** Builds capacity to detect, identify, and contain emerging infectious diseases and provides early warning for international outbreaks.
- **Global Health Security:** Implements the Global Health Security Agenda to help countries more effectively prevent, detect, and respond to infectious disease outbreaks.
- **Field Epidemiology Training Program:** Builds workforce capacity by training disease detectives around the world in a program modeled after EIS.
- **Noncommunicable Diseases:** Works to reduce the effects of noncommunicable diseases, which are responsible for more than 75% of deaths worldwide.
- **National Public Health Institutes:** Assists countries in establishing national public health institutes, like CDC, to organize and coordinate public health expertise and systems.

# WHERE WE WORK

Last year, our EIS Officers provided epidemiological assistance in India, Thailand, Sierra Leone, Iraq, Haiti, Democratic Republic of the Congo, Guinea, Panama, Liberia, Ukraine, Egypt, and Zambia. They investigated and responded to Ebola, Zika virus, measles, and other infectious disease outbreaks. They also examined maternal mortality, nutrition among those affected by armed conflict, and infant and young child feeding practices among internally displaced persons.



## ALL OVER THE MAP

### DGHP EIS DEPLOYMENTS 2015-16\*

- EIS Officer Ashley Greiner: Kyasanur Forest Disease investigation, southeast India, 2015
- EIS Officer Ashley Greiner: Acute Q fever case investigation, Thailand, 2015
- EIS Officer Maximilian Nerlander: Post-flood internally displaced population camp response, Freetown, Sierra Leone, 2015
- EIS Officer Alaine Knipes: Evaluation of maternal and newborn surveillance in North Kivu, Democratic Republic of the Congo, 2015
- EIS Officer Andrew Boyd: Hospital-based maternal mortality study, Haiti, 2016
- EIS Officer Alaine Knipes: Pilot of rapid diagnostic test for Ebola in the Ebola outbreak response, Guinea, 2016
- EIS Officer Aimee Summers: Emergency assessment of health and nutrition in older persons affected by armed conflict in Donetsk and Luhansk Oblasts, Ukraine, 2016
- EIS Officer Daniel Rhee: Acute febrile illness surveillance evaluation, Egypt, 2015
- EIS Officer Daniel Rhee: Evaluation of the quality of data and acceptability of electronic medical records, Zambia, 2016

\*Not a comprehensive list of 2015-16 EISO deployments.

# MEET OUR CURRENT EIS OFFICERS

The division currently has six first- and second-year EIS Officers. Three will be graduating, and we are recruiting two additional officers in 2016. Our EIS officers have traveled the world, navigated epidemiologic and diplomatic roadblocks, and are highly sought after upon graduation.



**Andrew Boyd, MD (EIS '15)**, Emergency Response and Recovery Branch

## EDUCATION

- Residency (Internal Medicine): Yale-New Haven Hospital, 2010-2013
- MD: Johns Hopkins University School of Medicine, 2010
- BA: University of Iowa, 2005

## EXAMPLES OF EIS EXPERIENCE

- Measles vaccination coverage survey, Sierra Leone
- Communicable disease surveillance and response evaluation, Iraq
- Hospital-based maternal mortality study, Haiti
- Data analysis of unsafe behaviors toward explosive devices, Colombia



**Alaine Knipes, PhD (EIS '15)**, Emergency Response and Recovery Branch

## EDUCATION

- Postdoctoral Research Associate: University of Nebraska at University of Zambia, Lusaka
- PhD: University of Nebraska, Lincoln, 2010
- BS: University of Massachusetts — Amherst, 2004
- BA: University of Massachusetts — Amherst, 2004

## EXAMPLES OF EIS EXPERIENCE

- Pilot of rapid diagnostic test for Ebola in the Ebola outbreak response, Guinea
- Evaluation of maternal and newborn surveillance in North Kivu, Democratic Republic of the Congo
- Field validation of digital microfluidics (DMF)-powered immunoassays for the detection of measles and rubella infection and immunity, Democratic Republic of the Congo
- Serological survey of measles and rubella using digital microfluidics (DMF)-powered immunoassays, Democratic Republic of the Congo



**Chulwoo (Daniel) Rhee, MD, MSc (EIS '15)**, Epidemiology, Informatics, Surveillance and Laboratory Branch

## EDUCATION

- Residency (Preventive Medicine): Seoul National University, Republic of Korea
- MD: Dankook University, Republic of Korea
- Master of Science (MSc): Seoul National University, Republic of Korea

## EXAMPLES OF EIS EXPERIENCE

- Acute febrile illness surveillance evaluation, Egypt
- Evaluation of the quality of data and acceptability of electronic medical records, Zambia
- Assessment of the Population-Based Infectious Disease Surveillance (PBIDS) diarrheal disease case management system, Kenya

**Ashley Greiner, MD, MPH (EIS '14)**, Epidemiology, Informatics, Surveillance and Laboratory Branch



## EDUCATION

- Res (Emer. Med.): Harvard Affiliated Emergency Medicine, Boston, MA, 2011-2013
- Fellow (Global Health & Intl Emerg. Med): Harvard Affiliated Emergency Medicine, Boston, MA, 2013-2014
- MD: Tufts University, 2010
- MPH: Tufts University, 2010
- BA: Boston University, 2006

## EXAMPLES OF EIS EXPERIENCE

- USAID Ebola preparedness workshop curriculum development, Ghana and Côte d'Ivoire
- Hepatitis C population-based survey, country of Georgia
- Kyasanur Forest Disease investigation, southeast India
- Acute Q fever case investigation, Thailand

**Maximilian Nerlander, MBBS (EIS '14)**, Emergency Response and Recovery Branch



## EDUCATION

- Intern: Kiruna Hospital, Sweden, 2011-2013
- MBBS: King's College London, 2011
- University of Melbourne, 2006

## EXAMPLES OF EIS EXPERIENCE

- Lymphatic filariasis coverage survey, Haiti
- Post-flood internally displaced persons camp response, Freetown, Sierra Leone
- Fatal firearm-related injuries, Iraq

**Aimee Summers, PhD, MHS (EIS '14)**, Emergency Response and Recovery Branch



## EDUCATION

- PhD(Epi): Johns Hopkins Bloomberg School of Public Health, 2013
- MHS: Johns Hopkins Bloomberg School of Public Health, 2009
- BSE: University of Michigan, Ann Arbor, 2004

## EXAMPLES OF EIS EXPERIENCE

- Contact tracing, case investigation, health promotion, social mobilization, and preparedness in the Ebola outbreak response, Liberia
- Secondary health effects of the Ebola outbreak, CDC Emergency Operations Center
- Country and border preparedness, emergency operations center standard operating procedures, Senegal
- Early warning alert and response network surveillance, Syria

## EIS ALUMNI\*: WHERE ARE THEY NOW?

**Cyrus Shahpar ('10)** Medical Officer – Emergency Response and Recovery Branch, DGHP

**Kevin Clark ('11)** Medical Officer – Epidemiology, Informatics, Surveillance and Laboratory Branch, DGHP

**David Fitter ('11)** Medical Officer – Emergency Response and Recovery Branch, DGHP

**Rachel Idowu ('12)** Epidemiologist – National Public Health Institutes, DGHP

**Stephanie Salyer ('12)** Epidemiologist – Epidemiology, Informatics, Surveillance and Laboratory Branch, DGHP

**Preetha Iyengar ('12)** Health Advisor – Save the Children, Newborn and Child Health in Emergencies, Washington, DC

**Raina Phillips ('13)** Internal Medicine Physician – Department of Internal Medicine at DeKalb Medical Center

\*Selected list, April 2016

## BY THE NUMBERS

51 

million refugees, asylum-seekers, and internally displaced people worldwide

50 

humanitarian crises each year, on average, responded to by the branch

30+ 

technical staff in the branch with expertise in all critical areas of emergency response

## EMERGENCY RESPONSE & RECOVERY BRANCH

### PROVIDING PUBLIC HEALTH EXPERTISE IN EMERGENCIES

We have a longstanding commitment to building public health capacity globally during—and after—humanitarian emergencies like war, famine, civil strife, natural disaster, genocide, and displacement. The branch is responsible for implementing and coordinating CDC’s responses to international complex humanitarian emergencies, as requested by the U.S. government, United Nations agencies, and non-governmental organizations. EIS Officers have been a core part of that commitment for over 15 years.

### ON THE SCENE

We travel the world to work with populations in emergency situations. We coordinate and implement CDC’s international responses as requested by the U.S. government, United Nations agencies, and non-governmental organizations.

With more than a century of combined practice and a long history of successful EIS Officers, we work hard to ensure a successful EIS experience. From improving surveillance during the Ebola response, to developing mass immunization campaigns, to setting up surveillance systems days after a major earthquake, to evaluating feeding programs in post-conflict settings, our EIS Officers have traveled the world to work with populations affected by emergencies.

For more information: <http://www.cdc.gov/globalhealth/healthprotection/errb>

# PRIMARY & SECONDARY SUPERVISORS

## **Mark Anderson, MD, MPH**

- Primary area of work includes violence in complex humanitarian settings. Served on multiple CDC responses. Currently serves as the Branch Principal Deputy.

## **Oleg Bilukha, MD, PhD (EIS '02)**

- Primary areas of work include epidemiologic methods, surveys, surveillance, rapid assessments, nutrition, war-related injuries, and communicable disease surveillance.

## **Susan Cookson, MD, MPH, FACP (EIS '95)**

- Primary areas of work include infectious disease and infectious disease surveillance in emergencies. Has served on multiple CDC responses and is current Branch Research Coordinator.

## **David Fitter, MD (EIS '11)**

- Primary area of work includes public health systems recovery following emergencies and international response.

## **Tom Handzel, PhD, MS (EIS '00)**

- Primary areas of work include water, sanitation and hygiene and waterborne disease prevention in emergency settings with deep experience in international responses.

## **Colleen Hardy, MPH**

- Primary areas of work include water, sanitation and hygiene promotion, early warning and response surveillance in emergency settings, mortality, and armed violence, with prior NGO and UN work in humanitarian settings.

## **Michelle Hynes, PhD**

- Primary area of work includes reproductive health and gender based violence in complex humanitarian settings.

## **Eugene Lam, MD, MSPH, MSc (EIS '11)**

- Primary areas of work include vaccine preventable diseases, outbreak response, and communicable disease surveillance.

# SUPPORT & POTENTIAL PROJECTS

Our EIS Officers receive extensive field experience with close mentoring and supervision. We offer opportunities to experience how rigorous science helps define programming and policy. Through a collaborative work environment, EIS Officers work on projects across the division and with many high level partners.

Potential projects include:\*

- Evaluation of a digital Microfluidics-powered Immunoassay for the detection of measles infection and immunity among displaced populations
- Analysis of neonatal care study among displaced and local populations, Somalia
- Analysis of strategies for rapid detection of viral hemorrhagic fevers in post-Ebola, Sierra Leone
- Investigation of multidrug-resistant tuberculosis cases in a prison, Liberia
- Implementation of a mortality survey and support for strengthening vital registration, Liberia
- Evaluation of laboratory-based surveillance system, Haiti
- Evaluation of maternal death surveillance and response system, Haiti
- Evaluation of acute flaccid paralysis within an early warning and response surveillance system, Syria & Somalia
- Assessing routine and event-based surveillance of cholera and other priority diseases, Liberia

\* A representative, but not complete, list

*EIS Officer Rhee evaluates the quality of medical health records and acceptability of electronic data recording systems among health facility staff in Zambia.*

“Before working as an EIS officer, I never imagined I would be spending hours in the storage room of a rural health post in Zambia, searching through boxes of old paper medical records and reviewing the medical record data quality. It was both a fascinating and rewarding experience to work with the Ministry of Health, NGOs and other local partners. Cross-cutting characteristics of DGHP can offer a wide range of public health experiences to EIS officers.”

— Daniel Rhee, MD, MSc (EIS '15),  
Epidemiology, Informatics, Surveillance and Laboratory Branch

*EIS Officers increasingly have to surge to meet emerging threats around the world (such as Ebola and Zika virus), while at the same time undertaking domestic responses to protect our communities as they always have. The Division of Global Health Protection has been absolutely instrumental in helping prepare our officers to meet these growing global needs.*

— Joshua Mott, MA, EMT-P, PhD (EIS '00),  
Branch Chief of the Epidemiology Workforce Branch and Chief of the EIS Program

*EIS Officer Knipes works with FETP graduate Jacques Likofata (right) to pilot a rapid diagnostic test for Ebola in Youmou Prefecture, N'Zérékoré Region, Guinea.*

“I love working in the Emergency Response and Recovery Branch because I am working with a group of like-minded professionals who care for those in need.”

— Alaine Knipes, PhD (EIS '15),  
Emergency Response and Recovery Branch





*EIS Officer Nerlander supervises contact tracing in Sierra Leone.*

“When the call came to deploy for the Ebola response, I was a bit scared. But scared is good; it keeps you alive. Then you realize that as long as you keep your cool, you are in control of most situations.”

– Maximilian Nerlander, MBBS (EIS '14),  
Emergency Response and Recovery Branch

*I remember visiting camps for displaced persons following the tsunami in Indonesia to assess health and WASH conditions. I thought then, and still do now, this is why I went into public health.*

– Tom Handzel, PhD, MS (EIS '00),  
primary supervisor for EIS Officers,  
Emergency Response & Recovery Branch



*EIS Officer Summers gets her temperature checked at the Ministry of Health in Liberia.*

“Working on the Ebola response has been a great learning experience. As a part of DGHP, I was able to serve in many areas of the response (highly-affected country, unaffected/lesser-affected country, domestic, and in the EOC). Being a part of so many different aspects of the response and working with so many talented and hard-working individuals, both within CDC and with national and international partners, has been very rewarding and enlightening.”

– Aimee Summers, PhD, MHS (EIS '14),  
Emergency Response and Recovery Branch

# SEE OUR PRESENTATIONS AT THE CONFERENCE

## WEDNESDAY **INJURY SESSION** 10:35AM–12:00PM

**Andrew Boyd, MD** (EIS '15) Emergency Response and Recovery Branch

Risk factors of unsafe behaviors among populations exposed to explosive devices: Results of a household assessment of knowledge, attitudes, and practices—Colombia, 2012

## **CHILD HEALTH SESSION** 1:20PM–3:05PM

**Aimee Summers, PhD, MHS** (EIS '14) Emergency Response and Recovery Branch

Infant and young child feeding practices among internally displaced persons in three oblasts in Eastern Ukraine—June 2015

## **GLOBAL HEALTH SESSION** 3:20PM–5:05PM

**Chulwoo (Daniel) Rhee, MD, MSc** (EIS '15) Epidemiology, Informatics, Surveillance and Laboratory Branch

Rickettsia typhi as an under-recognized cause of acute undifferentiated febrile illness—Damanhour, Egypt, 2010–2014

# SPECIAL SESSIONS

## TUESDAY **FETP INTERNATIONAL NIGHT—POSTER PRESENTATIONS** 6:00PM–10:00PM

Field Epidemiology Training Program (FETP) residents' interactive poster presentations will highlight important public health investigations and activities contributing to global health security.

## WEDNESDAY **FRONTLINE FIELD EPIDEMIOLOGY TRAINING PROGRAM** Lunch session 12:05PM–1:20PM

Experiences and lessons learned from launching a new focus on surveillance and epidemiologic training for the largest number of healthcare workers at the base of the FETP pyramid.

## **FETP INTERNATIONAL NIGHT—ORAL PRESENTATIONS** 6:30PM–10:00PM

Field Epidemiology Training Program (FETP) residents' oral presentations will continue to highlight important public health investigations and activities contributing to global health security.

## THURSDAY **GLOBAL RAPID RESPONSE** Lunch session 12:00PM–1:30PM

An agency-wide approach to supporting CDC's response to global outbreaks and humanitarian emergencies.

# COME MEET US

Please visit us any time during the conference at the DGHP table. Meet staff, ask questions, and learn more about how you can be a part of our work! Also, join our recruiting event on Tuesday from 4:30PM–6:30PM in the Gardenia Room.



“CDC is helping countries around the world strengthen their ability to prevent avoidable catastrophes and epidemics, detect threats early, and respond rapidly and effectively. Stopping outbreaks where they occur is the most effective and least expensive way to save lives at home as well as abroad. And it’s the right thing to do.”

Dr. Tom Frieden speaks with a conference participant at FETP International Night, 2015