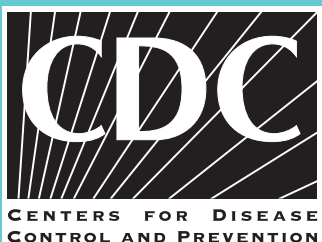
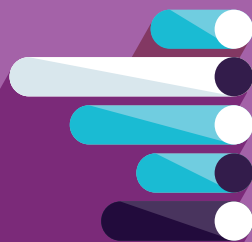


# EPIDEMIC INTELLIGENCE SERVICE 2018 ANNUAL UPDATE



2018

# EPIDEMIC INTELLIGENCE SERVICE

## ANNUAL UPDATE

### **Epidemic Intelligence Service Program**

Epidemiology Workforce Branch

Division of Scientific Education and Professional Development

Center for Surveillance, Epidemiology, and Laboratory Services

Office of Public Health Scientific Services

Centers for Disease Control and Prevention

*Additional information is available by*



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### Disclaimer

The findings and conclusions in this Epidemic Intelligence Service Annual Update: 2018 are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention (CDC).

Use of trade names and commercial sources is for identification purposes only and does not imply endorsement by the Division of Scientific Education and Professional Development; Center for Surveillance, Epidemiology, and Laboratory Services; CDC; the Public Health Service; or the U. S. Department of Health and Human Services.

Training epidemiologists who work on the front lines of public health,  
 with **149 current officers** and **3,694 officers** who have responded to  
 domestic and international public health threats since 1951



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# INTRODUCTION

This 2018 Annual Update provides an overview of the Epidemic Intelligence Service (EIS) program, a snapshot of the incoming class, host site assignments of the current classes, and main accomplishments of the most recent graduates. The incoming EIS Class of 2018 brings a balance of quantitative and clinical skills (page 5) that will allow them to thrive during the fellowship as they provide critical public health services. Current officers in the EIS Classes of 2016 and 2017 (page 6) respond to disease outbreaks and other public health threats while simultaneously improving their competencies and skills to make rapid, practical, and evidence-based decisions that protect our communities in the U.S. and around the world.

For the first time, this report highlights the work of our most recent graduates from the EIS Class of 2015. These officers made impressive contributions through their response to Zika virus, healthcare-associated infections, occupational and environmental exposures, and many other pressing public health problems, as well as through their evaluations of surveillance systems and analyses of public health data. The extensive scope of their investigations is shown in this update (pages 7-10). These graduates also made substantial contributions to public health literature, as evidenced by the publication listing based on their EIS work to-date (<https://www.cdc.gov/eis/media-publications/publications.html>). The majority of graduates from the EIS Class of 2015 continued their careers in public health, filling important public health positions at the federal, state and local levels (pages 11). We look forward to showcasing the accomplishments of the EIS Class of 2016 in next year's EIS Annual Update.

As always, the success of our EIS officers is due, in large part, to the exceptional support from the staff of the Epidemiology Workforce Branch (page 3) and others in the Division of Scientific Education and Professional Development; representatives from each of CDC's centers, institutes, and offices who participate on the EIS Action Council (page 4); and most importantly, the supervisors from the host sites who provide on-the-job training and mentorship during this two-year fellowship in applied epidemiology.

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# EIS OFFICERS...



Are physicians, doctoral scientists, veterinarians, nurses, and other health professionals.



Complete a 2-year, on-the-job training and service fellowship

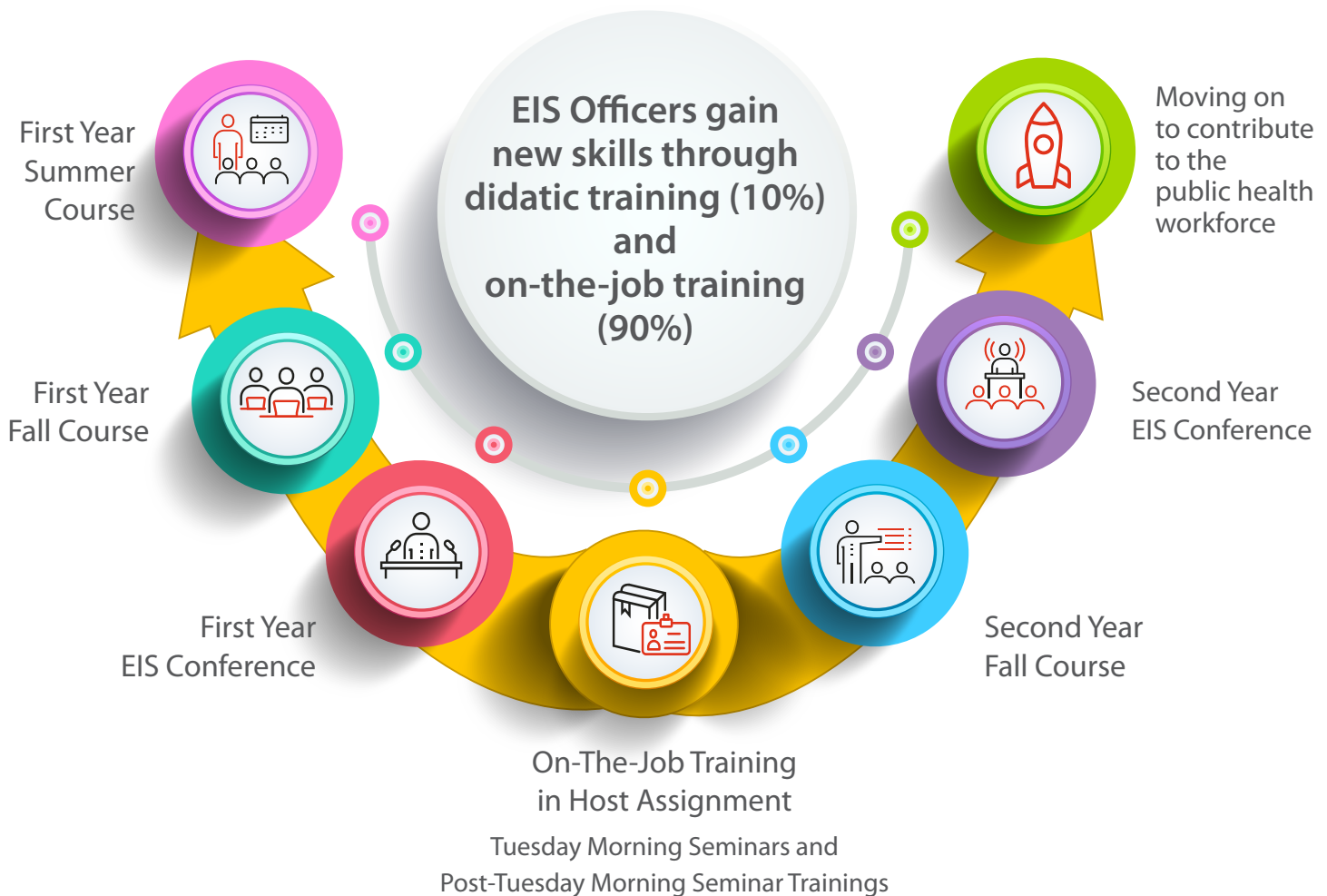


Serve our country while learning applied epidemiology



Gain practical skills to become future public health leaders

## CURRICULUM



### While in their host assignments and on deployments, EIS officers receive on-the-job training as they

- Conduct or participate in field investigations
- Design, conduct, and interpret epidemiological analyses
- Evaluate public health surveillance systems
- Give public health talks about their work
- Give oral presentations to scientific audiences
- Write scientific manuscripts for peer-reviewed journals
- Write concise public health updates communicating timely information
- Write abstracts
- Communicate complex scientific concepts to lay audiences
- Provide service to the agency (e.g., health department or CDC)

# FACES OF THE EPIDEMIOLOGY WORKFORCE BRANCH



Branch Leadership



CIO Liaisons



Epi-Aid Response



Field Support



Program Support

# EAC MEMBERS FOR 2017-2018

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The EIS Action Council (EAC) engages stakeholders to support critical EIS processes, such as selection, match, conference and supervision.



Eric Pevzner  
CSELS, Chair



Arlene Greenspan  
NCIPC, Co-chair



Deblina Datta  
CGH



Andrea Kim  
CGH



Jennifer Lind  
NCBDDD



Djenaba Joseph  
NCCDPHP



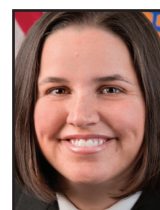
Suzanne Beavers  
NCEH/ATSDR



Elise Beltrami  
NCEZID



Scott Santibanez  
NCEZID



Alexa Oster  
NCHHSTP



Bob Kirkcaldy  
NCHHSTP



Kate Brett  
NCHS



Sam Posner  
NCIRD



Jannell Routh  
NCIRD



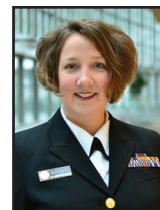
Christa Hale  
NIOSH



Cammie Menendez  
NIOSH



Randolph Daley  
OPHPR



Jennifer Wright  
EIS Field Support  
Coordinator



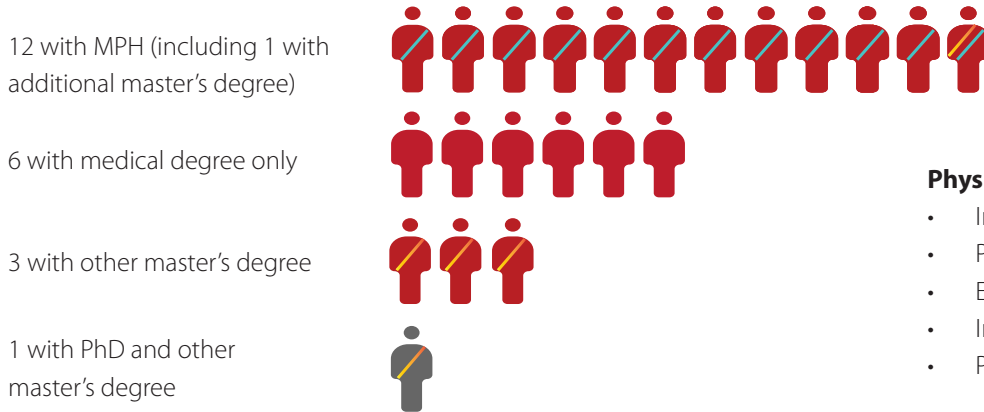
# SNAPSHOT OF THE EIS INCOMING CLASS OF 2018

The 66 EIS officers in the class of 2018 were selected from 489 applicants.

## Professional Backgrounds

 = MPH     = Other Master's Degree     = Doctoral-level Other Healthcare Degree

### 22 Physicians



#### Physician Specialties

- Internal Medicine
- Pediatrics
- Emergency Medicine
- Infectious Diseases
- Preventive Medicine

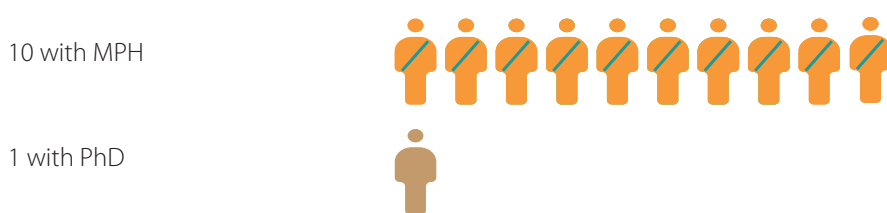
### 24 Nonclinical Doctoral Scientists



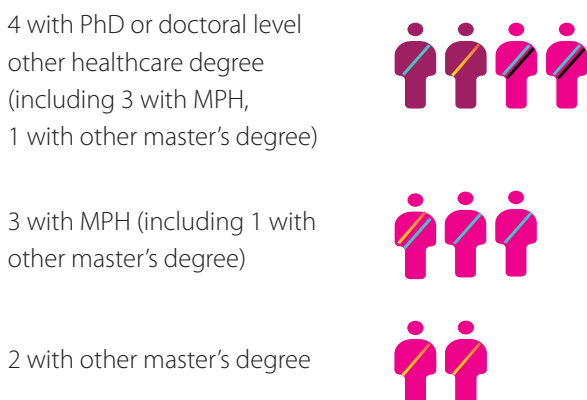
#### PhD Disciplines

- Epidemiology
- Biostatistics
- Infectious Disease Epidemiology
- Behavioral Science and Health Education
- Environmental Health Sciences
- Occupational Health
- Global Health/International Health
- Anthropology
- Microbiology and Immunology
- Nursing
- Nutrition and Health Sciences
- Pharmacology
- Public Health
- Veterinary Science

### 11 Veterinarians



### 9 Other Healthcare Professionals (7 nurses, 1 physician assistant, 1 pharmacist)



## DID YOU KNOW?

The EIS Class of 2018 includes 61 U.S. citizens, 2 U.S. permanent residents, and 3 citizens from other countries (Argentina, Australia, and India) contributing diverse skills, experiences, and cultural backgrounds to address broad public health workforce needs.

Data source: EIS application data

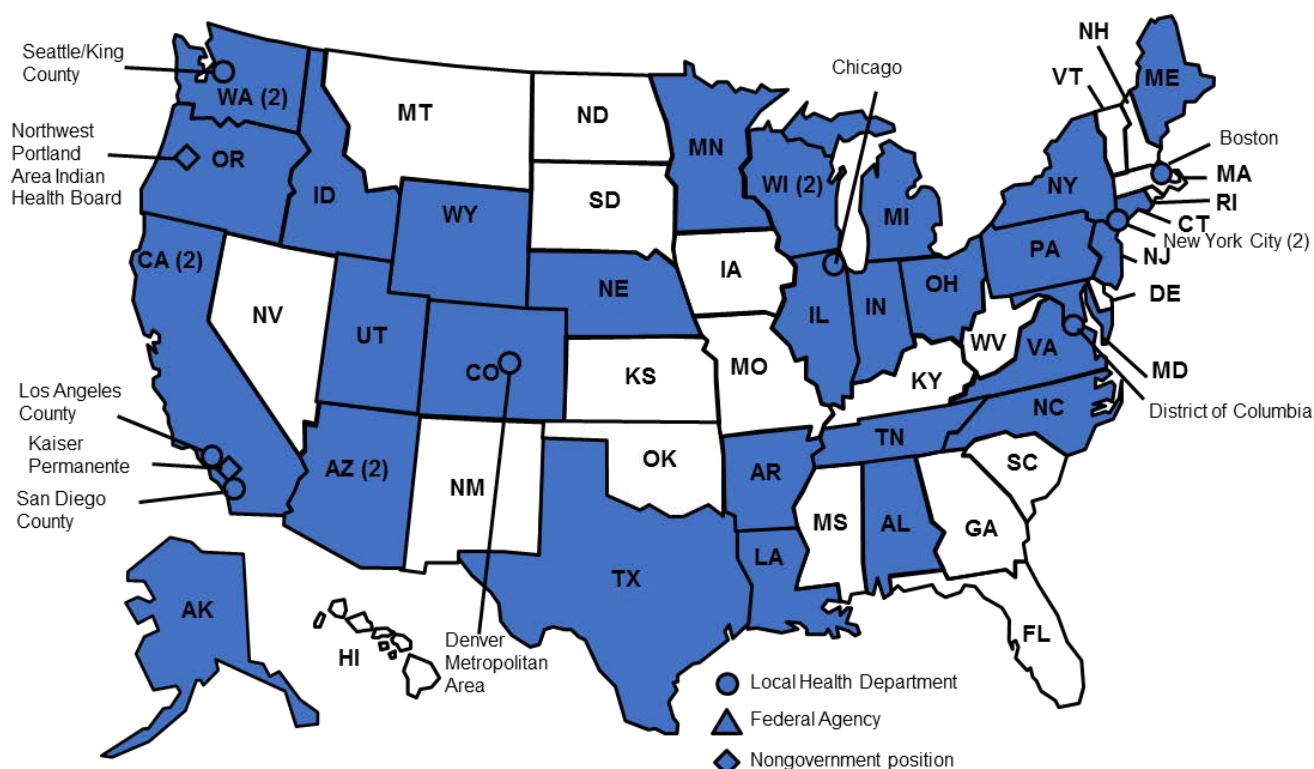
# CURRENT EIS OFFICER ASSIGNMENTS

There are 149 officers in the 2016 and 2017 classes, combined.

EIS officers are placed as ready-responders in host assignments at CDC, state and local health departments, and other federal agencies or nongovernmental public health organizations.

Centers, Institute, and Offices Host Assignments	Class of 2016 (n = 78)	Class of 2017 (n = 71)
National Center for Emerging and Zoonotic Infectious Diseases (NCEZID)	13	18
Center for Global Health (CGH)	11	10
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP)	7	1
National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)	6	3
National Center for Immunization and Respiratory Diseases (NCIRD)	8	9
National Center for Environmental Health/Agency for Toxic Substances and Disease Registry (NCEH/ATSDR)	1	2
National Institute for Occupational Safety and Health (NIOSH)	3	3
National Center for Injury Prevention and Control (NCIPC)	2	1
National Center for Health Statistics (NCHS)	2	1
National Center on Birth Defects and Developmental Disabilities (NCBDDD)	2	1
Office of Public Health Preparedness and Response (OPHPR)	1	0
Center for Surveillance, Epidemiology and Laboratory Services (CELS; field host assignments*; see map).	22	22

Data source: EIS match data



Shaded states have an EIS officer in the class of 2016 or 2017, assigned at the state level.

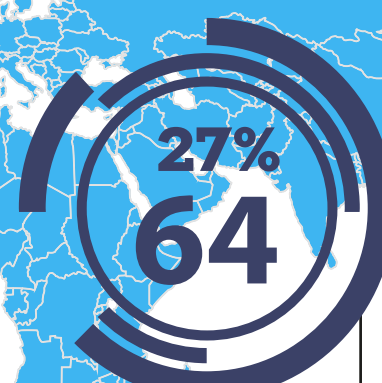
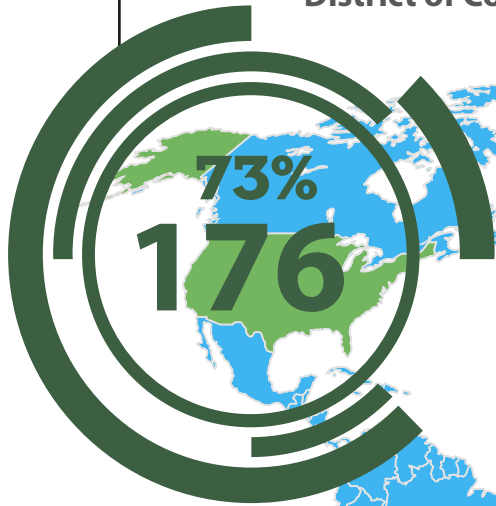
# HIGHLIGHTS FROM THE MOST RECENT EIS GRADS: FIELD INVESTIGATIONS Class of 2015 (N=80)

## DOMESTIC DEPLOYMENTS

42 U.S. States  
4 U.S. Territories  
District of Columbia

# 240

Deployments (Epi-Aids and others) to conduct field investigations addressing urgent public health needs\*



## INTERNATIONAL DEPLOYMENTS

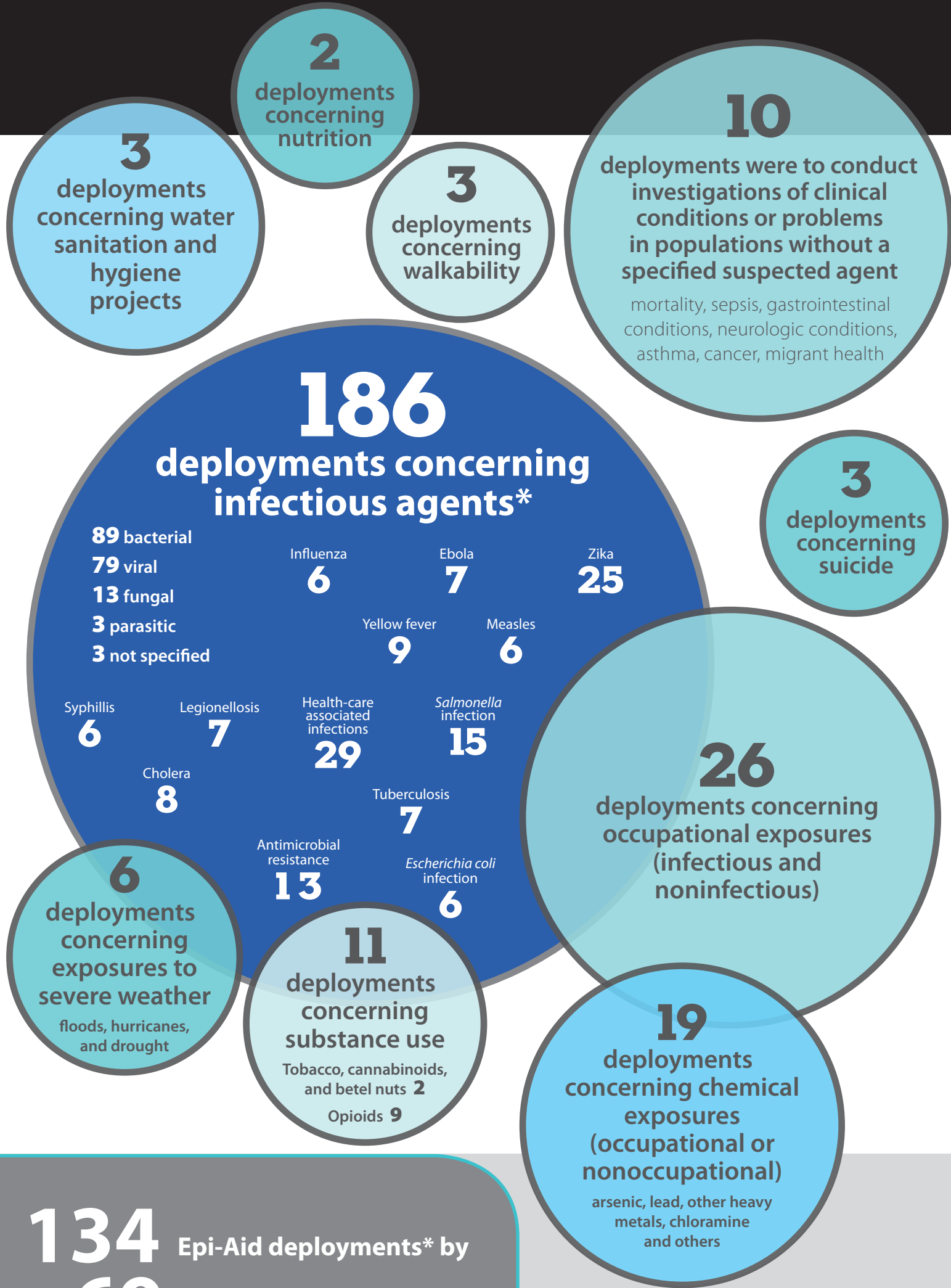
### 25 Countries

- |                                  |          |              |
|----------------------------------|----------|--------------|
| Angola                           | Ethiopia | Mexico       |
| Botswana                         | Georgia  | Mongolia     |
| Brazil                           | Greece   | Palau        |
| Cambodia                         | Guinea   | Panama       |
| Colombia                         | Haiti    | Sierra Leone |
| Democratic Republic of the Congo | India    | Tanzania     |
|                                  | Kenya    | Uganda       |
|                                  | Laos     | Zimbabwe     |
| Dominican Republic               | Liberia  |              |
|                                  | Mali     |              |



Data source: EIS activity reports and Epi-Aid line list (number of Epi-Aids)

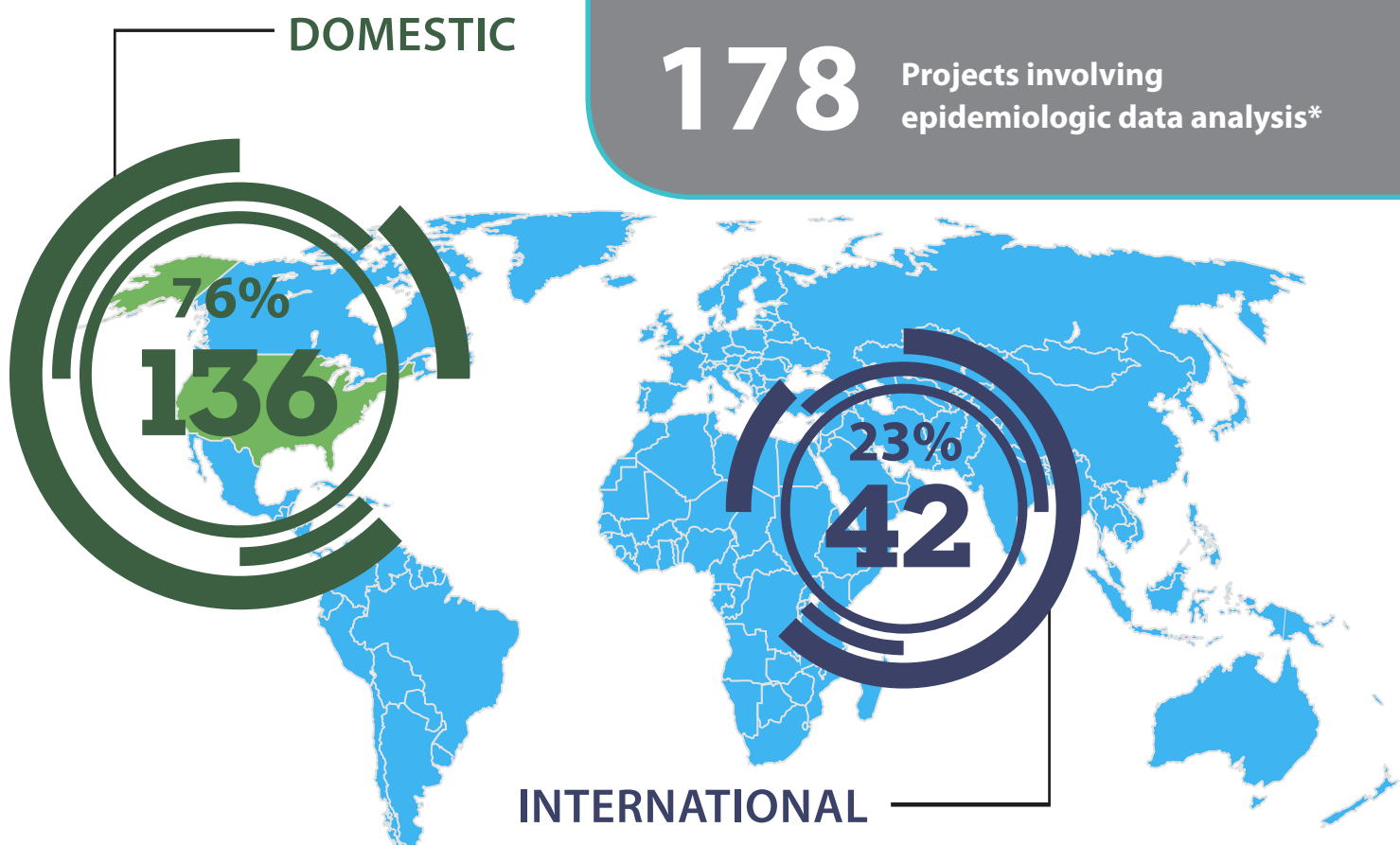
\*A deployment to conduct a field investigation is defined here as participation by an EIS officer in a field investigation of a potentially serious public health problem that required a timely response and occupied at least 10 working days of the officer's time. These investigations include, but are not limited to, Epi-Aids and Health Hazard Evaluations. An Epi-Aid is one mechanism for public health authorities to request the short-term epidemiologic assistance of EIS officers to respond to an urgent public health problem. Health Hazard Evaluations are conducted by NIOSH. Multiple officers participating in the same investigation are counted as separate deployments. Numbers are based on Core Activity of Learning (CAL) 1 information from EIS officer activity reports. **In topical categorizations, a single deployment might fit into more than one category.**



**134** Epi-Aid deployments\* by  
**69** EIS officers

# HIGHLIGHTS FROM THE MOST RECENT EIS GRADS: EPIDEMIOLOGICAL ANALYSES

Class of 2015 (N=80)



## SOURCE OF DATA USED IN PROJECTS

- 43** used field investigation data (could include a variety of sources)
- Among those not using field investigation data (categories not mutually exclusive):
  - 43** mentioned use of disease- or condition-specific surveillance
  - 15** mentioned original data collection (other than for field investigation)
  - 8** mentioned use of data from NHIS
  - 6** mentioned analysis of mortality data (other than NVDRS)
  - 4** mentioned use of data from NVDRS
  - 63** mentioned use of another existing data source
  - 4** did not specify the data source

## ANALYTIC PROJECT TOPIC AREAS

- 115** infectious diseases
  - 11** HIV
  - 11** influenza or influenza-like illness
  - 6** syphilis
  - 6** Zika
- 9** substance use (tobacco, e-cigarettes, methamphetamine, and opioids)
- 5** physical activity
- 11** injuries (other than substance use) of which **6** concerned suicide

\*Includes projects that involve planning, conducting and interpreting epidemiological analyses that go beyond descriptive analysis. Topic areas with 5 or more investigations are mentioned.

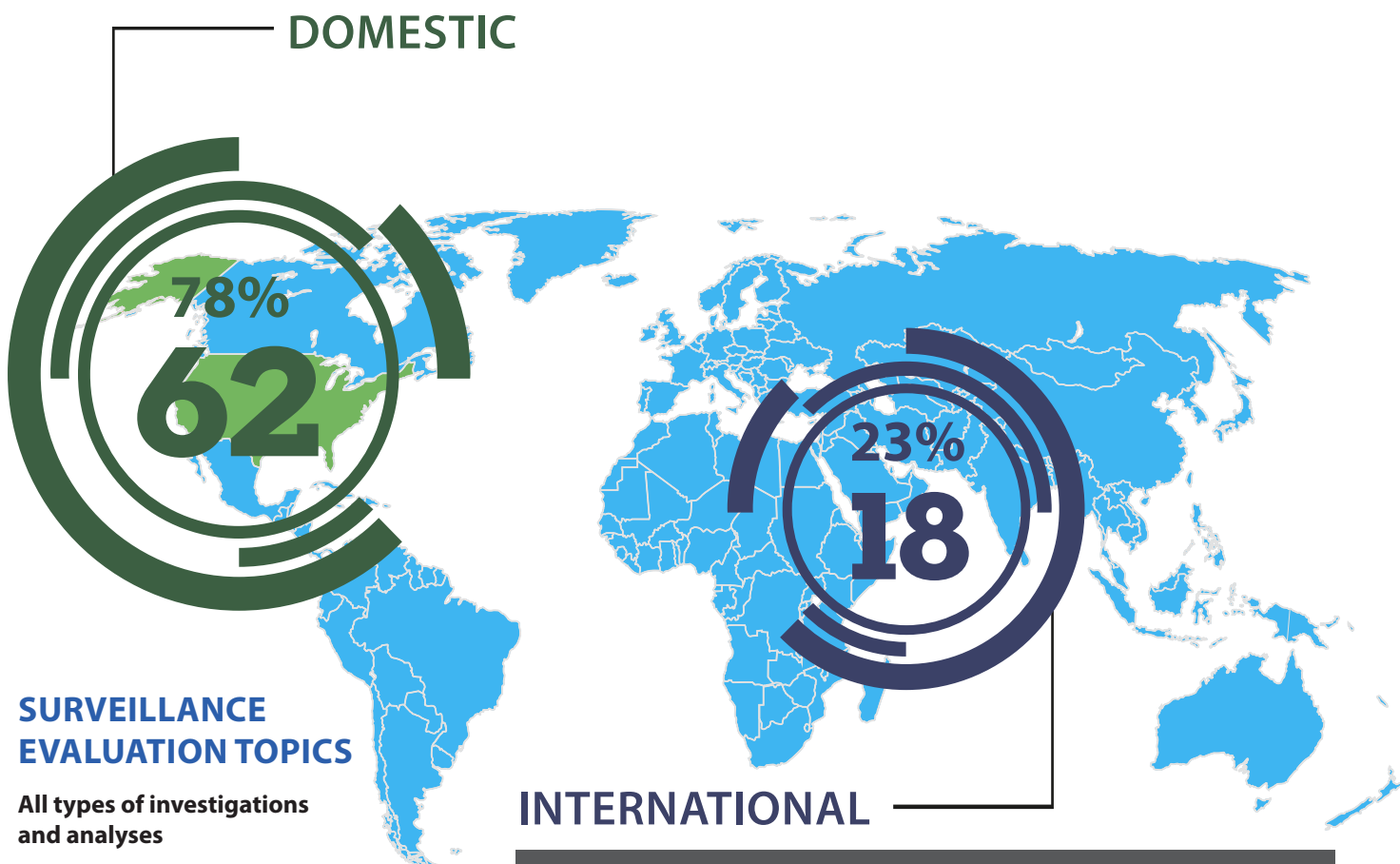


# HIGHLIGHTS FROM THE MOST RECENT EIS GRADS: SURVEILLANCE EVALUATIONS

80

Surveillance system evaluations conducted and presented at an EIS course

## LOCATION OF SURVEILLANCE SYSTEM



### SURVEILLANCE EVALUATION TOPICS

All types of investigations and analyses

- 57** infectious diseases
- 7** chronic disease or disability
- 5** substance use
- 3** injury (other than substance use)
- 3** reproductive health
- 2** health-related behavior
- 1** environmental exposure
- 1** occupational safety
- 1** poisoning

Data source: EIS activity reports

### Communicating findings for public health action

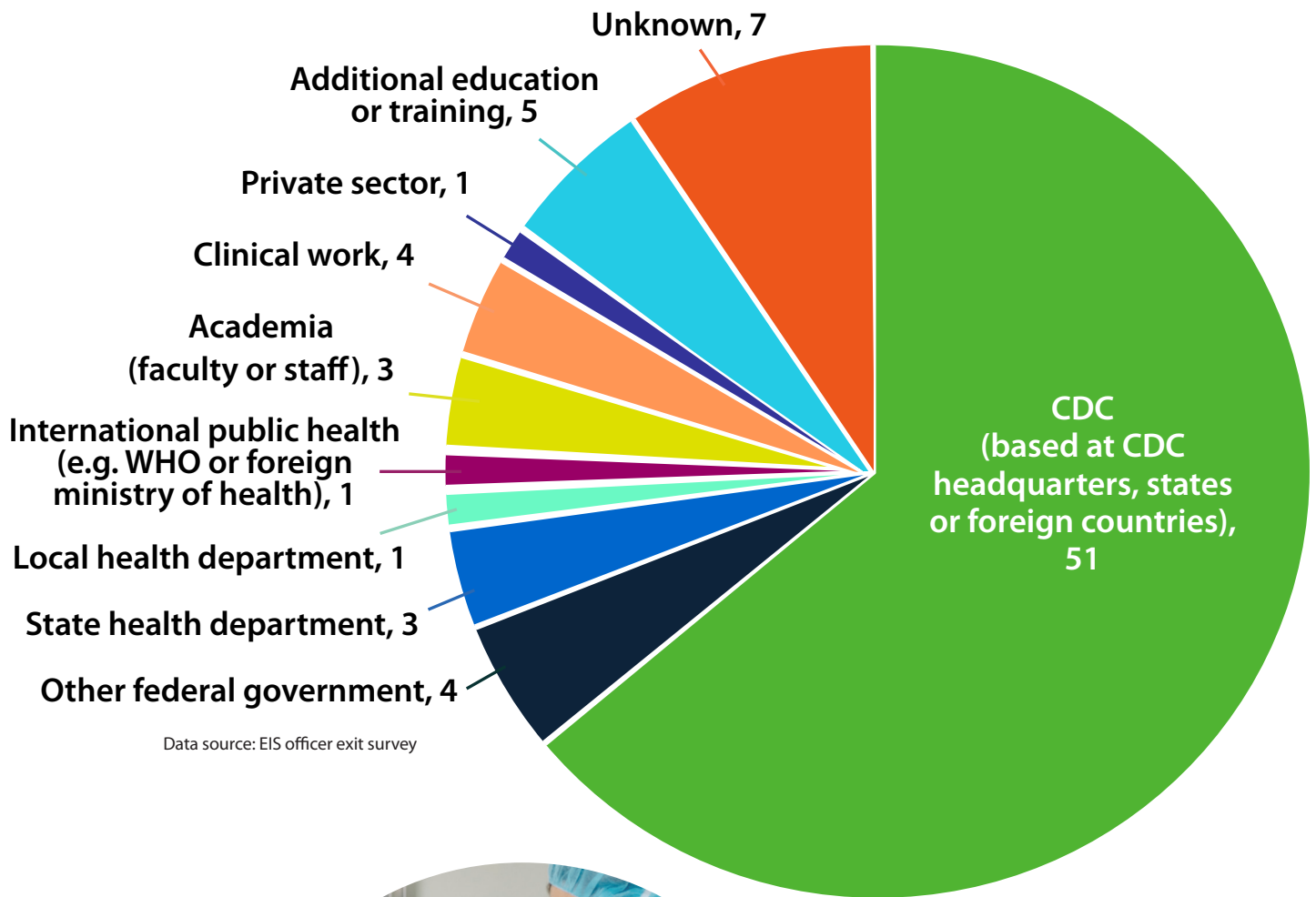
All types of investigations and analyses

- 164** ≥30 minute presentations reported (38 at Tuesday Morning Seminars)
- 213** 5–15 minute presentations reported (84 at EIS conference)
- 116** publications in the MMWR\*
- 104** publications in journals other than the MMWR\*

\* See list of publications as of March 3, 2018 at

<https://www.cdc.gov/eis/media-publications/publications.html>

# HIGHLIGHTS FROM THE MOST RECENT EIS GRADS: FIRST EMPLOYER AFTER EIS Class of 2015 (N=80)



Data source: EIS officer exit survey





# READY FOR A LIFE-CHANGING CAREER EXPERIENCE?

Disease detectives serve on the front lines of public health  
both domestically and abroad



[www.cdc.gov/EIS](http://www.cdc.gov/EIS)

