• We will begin momentarily.
• Audio will be through your computer speakers.
  • Make sure your speakers are on and the volume is turned up.
• If you have no sound once the webinar starts, click the Audio Broadcast Icon ( lược ) in the Participants box on the right side of your screen.
• If you experience any technical issues during the webinar, please send a note through the **Chat box** to “AAMC.”
• Type your questions in the ‘**Q&A**’ box at the bottom right of your screen and send to “All Panelists.”
CDC’s Epidemic Intelligence Service (EIS): A Unique Fellowship for Physicians

March 9, 2016
7:00 – 8:00 p.m. EST
Welcome & Introductions:
Malika Fair, M.D., M.P.H.

- Director of Public Health Initiatives, AAMC
- Assistant Clinical Professor, Department of Emergency Medicine, The George Washington School of Medicine and Health Sciences
- M.D., University of Michigan Medical School
- Emergency Medicine Residency, Carolinas Medical Center
Public Health Initiatives at AAMC

- *Diversity Policy and Programs* promotes, advances, and drives diversity and inclusion along the medical education continuum with work in three portfolios:
  - Human Capital
  - Organizational Capacity Building
  - *Public Health Initiatives*

- Improving the integration of public health concepts into medical education and seeking to enhance and expand a diverse and culturally prepared health workforce.
Academic Partnerships to Improve Health: AAMC-CDC Cooperative Agreement

- CDC awarded the AAMC and three other national academic associations funds to:
  - Support enhanced teaching of concepts of population health
  - Provide practical, hands-on experience at the community level for public health, medical, and nursing students.
Opening Remarks:
Rebekah Apple, M.A.

- Senior Manager of Programs, AMSA
- Designs & delivers educational and professional development programs for physicians at all stages
- Teaches undergraduate health care ethics at St. Petersburg College
- Masters degree in Bioethics
Moderator:
Joshua Mott, Ph.D., M.A., EMT-P

- Chief, EIS Program
- Branch Chief, Epidemiology Workforce Branch, Division of Scientific Education and Professional Development
- Epidemic Intelligence Service 1998-2000
- Ph.D. in community health and epidemiology, University of Illinois at Champaign-Urbana
What is the CDC Epidemic Intelligence Service (EIS)?

- A two-year post graduate experience and on-the-job training for health professionals interested in applied epidemiology

- “Training through service”
Historical Background

- July 1946: CDC established with mandate to help states control communicable diseases
- October 1947: CDC was assigned responsibility for providing epidemic aid to states
- July 1951: Epidemic Intelligence Service (EIS) established
Physicians in EIS: 60+ Years of training, service, and response

1950s:  • Polio Vaccines
        • Lead Paint
        • H2N2 Pandemic

1960s:  • Smallpox eradication
        • Cancer clusters
        • War in Nigeria
        • H3N2 Pandemic

1970s:  • Lead in fuel
        • Lassa Fever
        • Ebola Virus Disease
        • Legionella
        • Reye’s Syndrome

1980s:  • Toxic Shock Syndrome
        • HIV Pandemic
        • Salmonella in Oregon

1990s:  • Cryptosporidium
        • E-Coli
        • West Nile Virus

2000s:  • 9-11
        • Anthrax attacks
        • SARS
        • Hurricane Katrina
        • H1N1 Pandemic

2010s:  • Haiti Earthquake
        • Mediterranean Coronavirus
        • Ebola Virus Disease
        • Zika Virus
        • ???
My Journey, Starting with EIS...

1998–2000  EIS – Air Pollution and Respiratory Health
2000–2004  Epidemiologist and Team Lead in Air Pollution
2004–2006  Bioterrorism Preparedness and Response Program
2006–2009  Influenza in Atlanta
2009–2011  Influenza at WHO – Regional Office for Europe
2011–2015  Influenza Program Director, Nairobi, Kenya
2015–present  Chief, EIS Program, CDC
Current EIS Officers (N=158)

- 33 assigned to state and territorial health departments
- 10 assigned to city, county, and federal partners
- 115 assigned to CDC HQ and campuses
Come join us!
Panelist: Current EIS Officer
Prathit A. Kulkarni, M.D.

- Epidemic Intelligence Service
  2014-2016
- Assigned to the New Jersey
  Department of Health
- M.D. from Baylor College of
  Medicine
- IM/Peds Residency, Baylor
  College of Medicine
Why I Joined EIS

- Impact health at the population level
- Understand work of public health departments
- Solve disease outbreaks
- Interact with and learn from CDC experts
- Prepare for future career opportunities
Projects

DANGER

TOXIC MATERIALS

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Severe Illness from Methyl Bromide Exposure at a Condominium Resort — U.S. Virgin Islands, March 2015

Prathit A. Kulkarni, MD¹; Mary Anne Duncan, DVM²; Michelle T. Watters, MD, PhD³; Leah T. Graziano³; Elena Vaouli, MPH³; Larry F. Cseh, MS²; John F. Risher, PhD²; Maureen F. Orr, MS²; Tai C. Hunte-Cesear, MD⁴; Esther M. Ellis, PhD⁴ (Author affiliations at the end of text)
Projects

This is an official

CDC HEALTH ADVISORY

Distributed via the CDC Health Alert Network
January 27, 2016, 1030 EST (10:30 AM EST)
CDCHAN-00386

CDC Urging Dialysis Providers and Facilities to Assess and Improve Infection Control Practices to Stop Hepatitis C Virus Transmission in Patients Undergoing Hemodialysis
Projects
Future Plans

- Adult Infectious Diseases fellowship at Baylor College of Medicine
- Combine clinical and public health experience at medical school/academic hospital, public health school, or public health agency
- Contact: ydu2@cdc.gov
Panelist: Current EIS Officer Amelia (Amy) Kasper, M.D., M.H.S.

- Epidemic Intelligence Service 2014-2016
- Assigned to the Health Studies Branch, Division of Environmental Hazards and Health Effects
- M.D., St. Louis University SOM
- IM residency, Washington University in St. Louis, Barnes-Jewish Hospital/
- Fellowship in epidemiology, Yale School of Public Health/FIOCRUZ
The Who, What, Where, When, and Why

Disease Detectives
Scientists Who Solve the Mysteries of Illness

How would you like to solve a crime and catch a killer who had murdered his victim deceptively? Imagine you are a detective, collecting clues and piecing them together to solve a mystery. That’s exactly what disease detectives do. They study all kinds of diseases that affect people, from bacteria to viruses, to find ways to prevent and treat them.

For example, let’s take cholera. It’s a disease that affects the digestive system and can be very severe. If left untreated, it can be deadly. However, by understanding the disease, we can develop ways to prevent it from spreading and treat it if someone is infected.

In London, people were sick of cholera. Who could stop the disease?

Dr. John Snow proved that water waskey to the spread of cholera. By analyzing the data, he discovered that the disease was spreading through a specific water source. This led to the development of the water supply system we have today, which has greatly reduced the spread of cholera and other waterborne diseases.

In summary, disease detectives are essential in understanding and preventing diseases. They help us understand how diseases spread and develop ways to fight them. By doing so, they improve the health and well-being of communities around the world.

You have cholera.
The Who, What, Where, When, and Why

https://www.facebook.com/YaleSPH
Panelist: EIS Alumnus
Michael Gronostaj, M.D., Pharm.D., M.P.H.

- Medical Epidemiologist
  Field Support Response Team
  Epidemiology Workforce Branch
- Lieutenant Commander in the
  United States Public Health Service
- Epidemic Intelligence Service
  2011-2013
- M.D., Pharm.D., M.P.H.,
  and IM Residency at Rutgers University, New Jersey
Why I Joined EIS

- Wanted to make big impact
- Studied EIS and public health in school
- Rotation during Internal Medicine residency with health department
Notes from the Field

Yersinia enterocolitica Infections Associated with Pasteurized Milk — Southwestern Pennsylvania, March–August, 2011
After EIS

- Preventive Medicine Residency/Fellowship at CDC
  - Waterborne Disease Prevention Branch
- Medical Officer, Immunization Safety Office
- Medical Officer, Epidemiology Workforce Branch, EIS Program
- Contact: vie0@cdc.gov
Panelist: EIS Alumnus
Wences Arvelo, M.D., M.Sc.

- Lead for Selection and Recruitment, EIS
- Former Lead Medical Epidemiologist, CDC International Emerging Infections Program (IEIP)
- Epidemic Intelligence Service 2005-2007
- M.D., University of Puerto Rico School of Medicine
- IM residency, Boston Medical Center
Eligibility

- Physicians (M.D., D.O.)
  - Graduate of allopathic or osteopathic medical school
- One year of clinical experience
  - Residency training preferred
- Active, unrestricted, U.S. license to practice your clinical specialty
- Additional details at [www.cdc.gov/eis/application.html](http://www.cdc.gov/eis/application.html)
# Timeline of Key Events

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- **Application Selection Process**
  - Opens: Mid-May
  - Closes: Mid-Aug
  - Reviews: Sep
  - Interviews: Oct-Nov
  - Decisions: Dec-Jan
  - Conference: Apr
  - Summer Course: July 1
CDC Medical Student Electives

- **Epidemiology Elective Program**
  - 6–8 week rotation for 4\textsuperscript{th}-year medical students at CDC Headquarters
  - Introduction to public health, preventive medicine, and principles applied epidemiology
  - [www.cdc.gov/EpiElective](http://www.cdc.gov/EpiElective)

- **CDC-Hubert Global Health Fellowship**
  - 6–12 week international project for 3\textsuperscript{rd}- and 4\textsuperscript{th}-year medical students
  - Public health experience in a global setting
  - [www.cdc.gov/HubertFellowship](http://www.cdc.gov/HubertFellowship)
CDC’S EPIDEMIC INTELLIGENCE SERVICE (EIS): PUBLIC HEALTH HEROES

“EIS is the world’s best introduction to interventional epidemiology: finding problems fast, and stopping them.”
— Tom Frieden, MD, MPH, CDC Director

- A 60+ year history of success in training boots-on-the-ground disease detectives
- A training opportunity unlike any other for a career with far-reaching impact
- EIS officers can improve the lives of thousands and effect change in a community or entire country

Visit: [www.cdc.gov/EIS](http://www.cdc.gov/EIS)
Q&A Session

Type your questions in the ‘Q&A’ box at the bottom right of your screen and send to “All Panelists”

Contact Information

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E-mail: mfair@aamc.org
Q&A Moderator

Joshua Mott, Ph.D., M.A., EMT-P
Chief, EIS Program
CDC
Closing Remarks

Malika Fair, M.D., M.P.H.
Director of Public Health Initiatives
Association of American Medical Colleges
Consider submitting your curricular innovation to be included in the Public Health Collection of AAMC’s MedEdPORTAL®, a free, cross-indexed suite of services that aims to equip healthcare professionals across the continuum with effective and efficient educational tools to improve patient care.
Public Health Pathways

An online searchable database of domestic and international public health training opportunities for:

- Pre-med/Pre-health Students
- Medical/Graduate Students
- Residents/Postdocs
- Early Career Physicians & Scientists

Visit Public Health Pathways at:
www.aamc.org/phpathways
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