What is the Epidemic Intelligence Service (EIS)?

A two-year post graduate experience and on-the-job training for health professionals interested in applied epidemiology
Professional Skills and Abilities Acquired Through the EIS Program

- Investigations of acute outbreaks and hazards
- Analyses of large data bases
- Evaluation of surveillance systems
- Publication and presentation of scientific manuscripts
- Oral presentations at national conferences
- Responding to public inquiries
- Applied and field epidemiology
Who is Eligible to Join EIS?

- Physicians with at least 1 year post-graduate clinical training
- Healthcare professionals (dentists, nurses with BSN or MSN, physician assistants, doctors of pharmacy) with MPH or equivalent degree
- Veterinarians (DVM, VMD) with MPH or equivalent degree, or public health experience
- PhD, DrPH, or other doctoral-degree holders in epidemiology, informatics, biostatistics, social or behavioral science, or nutrition
- International candidates
EIS Class of 2014

- **Class Size** = 78
- **International officers**
  - 10 citizens of other countries
  - 2 from Nigeria, 2 from the United Kingdom, and 1 each from India, Japan, Uganda, Sweden, and Canada
- **Sex**
  - 25% Men and 75% Women
- **Professional degrees:**
  - 44 physicians
  - 26 doctoral-level scientists
  - 6 veterinarians
  - 2 Nurses
Assignments for 2012 & 2013 Classes (N = 160)

- Infectious Diseases (n = 65)
- State and Local Health Depts (n = 41)
- Environmental/Occupational Health, Injury (n = 15)
- Chronic Disease, Maternal/Child Health (n = 17)
- Health Statistics (n = 2)
- Center for Global Health (n = 19)
Field EIS Officers, 2014-2015
July 17, 2014

Cities, counties, and partner assignments: LA County, Seattle-King County, San Diego, Portland OR, New York City, Washington DC; CMS = Centers for Medicare and Medicaid Services; NPAIHB = Northwest Portland Area Indian Health Board; V.A. = Veterans Administration; NPS = National Park Service; SNHD = Southern Nevada Health District

1 = 1st year EIS Officers (n= 22)
2 = 2nd year EIS Officers (n= 21)
What Types of Problems Do EIS Officers Deal With?

- Lead screening
- TB in immigrants
- Malaria
- Norwalk Virus from oysters
- Cyclosporiasis
- Hanta Virus
- E. coli
- Copper in drinking water
- Cryptosporidiosis
- Monkey Pox
- West Nile Virus
- WTC Bombing
- Hurricane Hugo
- Norovirus
- Legionnaires' Disease
- Forest Fires
- Hurricane Katrina
- Norwalk Virus from oysters
- Malaria
- TB in immigrants
- Lead screening
Anthrax Investigation — Texas Wild Game Preserve
Pulmonary Tularemia — Martha’s Vineyard, MA
Hurricanes Katrina and Rita, Fall 2005
Sites of Epidemic Intelligence Service
EPI-AID Investigations 1950–2010
Infectious Disease Investigations — Ebola, DRC
Where officers spend a LOT of their time
Links and Contact Information

- **Email:** EIS@cdc.gov
- **Web:** www.cdc.gov/EIS

David Schnabel, MD, MPH
EISO, Maryland Dept of Health and Mental Hygiene
david.schnabel@maryland.gov
410-767-7395
CDC/CSTE APPLIED EPIDEMIOLOGY FELLOWSHIP
APPLIED EPIDEMIOLOGY FELLOWSHIP

**Mission:** To meet the nation’s need for applied epi workforce capacity at the state/local level through a national 2 year training program

**3 core concepts:**

- Create and train a core group of public health epidemiologists
- Provide service to the sponsoring agency
- Strengthen capacity in applied epidemiology
APPLIED EPIDEMIOLOGY FELLOWSHIP

- Using a mentorship model, Fellows receive rigorous training and develop applied epidemiologic skills during a high quality on-the-job training experience in order to secure a long-term career at the local/state level

- Collaboration among CDC, CSTE, and ASPPH

- 2 year program in a state/local/territorial health department under guidance of 2 experienced mentors
PROGRAM AREAS

- Chronic Diseases
- Environmental Health
  - General, Waterborne Diseases*
- Infectious Disease
  - General, HAI, Quarantine, & Food Safety
- Injury
  - General, Drug Overdose*
- Maternal and Child Health
- Occupational Health
- Substance Abuse

* New subject area
FELLOWSHIP HISTORY

- 266 Fellows have entered the program since its inception in 2003
- 198 Fellows have graduated from the program to date
  - Based upon the data from CSTE's 2014 evaluation of the fellowship program, alumni reported (N=145)
    - 58% reported working at a STLT or federal public health agency
    - 13% in academia
    - 13% in graduate programs
    - 16% in other settings
FELLOW ELIGIBILITY

- An MPH, MSPH, MS, or equivalent degree or an advanced degree in a health-related field
- Minimum of 4 graduate-level epidemiology courses and 1 graduate-level biostatistics course
- Desire to pursue a long-term career in epidemiology at the state or local level
- Demonstrated analytic skills
- United States citizenship
TIMELINE FOR CLASS XIII

- Available Host Site billets posted on CSTE website-November-December 2014
- Fellow Application: October 20, 2014 - January 9, 2015
- Application Review: January-February, 2015
- In-person Interviews: March 2015
- Matching Process: April 2015
- Fellow Placement Window: June 1-August 17, 2015
APPLIED PUBLIC HEALTH INFORMATICS FELLOWSHIP
APPLIED PUBLIC HEALTH INFORMATICS FELLOWSHIP

Mission: To meet the nation’s increasing need for applied public health informatics workforce capacity in state and local health departments through a national fellowship training program.

4 core concepts:
- Provide an accelerated training experience
- Strengthen capacity in applied public health informatics across public health institutions
- Provide service to the sponsoring agency
- Create and train a core group of public health workers
 Aphif Overview

- CDC in collaboration with CSTE, ASTHO, & PHII

- 1 year in a state or local health agency under the guidance of 2 experienced mentors

- Fellows matched to a host site with demonstrated capacity to provide technical training, research opportunities, and opportunities for experience in the application of public health informatics in a practical setting
ELIGIBILITY

1. A doctoral or masters level degree. Qualifying degree must be from an accredited academic institution in one of the following:
   – Public health informatics or other health related informatics discipline
   – Epidemiology
   – Statistics
   – Computer science, information science, information systems
   – Public health, medicine, nursing, health care or health policy, or health-services research

2. Desire to pursue a long-term career at the state or local level

3. United States Citizenship or Permanent Residency

All candidates must meet the above criteria as well as one of the following:
ELIGIBILITY (CONTINUED)

One of the following:

4a. A certificate issued by a degree granting institution in public health informatics or master or doctoral-level coursework in public health informatics

OR

4b. Demonstrated expertise in four of the nine competency areas
ELEGIBILITY REQUIREMENTS - COMPETENCIES

1. Developing strategic direction for public health informatics within an agency
2. Estimating the impact of technology modifications on program operations and staff workflows
3. Managing IT operations related to a public health project or program
4. Conducting business process analysis and system requirements documentation
5. Evaluating public health information systems
6. Developing or evaluating knowledge management tools
7. Upgrading information systems to be more standards-based and interoperable
8. Ensuring confidentiality of health information or the security of public health information systems
9. Integrating information or information systems to support improved practice in public health or health care
TIMELINE FOR CLASS IV 2014-2015

• Accepting applications November 3, 2014 – January 30, 2015

• Applications accessible via www.aphif.org

• All Fellows will be placed beginning June 1st, 2015
FOR MORE INFORMATION

• Applied Epi Fellowship
  – www.cste.org
    Fellowship Information can be found on various pages under “Trainings & Activities”
  – Valerie Underwood: vunderwood@cste.org

• APHIF
  – www.aphif.org
  – Amanda Masters: amasters@cste.org
Thank you!

Victoria Tsai
Victoria.Tsai@Maryland.gov
COMPETENCY-BASED PROGRAM

Epidemiologic methods
- Evaluate a surveillance system
- Design an epidemiologic study
- Analyze epi data

Communication skills (Written and oral)
- Write a field investigation report
- Write a surveillance report
- Present at a national conference or regional meeting

Public health practice, policy, and legal issues
- Understand the role of IRB
- Effectively negotiate cultural sensitivity issues
COMPETENCIES DEVELOPED/TRACKED

- Plan of Action
  - Submitted after first 3 months
- Quarterly Progress Reports
- Semi-Annual Evaluation from mentor
- Final Report
COMPENSATION AND BENEFITS

- $41,000 annual stipend for master’s level
- $56,000 annual stipend for doctoral level
- Up to $320 per month to supplement health insurance
- $970 per year for professional development
- Up to $1000 relocation expenses
# Profile of Current Fellows

- Chronic Disease- 1
- Environmental Health- Water- 4
- Infectious Disease- 13
- Infectious Disease- Q- 1
- Infectious Disease- HAI- 3
- Infectious Disease- Food Safety- 1
- Injury- 2
- Maternal and Child Health- 6
- Substance abuse- 1

Class XII- 30 Fellows (2014-2016)
- Chronic Disease- 2
- Environmental Health- 2
- Environmental Health- Water- 3
- Infectious Disease- 8
- Infectious Disease- Q- 2
- Infectious Disease- HAI- 6
- Infectious Disease- Food Safety- 1
- Injury- 1
- Injury- Drug Overdose- 1
- Maternal and Child Health- 4

31 masters, 1 doctoral
25 masters, 5 doctoral
COMPETENCY BASED PROGRAM

- Competency-based training in:
  - Developing strategic direction for public health informatics within an agency
  - Estimating the impact of technology modifications on program operations and staff workflows
  - Conducting business process analysis and system requirements documentation
  - Evaluating public health information systems
COMPETENCIES (CONTINUED)

- Competency-based training in:
  - Developing or evaluating knowledge management tools
  - Upgrading information systems to be more standards-based and interoperable
  - Ensuring confidentiality of health information or the security of public health information systems
  - Integrating information or information systems to support improved practice in public health or health care
COMPETENCIES DEVELOPED/TRACKED

- Required core activities
- Plan-of-Action
- Monthly progress reports
- Semi Annual mentor evaluation reports
- Final report
COMPENSATION AND BENEFITS

• Doctoral stipend: $64,292
• Masters stipend: $53,639

• Monthly insurance allowance: Up to $320/month
• Relocation expenses: Up to $1,000
• Training/professional development: $2,000
• Final interview/field placement: Up to $1,000
CLASS III FELLOWSHIP STATISTICS

• Class III (2014-2015): 11 Fellows
  – 8 masters, 1 DVM, 2 MD
• Location
  – Denver, Colorado
  – Illinois
  – Kentucky
  – Massachusetts
  – New York City, New York
  – North Carolina
  – Orange County, NC
  – Tennessee
  – Virginia
  – Washington State
  – Wisconsin