## **Centers for Disease Control and Prevention U.S. Department of Health & Human Services**

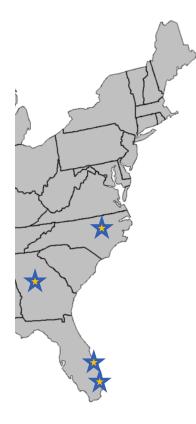


#### Simone Gray, PhD Senior Statistician National Institute of Statistical Sciences

5<sup>th</sup> Virtual Career Fair

2020-03-11

## **About Me: Training**



#### Mathematical Statistician

Centers for Disease Control and Prevention

- Post-Doctoral Fellowship
  U.S. EPA, National Exposure Research Laboratory
- Ph.D. in Statistics
  Duke University
- M.S. in Mathematical Sciences
  University of Miami
- **B.S. in Mathematics** Palm Beach Atlantic University

# **History of CDC**

- On July 1, 1946 the Communicable Disease Center (CDC) opened its doors and occupied one floor of a small building in Atlanta.
- Its primary mission: prevent malaria from spreading across the nation.
- With a budget of only \$10 million and fewer than 400 employees, the agency's early challenges included obtaining enough trucks, sprayers, and shovels necessary to wage war on mosquitoes.
- Today, CDC is one of the major operating components of the Department of Health and Human Services and is recognized as the nation's premiere health promotion, prevention, and preparedness agency.



Laboratory at 291 Peachtree Street, Atlanta, Georgia, 1945. Aimee Wilcox & Laboratory Director, Dr. Seward Miller.

CDC Museum: cdc.gov/museum, https://www.cdc.gov/about/history

#### **Mission Statement**

- CDC works to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same.
- As the nation's health protection agency, CDC saves lives and protects people from health threats.
- To accomplish our mission, CDC conducts critical science and provides health information that protects our nation against expensive and dangerous health threats, and responds when these arise.

## What exactly is CDC?

CDC is part of the US Department of Health and Human Services

- Along with other agencies in the US Public Health Service, e.g.,
  - Agency for Toxic Substances and Disease Registry (ATSDR)
  - Agency for Healthcare Research and Quality
  - National Institutes of Health (NIH)
- National Center for Chronic Disease Prevention and Health Promotion
  - Division of Cancer Prevention and Control (DCPC)
  - Epidemiology and Applied Research Branch (EARB)
  - Behavioral and Applied Research Team (BART)

#### **Current CDC Activities**

- Pandemics and preparedness, e.g.,
  - COVID19, Influenza, Ebola, vaccine-preventable diseases
  - Antibiotic resistance
  - Mosquitoes, ticks, ... vector-borne diseases
    - Zika, West Nile, Lyme disease, Rocky Mountain spotted fever, ...
- Bloodborne pathogens, e.g.,
  - End the HIV/AIDS Epidemic, hepatitis C, ...
- Noncommunicable diseases, e.g.,
  - Opioids
    Tobacco: Vaping illnesses and deaths
  - Diabetes and pre-diabetes Injuries: intentional and nonintentional

## **Job Opportunities for Statisticians**

- www.usajobs.gov
  - Search for statistician, statistics, mathematics, survey statistician
  - Other quantitative posts: informatics, bioinformatics, health economics
  - Data manager, data analyst
- Education requirements and experience vary by position but are very specific
  - completed 3 years of ... graduate education leading to a degree in ...
  - At least one year of experience at level...
- Citizenship requirements will be listed on the position
- Fellowships at CDC (ORISE, EIS Officers) <u>www.cdc.gov/fellowships</u>

#### What skills would you need to succeed as a statistician

- Follow the rules
  - Travel, meetings, trainings
- Be able to work as part of a team
- Communication & documentation
  - Easily communicate complicated ideas to a non-technical audience
- Meet deadlines
- Writing
  - Publishing (depends on position)

#### **CDC Career Paths**

- Technical
  - Statisticians have the opportunity to become technical experts as Senior Statisticians
- Supervisory/Management
  - Team Lead
  - Branch Chief
  - Division Director
  - Associate Director of Science

## Questions

- What are the job opportunities for statisticians/data scientists/analysts in your organization?
- Describe the range of skills statisticians/data scientists/analysts need to succeed in your organization?
- What is the career path for statisticians/data scientists/analysts in your organization?
- Is your organization currently hiring statisticians/data scientists/analysts?
- What advice would you give to students based on your experience?

## **Statistics at CDC**

- If you are interested in statistics, public service and public health CDC is a great place to work
  - Opportunities to do details in other Divisions
  - Opportunities to travel in certain positions
  - Opportunities to deploy in emergency response situations
  - Opportunities to work overseas
  - Great benefits (including a pension)
  - Flexible work schedules

## Don't settle for less. Join the CDC movement! Jobs.cdc.gov

- Work for an agency that invests in its most valuable asset, its workforce
- 8 out of 10 employees would recommend CDC as an employer of choice
  - Employee engagement and satisfaction remain high at CDC
  - Best Places To Work (BPTW) Index 2019
    - US Health and Human Services ranks no. 2 among large agencies
    - CDC's score remains in the top quartile of 420 agency subcomponents

For more information, contact CDC 1-800-CDC-INFO (232-4636) TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



# **Service Fellowships**

Fellowship programs covered by Title 42, Public Health Service Act are open to U.S. citizens and noncitizens.

- Senior Service Fellows
  - ...doctoral degree ... and substantial postdoctoral experience in a scientific field related to CDC's mission
- Associate Service Fellows
  - ... master's degree ... and related postgraduate experience
- Regular Fellows
  - ... classified as trainees ... appointed to study physical and mental diseases and impairments of humankind, ... learn about the organization, provision and financing of health services and information communication.