Opportunity Title: CDC Center for Forecasting and Outbreak Analytics Training Opportunity
Opportunity Reference Code: CDC-2026-0117

Organization Centers for Disease Control and Prevention (CDC)

Reference Code CDC-2026-0117

How to Apply ***To submit your application, scroll to the bottom of this opportunity and click APPLY.***

A complete application consists of:

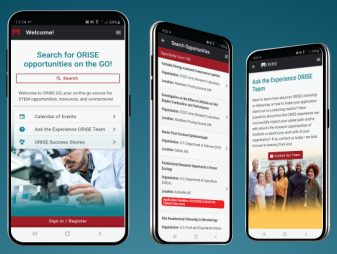
- An application
- Transcripts – Click here for detailed information about acceptable transcripts
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- One educational or professional recommendation. Your application will be considered incomplete, and will not be reviewed until one recommendation is submitted.

All documents must be in English or include an official English translation.

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Application Deadline 12/4/2026 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

CDC Office and Location: A research opportunity is available in the Centers for Disease Control and Prevention (CDC), in Atlanta, Georgia or Fort Collins, Colorado.

The Centers for Disease Control and Prevention (CDC) is one of the major operation components of the Department of Health and Human Services. CDC protects 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. CDC increases the health security of our nation. As the nation's health protection agency, CDC saves lives and protects people from health threats. To accomplish its mission, CDC conducts important science and provides health information that protects our nation against expensive and dangerous health threats, and responds when these arise.

Research Project: This project(s) will quantify how decreasing temporal resolution and reporting delays in surveillance data degrade real-time epidemic indicators (e.g., Rt, short-term hospitalization forecasts) and will evaluate how common trial and observational designs bias estimates of vaccine efficacy for infection, transmission, symptoms, hospitalization, or death. Appointment activities include literature review, designing and running simulation studies that degrade temporal resolution and emulate trial/observational designs, developing and validating reproducible statistical and forecasting code, comparing performance metrics (bias, variance, calibration, forecast skill), producing reports/visualizations and presentations, and collaborating with multidisciplinary teams.

Learning Objectives: You will train with CDC's Center for Forecasting and Outbreak Analytics, gaining hands-on experience in infectious disease modeling and vaccinology in an applied

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government setting while learning and practicing Bayesian methods for nowcasting, forecasting, and Rt estimation. You will also develop collaborative programming skills—building high-quality code, using GitHub workflows, and researching alongside modelers and programmers on a shared codebase.

Mentor(s): The mentor for this opportunity is Lynette Benjamin (bil0@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: October 4, 2026. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year year, but may be renewed upon recommendation of CDC and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Participant Stipend: Stipend rates may vary based on numerous factors, including opportunity, location, education, and experience. If you are interviewed, you can inquire about the exact stipend rate at that time and if selected, your appointment offer will include the monthly stipend rate.

Citizenship Requirements: This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the Guidelines for Non-U.S. Citizens Details page of the program website for information about the valid immigration statuses that are acceptable for program participation.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and CDC. Participants do not become employees of CDC, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility.

Questions: Please visit our Program Website. After reading, if you have additional questions about the application process please email CDCrpp@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing or have received a bachelor's, master's, or doctoral degree in the one of the relevant fields.

Preferred skills:

- Fluent R and high-proficiency Python programming for data analysis, modeling, and scripting
- Courses or training that includes simulation modeling, differential equations, and numerical methods
- Training and hands-on experience in infectious disease transmission modeling (e.g., SEIR-family, branching processes, renewal processes, network/agent-based simulation)

Opportunity Title: CDC Center for Forecasting and Outbreak Analytics Training Opportunity
Opportunity Reference Code: CDC-2026-0117

- Experience developing and implementing ordinary differential equation (ODE) models for epidemiological systems
- Experience fitting epidemic models to data using Bayesian methods (e.g., MCMC; Stan, cmdstanr, or rstan)
- Experience estimating time-varying reproduction numbers (Rt), performing nowcasting, and short-term forecasting (experience with EpiNowcast/EpiNow2 is a plus)
- Strong skills in visualizing and interpreting epidemiological data and model outputs for diverse audiences
- Proficiency using Git/GitHub in a collaborative programming environment (branching, pull requests, code review)
- Excellent spoken and written communication skills for presenting technical results and collaborating with interdisciplinary teams
- Curiosity and a strong desire to learn new methods, tools, and best practices quickly

Point of Contact Rachel

Eligibility Requirements

- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (5 👁)
  - **Life Health and Medical Sciences** (3 👁)
  - **Mathematics and Statistics** (2 👁)

Affirmation I certify that I have not previously been employed by CDC or by a contractor working directly for CDC. I understand that CDC does not permit individuals with a prior employment relationship with CDC or its contractors to participate as trainees in the ORISE program. (Exceptions may be granted for individuals who, since the previous CDC employment, have obtained a new STEM degree which necessitates training in a new field.)