

Opportunity Title: CDC Disease Surveillance Internship

Opportunity Reference Code: CDC-CSELS-2022-0007

Organization Centers for Disease Control and Prevention (CDC)

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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.

Description ***Applications will be reviewed on a rolling-basis, and this posting will remain open until filled.**

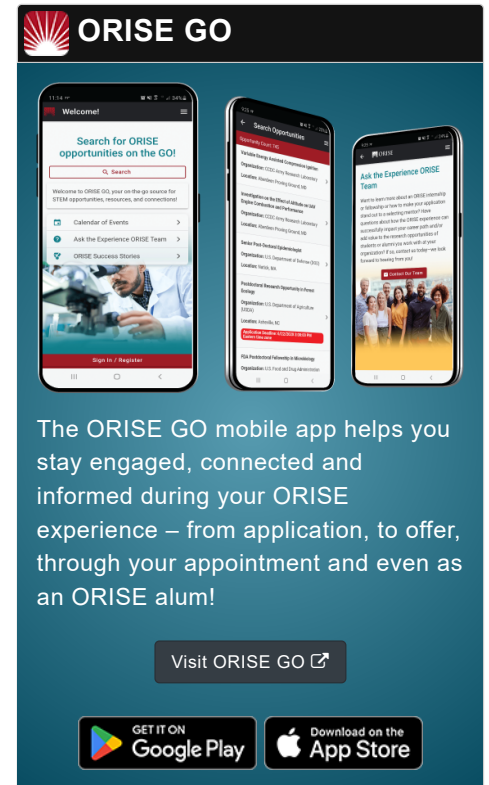
CDC Office and Location: A fellowship opportunity is currently available in the Surveillance and Data Branch; Division of Health Informatics and Surveillance (DHIS); Center for Surveillance, Epidemiology, and Laboratory Services (CSELS); at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia.

The Centers for Disease Control and Prevention (CDC) is one of the major operation components of the Department of Health and Human Services. 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.

Our mission at DHIS is to provide leadership and cross-cutting support in developing public health information systems, managing public health surveillance programs, and provisioning health related data required to monitor, control, and prevent the occurrence and spread of diseases and other adverse health conditions.

Research Project: Under the guidance of a mentor, the participant will be trained in the following activities:

- Document technical and/or programmatic issues experienced by CDC programs and jurisdictions and collaborate with DHIS staff to triage issues and/or address these issues
- Elicit requirements to automate, streamline, enhance NNDSS data validation and escalate issues as appropriate
- Design, integrate, test, implement and evaluate the system



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- and/or process designed to automate, streamline and/or enhance the NNDSS data onboarding process
- Contribute to the development of process workflows, integrated work plans, and standard operating procedures as needed to document the system and/or process
- Transition data into multiple formats to accessible, human readable datasets, and implementing automation of tasks when possible
- Contribute to the training of staff on the use of the system and/or process
- Develop databases queries, reports, tools, and dashboards from SQL or cloud environments using programs such as SQL, Python, or R

Learning Objectives: The participant will have the opportunity to learn activities and functions focused on how data for CDC's National Notifiable Diseases Surveillance System (NNDSS) are submitted by jurisdictions, processed, and stored, and how CDC works collaboratively with jurisdictions and CDC programs to improve the data. The participant will also learn how new data submission standards for nationally notifiable conditions are collaboratively developed and implemented. The participant will have the opportunity to apply their knowledge of flat file formats, HL7, and relational databases while working with data pipelines, assisting with data extraction and transformation from the pipelines, and developing dashboards or tools that enhance processes for collecting and validating NNDSS data.

Mentor(s): The mentor for this opportunity is Danielle Tack (dot7@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: As soon as a qualified candidate is identified. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one 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: The participant will receive a monthly stipend commensurate with educational level and experience.

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

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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.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email ORISE.CDC.CSELS@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 one of the relevant fields. Degree must have been received within the past five years.

The skills and/or experience that would be considered favorable for the candidate applying for this opportunity are:

- Knowledge in public health informatics including familiarity with health messaging such as HL7 v2 and HL7 FHIR
- Experience writing algorithms in Python, R, and SQL
- Basic data science and data engineering skillsets
- Experience with cloud technologies including DataBricks
- Experience with commercial data visualization products, e.g., Power BI
- Strong oral and written communication skills including experience in technical documentation
- Collaboration skills and ability to work within a Team
- Project management and coordination skills

Eligibility Requirements

- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
- **Academic Level(s):** Graduate Students, Post-Bachelor's, Postdoctoral, Post-Master's, or Undergraduate Students.
- **Discipline(s):**
 - **Communications and Graphics Design** (2 )
 - **Computer, Information, and Data Sciences** (10 )
 - **Engineering** (4 )
 - **Life Health and Medical Sciences** (7 )
 - **Mathematics and Statistics** (4 )