

**DUTY STATEMENT**

Employee Name:	Position Number: <b>580-222-5594-003</b>
Classification: Research Scientist III (Epidemiology/Biostatistics)	Tenure/Time Base: Permanent/Full-Time
Working Title: Senior Data Scientist	Work Location: 3701 N. Freeway Blvd., Sacramento, CA 95834
Collective Bargaining Unit: R10	Position Eligible for Telework (Yes/No): Yes
Center/Office/Division: Center for Health Statistics and Informatics	Branch/Section/Unit: Research and Analytics Branch

All employees shall possess the general qualifications, as described in California Code of Regulations Title 2, Section 172, which include, but are not limited to integrity, honesty, dependability, thoroughness, accuracy, good judgment, initiative, resourcefulness, and the ability to work cooperatively with others.

This position requires the incumbent to maintain consistent and regular attendance; communicate effectively (orally and in writing) in dealing with the public and/or other employees; develop and maintain knowledge and skill related to specific tasks, methodologies, materials, tools, and equipment; complete assignments in a timely and efficient manner; and adhere to departmental policies and procedures.

All California Department of Public Health (CDPH) employees perform work that is of the utmost importance, where each employee is important in supporting and promoting an environment of equity, diversity, and inclusivity, essential to the delivery of the department's mission. All employees are valued and should understand that their contributions and the contributions of their team members derive from different cultures, backgrounds, and life experiences, supporting innovations in public health services and programs for California.

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**Competencies**


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The competencies required for this position are found on the classification specification for the classification noted above. Classification specifications are located on the [California Department of Human Resource's Job Descriptions webpage](#).

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**Job Summary**


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This position supports the California Department of Public Health's (CDPH) mission and strategic plan by performing as the lead data strategist for the Research and Analytics Branch (RAB), identifying and integrating new datasets that can be leveraged through CDPH's product capabilities.

The Research Scientist III (Epidemiology/Biostatistics) (RS III) will work closely with other CHSI branches and epidemiologists across CDPH to strategize and execute the development of data systems and products. The RS III will analyze data for patterns, and with a clear objective in mind, implements analytical models by collaborating with other CHSI branches, Information Technology Services Division (ITSD), and vendors, such as, software developers and machine learning

engineers. Provides guidance to analysts and technicians in the analyses, processing, organization, standardization, and interoperability of vital records and syndromic data. The RS III will represent the Center for Health Statistics and Informatics (CHSI) and RAB at data meetings and conferences involved in collecting, maintaining, analyzing, and standardizing vital events and syndromic data in California and nationally.

The incumbent works under the general direction of the Research Data Manager, Chief of RAB.

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**Special Requirements**

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- Conflict of Interest (COI)
- Background Check and/or Fingerprinting Clearance
- Medical Clearance
- Travel:
- Bilingual: Pass a State written and/or verbal proficiency exam in
- License/Certification:
- Other:

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**Essential Functions (including percentage of time)**

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- 30% Acts as the lead data strategist for the Branch, identifying and integrating new datasets that can be leveraged through CHSI's product capabilities and work closely with other CHSI branches and epidemiologists across CDPH to strategize and execute the development of data systems, products, and dashboards. Executes analytical research and devises innovative statistical models for data analysis to help solve various public health issues. Maps existing data sources to align with established data standards. Performs data and error analysis to improve models, and clean and validate data for uniformity and accuracy. Develops automated data monitoring and editing procedures, routines, and supports the creation and maintenance of industry standard metadata. Collaborates with other CHSI branches, ITSD, and vendors in the design and development of vital records for Health Level 7 Fast Healthcare Interoperability Resources standards, syndromic surveillance, and automation special projects supporting data management systems, web-based applications, and analytical tools. Identifies new strategies or sources for collecting data, coordinating data migration efforts with other CDPH epidemiologists. Assessing patterns to forecast future impacts affecting vital events, interoperability, or a variety of syndromic data. Updates CDPH management on progress of system(s) viability.
- 25% Extracts, organizes, and analyzes data from multiple and varied sources collected by Centers within the CDPH, local health jurisdictions, health care organizations, other State entities, and non-traditional or cutting-edge data sources. Communicates findings to program, center, and department leadership as well as ITSD leaders with imaginative solutions to complex public health issues. Combines skills, such as computer science, applications, modelling, analytics, coding, and mathematics to perform the most complex data analyses from multiple angles looking for trends that highlight issues or opportunities. Develops statistical methodologies and complex programming code to analyze data for patterns, and with a clear objective in mind, implements analytical models by collaborating with other CHSI branches, ITSD, and vendors, such as, software developers and machine learning engineers. Provides guidance to analysts and technicians in the analyses, processing, organization, standardization, and interoperability of vital records and syndromic data.

- 25% Independently, plans, organizes, and analyzes various statistical and informational databases for demographic, medical, and syndromic data. Develops, reviews, and refines evaluation procedures to examine and improve the quality of vital records and syndromic data. Develops automated data monitoring and editing procedures and routines to assess and analyze data quality. Acts as the subject matter expert in ICD-10 (International Classification of Diseases, Tenth Revision) for mortality coding and ensuring CDPH adheres to industry standards relating to death reporting. Participates on committees, task forces, or workgroups formed to develop solutions to data and data reporting issues. Leads in the development and implementation of demographics in external reports by planning, organizing, and conducting data analysis of Statewide and county health data. Communicates analytic solutions to stakeholders and implements improvements as needed to operational systems.
  
- 10% Represents CHSI and RAB at data meetings and conferences involved in collecting, maintaining, analyzing, and standardizing vital events and syndromic data in California and nationally. Develops vital statistics and syndromic surveillance presentations utilized in the training of internal and external stakeholders. Makes presentations to staff, various data end users, and stakeholders regarding data standardization and analysis. Maintains professional relationships with internal CDPH leadership and epidemiologists, local health department epidemiologists, the National Center for Health Statistics, the National Association of Public Health Statistics and Information Systems and other local, State, and national professional associations.

**Marginal Functions (including percentage of time)**

- 5% Examines organizational data governance standards that are barriers to inclusiveness and equity in the CDPH programs datasets. Provides guidance and develops recommendations to ensure equitable race and ethnicity, sexual orientation and gender identity, and other equity-related areas are considered when establishing data collection and reporting standards or policies. Gains subject matter expertise on these areas and embeds the concepts into policy, practices, and procedures for resource allocation, workforce planning, and program decision-making.
  
- 5% Develops and builds skills through training and individual research. Attends trainings as necessary to improve knowledge of data collection, standardization, quality improvement, and interoperability industry standards, principles, techniques, tools, and methodologies. Performs other work-related duties as required.

I certify this duty statement represents an accurate description of the essential functions of this position. I have discussed the duties and have provided a copy of this duty statement to the employee named above.

I have read and understand the duties and requirements listed above and am able to perform these duties with or without reasonable accommodation. (If you believe reasonable accommodation may be necessary, or if unsure of a need for reasonable accommodation, inform the hiring supervisor.)

Supervisor’s Name:	Date	Employee’s Name:	Date
Supervisor’s Signature	Date	Employee’s Signature	Date

**HRD Use Only:**  
Approved By: HH  
Date: 1/24/24