

**COUNTY OF SOLANO**  
**CLASS SPECIFICATION**  
**EPIDEMIOLOGIST (SENIOR)**  
Effective Date: 12/14/18

**CLASS SUMMARY:**

Under direction, plans, designs, directs, and conducts complex epidemiologic and biostatistical studies, investigations, and research by utilizing epidemiologic, statistical, survey and research methodologies and biologic theory to understand and describe the distribution and determinants of health and disease, to provide input into the development of public health policy, and to assist in developing policies; provides interpretation of findings, including the root causes; provides recommendations on control, intervention and prevention strategies, and provides recommendations for use in policy developments that address root causes; identifies, evaluates, designs and implements, solutions, and tools for epidemiologic and surveillance activities; provides epidemiologic, surveillance and evaluation advice and consultation to other County departments and partner organizations; provides direction and oversight to assigned staff; publishes and disseminates information to all stakeholders, including the public.

**DISTINGUISHING CHARACTERISTICS:**

This is the advanced journey level of the Epidemiologist series.

This class is distinguished from the:

- Communicable Disease Investigator (Supervising) in that the Communicable Disease Investigator (Supervisor) is a supervisory class which is engaged in carrying out part of the County's sexually transmitted and other communicable disease control programs;
- Epidemiologist, which is the journey level classification in this series, and for which the Epidemiologist (Senior) provides direction and oversight to assigned staff and is responsible for more complex epidemiologic, surveillance and applied research activities.

**SUPERVISION RECEIVED AND EXERCISED:**

Supervision is provided by higher level staff in the Public Health Division of Health and Social Services.

- No supervision is exercised over others, however, employees in this class will perform lead duties over assigned staff.

**ESSENTIAL DUTIES:** This class specification represents the core area of responsibilities; specific position assignments will vary depending on the needs of the department.

- Provides lead, direction, and oversight to lower level Epidemiologists, health education specialists, and assigned support staff on activities and projects:
  - Distributes work among staff;
  - Monitors work being performed and keeps supervisor informed of work progress and likelihood of meeting timelines and required deadlines;
  - Plans, coordinates and provides oversight of epidemiologic research;

- Evaluates and directs epidemiological projects in the development, analysis and interpretation of data on the causes of health inequities;
- Evaluates the work of others and makes recommendations on how data can be used for developing and/or changing programmatic practices and policies;
- Provides input into performance evaluations and helps develop work objectives for assigned staff;
- Provides input into professional development of assigned staff.
- Plan, design, organize, direct and conduct epidemiologic and biostatistical studies, investigations and research that are complex by:
  - Utilizing epidemiologic, statistical, survey and research methodologies and biologic theory to accomplish tasks
  - Understanding and describing the distribution and determinates of health and disease;
  - Directing analysis of available and relevant data from reliable sources;
  - Planning and directing the integration of all the information into the decision-making process;
  - Providing interpretations of epidemiologic, biostatistical and other relevant scientific findings for use by others;
  - Preparing research reports and manuscripts for internal and external users and for submission to peer-reviewed journals.
- Analyze and provide interpretation of data:
  - Identify risk factors or the source of illness or injury;
  - Identify and provide recommendations on control, intervention and prevention strategies;
  - Evaluate the effectiveness of strategies;
  - Identify epidemic trends and disease patterns;
  - Maintain epidemiologic and surveillance data.
- Provide technical, epidemiologic and analytic expertise in analyzing and interpreting data on the root causes of inequities:
  - Plan, design, organize, direct and conduct studies that may have policy implications;
  - Provide interpretation and recommendations of research findings for use in policy developments;
  - Participate in and lead equity projects as they relate to public health initiatives, including, but not limited to, community engagement, to further support the design, implantation, and interpretation of future research initiatives.
- Plan, design, organize, direct and conduct epidemiologic and biostatistical studies, investigations and research that may have policy impacts:
  - Assess and identify gaps and needs for public health policy;
  - Analyze and provide interpretation and recommendations for research findings for use in public health policy development;
  - Provide support to public health programs and organizations in the development and implementation of public health policies.
- Provide advice and consultation on epidemiologic, surveillance, and evaluation issues and activities to programs and partner organizations:
  - Coordinate, manage and provide consultation to contractors;

- Ensure delivery of project requirements and objectives.
- Perform the same duties as the work being led;
- Perform other duties of a similar nature or level as assigned.

### **EDUCATION AND/OR EXPERIENCE**

- Education/Training:
  - Master's degree or higher from an accredited college or university in epidemiology, public health or a health science field with emphasis or specialization in epidemiology.

### **AND**

- Experience:
  - Four years of experience conceiving, designing, conducting, analyzing, interpreting, and evaluating epidemiological studies with emphasis or specialization in epidemiology. A doctoral degree (PhD, DrPH, or equivalent) in epidemiology, public health or other related health science field may be substituted for one year of experience.

### **LICENSING, CERTIFICATION AND REGISTRATION REQUIREMENTS:**

Possession of, or ability to obtain, a valid Class C driver's license issued by the State of California

### **REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:**

#### **Knowledge of:**

- Standard and accepted principles of leadership, on-the-job training, and work review.
- Advanced epidemiologic, public health surveillance and biostatistical methodologies and approaches.
- Social determinants of health and root causes of health inequities.
- Appropriate design and conduct of epidemiologic research.
- Principles and practice of epidemiologic investigation, disease prevention and control and evaluation.
- Principles and foundation of social and behavioral sciences and theories.
- Methods of preparation of scientific research reports and manuscripts.
- Local, State, and Federal policies and regulations on reporting and investigation of public health importance, including reportable conditions and diseases.
- Principles and practice of contract development, negotiation, management and monitoring.
- Database and data systems, data processing, web-based technology and information systems.

**Skill and/or Ability To:**

- Distribute work and provide work directions, review work performance and conduct of staff, and provide on-the-job training to staff led.
- Conceive, direct, and coordinate statistical and scientific reports, narratives, manuscripts, and project summaries.
- Use statistical software (e.g. SAS, SPSS, or similar software).
- Seek, identify, assess, and implement technologies to epidemiologic and surveillance activities, including data management.
- Design, direct and execute epidemiologic and statistical activities and research projects and evaluate results, and make appropriate and valid conclusions.
- Identify and apply advanced statistical techniques.
- Provide technical and programmatic assistance to staff and contractors.
- Communicate clearly, concisely and effectively, both orally and in writing, with people of diverse cultures and backgrounds.
- Provide assistance preparing project proposals and grants.
- Administer contracts and grants according to designated guidelines and regulations.
- Maintain accurate records and document actions taken.
- Communicate information and ideas clearly and concisely, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the performance of required duties.
- Represent the office in meetings with representatives from various County and non-County organizations, with local businesses, with customers, and/or with the general public.
- Prepare a variety of written communications to include reports, policies and procedures.
- Gather and analyze statistical data and prepare comprehensive statistical reports.
- Perform a variety of technical and specialized tasks and functions in an independent, competent and timely manner.
- Maintain confidentiality of records and information per pertinent laws/regulations.
- Use modern office equipment to include computers and related software applications.
- Operate a motor vehicle
- Travel independently

**PHYSICAL REQUIREMENTS:**

- Mobility and Dexterity: Positions in this class typically require stooping, kneeling, reaching, standing, walking, fingering, grasping, feeling (i.e. sense of touch), and repetitive motion.
- Lifting, Carrying, Pushing and Pulling -- Employees in this class will be exerting up to 20 pounds of force occasionally and/or up to 10 pounds of force frequently, and/or a negligible amount of force constantly to move objects.

- Vision: Positions in this class require the employee to have close visual acuity, with or without correction, to prepare and analyze data and figures, transcribe, view a computer terminal, read, etc. Positions in this class also requires employees to have depth perception in order to operate a motor vehicle.
- Hearing/Talking: Positions in this class require the employee to perceive the nature of sounds at normal speaking levels with or without correction, and have the ability to receive detailed information through oral communication. Positions in this class require the employee to express or exchange ideas by means of the spoken word.
- Requires the ability to work under conditions where exposure to environmental factors poses a limited risk of injury or illness.

**WORKING CONDITIONS:**

- . Employees in this class will most often be working in an office setting. However, incumbents will be required to conduct field work, especially during public health outbreaks. Incumbents are also required to go to community meetings and events as they relate to the essential functions of this classification. Employees in this class may be required to operate a vehicle and thus will be subject to traffic hazards while driving.

**OTHER REQUIREMENTS:**

- Background Checks: The County may conduct a background check and a reference check on candidates prior to appointment to a position within this class. The background check may include the State of California Department of Justice, the Federal Bureau of Investigation (FBI), the Child Abuse Central Index (CACI), and criminal checks in any City/County where the applicant has lived, worked or gone to school.
- Independent Travel: Incumbents are required to travel independently, for example, to perform work at other work sites, to attend meetings with other County employees, to attend meetings with community organizations, etc.
- Hours of Work: Incumbents may be required to work weekends, holidays, irregular hours, on-call during declared public health emergencies, and after normal business hours.
- Child Abuse Reporting: Selectees for employment must, as a condition of employment, sign a statement agreeing to comply with Section 11166 of the California Penal Code relating to child abuse reporting.

**CLASS HISTORY AND CLASS INFORMATION:**

- Date Approved by the Civil Service Commission: 12/14/18
- Date(s) Revised: N/A
- Date(s) Retitled and Previous Titles of the Class: N/A
- Class Code: 334060