

COUNTY OF SOLANO
CLASS SPECIFICATION
EPIDEMIOLOGIST
Effective Date: 12/14/2018

CLASS SUMMARY:

Plans, conducts, and evaluates epidemiological activities to determine patterns of disease and of the conditions that affect the health of the County or targeted populations; implements and coordinates local surveillance and research activities within the department; makes recommendations regarding programs and procedures for the control and prevention of disease and of the conditions that affect health; provides consult to the department, other divisions, community based organizations, other agencies and the public; publishes and disseminates information to interested parties and the public.

DISTINGUISHING CHARACTERISTICS:

This is the journey level of the Epidemiologist series.

This class is distinguished from the:

- Communicable Disease Investigator in that the Communicable Disease Investigator is a class which is engaged in carrying out part of the County's sexually transmitted and other communicable disease control programs;
- Epidemiologist (Senior), which is the advanced 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 Department of Health and Social Services.

Exercises no supervision.

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

- Collects, reviews and evaluates data including case reports, health statistics, demographic information, vital statistics and laboratory results to identify epidemiological trends, locations and sources; coordinates data collection activities with other divisions of Health and Social Services and outside agencies.

- Conducts and evaluates epidemiological activities including the determination of the methods, target populations and data collection techniques required for the evaluation of disease patterns and general health conditions in the community; establishes and maintains surveillance systems to identify and monitor disease trends among various population groups.
- Develops and implements statistical analysis to assess the health status of the community and to evaluate the effectiveness of departmental activities in improving community health indicators.
- Analyzes morbidity and mortality reports, birth and death statistics, other community health indicators, program evaluation plans, workload and productivity factors, and service delivery systems.
- Reviews findings of epidemiological investigations, interprets results, assesses risks of epidemics, communicable diseases or environmental hazards; advises departmental officials about potential or active epidemic trends, characteristics, possible causation and control procedures; serves as a resource and technical consultant on epidemiology to departmental officials, physicians, nurses and the public.
- Prepares reports and analysis on community health indicators; prepares a variety of statistical reports, and narratives; prepares materials for presentation of epidemiological findings, including graphs, maps, slides or overheads; publishes documents, including journal articles to educate the County and scientific community; prepares scientific and technical papers, and participates in the development and preparation of project proposals for state, federal, and private funding.
- Collects, evaluates, and maintains professional, technical, and scientific literature and reports relating to communicable disease for the purpose of keeping current with developments in the field and solving communicable disease problems.
- Establishes and maintains effective working relationships with health professionals in the community such as physicians, veterinarians, nurses, laboratory personnel and representatives of other appropriate agencies in order to facilitate the reporting of communicable diseases and other reportable events.
- Serves as a member of the County's epidemic/outbreak team; attends meetings to collaborate and plan strategies, provide expertise, network and help coordinate activities to improve the health of residents; participates in statewide epidemiological efforts to address health concerns; participates on various committees, study groups and task forces in the community; makes technical and informational presentations to professionals and the public.

EDUCATION AND/OR EXPERIENCE

Education/Training:

- A Master's degree is required from an accredited college or university, in epidemiology, public health or a health science field with emphasis or specialization in epidemiology.

AND

Experience:

- Two years of experience 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 SUPPLEMENTAL INFORMATION:

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

Independent travel is required.

Incumbents must be able to work in an environment which may include exposure to communicable disease.

Candidates 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.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Knowledge of:

- Principles and practices of epidemiology
 - Design and evaluation of epidemiological research, theory, practice, and application of epidemiological methodologies

Methods of preparation of scientific research reports.

Social determinants of health and root causes of health inequities.

Principles and methods of public health practice.

Principles and practices of statistics and its applications in epidemiological research and studies.

Data processing methods to generate, organize, and display statistical charts, graphs and other research data.

Current developments in epidemiology and general medicine.

Skill and/or Ability To:

- Design, direct, and conduct epidemiological activities and research projects, evaluate results, and make conclusions.
- Give an account of the epidemiology of community health disease and apply knowledge to the control of diseases.
- Evaluate clinical and preventive procedures.
- Perform, direct, and coordinate the collection, analysis, interpretation, and evaluation of health data.
- Identify and apply sophisticated statistical techniques.
- Understand and apply the important uses of technology in epidemiology.
- Read epidemiological literature critically and identify possible sources of bias and error in published data.
- Communicate clearly and concisely, both orally and in writing; use tact and persuasion in eliciting information, explaining, and advocating research objectives and methods.
- Establish and maintain cooperative relationships with and between people in the department and in the community, both lay and professional.

- Perform a variety of technical and specialized tasks and functions in an independent, competent and timely manner.
- 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: April 1997
- Date(s) Revised: November 2002, December 2018
- Date(s) Retitled and Previous Titles of the Class: N/A
- Class Code: 3333170