

EPIDEMIOLOGIST

DEFINITION

Under general supervision, collects and analyzes a variety of bio-statistical and epidemiological health data; analyzes risk factors which can be altered in the population to prevent or delay disease, injury, or death; engages in field epidemiology investigations; assists in determining and monitoring the health status of the County; evaluates effectiveness of health programs and services; performs other complex and related work as assigned.

DISTINGUISHING CHARACTERISTICS

This is a skilled professional class responsible for collecting, analyzing, interpreting, and reporting on a broad range of health data, conducting descriptive and analytical studies, and providing accurate and reliable information and reports to support the programs of Public Health staff, physicians, and other health care providers or partners. Successful performance of the work requires the use of independent judgment in selecting study approach and analytical techniques, and in making sound recommendations. This class may be utilized in various health programs, under direction of a Division Manager or other assigned Manager/Supervisor.

EXAMPLES OF DUTIES (Illustrative Only)

- Compiles, creates, and maintains a Countywide database of public health related statistics; consolidates information regarding communicable disease, vital statistics, chronic disease, injury, etc.
- Monitors and analyzes county, state, and national health-related data to identify important trends and areas for further focused study.
- Develops, designs, and assesses surveys and data collection techniques to meet the needs of assigned projects and the community.
- Implements, coordinates, conducts, and assesses data gathering and processing systems.
- Prepares and maintains statistical records and reports through the use of computers and applicable software applications (including spreadsheets, databases, and statistical software packages).
- Evaluates performance and cost effectiveness of public health programs and participates in formulating recommendations for improvements.
- Develops, publishes, and delivers reports and presentations on bio-statistics, epidemiologic survey results, or other scientific topics to County staff, elected officials, health care providers, other professional community members, and the general public.
- Confers with representatives of other governmental agencies, community groups, boards and commissions, vendors, the public, and others as needed.
- Conducts and participates in field epidemiology investigations, interviewing index cases, contacts, and others as needed during investigations and case studies.
- Provides internal and external consulting services to the department and community agencies on bio-statistics, data collection and analysis, evaluation, and survey design.
- Assists in grant proposal preparation processes, including conducting special studies and reports as needed.
- Develops evaluation plans for future projects, including sample size calculations.
- Analyzes, evaluates, and reports on data collected using Geographic Information Services (GIS) and other systems.
- Assists in preparedness planning to address bioterrorism or other public health threats and emergencies.

QUALIFICATIONS

Knowledge of:

- Principles, techniques, and terminology used in designing and conducting bio-statistical and epidemiologic studies.
- Methods, practices, and techniques for conducting disease surveillance, investigation, analysis, and assessment.
- Risk assessment, including causes and modes of transmission of infectious diseases.
- Risk factors for acute and chronic diseases and injuries, as well as appropriate public health prevention and control measures.
- Computer usage and specific computer applications related to statistical analysis, data collection, management, and evaluation, including Geographic Information Services (GIS).
- Statistical and comparative analysis techniques and formulae.
- Clinical epidemiology techniques, project study design, and interpretation.
- Laws and regulations pertaining to surveillance, reporting, and control of infectious and communicable diseases, medical records (including privacy and security of protected health information), and other related public health matters.
- Proper English usage, including syntax, grammar, and punctuation.

Skill in:

- Designing and conducting original scientific studies.
- Collecting, evaluating, interpreting, and reporting on varied information and data, both in statistical or narrative form.
- Analyzing statistical information and risk factors, evaluating alternatives, and reaching sound conclusions.
- Recognizing potential infectious and/or acute health condition outbreaks, formulating recommendations for appropriate epidemiologic action, and responding as directed.
- Using computer hardware and software effectively in the performance of assigned work.
- Exercising sound independent judgment within established guidelines.
- Communicating both orally (including public speaking) and in writing (including preparing clear, concise, and complete correspondence, reports, and other documents).
- Maintaining accurate records and files.
- Demonstrating a professional demeanor in the course of all work.
- Establishing and maintaining effective working relationships with those contacted in the course of work.

Other Requirements:

Must possess a valid driver's license. Must be available for call out and response to emergencies during off-duty hours when needed.

Education and Experience:

Equivalent to a master's degree from an accredited college or university with major coursework in public health, bio-statistics, epidemiology, or a closely related field, and at least two years of experience in community health assessment and planning, surveillance, and conducting evaluative, scientific, and epidemiological studies, preferably in a public health setting.

NOTE: The above qualifications are a typically accepted way of obtaining the required knowledge and skills.