

## **EPIDEMIOLOGIST I/II**

### **DEFINITION & DISTINGUISHING CHARACTERISTICS**

#### **Definition:**

Under general supervision, plans, designs, and implements epidemiological research projects; 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, and evaluates effectiveness of health programs and services.

#### **Distinguishing Characteristics:**

Epidemiologist I: This is the entry-level class in the series 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. This class is alternately staffed with Epidemiologist II and incumbents may advance to the higher level after gaining experience and demonstrating proficiency, which meet the qualifications for the higher-level class.

Epidemiologist II: This is the journey level class in the series. 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. This class is distinguished from the Program Manager I/II in that the latter has overall administrative responsibility for a program or programs within a department or a division of a department.

### **EXAMPLES OF ESSENTIAL FUNCTIONS** (Illustrative Only)

- Formulates policies, procedures and plans for epidemiological control and assessment issues faced by the Health and Human Services Agency.
- Serves as the Agency technical expert on communicable, chronic, and environmental disease hazards; provides consultation to independent and departmental investigators on epidemiologic research methodology, design, and results; leads an evaluation team of staff from various departmental programs to respond to public and agency requests for epidemiologic research and analysis.
- 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.
- Makes recommendations to departmental management regarding impact of studies on current programs and evaluates impact of current programs on community health indicators.
- 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.
- Acts as the County's Deputy Registrar of Vital Statistics; oversees the County's vital records registration process, including the collection, compilation and maintenance of vital statistics records, and the collection of vital statistics fees.
- Provides recommendations for exclusions and closures during major outbreaks; acts as a liaison between healthcare facilities, public health, and patients.
- Assists in grant proposal preparation processes, including conducting special studies and reports as needed; reviews grant applications for scientific integrity and accuracy.
- Train staff and community partners in the use of the databases and surveillance systems.
- 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.
- Attendance and punctuality that is observant of scheduled hours on a regular basis.
- Performs other duties as assigned.

### **MINIMUM QUALIFICATIONS**

#### **Education and Experience:**

Where college degrees and/or college course credits are required, degrees and college units must be obtained from an accredited college or university. Courses from non-accredited institutions will not be evaluated for this requirement.

#### **Epidemiologist I:**

##### **EITHER:**

1) 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,

##### **OR**

2) Equivalent to a Bachelor's or other non-epidemiology professional degree or certifications (e.g., RN, MD/DO, DDS/DMD, DVM, PhD, RS) without formal academic epidemiology training

**-and-**

Two (2) years of experience performing epidemiology work under the guidance of a Tier 2 or Tier 3 epidemiologist.

#### **Epidemiologist II:**

##### **EITHER:**

1) 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-**

Two (2) years of work experience in epidemiology in a public health agency

**OR**

2) A doctoral-level degree in epidemiology

**OR**

3) Other non-epidemiology graduate degree or certification (e.g., RN, MD/DO, DDS/DMD, DVM, PhD, RS) with specific epidemiology training (e.g., MPH degree, CDC Epidemic Intelligence Service or CSTE Applied Epidemiology Fellowship)

**OR**

4) Four years of experience performing epidemiologic work under the guidance of a Tier 3 Epidemiologist

**Other Requirements:**

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

**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), registration and maintenance of vital statistics and records, 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.
- Training others in work procedures and methods.
- Using computer hardware and software effectively in the performance of assigned work.
- Maintaining accurate records and files.

**Ability to:**

- Analyze statistical information and risk factors, evaluate alternatives, and reach sound conclusions.
- Recognize potential infectious and/or acute health condition outbreaks, formulate recommendations for appropriate epidemiologic action, and respond as directed.

- Exercise sound independent judgment within established guidelines.
- Communicate both orally (including public speaking) and in writing (including preparing clear, concise, and complete correspondence, reports, and other documents).
- Demonstrate a professional demeanor in the course of all work.
- Establish and maintain effective working relationships with those contacted in the course of work.

### **ENVIRONMENTAL CONDITIONS/PHYSICAL DEMANDS**

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

#### **Environment:**

Work is primarily performed indoors in a standard office setting performing repetitive or fatiguing duties with occasional work outdoors in all weather conditions.

#### **Physical:**

Primary functions require sufficient physical ability to work in an office setting and operate office equipment; vision in the normal visual range with or without correction sufficient to read computer screens and printed documents; hear in the normal audio range with or without correction. **Frequent** sitting; wrist and arm motions and upward/downward flexion of neck; fine finger dexterity of both hands, ability to grasp and hold; lifting, carrying or pushing objects that weigh up to 15 lbs. **Occasional** standing, walking, bending and reaching; lifting, carrying or pushing objects that weigh 16 – 40 lbs. **Infrequent** climbing; lifting, carrying or pushing objects that weigh more than 40 lbs.

### **HISTORY**

JCN: 8509

Created: DEC 2001

Revised: JUL 2007

Revised: JUL 2014

JCN: 8510

Created: JUL 2014

Form 700: (Yes or No)