

Iowa Department of Administrative Services – Human Resources Enterprise  
Job Classification Description

## Epidemiologist Senior

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### Definition

Oversees epidemiological programs, to include responsibility of: investigation design, devising methods of surveillance, epidemiologic data analysis and interpretation, evaluating programs, developing and maintaining program policies and procedures, and ensuring that programs advise healthcare providers, public health partners, and the public on recommended prevention and control measures; leads epidemiological program(s) administered by multiple epidemiologists; performs related work as required.

*The work examples and competencies listed below are for illustrative purposes only and not intended to be the primary basis for position classification decisions.*

### Work Examples

Assists supervisor by performing such duties as instructing employees, answering questions, distributing and balancing the workload, and checking work; may make suggestions on selection, promotions, and reassignments.

Provides technical assistance and oversees surveillance and investigations conducted by multiple epidemiologists to ensure sound epidemiological principles are followed. This includes: surveillance system and investigation design; epidemiologic data analysis and interpretation; program evaluation; program policies and procedures; and ensuring appropriate consultation to healthcare providers, public health partners, and the public.

Reviews analysis of program-level surveillance and investigation data to determine whether additional data or data analysis is needed to draw epidemiological conclusions. Provides guidance to program and regional epidemiologist on appropriate application and sharing of epidemiological data.

Establishes program-level priorities in partnership with program epidemiologists and in accordance with program-level surveillance and investigation goals and objectives. Directs epidemiological program-level work in alignment with program-level priorities.

Ensures program-level epidemiologic policies and procedures are appropriate, well documented, and shared with all program epidemiologists.

Ensures epidemiologic surveillance and investigation programs evaluate program effectiveness and conduct quality improvement activities.

### Competencies Required

Knowledge:

- English Language – The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Mathematics – Arithmetic, algebra, geometry, calculus, statistics, and their applications.

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- Medicine and Dentistry – The information and techniques needed to diagnose and treat human injuries, diseases, and deformities. This includes symptoms, treatment alternatives, drug properties and interactions, and preventive health-care measures.
  - Biology – Plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.
  - Sociology and Anthropology – Group behavior and dynamics, societal trends and influences, human migrations, ethnicity, cultures and their history and origins.
  - Education and Training – Principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.

**Abilities:**

- Problem Sensitivity – Tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.
- Inductive Reasoning – Combine pieces of information to form general rules or conclusions.
- Oral Comprehension – Listen to and understand information and ideas presented through spoken words and sentences.
- Written Comprehension – Read and understand information and ideas presented in writing.
- Oral Expression – Communicate information and ideas in speaking so others will understand.
- Written Expression – Communicate information and ideas in writing so others will understand.
- Originality – Come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Mathematical Reasoning – Choose the right mathematical methods or formulas to solve a problem.

**Skills:**

- Science – Using scientific rules and methods to solve problems.
- Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Active Learning – Understanding the implications of new information for both current and future problem-solving and decision-making.
- Reading Comprehension – Understanding written sentences and paragraphs in work related documents.
- Judgment and Decision Making – Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Writing – Communicating effectively in writing as appropriate for the needs of the audience.
- Speaking – Talking to others to convey information effectively.
- Systems Analysis – Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.

- Systems Evaluation – Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.

### **Minimum Qualification Requirements**

Applicants must meet at least one of the following minimum requirements to qualify for positions in this job classification:

- 1) All of the following (a and b):
  - a. Graduation from an accredited college or university with a master's degree in public health with at least two courses related to the principles and practice of epidemiology; and
  - b. Six years of experience in applied epidemiology in an infectious, noninfectious, or chronic diseases; environmental poisonings or conditions; injury prevention; or a substance misuse related epidemiology program.
- 2) All of the following (a and b):
  - a. Graduation from an accredited college or university with a doctorate's degree in epidemiology; and
  - b. Three years of experience in applied epidemiology in an infectious, noninfectious, or chronic diseases; environmental poisonings or conditions; injury prevention; or a substance misuse related epidemiology program.
- 3) Current, continuous experience in the state executive branch that includes five years of full-time work as an Epidemiologist.

*Effective date: 09/20 SA*