Public Health Department
Sample Job Description

Epidemiologist

Position Summary:
The Epidemiologist is responsible for the analysis of the distribution, patterns, factors, determinants of health, and disease conditions to identify the risk of a disease and target preventive measures. The Epidemiologist performs and manages advanced professional analytical work in surveillance, detection, and prevention of diseases and injuries. The Epidemiologist shares information with health department staff, local, state, Federal officials, and the public concerning the results of disease surveillance and other health-related epidemiologic data collection and analysis activities.

Essential Duties:

- Plans and manages epidemiological studies and oversees outbreak investigations.
- Conducts and oversees literature reviews for design of programs, community interventions, preparation of manuscripts, and program planning and evaluation.
- Prepares and reviews reports from analyses of surveillance data, literature reviews, and other information.
- Reviews research conducted by other entities and identifies and communicates implications for public health programs.
- Oversees the health department's systematic collection, management, maintenance, analysis, and interpretation of qualitative and quantitative population health data, including social conditions that may influence health status.
- Oversees the investigation of diseases and disease vectors in the jurisdiction to determine cause and risk factors, progress, life cycle, and/or mode of transmission.
- Oversees the use of data to rapidly detect emerging health issues and threats as an early warning system for impending public health emergencies or increasing health conditions.
- Oversees process or protocols for the use of surveillance and other health-related data, including how data are:
    - Analyzed to understand the community's health status,
    - Analyzed to identify deviations from expected trends,
    - Disaggregated to identify distribution and disparities of health issues by subpopulation and geographic areas, and
    - Tabulated with other data sets (e.g., demographic data, housing, education, etc.) to identify determinants of health and health inequities.
- Assures accurate and appropriate reporting of outbreaks and cases of infectious diseases to the National Electronic Disease Surveillance System (NEDSS), as required.
- Accesses and utilizes information available through surveillance systems to track disease investigations and outbreak status.
- Creates routine statistical summary reports and present findings.
- Contributes to the development of the community health assessment and ensures that data-related accreditation requirements for the assessment are met.

- Identifies which health department epidemiological data are considered to be confidential and what safeguards are in place to ensure that confidential data are maintained and utilized in a secure and confidential manner.
- Ensures the sharing of selected record-level data with other organizations, agencies, or individuals.
- Provides expertise to department programs, government agencies, and community partners in the design, management, and evaluation of study protocols, quantitative and qualitative primary data collection methods, use of secondary data, sample selection, analysis, and development of findings.
- Participates in strategic planning, community health assessments and improvement planning, quality improvement, emergency preparedness, performance management, and other department initiatives that include or relate to epidemiological issues and accreditation.
- Leads the continuous quality improvement efforts of epidemiology work.
- Assists in the development of grant applications with epidemiologic data presentations and data collection and use plans.
- Communicates findings to policymakers, the state department of health, local officials, neighboring local health departments, and the public, as appropriate.
- Acts as the department's epidemiological liaison with relevant partners.
- Performs related work as required.

The above statements reflect the general duties considered necessary to describe the principal functions of the job and shall not be considered as a detailed description of all the work requirements that may be inherent in the job**.**

Core Competencies for Public Health Professionals:
The Core Competencies for Public Health Professionals contain 56 competency statements that apply across the public health workforce for all those engaged in the practice of public health. All of the Core Competencies are vital for the effective provision of public health activities. While the person in this position may be called on to demonstrate other Core Competencies, below is a list of the most essential for this position.

1.1. Describes factors that affect the health of a community.
1.2. Accesses existing quantitative and qualitative data.
1.3. Collects quantitative and qualitative data.
1.4. Analyzes quantitative and qualitative data.
1.5. Manages quantitative and qualitative data.
1.6. Uses quantitative and qualitative data.
1.7. Applies public health informatics in using data, information, and knowledge.
1.8. Assesses community health status.
2.1. Develops policies, programs, and services
2.3. Evaluates policies, programs, services, and organizational performance.
2.4. Improves policies, programs, services, and organizational performance.
2.6. Engages in organizational strategic planning.
3.2. Communicates with internal and external audiences.
3.3. Responds to information, misinformation, and disinformation.
4.1. Applies principles of ethics, diversity, equity, inclusion, and justice.
4.3. Recognizes the diversity of individuals and populations.
5.4. Collaborates with community members and organizations.
5.5. Shares power and ownership with community members and others.
6.3. Uses evidence in developing, implementing, evaluating, and improving policies, programs, and services.
6.4. Contributes to the evidence base for improving health.

7.13. Engages in performance management.
8.4. Creates opportunities for creativity and innovation.
8.5. Responds to emerging needs.

Qualifications:

- A master's degree with a focus in epidemiology and a minimum of 4 years' epidemiology experience in a public health agency OR
- A doctoral-level degree in epidemiology, supplemented with a minimum of 2 years' mid-level Epidemiologist work experience at a OR
- Other non-epidemiology professional 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 program) and a minimum of 4 years' mid-level epidemiologist work experience.

Required Knowledge, Skills, and Abilities

- Proficient in statistical analysis using programs such as SAS, SPSS, Microsoft BI, Qualtrics.
- Knowledge of social and structural determinants of health and health equity.
- Knowledge of state-of-the-art epidemiological processes and protocols.
- Knowledge of specific fields such as chronic diseases, infectious diseases, maternal and child health, gun violence, drug overdose, environmental health, injury clusters, trend analysis, geographic distribution of disease, or other specific epidemiology program areas.
- Critical thinking skills particularly as they relate to biostatistics and epidemiological analyses.
- Problem-solving skills.
- Organizational and project management skills with attention to details.
- Decision-making skills.
- Relationship-building skills.
- Speaking and writing communication skills.
- Ability to draw valid and useful conclusions and workable recommendations from population data.
- Ability to simplify complicated findings for others to understand and appropriately apply them.
- Ability to work as a member of a team.
- Ability to manage a demanding and changing workload and utilize change management principles.
- Ability to interact appropriately and effectively with a wide range of persons.
- Ability to maintain and handle confidential information.
- Ability to follow protocol, procedures, and established guidelines.
- Ability to adapt to changing circumstances and needs.
- Ability to manage a demanding and changing workload and utilize change management principles.
- Demonstrated strong work ethic.

Physical Demands

- Driving
- Hearing
- Keyboarding
- Near visual acuity
- Sitting
- Speaking

The Health Department is an equal opportunity employer.

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