

EPIDEMIOLOGIST PRINCIPAL

KIND OF WORK

Advanced professional epidemiologic work.

NATURE AND PURPOSE

Under general direction, initiates and leads the planning, design, conduct, analysis and reporting of data from epidemiologic investigations of the distribution and determinants of infections and/or chronic disease or health related behavior/conditions; identifies the problem, specifies the research hypothesis and initiates an investigation; performs related work as required.

EXAMPLES OF WORK (A position may not include all the work examples given, nor does the list include all that may be assigned.)

Identifies the public health problem and determines the appropriateness of an epidemiologic investigation.

Designs and conducts investigations of the distribution and determinants of infection and/or chronic disease in order to accurately identify sources and risk factors for increased morbidity and mortality; functions as principal in investigation.

Applies state of the art technical expertise to guide the development and implementation of a statewide surveillance system for chronic or infectious diseases and their risk factors in order to set priorities, develop programs and evaluate public health efforts in disease prevention and control.

Provides epidemiologic consultation on health matters to other activities within and outside the Minnesota Department of Health, including private and public health care providers and the general public, so that expertise is offered with regard to etiology, pathogenesis, epidemiology and control of infectious and/or chronic diseases or of injury events and disabling conditions.

Analyzes data and writes reports based on research for publication in scientific journals.

Assembles and staffs public health advisory committees to ensure public awareness and participation in disease control programs.

Directs reviews of medical literature concerning the distribution and determinants of infection and/or chronic disease, disease surveillance, application to prevention or intervention programs and related areas.

Prepares reports, grants, contract proposals and budgets so that program goals are achieved.

Directs the design and implementation of epidemiologic studies with statewide impact that are related to environmental health.

Provides epidemiologic consultation on environmental health matters to other activities within and outside the Minnesota Department of Health, including public health agencies and the general public.

KNOWLEDGE, SKILLS AND ABILITIES REQUIRED

Knowledge of:

Epidemiologic principles that includes study, design (descriptive, cross-sectional, case-control, cohort and randomized controlled trails) sufficient to conduct original research, supervise, plan, design, implement and evaluate distribution and determinants of infectious and/or chronic disease or health related behaviors/conditions or health related behaviors/conditions as well as new and existing department programs for improving or monitoring the public's health.

Exposure measurement sufficient to develop standardized survey methods that are reliable and valid.

Biostatistics sufficient to analyze and interpret data from epidemiologic investigations, using appropriate statistical techniques.

Disease or screening surveillance systems, including design and methods of analysis, with experience in computer systems.

Ph.D. in epidemiology or environmental health or doctoral degree in biostatistics, social sciences or behavioral sciences (e.g., anthropology, sociology, psychology, educational psychology) or medicine and allied health professions (e.g., veterinary medicine, dentistry, nursing) with post graduate degree training or experience in epidemiology.

Extensive knowledge of specific research area (i.e., infectious, chronic, behavioral epidemiology) desirable.

Minnesota Department of Health functions, program policies and procedures sufficient to carry out duties.

Skill in:

Computer programming sufficient to apply skills to study and survey design and analysis.

Ability to:

Communicate effectively, both verbally and in writing sufficient to present scientific reports to professional and lay audiences, to prepare grants and protocols.

Lead and evaluate the work of others.

Prepare and maintain budgets.

Design, initiate and supervise investigations of epidemic and endemic infection and chronic diseases, injuries and other disabling conditions.

Est.: 10/79
Rev.:

T.C.: 7/94, 9/94
Former Title(s): Epidemiologist 2,
Epidemiologist 3