

PUBLIC HEALTH EPIDEMIOLOGIST

This is professional work in conducting epidemiological studies, field surveys, and individual case investigations in the State to determine the routes and magnitude of human exposure to environmental pollutants, toxic substances, and infectious diseases. Employees provide epidemiological data for consultation, and assist in the medical evaluation of human risks to pollutants, toxic substances, and other disease processes. Employees assist in the development and coordination of plans to reduce the risk of human illness and death, assist county health departments in formulating strategies to manage problems, and conduct varied literature reviews. Employees report to a higher level professional and perform related work as required.

I. DIFFICULTY OF WORK:

Variety and Scope - Employees design and implement epidemiological studies to evaluate the acute and/or chronic health effects from exposure to various types of toxic and hazardous substances or infectious agents. In addition, employees participate in the design and implementation of multidisciplinary epidemiological studies. Work includes evaluating data, developing plans and programs to reduce or eliminate identified risk factors, providing technical assistance, consulting with physicians and local health departments, planning and conducting inservice training, developing community awareness, and conducting special studies and literature reviews.

Intricacy - Employees evaluate data utilizing epidemiological principles and statistical analysis, develop plans and programs, assist medical staff in interpreting statistical data and assessing health risks and developing plans to reduce or eliminate such risks.

Subject Matter Complexity - Work requires an in-depth understanding of epidemiology, designing epidemiological studies and surveys, statistics, and public health issues.

Guidelines - Employees utilize epidemiological and medical journals, periodicals, and texts as reference manuals, and consultation with epidemiologists, public health professionals, university personnel and state and federal agencies in planning and program development.

II. RESPONSIBILITY:

Nature of Instructions - Employees receive work assignments from the Environmental Epidemiology Branch Head, through requests from physicians and county health departments, other special requests, and self-initiated studies. Most instructions are oral. Daily work is self-planned and is performed with considerable independence.

Nature of Review - Work is reviewed technically through periodic follow-up discussions on specific matters of concern.

Scope of Decisions - Recommendations concerning the statistical analysis and interpretation of epidemiological data directly affect program plans and operations, local health departments, community agencies, and the general public. Employees provide direct training and consultation to a variety of state, federal, and private groups and the general public.

Consequence of Decisions - Errors in study design, survey technique and statistical analysis may result in undue or continued human exposure to a toxic substance, clinical illnesses, permanent physiological damage or detrimental effects on the environment.

III. INTERPERSONAL COMMUNICATIONS:

Scope of Contacts - Contacts are within the work unit, with related state agencies, local health departments, the medical community, special interest groups, governmental agencies, and the general public.

Nature and Purpose - Employees' contacts are for the purpose of planning, collecting, analyzing, interpreting, and consulting on epidemiological data and studies.

IV. OTHER WORK DEMANDS:

Work Conditions - Considerable time is spent in traveling to community health facilities, schools, and other community locations. Work also requires some travel to sites of environmental concern.

Hazards - Employees may experience exposure to patients and contact with toxic and hazardous chemicals.

V. RECRUITMENT STANDARDS:

Knowledges, Skills and Abilities - Considerable knowledge of epidemiology, epidemiological study design and questionnaires, statistics and program planning and development; considerable knowledge of local health administration and methods of delivery of local services; considerable knowledge of state and federal laws, regulations, and programs pertaining to epidemiology, environmental control and environmental toxicology; general knowledge of goals and methods of practice of other health professionals; ability to conduct epidemiological studies or surveys and to perform statistical analyses; ability to analyze and interpret epidemiological data and to develop plans and programs to reduce or eliminate identified risk factors; ability to communicate clearly and concisely in oral and written form with health professionals and the general public.

Minimum Training and Experience Requirements - Master's degree in epidemiology, public health education, public health administration, or a closely related field and one year of related epidemiology experience; or, graduation from a four-year college or university with a closely related science degree and three years of closely related epidemiological; or an equivalent combination of training and experience.