



**USAPHC**  
**U.S. ARMY PUBLIC HEALTH COMMAND**

Public Affairs Office  
5158 Blackhawk Rd. Aberdeen Proving Ground, MD 21010-5403  
410-417-2937  
usarmy.apg.medcom-phc.mbx.pao@mail.mil

## Occupational Health Sciences Portfolio

### Mission

The mission of the Occupational Health Sciences Portfolio is to foster the prevention of workplace exposure-related injury, disease and death. The portfolio provides a wide range of occupational health and injury-prevention services for Soldiers and the civilian workforce, commanders, policymakers and the U.S. Army Medical Command leadership. The portfolio provides expertise in the anticipation, recognition, evaluation and control of chemical, physical and biological stressors in the workplace.

### Background

The Occupational Health Sciences Portfolio provides services that are among the most long-standing at the U.S. Army Public Health Command. Elements of the portfolio have existed for nearly 70 years, since the establishment of the U.S. Army Industrial Hygiene Laboratory at the beginning of World War II.

### Clients

The portfolio's clients are Department of Defense and Army leaders and units, including industrial installations such as Army depots, military medical treatment facilities and deployed units. Services are also provided on a reimbursable basis to other federal organizations such as the Secret Service and the Transportation Security Administration.

### Structure and Organization

The Occupational Health Sciences Portfolio is one of nine portfolios at the Army Institute of Public Health, a subordinate unit of the USAPHC. The portfolio is comprised of six programs listed below.

- **Ergonomics Program**—This program serves military and civilian personnel worldwide by preventing and reducing work-related musculoskeletal injuries. The program identifies risk factors for workplace musculoskeletal injuries and suggests solutions to mitigate those factors. The program provides ergonomics leadership and assistance to its clients in the areas of program development; education and training; system evaluation, analysis and measurement; and applied research.
- **Health Hazard Assessment Program**—The Army surgeon general established this program in 1981 to evaluate the potential health effects of operating military weapons systems and, in 1995, designated the USAPHC as the lead agent. The program identifies and eliminates or controls health hazards associated with the lifecycle management of weapons, equipment, clothing, training devices and other materiel systems. The goals are to preserve and protect the health of individual Soldiers, design out health hazards to eliminate the need for costly retrofits, and reduce readiness deficiencies attributable to health hazards.
- **Industrial Hygiene Field Services Program**—This program performs workplace exposure assessments, site visits and technical surveys to help Army leaders implement control measures or eliminate exposures to chemical, biological or physical hazards in the workplace. Workplace exposure assessments are provided worldwide by industrial hygienists located at the AIPH at Aberdeen Proving Ground, Md., and at all five USAPHC regional commands. Additionally, the program's mechanical engineering team performs Statement of Condition/Life Safety surveys at military medical treatment facilities in support of Joint Commission (formerly the **Joint Commission on Accreditation of Healthcare Organizations**) accreditation.
- **Industrial Hygiene and Medical Safety Management Program**—This program develops and delivers technical and managerial training, provides consultation in industrial hygiene program management and produces information products including newsletters and websites. The program is the Army functional representative for the Defense Occupational and Environmental Health Readiness System—Industrial Hygiene. It provides consultation in industrial hygiene and medical safety management to military medical treatment facilities on select Joint Commission accreditation issues.



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- **Health Physics Program**— This program protects Soldiers, Department of the Army civilians and the environment from the harmful effects of ionizing radiation. The program facilitates the beneficial use of ionizing radiation by applying radiation protection principles to military scenarios, monitoring radiation doses and conducting human, environmental, and ecological radiation health risk assessments. Program personnel deploy to worldwide locations to monitor radiation exposure levels and offer solutions for mitigating associated risks. Services provided include health hazard assessments of military commodities with radiation sources; radiation risk communication consultations; shielding evaluations; X-ray system acceptance and performance surveys; environmental radiation monitoring; radiation contamination evaluation, radiation remediation and verification surveys; radiation safety and response training; and radiation-safety program evaluations.
- **Nonionizing Radiation Program**— This program evaluates nonionizing radiation hazards associated with lasers, radars, radios, electronic countermeasures and high-intensity light sources (such as search lights). The program also conducts nonionizing radiation safety training, performs surveys of nonionizing radiation safety programs, verifies the adequacy of laser eye protection, evaluates overexposure incidents, and develops technical standards for the use of nonionizing radiation sources. The program is currently evaluating systems that detect and neutralize improvised explosive devices, developing criteria for classifying high-power microwave sources, producing training videos, and assisting military medical treatment facilities with implementing procedures for preventing electromagnetic interference with medical equipment.

### **Occupational Health Science's People**

Approximately 185 people work in the portfolio at both the AIPH and USAPHC regional commands. The portfolio has military and civilian personnel in a range of disciplines— ergonomists, physicists, health physicists, mechanical engineers, electrical engineers, occupational therapists, industrial hygienists and administrative personnel are just some of the occupations within the portfolio. In addition to their professional experience, many staff members hold advanced academic degrees and certifications in their respective areas.

The Occupational Health Sciences Portfolio supplements its expertise through coordination and collaboration with the multidisciplinary public health expertise within USAPHC. Through participation on numerous national and international standard-setting bodies, portfolio members are shaping the professional practice of their disciplines.

### **Portfolio Contributions**

The work performed by the Occupational Health Sciences Portfolio helps ensure safe working environments for Soldiers and Army communities. By preventing work-related injuries and illnesses, the Army's workforce is better able to execute its critical mission.

A current initiative is the implementation of safe patient-handling programs throughout MEDCOM facilities to identify, modify and recommend equipment to aid hospital staff in the safe lifting and movement of patients. The portfolio also has developed a Medical Cost Avoidance Model to provide cost prediction analysis of assessed health hazards. Additionally, the portfolio conducts advanced technical training, including the Intermediate Industrial Hygiene Course, the Laser/Radiofrequency Course, ergonomics courses, and a Design Review and Blueprint Reading course. Its subject-matter experts also serve as guest instructors at the Army Medical Department Center and School, the training and education "home" of Army medicine.