



## UNITED STATES ARMY PUBLIC HEALTH COMMAND

### Public Affairs Office

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## Health Hazard Assessment Program

### Mission

The Health Hazard Assessment Program identifies, assesses and provides recommendations to eliminate or control health hazards associated with weapons platforms, munitions, equipment, clothing, training devices, or other materiel systems proposed for military use. Some of the program's key missions include:

- Preserving and protecting the health of the Soldier.
- Improving Soldier performance and enhancing system effectiveness.
- Enhancing readiness by reducing health hazards that cause training or operational restrictions.
- Reducing system design retrofits needed to control or eliminate health hazards.
- Reducing medical costs by eliminating or reducing injury/illness attributable to health hazards from the use of Army materiel.
- Providing educational and reference materials for servicemembers, providers and public health personnel.
- Eliminating risks in the initial stages of development by providing review and value-added comments to capability and program documents.

### What is Health Hazard Assessment?

Health hazard assessment is the technical discipline that addresses the potential effects of materiel system health hazards on the personnel who operate and maintain military materiel. Through application of biomedical knowledge and principles, HHA directly supports Army officials engaged in developing, operating and maintaining materiel systems.

The process of completing a health hazard assessment includes a multi-faceted approach. The assessment of any weapon platforms, munitions, equipment, clothing, training devices, or other materiel systems proposed for Army use includes an evaluation of the acoustic energy, biological substances, chemical substances, radiation energy, shock, trauma, vibration, temperature extremes and

oxygen deficiency to determine if the item poses potential health threats. This assessment provides decisionmakers with these outcomes:

- A formal estimate of the health risks associated with military hardware as it proceeds through the acquisition process,
- A summary and discussion of potential and real health hazard issues, and
- Recommendations for methods of controlling, mitigating, reducing, or eliminating hazards.

### Clients

The Health Hazard Assessment Program addresses the needs of various customers, including all capability and materiel developers, the Army Weapon Systems Safety Review Board, the Army Materiel Command, the Joint Improvised Explosive Device Defeat Organization, major Army combatant commands and other governmental organizations.

### Structure and Organization

The Health Hazard Assessment Program is one of six programs in the Occupational Health Sciences Portfolio at the Army Institute of Public Health. The AIPH is a subordinate unit of the U.S. Army Public Health Command. These organizations are located at Aberdeen Proving Ground, Md. The USAPHC is a major subordinate command of the U.S. Army Medical Command.

### Health Hazard Assessment's Products and Services

- Health Hazard Assessment Reports—These reports provide materiel developers and capability developers with an assessment of the occupational health risk associated with "normal use" of materiel.
- Technical recommendations—Mitigation strategies associated with exposure to materiel-related health hazards and the effect of the strategies on the cost, performance and scheduled fielding of the items.
- Document review—Analyzing multiple documents to ensure health hazards are addressed as part of the Joint Capabilities Integration Development Process.



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- Representing the Army surgeon general as members of the Joint Non-lethal Weapons Directorate Human Effects Review Board, the Army Weapon System Safety Review Board, and the Department of Army System Safety Council. These groups ensure that materiel proposed for use by DOD personnel has been assessed to provide health hazard mitigation strategies or risk acceptance at the proper risk acceptance level.
- Serving as faculty for the Uniformed Services University of the Health Sciences, Department of Preventive Medicine and Biometrics. HHA personnel provide instruction and mentor students by serving on their thesis and dissertation committees, facilitating practicum opportunities and co-authoring peer-reviewed manuscripts.

### Health Hazard Assessment's Top Initiatives

- Standardizing the HHA process and depicting it using diagram and pocket guide.
- Updating Army Regulation 40-10, which describes the HHA program in support of the Army acquisition process.
- Improving capabilities of assessing materiel.
- Updating the HHA Assessor's Guide.
- Integrating HHA costs such as data collection costs, assessment costs, and health hazard mitigation costs into the Army Cost Position for each materiel system.

### Health Hazard Assessment's Partnerships

The HHA program supplements its expertise with multidisciplinary public health experts within the USAPHC, drawing on expertise from toxicology, occupational and environmental medicine, industrial hygiene, entomological sciences, noise mitigation, ergonomics and other technical fields. Outside the USAPHC, the HHA program establishes working partnerships with other Army organizations, including Manpower and Personnel Integration, the Life Cycle Management Command, acquisition program managers, the Medical research and Materiel Command, the Research Development and Engineering Command and program executive offices across the Army.

### Health Hazard Assessment's Contributions

The individual Soldier is the single most important element in the performance of Army materiel systems. Although military duty is inherently hazardous, HHA's goal is that Soldiers in combat not be placed at risk because their hardware is deficient or information is lacking regarding the health hazards associated with their equipment. HHA personnel work to ensure that Soldiers are not exposed unnecessarily to health hazards during training, even though the training must be realistic to achieve operational readiness. The Army Medical Department's mission—to conserve the fighting strength—includes reducing the risks to Soldier's health that are posed by their own materiel. The HHA partners with materiel developers to ensure that Soldiers do not suffer serious adverse health effects as a result of operating their materiel systems, and that the equipment itself does not prevent them from performing at maximum efficiency.

The HHA program also reduces medical costs by preventing illness or injury from military items before they are adopted in the field. Over the past 30 years, the program has completed nearly 3,000 health hazard assessment reports for many military items including military armored vehicles, missile systems, combat equipment and clothing, and weapons.

When properly executed and integrated into the Army's acquisition process, the HHA Program not only prevents injuries and job-related illness, but it also enhances the Soldier's ability to accomplish his or her mission. The Health Hazard Assessment Program is a key player in managing the Army Health Hazard Assessment Program in support of the Army Materiel Acquisition Decision Process.