

APPENDIX I

Department of Defense Instruction 6490.3  
Implementation and Application of  
Joint Medical Surveillance for Deployments

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Department of Defense  
**INSTRUCTION**

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**SUBJECT:** Implementation and Application of Joint Medical Surveillance for Deployments

- References:** (a) DoD Directive 6490.2, "Joint Medical Surveillance," August 30, 1997  
(b) DoD Directive 5400.7, "DoD Freedom of Information Act Program," May 13, 1988  
(c) Joint Staff Memorandum J-4A 00106-93, "Medical Surveillance Report," January 28, 1993  
(d) Title 32, Code of Federal Regulations, Part 219, "Protection of Human Subjects," January 1, 1996  
(e) through (g), see enclosure 1

**A. PURPOSE**

This Instruction:

1. Implements policy, prescribes procedures, and assigns responsibilities under reference (a) for joint military medical surveillance in support of all applicable military operations. Medical surveillance of all Military Service members during active Federal service, including Reserve components, especially before, during and after military deployments, is mandated. The identification of health threats and the routine, uniform collection, analysis, and rapid dissemination of information relevant to troop health has proven of inestimable value in recent operations. The intent of this Instruction is to expand the concept of joint deployment medical surveillance to a more comprehensive approach to monitoring and assessing health consequences related to participation of Service members in deployments.
2. Describes routine military medical surveillance activities during major deployments, or for deployments in which there is a significant risk of health problems, as identified by the Chairman of the Joint Chiefs of Staff in coordination with the Assistant Secretary of Defense for Health Affairs (ASD(HA)).

**B. APPLICABILITY AND SCOPE**

This Instruction:

1. Applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Chairman of the Joint Chiefs of Staff, the Combatant Commands, the Defense Agencies, and the DoD Field Activities (hereafter referred to collectively as "the DoD Components"). The term "Military Service" as used herein, refers to the Army, the Navy, the Air Force, and the Marine Corps. Personnel attached to joint forces during deployments, such as members of the Coast Guard when it is operating as a Military Service in the Navy, will be included in the military medical surveillance system. Technical representatives are not included.

2. Encompasses all aspects of a joint medical surveillance program that is operated in the context of a full military preventive medicine program for the collection and analysis of health status and threat information supporting military operations during the full cycle of pre-deployment, deployment, employment and post-deployment activities.
3. Aside from emphasizing the development of automated recordkeeping and linkage of personnel and medical databases, preserves the value of timely collection, analysis, and dissemination of information to guide public health policy and practice using those collection methods available and appropriate for the operational situation.

#### C. DEFINITIONS

Terms used in this Instruction are defined in enclosure 2.

#### D. POLICY

It is DoD policy under DoD Directive 6490.2 (reference (a)) that:

1. The Military Departments shall conduct joint comprehensive medical surveillance. Medical surveillance is essential to ensure a fit and healthy force and to prevent illness, disease, adverse stress responses, and injuries from degrading mission effectiveness and warfighting capabilities. These activities shall be in effect continuously for individual Service members throughout their entire period of military service in a manner consistent across the DoD active and reserve Components. Although wide-ranging in scope, some of the most significant surveillance activities can be categorized according to before, during, and after deployment phases of military operations. (See enclosure 3, table 1.)
2. The military surveillance process shall be configured to assess the effects of deployment on the health of Service members. Medical surveillance records, including the Armed Forces Serum Repository, shall be maintained in accordance with DoD Directive 5400.7 (reference (b)).
3. Medical surveillance is the continuous responsibility of the DoD Components for their individual Service members. During a deployment, this responsibility becomes shared with the joint task force (JTF) commander and the commander in chief (CINC) of the appropriate Combatant Command.

#### E. RESPONSIBILITIES

1. The *Assistant Secretary of Defense for Health Affairs*, under the *Under Secretary of Defense for Personnel and Readiness*, shall monitor the implementation of this Instruction and reference (a).
2. The *Assistant Secretary of Defense for Reserve Affairs*, under the *Under Secretary of Defense for Personnel and Readiness*, shall ensure that policies for Health Surveillance of the Ready Reserve are consistent with the policies established for the active component.
3. The *Deputy Under Secretary of Defense for Program Integration*, under the *Under Secretary of Defense for Personnel and Readiness*, shall track deployed personnel by developing and maintaining databases that are compatible with pertinent medical surveillance databases.

4. The *Chairman of the Joint Chiefs of Staff*, in consultation with the Commanders of the Combatant Commands and the Chiefs of Staff of the Military Services, shall monitor the implementation of the policies of this Instruction.
5. The *Commanders of the Combatant Commands*, with the coordination of the Chairman of the Joint Chiefs of Staff, shall ensure that the policies of this Instruction are executed during all applicable operations.
6. The *Secretaries of each Military Department*, in coordination with the other Military Departments, shall ensure compliance with this Instruction and evaluate and recommend changes or improvements to the overall medical surveillance program to the Secretary of Defense through the ASD(HA).
7. The *Secretary of the Army* shall ensure that the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) shall operate and maintain a repository of serum samples for medical surveillance. The DoD Serum Repository shall be subject to the rules and procedures to protect privacy interests of members and ensure exclusive use of specimens for the identification, prevention, and control of injuries and diseases associated with military operations. USACHPPM will also maintain a medical surveillance system to integrate, analyze, and report data from multiple sources relevant to the health and readiness of military personnel.

#### F. PROCEDURES

1. *General*. The routine determination of unit-specific rates of illnesses and injuries of public health significance is the foundation for any medical surveillance program. Categories of illness and injury described in the Joint Staff Memorandum J-4A 00106-93 (reference (c)) have been used in recent operations and provide a framework for the collection of morbidity data. In the future, several new systems and procedures will be required to initiate a comprehensive medical surveillance program for monitoring mental and physical health status, the occurrence of illness, injury, and disease as well as the identification and assessment of potential hazards and actual exposures to environmental contaminants and stressors. Innovative technology shall be used, such as an automated medical record device for documenting field and fixed-facility patient encounters (inpatient and outpatient) that can archive the information for local recall and format it for an injury, illness, and exposure surveillance database. Included, as innovative technologies to be developed and used, will be better inpatient and outpatient electronic medical records; devices, systems, and procedures to monitor mental and physical health status; devices, systems, and procedures to identify and assess potential hazards and evaluate and document actual exposures; and the electronic transmission and fusion of medical surveillance data to produce the minimum information for command and medical decisions in near-real time. Surveillance information shall be made available in a timely fashion to JTF surgeons and field medical facilities and shall be transmitted to central data repositories. Devices used and the format of data collected shall be compatible with the medical data system used by fixed-facility units. A geographical information system shall be used to conduct the necessary spatial analyses of environmental and disease exposures of company-sized and larger units, and shall be capable of being linked to individual Service members' medical records. Any research activities conducted as part of medical surveillance shall be consistent with 32 CFR 219 (reference (d)). To the extent applicable, military medical surveillance will include essential DoD civilian and contractor personnel directly supporting deployed forces, consistent with plans established under DoD Instructions 3020.37 and 1400.32 (references (e) and (f)).
2. Pre-deployment (Baseline Readiness)

a. The ASD(HA), under the Under Secretary for Personnel and Readiness, shall:

(1) Field, through DoD Executive Agents, DoD medical data systems that provide uniform data fields allowing the consistent capture of personnel identifiers, health profile and/or status, diagnoses and other outcomes, combat or operational stress briefings, and other preventive measures (including immunizations and prophylaxis), disposition, and disability. Exposure data systems shall include geographical, environmental and occupational information. Centralized repository (ies) of these preventive medical and exposure data will be established. These data bases will be linked through shared data fields. Examples of systems include but are not limited to the Composite Health Care System, Geographical Information Systems, Comprehensive Clinical Evaluation Program, Defense Occupational Health Readiness System (DOHRS), health risk appraisal systems, and other military inpatient and outpatient data tracking systems. These systems shall be used on deployments and in the garrison or non-deployment setting, be compatible among the DoD Components and eventually be capable of linking deployment and non-deployment environmental and occupational exposure and health hazard and/or health risk assessments to individual medical records and medical outcome databases. Automation of routine medical data collection will be necessary for the full development of these systems.

(2) Charter a Joint Preventive Medicine Policy Group (JPMPG) to:

(a) Draft recommendations for joint policy on preventive medicine and health promotion issues and staffing and equipment requirements related to the three principal preventive medicine functions of assessing the health threat, identifying and recommending preventive countermeasures to include immunizations and stress briefings, and conducting medical surveillance.

(b) Develop uniform preventive medicine policies and educational materials.

(c) Serve as an information and coordination exchange among the Military Departments' preventive medicine leadership.

(d) Monitor operational and organizational changes within the Services to assess the ability to keep a joint force healthy.

(e) Advise the J-4 (Medical Readiness Division) on the content of the Preventive Medicine Appendix of the Medical Annex of Joint Operation Plans.

(f) Evaluate joint preventive medicine programs and policies.

(g) Recommend manpower and equipment needs for fully operational teams for epidemiological, and environmental and occupational exposure missions.

(h) Recommend research priorities relevant to military public health.

(i) In coordination with the Armed Forces Medical Intelligence Center (AFMIC), reference develop and maintain country- or region-specific Armed Forces preventive medicine recommendations for joint operations. The group shall review and update these recommendations annually.

(3) CINC and/or JTF Surgeons shall identify and report illnesses, injuries,

- and diseases of military significance during deployments and inform the cognizant JTF or Theater Commander concerning appropriate countermeasures. Support deployment data collection through the Deployment Surveillance Team which will provide overprinted forms and/or requirements, aggregate the data and forward the database to the Deployment Surveillance Team analyst, United States Army Center for Health Promotion and Preventive Medicine (CHPPM). The DST, in collaboration with medical surveillance agencies in each Service, shall collect, analyze, report and archive data collected in Service-specific and Joint operations.
- b. The Deputy Under Secretary of Defense for Program Integration, under the Under Secretary of Defense for Personnel and Readiness, shall collect and maintain individual Service member data, such as, dates of deployment, redeployment or evacuation, and unit of assignment while deployed.
  - c. The Military Services shall institute standard military medical surveillance systems capable of operation during all phases of military deployment cycles. They shall maintain records of personal medical readiness, to include levels of compliance, limitations of duty, immunizations, prophylaxis and examinations provided in preparation for deployment. They shall ensure that such records are protected in accordance with DoD Directive 5400.7 (reference (b)) and that appropriate disclosure accounting entries are made in such records.
  - d. The Military Services and the Commanders of the Combatant Commands, with the coordination of Chairman of the Joint Chiefs of Staff, shall:
    - (1) Integrate health promotion, medical surveillance, and the prevention of illness, non-battle injury and disease, to include combat stress in the training of individual Service members, in the training of military units, and in military exercises.
    - (2) Assure that troop commanders inform Service members about all potential health threats to include: illness, injuries, and disease, to include combat stress, climatic and other environmental health threats in the area of operations and emphasize preventive medicine countermeasures.
    - (3) Ensure that troops complete pre-deployment processing, including requirements pertaining to the Armed Forces Repository of Specimen Samples for the Identification of Remains.
    - (4) Conduct pre-deployment health screening assessments, which are documented on standardized forms for inclusion in individual medical records in accordance with Service and Chairman of the Joint Chiefs of Staff directives. These forms, at a minimum, shall include pertinent information as directed by the Office of the Assistant Secretary of Defense for Health Affairs. A copy of each form or an electronic data record generated during the health screening process shall be sent to the Deployment Surveillance Team. The health screening shall include a mental health assessment.
    - (5) Ensure that personnel support functions, such as family advocacy services and combat stress control resources, are developed and available before deployment.
    - (6) For certain deployments, upon the direction of the ASD(HA), include additional medical screening requirements and guidance in Operation Plans. This guidance must include uniform data collection forms and procedures. This

guidance will be submitted to the TRICARE Readiness Executive Committee through the JPMPG for approval by ASD(HA).

e. Each Military Service, in coordination with the other Military Services shall:

(1) Appoint designated medical officers or proponents to develop and coordinate, through the Joint Preventive Medicine Policy Group, joint surveillance procedures implementing the policies described in this Instruction.

(2) Prepare, in coordination with the JPMPG, tailored troop medical information.

(3) Recommend, in coordination with the JPMPG, appropriate countermeasures.

(4) Support special preventive medicine activities in all phases of deployment.

(5) Maintain specific or consolidated serum bank(s) to aid in the assessment of illnesses.

(6) Unless a serum specimen has been obtained and forwarded to the Armed Services Serum Repository within the 12 months preceding deployment, obtain serum from 7-10 cc of blood from each Service member to be deployed and forward it to the repository designated by CHPPM.

f. The Defense Intelligence Agency, through AFMIC, shall develop and distribute assessments on environmental health factors and endemic infectious diseases of operational importance to allow the development of joint preventive medicine recommendations.

g. CINC Surgeons and JTF surgeons shall use the Armed Forces preventive medicine recommendations as distributed by AFMIC in planning scenario-specific medical requirements including requirements for combat stress control and determining appropriate preventive countermeasures. JTF surgeons shall identify specific diseases and conditions of military significance in the Area of Operation.

h. J-4 (Medical Readiness Division), as the CINC proponent, will work closely with each of the Combatant Commands to monitor implementation of a comprehensive military medical surveillance program across the strategic, operational, and tactical warfighting spectrum. J-4 shall ensure that joint medical surveillance doctrine is integrated into deployment medical planning.

3. During a Deployment

a. The Defense Manpower Data Center, under the Under Secretary for Personnel and Readiness, shall provide, for any deployed force, collective data such as daily strength by unit and total, grid coordinate locations for each unit (company size and higher), and inclusive dates of individual Service members' deployment. Such data shall be linkable to collective medical surveillance data and to individual Service members' medical records.

b. The Surgeons General of the Military Departments shall support unique medical surveillance activities during deployment, including early deployment of specialized environmental and occupational exposure and epidemiology teams to

assist the Theater or JTF Surgeon concerned in identifying and assessing threats, and recommending countermeasures to the Theater Commander.

c. The CINC surgeon and JTF surgeon shall:

(1) Ensure accurate and thorough medical recordkeeping and documentation of health-related events occurs during deployment consistent with Department policies.

(2) Ensure that medical surveillance data are collected and analyzed, in accordance with Joint Staff Memorandum J-4A 00106-93 (reference (c)), and this information made available on a weekly basis to the Service Surgeons General.

(3) Identify and report illnesses, injuries and diseases, to include combat stress responses of military significance and inform the cognizant JTF or Theater Commander concerning appropriate countermeasures.

(4) Provide troop commanders with appropriate information on troop health status, illness, injury and disease threat analyses, and redeployment health concerns.

(5) Collect and, through the Chairman of the Joint Chiefs of Staff, report deployment data to the Deployment Surveillance Team, U.S. Army Center for Health Promotion and Preventive Medicine, unless otherwise designated.

(6) Record the physical and mental health status of personnel at time of redeployment or within 30 days of final departure from theater, in accordance with specific guidance and data forms template provided by the ASD(HA).

(7) Deploy technically specialized units with capability and expertise in the conduct of surveillance for occupational and environmental illnesses, injuries, and diseases, health hazard assessments, and advanced diagnostic testing. Examples of these units are the Navy Forward Deployable Laboratory, the 520th Theater Army Medical Laboratory, and the Air Force Tactical Reference Lab. These specialized units may be deployed to meet the requirements of the deployed force through surveillance for occupational and environmental illnesses, injuries, and diseases, application of preventive medicine, use of advanced diagnostic testing, and coordination with combat stress control personnel. These units shall conduct health assessments of potential exposure to biological, chemical, or physical agents that threaten the health and safety of the command.

(8) Deploy combat stress control personnel and units to meet the mental health requirements of the deployed force. Medical staff, chaplains, and other assets with expertise in the assessment and management of stress shall participate in the stress control program.

d. Troop commanders shall:

(1) Inform troops of illness, injury, and disease threats, the risks associated with those threats, and the countermeasures in place, or to be used, to minimize those risks while deployed.

(2) Ensure compliance with preventive medicine guidance.

(3) Promote combat stress control programs and policies.

(4) Ensure completion of pre and post deployment questionnaires.

4. Upon Return from Deployment

a. The CINC Surgeons and JTF Surgeons shall:

(1) Through the Service Surgeons, ensure that all personnel complete health screening assessments prior to leaving the areas of operation. The health screening shall include a mental health assessment. Where certain situations may not allow screening prior to departure, commanders of the Service member's parent organization or command will ensure that redeployment medical surveillance is completed and submitted to local medical treatment facility commander within 30 days of return. Post-deployment assessments of Reserve component personnel must be completed prior to release from active duty. These assessments are to be documented on standardized form DD 2697, for inclusion in individual medical records in compliance with Service and Chairman of the Joint Chiefs of Staff directives. These screening forms, at a minimum, shall include pertinent information as directed by the ASD(HA). A copy of each form or an electronic data record generated during the health screening process shall be sent to the Deployment Surveillance Team.

(2) When directed by the Assistant Secretary of Defense for Health Affairs, and in coordination with the Surgeons General and the Chairman of the Joint Chiefs of Staff, obtain serum from 10 cc of blood from each redeploying service member and submit such serum to the Tri-Service serum repository.

(3) Collect and forward redeployment processing data.

(4) Develop and forward medical lessons learned to the Joint Uniform Lessons Learned System and to other appropriate Service Lessons Learned systems to improve subsequent preventive medicine support of operations.

b. The JPMPG shall reassess uniform preventive medicine policies and staffing guidance based on lessons learned during the deployment and recommend improvements to the medical military medical surveillance system and requirements for needed countermeasures.

c. The Military Services and the Defense Manpower Data Center, under the USD (P&R), shall, in collaboration with medical surveillance agencies in each Service, provide data and databases for post-joint deployment medical surveillance aggregation to the Deployment Surveillance Team. When aggregated, the data will then be forwarded to CHPPM for analyses.

d. The Military Services shall:

(1) Support combat stress control and personal support and family advocacy programs.

(2) Ensure that troop commanders support post-deployment preventive countermeasures, such as redeployment stress debriefings and malaria prophylaxis.

e. The Surgeons General of the Military Departments shall:

(1) In coordination with the ASD(HA), CINC surgeon, the JTF surgeons and the Chairman of the Joint Chiefs of Staff, provide scenario-specific screening of Service members and appropriate, targeted, medical evaluations as indicated.

(2) Forward screening and medical evaluation data to the Deployment Surveillance Team. Appropriate data shall be aggregated and forwarded to CHPPM.

(3) When directed, obtain serum from 10 cc of blood from each redeployed Service member and submit to the serum repository designated by CHPPM.

(4) Develop and support tailored post-deployment data collection and analyses. For certain deployments, the Chairman of the Joint Chiefs of Staff and CINC Surgeons in collaboration with the ASD(HA), may require additional screening within 30 days after return from deployment. This may include mental health assessments, if not previously accomplished, collection of additional laboratory specimens, and surveys of unique exposures or health outcomes. Special attention must be paid to ensure collection of additional post-deployment assessments from Active or Reserve component personnel prior to their release from active duty.

f. The Defense Intelligence Agency, through AFMIC, shall update assessments on occupational and environmental health factors and infectious diseases of operational importance.

#### G. INFORMATION REQUIREMENTS

The Joint Medical Surveillance data collected for the purposes of monitoring the individual and collective health of the military population prior to, during and following deployment operations is exempt from licensing in accordance with paragraph E.4.i. of DoD 8910.1-M (reference (g)).

#### H. EFFECTIVE DATE

This Instruction is effective immediately.

Rady F. de Leon  
Under Secretary of Defense  
(Personnel and Readiness)

Enclosures - 3

1. References
2. Definitions
3. Table of Medical Surveillance Components Related to Deployment

REFERENCES, continued

- (e) DoD Instruction 3020.37, "Continuation of Essential DoD Contractor Services During Crises," November 6, 1990
- (f) DoD Instruction 1400.32, "DoD Civilian Work Force Contingency and Emergency Planning Guidelines and Procedures," April 24, 1995
- (g) DoD 8910.1-M, "DoD Procedures for Management of Information Requirements", November 28, 1986, authorized by DoD Directive 8910.1, June 11, 1993

#### DEFINITIONS

1. **Combat Stress Control.** Encompasses actions taken by military personnel to prevent, identify and treat adverse combat stress responses which impair duty performance and Service member well being. It includes primary prevention through monitoring and control of personnel selection, stressors, and increasing stress tolerance of individual units; secondary prevention through early identification and far forward treatment of combat stress cases and tertiary prevention through treatment in rear echelons to minimize or prevent chronic disability.
2. **Disease.** An interruption, cessation, or disorder of bodily functions, systems, or organs.
3. **Endemic Diseases.** Those diseases that may be expected to occur in a specific population.
4. **Environmental Risk Assessment.** The science and art of predicting the frequency of disease in a population based on actual or projected (modeled) environmental exposures.
5. **Health Hazard Assessment.** An assessment that characterizes the possible health risks of occupational exposures of Service members during the course of their normal duties.
6. **Illness.** Disease or functional disorder.
7. **Injury.** The damage or wound of trauma.
8. **Medical Surveillance.** The regular or repeated collection, analysis, and dissemination of uniform health information for monitoring the health of a population, and intervening in a timely manner when necessary. It is defined by the Centers for Disease Control and Prevention as the ongoing, systematic collection, analysis, and interpretation of health data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know. The final link of the military medical surveillance system is the application of these data to prevention and control. A military medical surveillance system includes a functional capacity for data collection, analysis, and dissemination of information linked to public health programs.
9. **Military Preventive Medicine.** Encompasses the anticipation, prediction, identification, prevention, and control of preventable diseases, illnesses and injuries caused by exposure to biological, chemical, physical or psychological threats or stressors found at home stations and during deployments. Epidemiology, clinical preventive medicine, occupational medicine, industrial hygiene, environmental health sciences and engineering, medical entomology, health promotion and wellness, community health, mental health disciplines, toxicology and laboratory support sciences (environmental, occupational and radiological chemistry and microbiology) form military preventive medicine's core disciplines.
10. **Preventive Medicine.** The branch of medical science concerned with the prevention of disease and the promotion of physical and mental health through study of the etiology and epidemiology of disease processes. As used in this document, it is global in scope and

encompasses not only traditional preventive medicine functions, but also those of occupational medicine and industrial hygiene. Coupled with this is the recognition of the role of surveillance efforts in the identification, control and prevention of not only diseases, but occupational and environmental illnesses and injuries.

- 11. **Risk Communication.** The process of adequately and accurately communicating the magnitude and nature of potential environmental and occupational health risks to commanders and to Service members.

	Pre-deployment	During Deployment	Post-deployment
Identify population at risk.	Field a seamless DoD ambulatory health data system. Ensure deployment readiness of individual Service members, using automated record system.	Collect data on unit strength, locations, and traumatic stressors on individual Service members' deployment histories.	Archive deployment information related to units and individual Service members.
Identify exposures	Prepare and distribute threat assessments for potential area of operations. <sup>1</sup> Identify threats for area of operations during planning for specific operations.	Special assessments of occupational and environmental exposures, including traumatic stressors.  Analyze disease/injury/combat stress incidence data.	Update threat intelligence based upon special assessments and disease/injury/combat stress data.
Protective Measures	Determine countermeasures and incorporate into specific Op-Plans.  Execute pre-deployment countermeasures (train, equip, supply, combat stress brief, immunize).	Reinforce or introduce added, protective countermeasures based upon analysis of disease/injury/combat stress data.	Identify requirements for new countermeasures.
Assess health	Perform continuous health status surveillance <sup>1</sup> and tracking of deployability status, <sup>1</sup> (includes human immunodeficiency virus, <sup>1</sup> dental, <sup>1</sup> immunizations, <sup>1</sup> deoxyribonucleic acid).  Maintain Serum Bank.	Capture disease/injury/combat stress events (medical surveillance).  Analyze data on disease/injury/combat stress occurrence.	Perform scenario-specific screening and targeted medical evaluation of Service members. Perform continuous medical surveillance as follow-up.  Disseminate findings.

1. Continuous readiness requirements, independent of deployment.

Table 1: MEDICAL SURVEILLANCE COMPONENTS RELATED TO DEPLOYMENT

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