

Statement by
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Emerging Threats and International Relations

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Mr. Chairman and distinguished members of the Subcommittee, thank you for the opportunity to discuss the Department of Defense's deployment occupational and environmental health surveillance program which is a key component of our force health protection program.

Your invitation to this hearing stated the purpose is to "examine how the military services have implemented DoD policies for collecting and reporting occupational and environmental health surveillance (OEHS) data for deployed forces and how OEHS reports will be used to address health issues of servicemembers."

The Department of Defense (DoD) is firmly committed to protecting the health of our active and reserve component members before deployment, while they are deployed, and after their return. Occupational and environmental health surveillance is a key component of the preventive medicine activities that take place during deployments, including Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). The Department recognizes the need to monitor the deployed environment for potentially hazardous materials and to document and archive the results so that they can be used as an aid in the diagnosis and medical care of exposed personnel and, when indicated, for epidemiologic research studies. The Department also recognizes the importance of sharing the monitoring information with the Department of Veterans Affairs and is working to make this information more available to them.

Today, I will provide an overview of the Department's deployment occupational and environmental health surveillance program, and I will also address the draft Government Accountability Office report.

Overview of DoD Deployment Occupational and Environmental Health Surveillance

In the early 1990s, DoD recognized that it needed to improve its monitoring and documentation of potentially hazardous occupational and environmental agents during conflicts. Since that time, DoD has implemented a number of directives, instructions, and policies to improve occupational and environmental health (OEH) surveillance during deployments. As a result, the Services, the Joint Staff, and the Combatant Commands have made substantial progress in better addressing the immediate and long-term health issues associated with deployment occupational and environmental exposures.

One major milestone was DoD Instruction 6490.3, "Implementation and Application of Joint Medical Surveillance for Deployments," which was issued in August 1997. A major revision of this Instruction will be published soon, which will further require the application of this Instruction to deployments falling outside of "joint deployments lasting for 30 or more days to locations with non-fixed medical treatment facilities," as required by the current Joint Staff policy. As another example, in 2004 the Under Secretary of Defense for Personnel and Readiness, Dr. David S.C. Chu, and the Assistant Secretary for Health Affairs, Dr. William Winkenwerder, issued new policy guidance that strengthened requirements for deployment OEH surveillance, including comprehensive OEH data reporting and archiving, deployment health risk

communications, and biomonitoring for personnel with potential exposure to lead or depleted uranium.

DoD's deployment OEH program includes a number of key preventive measures that help to ensure servicemembers are protected from potentially hazardous exposures.

Some of these preventive measures include:

- Comprehensive pre-deployment health threats and countermeasures briefings.
- Completion of a pre-deployment health assessment, including providing a serum sample before deployment.
- Completion of all necessary immunizations and the dispensing of preventive medications and personal protective equipment before deployment.
- Performance of baseline, routine, and incident-related occupational and environmental monitoring, and documentation in the medical records of any hazardous exposures encountered during the deployment.
- Completion of a post-deployment health assessment, including questions about health concerns and OEH exposures, and providing a serum sample within 30 days of returning home.
- Completion of a newly implemented post-deployment health reassessment three to six months after returning from deployment, including questions about general health and OEH concerns.
- Referral to a health care provider, as appropriate, for follow-up and evaluation of health concerns reported on the post-deployment health assessment or reassessment.

The Environmental Readiness and Safety office, directed by Mr. Curtis Bowling, located in the Office of the Deputy Under Secretary of Defense for Installations and Environment, and my office, the Deployment Health Support Directorate, work together closely to ensure that our in-garrison occupational and environmental health programs and our deployment health programs are well-integrated. Mr. Bowling's office has policy responsibility for in-garrison, peacetime, occupational and environmental health programs and also for deployment occupational health programs. My office, on the other hand, has responsibility for deployment environmental health programs. Note, however, that it is the same well-trained team of preventive medicine professionals who perform all

of these functions. As a result, there is continuity of effort to insure that the same approaches are used in the identification and characterization of occupational and environmental health threats.

Pre-deployment hazard assessments for deployments are routinely conducted based on medical intelligence provided by the Armed Force Medical Intelligence Center and other sources. This intelligence greatly aids in the identification of indigenous diseases, disease vectors, and environmental threats that are likely to be encountered during the deployment. Well-trained and equipped Army, Navy, and Air Force medical personnel conduct on-going, in-theater OEH surveillance, and closely monitor air, water, soil, food, and disease vectors for health threats.

Three types of OEH data are collected and reported:

- “Baseline data,” which are collected on air, water, and soil samples at the time base camps are established;
- “Routine (or periodic) data,” such as follow-up air, soil, and water monitoring data used to detect any changes in concentrations of potential contaminants over time; and
- “Incident-related data,” which includes data acquired during investigations of chemical spills, industrial accidents, food or waterborne illness outbreaks, and chemical/biological agent exposures or attacks.

All OEH monitoring data is identified, documented, and archived in a systematic manner, as follows:

- All environmental samples are identified with a date, time, and location that can be potentially linked with individual personnel who were at a particular location at a specified date and time.
- Possible hazardous exposure incidents are thoroughly investigated, extensive environmental monitoring accomplished, appropriate medical tests ordered, and rosters of exposed personnel assembled. Medical records entries are made to document any exposures.
- Area and date-specific environmental monitoring summaries are being developed by the Services to document environmental conditions potentially affecting health

and also to serve as means to inform health care providers of those environmental conditions and possible health risks associated with the conditions.

Upon request from the theater, the Services' Health Surveillance Centers – the U.S. Army Center for Health Promotion and Preventive Medicine, the Navy Environmental Health Center, and the Air Force Institute for Operational Health – provide additional technical and consultative assistance to deployed medical teams, laboratory analysis and interpretation of samples, pre-deployment OEH hazard assessments, and OEH risk characterization reports for deployed forces.

All deployment occupational and environmental health data and reports are required to be archived centrally at the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM). The Army is the lead Service for joint occupational and environmental health surveillance data archiving.

Summary of Results of OEH Surveillance during OIF and OEF

I wish to assure the Subcommittee that the Services, including our commanders on the ground, have learned their lessons well pertaining to the need to fully characterize deployed environmental settings for possible exposures to hazardous materials and to ensure that that data is archived for future use. The Services have extensive numbers of deployed preventive medicine personnel who are well trained in OEH surveillance. As a matter of priority most of the air and soil sampling occurs in areas where the largest concentrations of servicemembers are assigned – in and around our base camps. In addition, all drinking water, whether it is procured bottled water or water purified by our

reverse osmosis purification units, is tested for bacterial contamination as well as other organic and inorganic parameters.

The U.S. Army Center for Health Promotion and Preventive Medicine recently completed a summary report of OIF and OEF occupational and environmental monitoring that has been performed by their laboratory. From January 2003 to April 2005, the lab has analyzed almost 3,900 air, water, and soil samples. These samples were taken at 274 locations in Iraq, 28 locations in Afghanistan, and several locations in Kuwait and other neighboring countries. These included 2,815 air samples, 424 water samples, and 631 soil samples.

The concentrations of contaminants detected in air, water, and soil samples are routinely compared with Military Exposure Guidelines (MEG) that USACHPPM developed. A MEG for a specific chemical is set at a concentration below which no health effects are expected to occur. To develop these guidelines, DoD has used existing national standards for human health exposure limits (for example, standards of the U.S. Environmental Protection Agency and the Occupational Safety and Health Association), and adapted them to the military setting where exposures can be assumed to be encountered 24 hours a day for periods of up to a year. The National Research Council recently reviewed and approved them as valid exposure standards to use in deployed settings.

It should be noted that elevated environmental monitoring results do not necessarily equate with harmful exposures to personnel. For example, if harmful

materials are detected in the soil, a sufficient amount of contaminated soil would have to be ingested or inhaled as dust particles to result in dosage that may pose a risk to health – this usually does not occur. Thus, environmental exposures can provide an indication of potentially hazardous situations but cannot be taken at face value as proof that personnel have experienced a risk to their health.

Air samples were analyzed for concentrations of particulate matter, heavy metals, volatile organic chemicals (VOC), and polycyclic aromatic hydrocarbons; 91 percent of the air samples taken in OIF and OEF have demonstrated concentrations of particulate matter that were greater than the 1-year MEG. Air samples taken in the OIF Theater of operations have historically demonstrated very high concentrations of particulates, because of the frequency of severe sandstorms. Military personnel have, in some cases, experienced short-term health effects from high levels of particulates including coughing and eye and throat irritation, as well as exacerbation of pre-existing conditions, such as asthma. These short-term effects generally resolve when the particulate concentrations decline, and no long-term health effects have been identified nor are any expected.

Air samples were analyzed for up to ten heavy metals. Metals are found naturally in the earth's crust, so their presence in the air is not unusual, particularly if there are high concentrations of particulates. While lead, manganese, or aluminum concentrations were elevated in a very small proportion of samples, no adverse health effects are expected. A very small proportion of air samples demonstrated elevated levels of a few VOCs. No adverse health effects are expected from these VOCs.

Water samples were analyzed for as many as 206 different parameters, including metals, inorganics, VOCs, semi-volatile organic chemicals and pesticides, as well as for physical parameters such as turbidity. Some water samples were shown to have concentrations of specific chemicals above the MEG. However, many of the water samples that had detectable contaminants were raw, untreated samples, and were not used for drinking water supplies. Instead, they were used for nonpotable purposes, or the sources were being considered for purification treatment and subsequent use.

Soil samples were analyzed for up to 190 different chemicals, including metals, pesticides, and semi-volatile organic chemicals. A very small number of samples demonstrated elevations of naphthalene or lead, however, no adverse health effects are expected.

Incident-related environmental sampling has taken place at specific locations in OIF and OEF because of concerns about potential contamination surrounding specific incidents involving potentially hazardous materials. Some examples include:

- Al Tuwaitha Nuclear Research Center, Iraq: Possible excessive exposure levels of ionizing radiation when the research facility was looted. Extensive environmental assessments and personnel radiation dosimetry were performed on the Nuclear Disablement Team. In addition, along with the International Atomic Energy Agency, Iraq's Ministry of Health and Atomic Energy Commission, health evaluations were initiated for 866 families (4,020 people) in five villages surrounding Al Tuwaitha. In the local population, 2.4 percent had clinical abnormalities and 5.4 percent had laboratory abnormalities, none of which were related to radiation. Fact sheets were developed with pertinent information about the possible exposures for U.S. and Coalition personnel. Town hall-type meetings were held where experts briefed the results of the assessments to servicemembers.

Personal dosimetry results demonstrated that radiation doses to U.S. and Coalition personnel were within acceptable limits. No short- or long-term health effects are expected.

- Al-Samawah, Iraq: Concern about alleged contamination with depleted uranium and exposure to toxic chemicals among some members of the 442nd Military Police unit. Extensive environmental sampling was accomplished. A classified Navy environmental assessment report was written and a follow-on Army environmental assessment is being finalized for this rail yard area (where no combat occurred.) No toxic chemicals, with the exception of some chemicals contained in a railroad tank car, nor depleted uranium were identified. Nevertheless, all 167 soldiers were offered laboratory testing for any depleted uranium exposures. Sixty-six of those personnel participated in the urine DU bioassay testing and all of them tested in the normal range for total uranium levels with no detections of depleted uranium in their urine. Army medical DU experts met with the 442nd soldiers in medical hold at Fort Dix, New Jersey, in April 2004, and conducted a similar meeting with the 442nd Family Support Group in Orangeburg, New York, about two weeks later. Another group of subject-matter experts simultaneously met with the main body of the 442nd in Kuwait, and provided information about DU and testing, and then briefed them again at Fort Dix. Fact sheets on DU and DU testing were provided
- Ash Shuaiba Port, Kuwait: Health concerns associated with industrial pollution at a large port in Kuwait. Personnel exhibiting upper respiratory symptoms underwent standard medical evaluations dictated by their symptoms. With the exception of respirable particulates (PM10), the concentration of pollutants such as carbon monoxide, sulfur oxides, nitrogen oxides, heavy metals, polycyclic aromatic hydrocarbons, and volatile organic compounds did not exceed the Military Exposure Guidelines (MEGs). Town hall meetings were held for all personnel assigned to this location, and a fact sheet was developed in response to questions raised at the town hall meetings. Extensive environmental monitoring was used to determine that no long-term health effects are expected; but USACHPPM did compile a SF 600 medical record supplement documenting the environmental monitoring for servicemembers that were located at the site.
- Camp War Eagle, Iraq: Involved possible airborne lead exposures. Extensive environmental sampling demonstrated increased airborne lead levels in a small number of samples. Extensive medical surveillance, including approximately 1,400 blood samples were drawn and analyzed for lead exposure. There were a few slightly elevated results that were attributed to other causes on follow-up, and were normal on a confirmatory test. All others were typical of reference populations (non-occupationally exposed U.S. personnel). Personnel were briefed on their results, and fact sheets for servicemembers and health practitioners, and interpretational aids for use by health care providers evaluating servicemembers were developed.

- Qarmat Ali Water Treatment Plant, Iraq: Involved possible exposure to sodium dichromate and polychlorinated biphenyls, involving approximately 250 U.S. personnel. Extensive environmental sampling was accomplished and 137 of the 161 members of the 1st Battalion, 152nd Infantry (including 10 civilians) underwent comprehensive occupational medicine evaluations. Ten individuals declined evaluation, and 14 were unavailable. They had a complete history and physical examination, as well as blood and urine testing for chromium, complete blood counts (CBC), serum chemistries, liver and kidney function tests, and urinalysis related to possible chromium exposure. They also had pulmonary function testing and chest X-rays performed. Fact sheets, oral and written risk communications, and town hall meetings were provided to address the concerns. No specific abnormalities attributable to possible exposures were identified, and no long-term health effects are expected.
- Sarin Exposure Event, Baghdad, Iraq: In May 2004, an improvised explosive device (IED) with a rocket was reported along a coalition forces supply route in southwest Baghdad. The IED subsequently exploded. An explosive ordnance detachment (EOD) team responded approximately 45 minutes after detonation. While evacuating the IED back to camp, two EOD soldiers displayed symptoms of sarin exposure, consistent with a mild dose. These two soldiers were treated at their aid station, fully recovered from the exposure, and returned to full duty within two weeks of exposure. Other U.S. forces responding to the IED were also potentially exposed low levels of sarin, less than what the two EOD soldiers received. Aside from the two EOD soldiers who exhibited symptoms, the attending physicians reported that all soldiers who were present at the site of release (U.S. Forces escort team, ambulance crew and other EOD personnel) were medically evaluated on the day of the release and no one else exhibited any symptoms consistent with sarin exposure. Subsequent field tests of the IED confirmed the presence of sarin for which health effects of acute exposure are well documented. Soldiers who did not exhibit symptoms at the time should not experience later health effects, according to current science. Central Command medical authorities have a roster of all soldiers who were at the scene. Medically relevant aspects of this exposure were included in the health records of all people who were directly affected by the IED. Medical subject matter experts documented this event and were available to assist with re-deployment assessments and documentation and to respond to any soldier and family-member concerns.
- Severe pneumonia cases in CENTCOM: During a 13-month period, 18 cases of acute eosinophilic pneumonia were identified, with two deaths, among 183,000 military personnel deployed in or near Iraq. Prospective disease surveillance began in CENTCOM and at military medical treatment facilities after several cases of acute eosinophilic pneumonia were identified. The cases occurred in personnel at various locations in theater, and included members of several different military units who were deployed at different times. Extensive epidemiological assessments and medical evaluations were performed. Extensive

clinical workup of the cases occurred to identify possible pathogens and toxins. All surviving patients with illness were offered a follow-up evaluation by a pulmonary physician and an allergist at Walter Reed Army Medical Center. At follow-up visits, patients underwent a complete history and physical examination, repeat blood testing, allergy testing, chest x-ray, and pulmonary function testing. No environmental cause or frequently cultured microorganism was found; however, a possible link with cigarette smoking was found. DoD has been advising CENTCOM personnel in pre-deployment briefings not to start smoking while deployed, and to quit smoking if they are currently smokers. Informal communications were made with health care providers at MTFs to educate them about the condition. Fact sheets on acute eosinophilic pneumonia have been posted on the Deployment Health web site, and are part of the clinical practice guidelines, which are made available to all DoD preventive medicine health care providers to educate them about the condition.

- Kharsi Khanabad, Uzbekistan: Suspected environmental radiological and chemical agent contamination. Concerns about chemical contamination involved a routine survey that detected traces of nerve agents and mustard gas in a bunker at the edge of the facility, a hanger where a headquarters had been set up, and an unstaffed maintenance facility. All troops were moved away from those sites. Initially it was believed that the traces of chemical agents might have come from chemical weapons that had been stored there when it was a Soviet base, but later it was determined that the results were false positive tests and that the chemicals were actually low levels of volatile organic compounds posing little risk to servicemembers. Radiation concerns involved possible exposure to yellow cake (processed uranium). All personnel were immediately notified of the potential radiation risks through formal risk communication efforts, including briefing sessions with the Commander and his staff and publication of the USACHPPM-Europe team's efforts in the camp news publication. A health team surveyed all servicemembers and found no one with symptoms of exposure to nerve gas or other chemical weapons contamination at the base. The medical records of more than 1,800 servicemembers who passed through the base since the initial deployment were reviewed. However, no exposures to personnel were demonstrated. Extensive environmental sampling was performed, all of which was distilled into succinct fact sheets – one for use by potentially exposed servicemembers, and one for use by medical personnel. All health risks were judged to be very low, and no adverse long-term health effects are expected. Three separate briefing sessions with command and staff, senior NCOs, and medics were held to communicate the information and answer questions.
- Al Mishraq Sulfur Plant, Iraq: Airborne combustion products from a sulfur fire. A huge stockpile of pure sulfur caught on fire in June 2003, and servicemembers were involved in extensive firefighting activities for two months. As many as 3,000 U.S. personnel who were within a five-mile radius had potential exposures to sulfur dioxide and hydrogen sulfide, either as firefighters or as bystanders. There was extensive environmental sampling accomplished and guidance

provided on the proper use of respiratory and other personal protective equipment by firefighters. Approximately 1,500 servicemembers were interviewed about their symptoms. An investigation of possible long-term effects is still underway.

In all cases, the military services are placing incident-specific health information including any information on exposures experienced in the medical records of involved servicemembers. Rosters of servicemembers who were involved in the specific incidents have been developed in case there is a need to contact them for future treatment or evaluation or in case the VA needs the information for claims adjudication or clinical management. A summary of events has been developed for the incident investigations, including the results of OEH surveillance and any medical surveillance.

In addition, the Air Force, in accordance with the CENTAF policy, has developed summaries of the environmental monitoring data at air bases in theater and placed these summaries into the medical records of Air Force personnel who were stationed at these bases. The U.S. Army has accomplished one such summary and intends to accomplish more of these. The requirement for all Services to accomplish these environmental monitoring summaries and to place them in medical record is being incorporated into the revision of the DoD Instruction, 6490.3.

DoD Health Affairs has implemented a deployment biomonitoring policy for exposure to depleted uranium (DU). The policy specifies procedures for identifying personnel exposed to DU, assessing their degree of exposure, and following up with biomonitoring (urine bioassays) to document levels of exposure. During OIF and OEF, there has been extensive medical surveillance for possible DU exposure. As of June

2005, 1,970 personnel have submitted 24-hour urine samples to determine uranium concentrations in their urine. Only six individuals have had confirmed exposures to DU using highly sensitive methods that measure the presence of uranium many orders of magnitude below levels that may result in any risk to health. In each of these cases, the individuals had retained metal fragments or injuries consistent with metal fragments. Three of these personnel have already been thoroughly evaluated in the Baltimore VA Medical Center Depleted Uranium Medical Surveillance Program. None of the six had uranium levels that posed a risk to their health. One additional servicemember had an initial detection of depleted uranium in his urine but separated from the Army before a confirmatory sample could be acquired and tested. He was just recently located working as a civilian at an U.S. Army base in Germany. Efforts continue to encourage him to provide a confirmatory, 24-hour bioassay sample.

In summary, extensive baseline, routine, and incident-driven OEH surveillance has been and continues to be performed in OIF and OEF as well as other deployments. The vast majority of sampling results indicate very low levels of exposures, if any, to hazardous substances. There has generally been an absence of short-term health effects with the exception of dust exposures that resulted in transient upper respiratory symptoms and acute eosinophilic pneumonia (unknown cause but believed to be associated with smoking). With the possible exception of health outcomes associated with exposures at the Al Mishraq Sulfur Plant in Iraq, which are still being evaluated, any remaining risks for long-term health effects are minimal.

Health risk communications is an important component of our deployment OEHS program. Because of this, Dr. Winkenwerder established a DoD Deployment Health Risk Communications Working Group in 2004. The Working Group, which has TriService representation, develops fact sheets and other products concerning deployment health risks and related information for use by all of our Services. Over the past year, the group has developed more than a dozen fact sheets on such topics as acinetobacter infections, depleted uranium exposure assessment, leishmaniasis, anthrax, post-deployment reserve healthcare, and use of mefloquine for malaria prevention. The working group has many more products under development and will soon go on-line with a deployment health library for use by servicemembers, families and health care providers.

My staff recently accomplished a review of more than 450,000 post-deployment health assessment forms from OIF and OEF to identify the most frequent OEH self-reported exposures to our servicemembers. The most common self-reported exposures included sand/dust, vehicle exhaust, and loud noises. The least reported exposures included depleted uranium and exposures to ionizing radiation. DoD is using the results of this extensive analysis to ensure that there are sufficient fact sheets and other risk communications products available to alleviate concerns and anxieties involving potential or actual deployment health risks and also to increase awareness of countermeasures.

DoD Response to Draft Government Accountability Report (GAO)

In May 2005, DoD reviewed a draft GAO report, entitled *Defense Health Care: Improvements Needed in Occupational and Environmental Health Surveillance to Address Immediate and Long-Term Issues*. The GAO stated that it was reporting on (1) how the military services have implemented DoD's policies for collecting and reporting OEHS data for OIF, and (2) the efforts under way to use OEHS reports to address both short- and long-term health issues of servicemembers deployed in support of OIF.

The GAO identified a concern that access to archived OEH surveillance reports is limited by their security classification. Be assured that the classification of this data does not hinder DoD's ability, in the least, to ensure for the appropriate care of our servicemembers including health issues resulting from deployed occupational and environmental exposures. Raw exposure data and information is generally not classified; that data is only classified when it is linked with specific locations of personnel. In addition, VA officials who have the appropriate level of clearance will be provided access to classified deployment OEH data whenever appropriate. Moreover, the Joint Staff is currently working with the U.S. Special Operations Command and the Assistant Secretary of Defense for Command, Control, and Communications and Intelligence to develop less restrictive environmental data classification policies and a process to declassify OEH data more quickly. We are confident that all of our servicemembers are being adequately evaluated and treated when exposures involving significant health risks require attention.

DoD partially concurred with the recommendations of the draft GAO report. DoD submitted a formal response to the three draft GAO recommendations, which is summarized here:

- DoD nonconcurred with Recommendation 1. DoD is revising DoD Instruction 6490.3 (to be re-titled, "Deployment Health Surveillance and Readiness"). Extensive coordination and review is on going, and all Military Services and the Joint Staff are part of that process. The Joint Staff will draft jointly developed, cross-Service implementation guidance, as needed, for this instruction once it is complete.
- DoD partially concurred with Recommendation 2. OEHS reports would be of little value for "immediate" health risks, except for incident-driven reports to the on-scene commander. Immediate health risks are addressed at the time that a problem becomes evident – either as a result of raw sampling data that indicates a health risk or health effects that need immediate attention. DoD believes this recommendation was intended to address deployment OEHS risk management and not every risk management decision a commander makes. The DoD already has procedures in place to evaluate risk management decisions through a jointly established and implemented lessons learned process, including lessons pertaining to OEHS risk management.
- DoD partially concurred with Recommendation 3. DoD agrees on the importance of following the health of servicemembers and as already stated is fully committed to sharing medically significant health care information as servicemembers transition from the DoD to the Department of Veterans Affairs (VA). Along with VA and the Department of Health and Human Services, DoD has announced a set of uniform standards for the electronic exchange of clinical health information to be adopted across the federal government. These standards are part of the foundation of the Nationwide Health Information Infrastructure that will serve consumers, patients, health care providers, and public health professionals. Standardized information exchange, with privacy and security protections, will make it easier for health care providers to share relevant patient information and for public health professionals to identify emerging public health threats. Standardized information exchange also makes portable electronic medical records more easily achievable and accessible. DoD will make medically significant OEHS records available through this system when the technology matures sufficiently to make that feasible.

In addition, DoD has briefed the DoD-VA Deployment Health Working Group on two occasions on the results of OIF/OEF occupational and environmental monitoring, including a number of potential exposure incidents. In addition, now that the electronic

databases at the USACHPPM are maturing as a result of well-populated databases and also the ability to more easily access these data. plans are underway with the VA to make more of this data available to them.

Conclusion

The importance of environmental surveillance is one of the critical medical lessons DoD has learned. Thanks to the leadership of USACHPPM, the Joint Staff and the Services, all military commanders have a clear understanding of the importance of gathering and archiving all medically relevant data. By making this data available we dramatically improve the ability of our medical personnel to deliver appropriate health care to our service members now and in the future. We remain committed to improving the continuum of care provided through our force health protection program, and to keeping our military members informed about possible harmful exposures that could result in potential health effects.

Mr. Chairman, thank you, once again, for the opportunity to provide you and the members of the Subcommittee with an overview of the Defense Department's deployment occupational and environmental health surveillance program to protect the health of our deployed servicemembers.