PERSONNEL AND READINESS

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

AUG 31 2015

The Honorable William M. "Mac" Thornberry
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed is the Department of Defense (DoD) Force Health Protection Quality Assurance Program report for calendar year 2014, as required by section 1073b(a) of title 10, United States Code. This year's report addresses specific quality assurance activities that involved the review of Service member deployment health information maintained in central DoD databases; a review of the deployment occupational and environmental health surveillance actions taken to assess and mitigate exposures; and the military Services' reports on their actions to improve quality assurance compliance.

Thank you for your interest in the health and well-being of our Service members, veterans, and their families. A similar letter is being sent to the Chairman of the Committee on Armed Services of the Senate.

Sincerely,

Brad Carson
Acting

Enclosure:
As stated

cc:
The Honorable Adam Smith
Ranking Member

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AUG 31 2015

The Honorable John McCain
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

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Thank you for your interest in the health and well-being of our Service members, veterans, and their families. A similar letter is being sent to the Chairman of the Committee on Armed Services of the House.

Sincerely,

Brad Carson
Acting

Enclosure:
As stated

cc:
The Honorable Jack Reed
Ranking Member

Report to the Defense Committees on the Calendar Year 2014 Activities of the Force Health Protection Quality Assurance Program of the Department of Defense

Pursuant to 10 U.S.C. 1073b(a)

The estimated cost of this report or study for the Department of Defense (DoD) is approximately $9,810.00 for the 2014 Fiscal Year. This includes $0.00 in expenses and $9,810.00 in DoD labor. Generated on May12, 2015. RefID: 4-EB47F46

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Tables and Figures

Introduction

The Department of Defense (DoD) reports annually to the Defense Committees on the Force Health Protection (FHP) Quality Assurance (QA) program pursuant with section 1073b(a) of title 10, United States Code (Reference (a)).

Executive Summary

The FHP QA program audits the collection of blood samples, administration of immunizations, and documentation of deployment health assessments stored in electronic repositories for deployed Military members. This report documents the results of those audits. The 2014 audits examine 2013 data to ensure complete data capture, accounting for the delay of deployment data for the Calendar Year (CY) 2013 deployments. In addition, it reports actions taken by the DoD to identify deployment-related occupational and environmental health risks and the evaluation or treatment of Military members potentially exposed to hazardous substances.

- **Blood Samples and Health Assessments**

  The Armed Forces Health Surveillance Center (AFHSC) maintains the Defense Medical Surveillance System (DMSS). DMSS is a central repository of medical surveillance data for the U.S. Armed Forces. Included in the DMSS are data from the DoD Serum Repository (DoDSR) and the deployment health assessments. Collectively, for Military member deployments analyzed for the CY 2014 QA review, the DMSS contained Pre-Deployment Health Assessment (Pre-DHA) forms on 89 percent of those Military members required to fill out this form (versus 85 percent in 2013), 89 percent of those required to complete the Post-Deployment Health Assessment (PDHA) forms (versus 85 percent in CY 2013), and 76 percent of those required to complete the Post-Deployment Health Reassessment (PDHRA) forms (versus 71 percent in CY 2013). This represents an increase in the compliance of completing deployment health assessments. The individual Service results of the health assessment record audits are available in Appendix 1.

  QA audits revealed that the Services provided blood samples to the DoDSR for 96 percent of Military members before deployment and 84 percent after deployment.

- **Responding to Expressed Health Concerns**

  Health concerns from individual Military members after returning from deployment have decreased compared with the PDHAs from the most recent 6-month period with the same period last year. There was no increase in any health concern category. There was no significant change in the Military member-reported health at the time of the PDHRA (three to six months after return) between CY 2013 and CY 2014. Military Service Departments have continued to increase and improve upon their efforts to track recommended referrals and enhance Military member follow-through with those referrals. This is reflected in a two percent increase in the percentage of Military members who made or attended appointments after a PDHRA recommendation for referral.

- **Actions taken to Address Occupational and Surveillance Concerns**

  Chapter 3 summarizes important actions taken by the DoD and the Services to assess and mitigate occupational and environmental exposures, and to evaluate or treat members of the Armed Forces exposed to deployment occupational or environmental hazards. Efforts continue to address possible health effects of ambient particulate matter in theater and possible long-term respiratory effects related to deployment. The DoD coordinated with the Department of Veterans Affairs (VA) on the development and launch of the VA's new "Airborne Hazards and Open Burn Pit Registry" in order to facilitate Active Duty Military members' participation in the registry. By the end of CY 2014, the DoD initiated a comprehensive investigation into possible exposures of Military members to chemical warfare agents, and their potential health effects, during military operations in Iraq.

- **DoD Civilian Employee Deployment Health Data Review and Analysis**

  This year, the FHP QA program continued its initiative to evaluate compliance with the administration of deployment-related health assessments for DoD civilian employees when they deploy in support of military contingency operations, and return from those deployments. At the end of CY 2013, 76 percent of DoD civilian employee Pre-DHAs, 52 percent of their PDHAs, and 24 percent of their PDHRAs were contained in the DMSS. The audit results indicated improvement in electronic submissions from the CY 2013 audit. This data was provided to the Office of the Deputy Assistant Secretary of Defense for Civilian Personnel Policy (DASD(CPP)).

Detailed Report

2014

Chapter 1: Blood Samples, Immunizations, and Health Assessments

Section 1073b(a) (Reference(a)), directs the DoD to submit the results of audits conducted during the calendar year documenting to what extent deployed Military members' serum sample data are stored in the DoDSR. The deployment-related health assessment records are maintained in the DMSS electronic database. In calendar year (CY) 2014, members of the Force Health Protection and Readiness (FHP&R) QA program and representatives of the Services jointly planned, coordinated, and conducted audits electronically using data from the DMSS and the Defense Manpower Data Center (DMDC).

The audits assessed deployment health policy compliance and effectiveness, as directed by Reference (b), Department of Defense Instruction (DoDI) 6200.05, "Force Health Protection (FHP) Quality Assurance (QA) Program," dated February 16, 2007. Table 1 illustrates the DoD's audit results for all Military members who met the audit criteria; individual Service-specific audits results are listed in Appendix 1.

Audit improvements implemented for CY 2014 included the review of country code changes that affected the reporting of individuals deployed to specific countries. Further clarification of the "Other" country category (i.e., the countries that were not linked with Operation ENDURING FREEDOM (OEF)/Operation IRAQI FREEDOM (OIF)/Operation NEW DAWN (OND)) was established with input from the Department. This allowed for better accounting of qualifying deployments that did not support OEF, OIF, or OND.

The Contingency Tracking System (CTS) was used to identify deployers that returned from deployment during CY 2013. CY 2013 was chosen to allow enough time for deployers to complete the PDHRA. A qualifying deployment was a deployment to one of the countries identified in the list generated by the AFHSC and FHP&R, and the Military members and DoD civilian employees who deployed greater than 30 days to a location with no fixed military medical treatment facility.

DoDI 6490.03, "Deployment Health," dated September 30, 2011 (Reference (c)), requires Military members complete the Pre-DHA 60 days prior to the expected deployment date, the PDHA as close to the return from deployment date as possible, but not earlier than 30 days before the expected return date and not later than 30 days after return, and the PDHRA within 90 to 180 days after return to home station. However, on occasion, the CTS roster included time away from their home station as part of their deployment, when in fact they were not yet deployed. Therefore, to ensure complete capture of the health assessment forms in the DMSS, the window for submission was widened. Thus, the following criteria were used for determining when DoD deployers complied with FHP policy:

- Immunizations: Individuals deployed to U.S. Central Command (USCENTCOM) areas and/or the Korean Peninsula for 15 or more days were required to have anthrax and smallpox vaccinations or a documented waiver on file; all other deployers were required to have current influenza vaccine on file.

- Pre-DHA: Given 120 days before to 30 days after deployment begin date.
- PDHA: Given 60 days before to 60 days after the deployment end date.
- PDHRA: Given 60 to 210 days after deployment end date.
- Pre-Serum: Serum drawn within 365 days prior and 30 days after the deployment begin date.
- Post-Serum: Serum drawn between 30 days prior to and 60 days after the deployment end date.

A small number of Military members may have exemptions from some immunizations; therefore, approved exemptions were included as compliant for this audit. As in the CY 2013 audit, the DoD identified smallpox immunization compliance rates for those personnel deploying to USCENTCOM and/or the Korean Peninsula for 15 or more days and anthrax compliance for only those who had anthrax immunizations within 12 months of deploying. Using these methods, the DoD realized overall immunization compliance for deployers this year of 81 percent (versus 83 percent for the previous year). Overall, compliance with anthrax is still better than compliance with smallpox (94 percent versus 88 percent). Results of the electronic review can be found in Table 1. The specific Service audit results are included in Appendix 1.

Table 1: DoD Combined Armed Forces Blood Sample, Immunizations, and Health Assessment Audit Results

2014 DoD Audit Results	Military member deployment health records extracted from DoD's DMSS
Number of records reviewed	188,926
Evidence of required immunizations	83%
Record contained all required deployment health assessments for individual for the deployment	67%
Pre-DHA	89%
PDHA	89%
PDHRA	76%
Blood samples taken from a Military member before deployment are stored in the blood serum repository of the DoD	96%
Blood samples taken from a Military member after the deployment are stored in the blood serum repository of the DoD	84%

Data Source: DMSS
Prepared by AFHSC, as of September 12, 2014

Chapter 2: Responding to Expressed Health Concerns

DoD policy requires that healthcare providers address Military members' concerns during the completion of a deployment health assessment, and if indicated, provide a specialty referral. In CY 2014, the DoD tracked the number of deployment health care findings, trends, and referrals, after Military members were assessed by providers. Appendix 2 shows the different types of concerns Military members reported on their PDHAs and PDHRAs, and medical referrals provided.

Individual Military member health concerns indicated in the PDHAs after returning from deployment have decreased when comparing the most recent 6-month period with the same period last year.

Active and Reserve Component returnees reported good, very good, or excellent health 93 and 90 percent of the time, respectively (versus 92 and 89 percent, for the same period last year). Active and Reserve Military members having concerns about potential exposure were 16 and 22 percent of the time (versus 20 and 25 percent last year), and concerns related to potential traumatic brain injury were two and two percent of the time (versus three and three percent last year). There were no health concern categories which increased. There were no significant changes in the Military member-reported health at the time of the PDHRA (three to six months after return) between CY 2013 and CY 2014.

The Reserve Health Readiness Program (RHRP) provides PDHRAs to Military members from the National Guard and Reserve of all Services, as well as remotely located Active Duty Military members. Thirty days after a Reserve Component Military member receives a referral, the RHRP staff attempts to contact the Military member to determine if the member obtained an appointment to address the condition specified by the referral. In 2014, RHRP contacted roughly two-thirds of these Military members and found that 42 percent of them had not yet made their appointments. This represents a two percent improvement from 2013 when 44 percent of Military members reported no appointment. The vast majority of the remainder still desired an appointment, but two-thirds of them indicated that they had not had time to make the appointment. Service Components are provided information about Military members who have been provided with referrals for tracking purposes. For Military members who identified behavioral health concerns, providers offered recommended sources of assistance even when referrals for specialty care were not required.

Detailed information related to the total number of deployment health assessment forms received by month and the percentage of Military members who received recommended referrals is available in Appendix 2.

Chapter 3: Actions Taken to Address Deployment Occupational and Environmental Health Surveillance Concerns

Periodic Occupational and Environmental Monitoring Summaries

Periodic Occupational and Environmental Monitoring Summaries (POEMS) have been completed for most permanent and semi-permanent basing locations in Iraq and Afghanistan to summarize results of environmental health surveillance, and to identify possible long-term health risks at those locations. As of October 1, 2014, 83 POEMS evaluating 196 base camps in Iraq and Afghanistan were completed. The completed POEMS were available initially only to Active Duty, retired, and separated Military members; current and former DoD civilians; and their medical providers and claims adjudicators, including in the VA, to better inform their medical care and assist in disability benefits determination processes. The DoD has now released the POEMS on a U.S. Army Public Health Command (USAPHC) Web site for those individuals with medical providers outside DoD or VA. They are available online at: https://mesl.apgea.army.mil/mesl/healthSummary.jsp

Ambient Air Quality Monitoring

The USAPHC's Army Institute of Public Health conducted an ambient air surveillance study at Camp Phoenix, Kabul, Afghanistan, in February-March 2014. The pollutants monitored included polycyclic aromatic hydrocarbons, semi-volatile organic compounds, dioxins/furans, volatile organic compounds, black carbon, particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$), and metals associated with particulate matter. Although some of the chemicals sampled were carcinogens, the exposure levels for the Camp Phoenix population were within the range that the U.S. Environmental Protection Agency (EPA) considers acceptable for excess lifetime cancer risk. The measurements indicated the potential for short-term, reversible respiratory irritation due to a combination of chemicals, including primarily acrolein, and long-term health effects are not expected.

Deployment Airborne Hazards and Possible Long-term Respiratory Disease

In December 2014, the VA and DoD sponsored the third annual Joint Airborne Hazards Symposium, at which experts from within the DoD, VA, other Federal agencies and academia, presented highlights from their research in the area of pulmonary disease and military service. To enhance information sharing on deployment-related airborne hazards with the broader medical community caring for Military members and veterans an in-depth textbook based primarily on the proceedings of the first symposium will be published in 2015 by the Bordon Institute.

The Under Secretary of Defense for Personnel and Readiness (USD(P&R)) tasked the Defense Health Board (DHB) in 2012 to review evidence of deployment-related respiratory disease in Military members, and to develop a comprehensive approach to its assessment and

prevention, including the identification of reliable screening and clinical diagnostic tools, with a direction for future research and surveillance. The DHB completed its analysis during 2014, and released its final report on March 25, 2015. The report can be found at http://www.health.mil/About-MHS/Other-MHS-Organizations/Defense-Health-Board/Reports. The DoD is currently reviewing this comprehensive document.

DoD Participation in the VA Airborne Hazards and Open Burn Pit Registry

Following passage of the Dignified Burial and Other Veterans' Benefits Improvement Act of 2012, Public Law 112-260, the VA launched its voluntary "Airborne Hazards and Open Burn Pit Registry" in June 2014. The DoD coordinated with the VA on this effort to facilitate Active Duty participation in the registry, and facilitated follow-up assessments for symptomatic military personnel with health concerns identified in the registry. As of early 2015, more than 30,000 veterans and Active Duty military personnel participated in the online registry, with about half noting on the questionnaire an interest in a follow-up medical assessment through either the VA or the DoD, depending on the current status of the individual. The Defense Health Agency has enabled DoD health care provider access, through the DoD electronic health records system, to completed questionnaires on the VA registry Web site. They are available online at: https://mesl.apgea.army.mil/mesl/healthSummary.jsp.

Radiation Exposures on the USS RONALD REAGAN during Operation Tomodachi

Following the 2011 earthquake and tsunami in Japan, and release of radioactivity from the damaged Fukushima Daiichi Nuclear Power Plant, the DoD created the Operation TOMODACHI (OT) Registry to document radiation dose estimates for approximately 75,000 members of the DoD-affiliated population. The DoD determined that none were exposed to radiation levels that would result in long-term adverse health effects. In 2014, after some sailors alleged cancer and other health conditions resulting from radiation exposure while serving on the USS Ronald Reagan during OT, the DoD determined that the sailors' radiation exposures were below regulatory limits established by the Nuclear Regulatory Commission, the EPA, and the Occupational Safety and Health Administration, and also well below doses that would possibly cause the health effects reported by some of the sailors.

Response to Possible Exposures to Chemical Warfare Agents (CWAs) During Deployments to Iraq

In October 2014, following an initial media report of more than a dozen Military members being exposed to CWAs in Iraq from 2004-2008, the Secretary of Defense ordered an internal review of the extent of possible exposures of Service members. The USD(P&R) directed the U.S. Army, through its USAPHC, in coordination with the Assistant Secretary of Defense for Health Affairs, to take the lead in identifying data on individuals who were possibly exposed to CWAs, from March 20, 2003, through December 31, 2011, in Iraq.

By January 2015, the DoD had identified more than 1,300 individuals who may have been exposed to CWAs in Iraq. The DoD and the VA will evaluate the potential for long-term health effects in affected individuals based on the specific agent and the level of exposure.

Exposure information on all assessed individuals is being entered into the Defense Occupational and Environmental Health Readiness System – Industrial Hygiene – Incident Module and medical data on Active Duty Military members is being entered into the DoD's electronic health record system. The DoD is coordinating with the VA on the transfer of data for veterans and members of the Reserve Component, who would be seeking medical follow-up through the VA.

Chapter 4: DoD Civilian Employee Deployment Health Data Review and Analysis

During CY 2013, the Office of the USD(P&R), through the DASD(CPP), worked to implement FHP policies for DoD civilians who deployed. The QA program manager communicated specifically with the Civilian Expeditionary Workforce (CEW) Program Office, now known as International/Expeditionary Policy Office (I/EPO), to confirm that FHP policies supported those DoD civilian employees called upon to deploy for contingency operations. To effectively implement pre-DHAs and PDHAs policies and process, the CEW Program Office published its CEW business rules in December 2013, which served as consolidated guidance for Services and Components regarding health care and associated deployment requirements. These business rules established guidelines to require DoD civilian employees who serve multiple deployment tours to receive updated health assessments on a regular and recurring basis, and in accordance with theater-established medical requirements.

The DoD-chartered CEW working group drafted a proposed Department-level Instruction, DoDI 1401.10, for deploying civilians. The group included civilian deployment stakeholders from across the Department with key working group leadership provided by the Department's Health Affairs community. After meeting regularly, the group produced a proposed memorandum that will clarify health requirements for deploying DoD civilian employees. Publication is expected in CY 2015.

The CEW office reported its continued reliance on contract medical and administrative staff at the National Deployment Center, Camp Atterbury, Indiana, to guide civilian deployers through the pre-deployment and post-deployment processing phases. The CEW office maintained and honed its internal injury compensation process to provide support, administrative guidance, and continued assistance to injured or ill civilians upon their return to their command/agency or home.

The AFHSC provided DoD civilian employee deployment health assessment data quarterly to facilitate DoD civilian employee deployment-related health care decision-making. The Office of the DASD(CPP) used the data to validate accuracy of accounting. Specific information related to the number of civilian employees who returned from deployment and who completed deployment health assessments and their recommended referrals is available at Table 2. This audit report includes only those civilian employee deployment health assessment forms that were received electronically for DoD civilians that returned from deployment in 2013. Deployment health assessment forms continue to be stored outside the DMSS. The QA Program will continue to advise the I/EPO on QA initiatives.

Table 2: DoD Civilian Deployment Health Assessment Audit Results

Deployment End Date		Number returned from deployment[1]	DD2795[2]		DD2796[3]		DD2900[4]		Recommended Referral on DD2796[5]		Recommended Referral on DD2900[6]	
Year	Calendar Quarter	n	n	%	n	%	n	%	n	%	n	%
2013	Q1	1,313	763	58%	446	34%	287	22%	124	28%	47	16%
2013	Q2	504	329	65%	256	51%	152	30%	71	28%	41	27%
2013	Q3	49	37	76%	21	43%	13	27%	4	19%	3	23%
2013	Q4	67	51	76%	35	52%	16	24%	5	14%	2	13%

[1] Deployment is defined as > 30 days to known contingency operations, or other contingency operation except Haiti.

[2] Qualifying DD2795's are those completed within 90 days prior and 30 days after deployment start (through June 2012) and within 120 days prior and 30 days after deployment start (after June 2012).

[3] Qualifying DD2796 are those completed within 60 days prior and 60 days after deployment end.

[4] Qualifying DD2900's are those completed within 60 and 210 days from deployment end unless there is evidence of returning to theater based on a completed DD2795 within 180 days from deployment return.

[5] Civilians recommended for ANY referral on qualifying DD2796.

[6] Civilians recommended for ANY referral on qualifying DD2900.

Data Source: Defense Medical Surveillance System (DMSS)

Prepared by Armed Forces Health Surveillance Center (AFHSC), as of 12-Sep-2014

Chapter 5: FHP QA Program Findings and 2015 Goals

For the past decade, the DoD deployment health assessment compliance reporting has focused on individuals deployed to OIF/OEF/OND. Deployments outside of these military operations were not included in the reports. However, the AFHSC reported that approximately 30 percent of deployment health assessment forms are now from deployments that cannot be directly linked to OEF, OIF, and OND. The Department worked with the Services and DMDC to identify those deployments and determine whether they should be included in the deployment roster. Audit reporting actions taken in 2014 focused on including those identified deployments when applicable.

Investigations in 2014 included a review of locations that the Department and the Services had identified that required continued deployment health monitoring. As reported in Chapter 1 of this report, electronic health data collection has improved and includes health assessment data from the respective Service-specific readiness systems and deployments identified by the DMDC CTS and the AFHSC.

Over the past year, the Services, the DMDC, and the AFHSC collaborated and successfully identified other deployments to include in the deployment roster. It was discovered during the electronic data review last year that there are inconsistencies in how DoD had accounted and reported immunization compliance. The methods of accounting and reporting have been revised and are now aligned with policy as explained in Chapter 1. This alignment supports all deployments and components.

The FHP QA program has provided the Services electronic reviews, deployment health metric development, oversight support, and electronic monitoring over the past nine years. The accuracy of accounting has improved and the Services have developed robust deployment health programs that are now integrating DoD deployment health policy.

For CY 2015, the DoD will continue to clearly define deployment health in line with compliance reporting and business rules. Efforts will focus to consistently interpret and implement policy.

Acronyms, Terms, and References

Acronym	Term
AFHSC	Armed Forces Health Surveillance Center
CEW	Civilian Expeditionary Workforce
CTS	Contingency Tracking System
CWA	Chemical Warfare Agent
CY	Calendar Year
DASD(CPP)	Deputy Assistant Secretary of Defense for Civilian Personnel Policy
DHB	Defense Health Board
DMDC	Defense Manpower Data Center
DMSS	Defense Medical Surveillance System
DoD	Department of Defense
DoDI	Department of Defense Instruction
DoDSR	Department of Defense Serum Repository
EPA	Environmental Protection Agency
FHP	Force Health Protection
FHP&R	Force Health Protection and Readiness
I/EPO	International/Expeditionary Policy Office
OEF	Operation ENDURING FREEDOM
OIF	Operation IRAQI FREEDOM
OND	Operation NEW DAWN
OT	Operation TOMODACHI
PDHA	Post-Deployment Health Assessment (DD Form 2796)
PDHRA	Post-Deployment Health Reassessment (DD Form 2900)
POEMS	Periodic Occupational and Environmental Monitoring Summaries
Pre-DHA	Pre-Deployment Health Assessment (DD Form 2795)
QA	Quality Assurance
RHRP	Reserve Health Readiness Program
USAPHC	United States Army Public Health Command
USCENTCOM	United States Central Command
USD(P&R)	Under Secretary of Defense for Personnel and Readiness
VA	Department of Veterans Affairs

References

(a) Section 1073b(a) of title 10, United States Code.

(b) DoDI 6200.05, "Force Health Protection (FHP) Quality Assurance (QA) Program," February 16, 2007.

(c) DoDI 6490.03, "Deployment Health," August 11, 2006.