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DEFENSE HEALTH CARE

DOD Needs to Improve Force Health Protection and Surveillance Processes

Statement of Neal P. Curtin
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October 16, 2003

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GAO Highlights

Highlights of GAO-04-158T, testimony before the Committee on Veterans' Affairs, House of Representatives

Why GAO Did This Study

Following the 1990-91 Persian Gulf War, many servicemembers experienced health problems that they attributed to their military service in the Persian Gulf. However, a lack of servicemember health and deployment data hampered subsequent investigations into the nature and causes of these illnesses. Public Law 105-85, enacted in November 1997, required the Department of Defense (DOD) to establish a system to assess the medical condition of service members before and after deployments. GAO reported on (1) the Army's and Air Force's compliance with DOD's force health protection and surveillance requirements for servicemembers deploying in support of Operation Enduring Freedom (OEF) in Central Asia and Operation Joint Guardian (OJG) in Kosovo and (2) the status of DOD efforts to correct problems related to the accuracy and completeness of databases reflecting which servicemembers were deployed to certain locations. (*Defense Health Care: Quality Assurance Process Needed to Improve Force Health Protection and Surveillance [GAO-03-1041, Sept. 19, 2003]*)

GAO was asked to testify on its findings regarding the Army's and Air Force's compliance with DOD's force health protection and surveillance policies. For its report, GAO reviewed records for statistical samples of active duty servicemembers at four military installations.

www.gao.gov/cgi-bin/getrpt?GAO-04-158T.

To view the full testimony, click on the link above. For more information, contact Neal Curtin at (757) 552-8100.

What GAO Found

The Army and Air Force—the focus of GAO's review—did not comply with DOD's force health protection and surveillance policies for many active duty servicemembers, including the policies that they be assessed before and after deploying overseas, that they receive certain immunizations, and that health-related documentation be maintained in a centralized location. GAO's review of 1,071 servicemembers' medical records from a universe of 8,742 at selected Army and Air Force installations participating in overseas operations disclosed that 38 to 98 percent of servicemembers were missing one or both of their health assessments and as many as 36 percent were missing two or more of the required immunizations.

GAO found that many servicemembers' medical records did not include health assessments found in DOD's centralized database. Similarly, DOD also did not maintain a complete, centralized database of servicemembers' health assessments and immunizations. Health-related documentation missing from the centralized database ranged from 0 to 63 percent for pre-deployment assessments, 11 to 75 percent for post-deployment assessments, and 8 to 93 percent for immunizations. There was no effective quality assurance program at the Office of the Assistant Secretary of Defense for Health Affairs or at the Army or Air Force that helped ensure compliance with policies. GAO believes that the lack of such a program was a major cause of the high rate of noncompliance. Continued noncompliance with these policies may result in servicemembers deploying with health problems or delays in obtaining care when they return. Finally, DOD's centralized deployment database is still missing the information needed to track servicemembers' movements in the theater of operations. By July 2003, the department's data center had begun receiving location-specific deployment information from the services and is currently reviewing its accuracy and completeness.

GAO's report recommended that DOD establish an effective quality assurance program that will ensure that the military services comply with the force health protection and surveillance policies for all servicemembers. DOD agreed with the recommendation and outlined a number of actions the military services are already taking to implement their quality assurance programs. While we view these actions as responsive to our recommendation, the effectiveness of these actions to ensure compliance will depend on follow-through by DOD and the services.

Mr. Chairman and Members of the Committee:

I am pleased to be here as you discuss health assessments and the importance of complete medical records for our servicemembers. Both the Department of Defense (DOD) and the Department of Veterans Affairs (VA) need this information to perform their missions. DOD needs health status information and complete medical records to help ensure the deployment of healthy forces and the continued fitness of those forces. VA's Veterans Benefits Administration uses health information to adjudicate veterans' claims for disability compensation related to service-connected injuries or illnesses. As you know, VA's Veterans Health Administration needs complete and accurate medical records documenting all medical care for individual servicemembers are needed for the delivery of high-quality, post-deployment care. In this context, you asked us to discuss our recent report on the Army's and Air Force's compliance with DOD's force health protection and surveillance policies that require servicemembers to be assessed before and after deploying overseas, that require servicemembers to receive certain immunizations, and that require health-related documentation to be maintained in a centralized location.

Following the 1990-91 Persian Gulf War, many servicemembers experienced health problems that they attributed to their military service in the Persian Gulf. However, subsequent investigations into the nature and causes of these illnesses were hampered by a lack of servicemember health and deployment data. Moreover, in May 1997, we reported on several similar problems associated with the implementation of the DOD deployment health surveillance policies for servicemembers deployed to Bosnia in support of a peacekeeping operation.[1]

[1] U.S. General Accounting Office, *Defense Health Care: Medical Surveillance Improved Since Gulf War, but Mixed Results in Bosnia*, GAO/NSIAD-97-136 (Washington, D.C.: May 13, 1997).

In response, the Congress enacted legislation[2] in November 1997 requiring DOD to establish a system for assessing the medical condition of servicemembers before and after their deployment to locations outside the United States and requiring the centralized retention of certain health-related data associated with the servicemember's deployment. The system is to include the use of pre-deployment and post-deployment medical examinations, including an assessment of mental health and the drawing of blood samples. DOD has implemented specific force health protection and surveillance policies. These policies include pre-deployment and post-deployment health assessments designed to identify health issues or concerns that may affect the deployability of servicemembers or that may require medical attention; pre-deployment immunizations to address possible health threats in deployment locations; pre-deployment screening for tuberculosis; and the retention of blood serum samples on file prior to deployment. In February 2002, we testified before the Subcommittee on Health of this Committee that DOD had several initiatives under way to improve the reliability of deployment information and to enhance its information technology capabilities, as we and others have recommended.[3] Although its recent policies and reorganization reflect a commitment by DOD to establish a comprehensive medical surveillance system, much needed to be done to implement the system.

My testimony today is based on our September 2003 report on the Army's and Air Force's compliance with DOD's force health protection and surveillance policies for active duty deployments for Operation Enduring Freedom (OEF) in Central Asia and Operation Joint Guardian (OJG) in Kosovo.[4] We also examined whether DOD has corrected problems related

[2] Section 765 of Pub. L. No. 105-85 amended title 10 of the United States Code by adding section 1074f.

[3] U.S. General Accounting Office, *VA and Defense Health Care: Military Medical Surveillance Policies in Place, but Implementation Challenges Remain*, GAO-02-478T (Washington, D.C.: Feb. 27, 2002).

[4] U.S. General Accounting Office, *Defense Health Care: Quality Assurance Process Needed to Improve Force Health Protection and Surveillance*, GAO-03-1041 (Washington, D.C.: Sept. 19, 2003). Moreover, we reported in April 2003 and testified in July 2003 on problems experienced by the Army in assessing the health status of all early-deploying reservists. See U.S. General Accounting Office, *Defense Health Care: Army Needs to Assess the Health Status of All Early-Deploying Reservists*, GAO-03-437 (Washington, D.C.: Apr. 15, 2003); and U.S. General Accounting Office, *Defense Health Care: Army Has Not Consistently Assessed the Health Status of Early-Deploying Reservists*, GAO-03-997T (Washington, D.C.: July 9, 2003).

to the accuracy and completeness of databases reflecting which servicemembers deployed to certain locations.

To do our work, we obtained the force health protection and surveillance policies applicable to the OEF and OJG deployments from the Army, Air Force, combatant commanders, the office of the Assistant Secretary of Defense, and the services' Surgeons General. To test the implementation of these policies, we reviewed statistical samples totaling 1,071 active duty servicemembers selected from a universe of 8,742 active duty servicemembers at four military installations.[5] To provide assurances that our review of the selected medical records was accurate, we requested the installations' medical personnel to reexamine those medical records that were missing required health assessments or immunizations and adjusted our results where documentation was subsequently identified. We also requested installation medical personnel to check all possible sources for missing pre-deployment and post-deployment health assessments and missing immunizations. We also requested the U.S. Special Operations Command (SOCOM) to query its database for health-related documentation for servicemembers in our sample at one of the selected installations. We also examined, for Army and Air Force servicemembers in our samples, the completeness of the centralized records at the Army Medical Surveillance Activity[6] (AMSA), which is tasked with centrally collecting deployment health-related records. Further, we interviewed officials at the office of the Deployment Health Support Directorate and at the Defense Manpower Data Center (DMDC) regarding the accuracy and completeness of DMDC's personnel deployment database and planned improvements. We conducted our work from June 2002 through July 2003 in accordance with generally accepted government auditing standards.

[5] Includes samples of records for servicemembers who deployed from Fort Drum, New York; Fort Campbell, Kentucky; Travis Air Force Base, California; and Hurlburt Field, Florida.

[6] The Army Medical Surveillance Activity is DOD's executive agent for collecting and retaining the military services' deployment health-related documents—including the pre-deployment and post-deployment health assessments and immunizations.

Summary

In summary, the Army and Air Force did not comply with DOD's force health protection and surveillance policies for many of the servicemembers at the installations we visited. Our review of medical records at those installations disclosed that problems continue to exist in several areas.

- **Deployment health assessments.** The percentage of Army and Air Force servicemembers missing one or both of their pre-deployment and post-deployment health assessments ranged from 38 to 98 percent of our samples. Moreover, when health assessments were conducted, as many as 45 percent of them were not done within the required time frames. Furthermore, a health care provider did not review all health assessments and, although only a small number of assessments in our samples indicated a health concern, large percentages of these assessments were not referred for further consultations as required.
- **Immunizations and other pre-deployment requirements.** Servicemembers missing evidence of receiving one of the pre-deployment immunizations required for their deployment location ranged from 14 percent to 46 percent. As many as 36 percent of the servicemembers were missing two or more of their required immunizations. Furthermore, servicemembers missing current tuberculosis screening at the time of their deployment ranged from 7 to 40 percent. As many as 29 percent of the servicemembers in our samples had blood serum samples in the repository older than the required maximum age of 1 year at the time of deployment, ranging, on average, from 2 to 15 months out-of-date.
- **Completeness of medical records and centralized data collection.** Servicemembers' permanent medical records at the Army and Air Force installations we visited did not include documentation of the completed health assessments that we found at AMSA and at the U.S. Special Operations Command, ranging from 8 to 100 percent for pre-deployment health assessments and from 11 to 62 percent for post-deployment health assessments. Our review also disclosed that the AMSA database was still, over 5 years after congressional action, lacking documentation of many health assessments and immunizations that we found in the servicemembers' medical records at the installations visited. Specifically, health-related documentation missing from the centralized database ranged from 0 to 63 percent for pre-deployment health assessments, 11 to 75 percent for post-deployment health assessments, and 8 to 93 percent for immunizations.

Furthermore, DOD did not have oversight of departmentwide efforts to comply with health surveillance requirements. There was no effective quality assurance program at the Office of the Assistant Secretary of Defense for Health Affairs or at the Offices of the Surgeons' General of the

Army or Air Force that helped ensure compliance with force health protection and surveillance policies. We believe the lack of such a system was a major cause of the high rate of noncompliance we found at the units we visited. Continued noncompliance with these policies may result in servicemembers being deployed with unaddressed health problems or without immunization protection. Furthermore, incomplete and inaccurate medical records may hinder DOD's and VA's ability to investigate the causes of any future health problems that may arise coincident with deployments.

Also, DOD has not corrected the problems we identified in 1997 that were related to the completeness and accuracy of a central personnel deployment database that is designed to collect data reflecting which servicemembers deployed to certain locations. DMDC's deployment database still does not include the information needed for effective deployment health surveillance. Prior to April 2003, the services were not reporting location-specific deployment data to the DMDC because, according to a DMDC official, the services did not maintain the data. By July 2003, all of the services had begun submitting classified deployment data to DMDC, which is currently reviewing the deployment information received to determine its accuracy and completeness. However, DMDC still does not have a system to track the movement of servicemembers within a given theater, because this information has not been available from the services and the development of a new tracking system at the service unit level may be required. DOD is developing a new system for tracking the movements of servicemembers and civilian personnel in the theater of operation with plans for implementation by about September 2005 for the Army and by 2007 or early calendar year 2008 for the other services.

We recommended that the Secretary of Defense direct the Assistant Secretary of Defense for Health Affairs to establish an effective quality assurance system to ensure that the military services comply with force health protection and surveillance requirements for all servicemembers. DOD agreed with our recommendation and outlined a number of actions the military services are already taking to implement their quality assurance programs. While we view these actions as responsive to our recommendation, the effectiveness of these actions to ensure compliance will depend on follow-through by DOD and the services.

Background

In May 1997, we reported on DOD's actions to improve deployment health surveillance before, during, and after deployments, focusing on Operation Joint Endeavor, which was conducted in the countries of Bosnia-Herzegovina, Croatia, and Hungary.[7] Our 1997 review disclosed problems with the Army's implementation of the medical surveillance plan for Operation Joint Endeavor in the following areas:

- **Medical assessments.** Many Army personnel who should have received post-deployment medical assessments did not receive them and the assessments that were completed were frequently done late.
- **Medical record keeping.** Many of the servicemembers' medical records that we reviewed were incomplete and missing documentation of in-theater post-deployment medical assessments, medical visits during deployment, and receipt of an investigational new vaccine.
- **Centralized database.** The centralized database for collecting in-theater and home unit post-deployment medical assessments was incomplete for many Army personnel.
- **Deployment information.** DOD officials considered the database used for tracking the deployment of Air Force and Navy personnel inaccurate.

Following the publication of our report, the Congress, in November 1997, included a provision in the Defense Authorization Act for Fiscal Year 1998 requiring the Secretary of Defense to establish a medical tracking system for servicemembers deployed overseas as follows:

"(a) SYSTEM REQUIRED—The Secretary of Defense shall establish a system to assess the medical condition of members of the armed forces (including members of the reserve components) who are deployed outside the United States or its territories or possessions as part of a contingency operation (including a humanitarian operation, peacekeeping operation, or similar operation) or combat operation.

"(b) ELEMENTS OF SYSTEM—The system described in subsection (a) shall include the use of predeployment medical examinations and postdeployment medical examinations (including an assessment of mental health and the drawing of blood samples) to accurately record the medical condition of members before their deployment and any changes in their medical condition during the course of their deployment. The postdeployment examination shall be conducted when the member is redeployed or otherwise leaves an area in which the system is in operation (or as soon as possible thereafter).

[7] GAO/NSIAD-97-136.

"(c) RECORDKEEPING—The results of all medical examinations conducted under the system, records of all health care services (including immunizations) received by members described in subsection (a) in anticipation of their deployment or during the course of their deployment, and records of events occurring in the deployment area that may affect the health of such members shall be retained and maintained in a centralized location to improve future access to the records.

"(d) QUALITY ASSURANCE—The Secretary of Defense shall establish a quality assurance program to evaluate the success of the system in ensuring that members described in subsection (a) receive predeployment medical examinations and postdeployment medical examinations and that the recordkeeping requirements with respect to the system are met."[8]

As set forth above, these provisions require the use of pre-deployment and post-deployment medical examinations to accurately record the medical condition of servicemembers before deployment and any changes during their deployment. In a June 30, 2003, correspondence with the General Accounting Office, the Assistant Secretary of Defense for Health Affairs stated that "it would be logistically impossible to conduct a complete physical examination on all personnel immediately prior to deployment and still deploy them in a timely manner." Therefore, DOD required both pre-deployment and post-deployment health assessments for servicemembers who deploy for 30 or more continuous days to a land-based location outside the United States without a permanent U.S. military treatment facility. Both assessments use a questionnaire designed to help military healthcare providers in identifying health problems and providing needed medical care. The pre-deployment health assessment is generally administered at the home station before deployment, and the post-deployment health assessment is completed either in theater before redeployment to the servicemember's home unit or shortly upon redeployment.

As a component of medical examinations, the statute quoted above also requires that blood samples be drawn before and after a servicemember's deployment. DOD Instruction 6490.3, August 7, 1997, requires that a pre-deployment blood sample be obtained within 12 months of the servicemember's deployment.[9] However, it requires the blood samples be

[8] Section 765 of Pub. L. No. 105-85 amended title 10 of the United States Code by adding section 1074f.

[9] DOD Instruction 6490.3, "Implementation and Application of Joint Medical Surveillance for Deployments," August 7, 1997.

drawn upon return from deployment only when directed by the Assistant Secretary of Defense for Health Affairs. According to DOD, the implementation of this requirement was based on its judgment that the Human Immunodeficiency Virus serum sampling taken independent of deployment actions is sufficient to meet both pre-deployment and post-deployment health needs, except that more timely post-deployment sampling may be directed when based on a recognized health threat or exposure. Prior to April 2003, DOD did not require a post-deployment blood sample for servicemembers supporting the OEF and OJG deployments.

In April 2003, DOD revised its health surveillance policy for blood samples and post-deployment health assessments. Effective May 22, 2003, the services are required to draw a blood sample from each redeploying servicemember no later than 30 days after arrival at a demobilization site or home station.[10] According to DOD, this requirement for post-deployment blood samples was established in response to an assessment of health threats and national interests associated with current deployments. The department also revised its policy guidance for enhanced post-deployment health assessments to gather more information from deployed servicemembers about events that occurred during a deployment. More specifically, the revised policy requires that a trained health care provider conduct a face-to-face health assessment with each returning servicemember to ascertain (1) the individual's responses to the health assessment questions on the post-deployment health assessment form; (2) the presence of any mental health or psychosocial issues commonly associated with deployments; (3) any special medications taken during the deployment; and (4) concerns about possible environmental or occupational exposures.

[10] Under Secretary of Defense for Personnel and Readiness Memorandum, "Enhanced Post-Deployment Health Assessments," April 22, 2003.

The Army and Air Force Did Not Comply with Deployment Health Surveillance Policies for Many Servicemembers

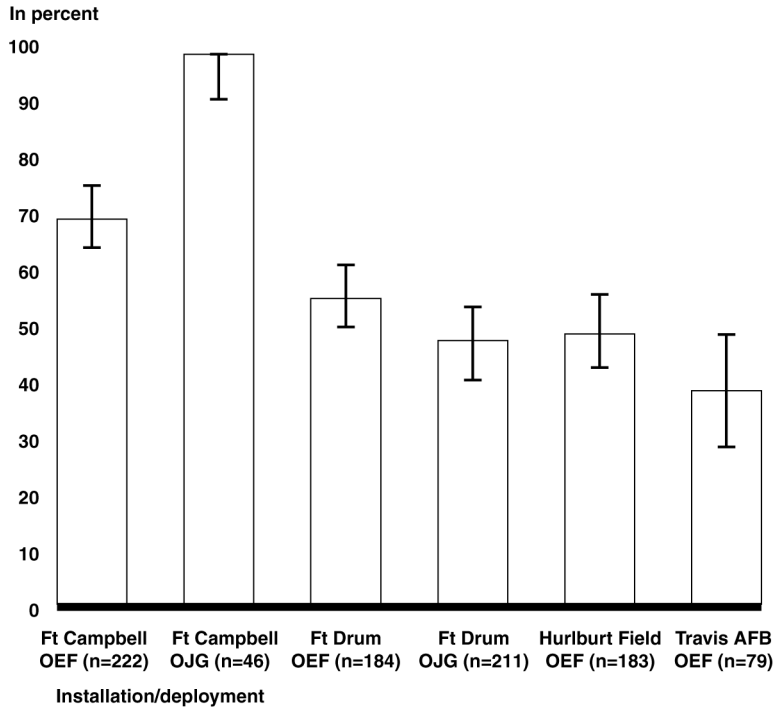
The Army and Air Force did not comply with DOD's force health protection and surveillance requirements for many of the servicemembers in our samples at the selected installations we visited. Specifically, these Army and Air Force servicemembers were missing: pre-deployment and/or post-deployment health assessments; evidence of receiving one or more of the pre-deployment immunizations required for their deployment location; and other pre-deployment requirements related to tuberculosis screening and blood serum sample storage. Also, servicemembers' permanent medical records were missing required health-related information, and DOD's centralized database did not include documentation of servicemember health-related information. Neither the installations nor DOD had monitoring and oversight mechanisms in place to help ensure that the force health protection and surveillance requirements were met for all servicemembers.

Many Servicemembers Lacked Pre-deployment and Post-deployment Health Assessments

We found that servicemembers missing one or both of their pre-deployment and post-deployment assessments ranged from 38 to 98 percent in our samples.[11] For example, at Fort Campbell for the OEF deployment we found that 68 percent of the 222 active duty servicemembers in our sample were missing either one or both of the required pre-deployment and post-deployment health assessments. The results of our statistical samples for the deployments at the installations visited are depicted in figure 1.

[11] Because we checked all known possible sources for the existence of deployment health assessments, we concluded that the assessments were not completed in those instances where we could not find required health assessments.

Figure 1: Percent of Servicemembers Missing One or Both Health Assessments



Sources: GAO analyses of documentation from servicemember medical records and DOD medical databases.

Notes: [= 95 percent confidence interval, upper and lower bounds for each estimate.

These percentages reflect assessments from all sources and without regard to timeliness.

For those servicemembers in our samples who had completed pre-deployment or post-deployment health assessments, we found that as many as 45 percent of the assessments in our samples were not completed on time in accordance with requirements. DOD policy requires that servicemembers complete a pre-deployment health assessment form within 30 days of their deployment and a post-deployment health assessment form within 5 days upon redeployment back to their home station.[12] These time frames were established to allow time to identify and resolve any health concerns or problems that may affect the ability of the servicemember to deploy, and to promptly identify and address any health concerns or problems that may have arisen during the

[12] Office of the Chairman, The Joint Chiefs of Staff, Memorandum MCM-0006-2, "Updated Procedures for Deployment Health Surveillance and Readiness," February 1, 2002.

servicemember's deployment. Additionally, DOD policy requires that pre-deployment and post-deployment health assessments are to be reviewed immediately by a health care provider to identify any medical care needed by the servicemember.[13] We found, however, that not all health assessments were reviewed by a health care provider as required.

The services did not refer some servicemember health assessments that indicated a need for further consultation. According to DOD policy, a medical provider, namely a physician, physician's assistant, nurse, or independent duty medical technician is required to further review a servicemember's need for specialty care when the member's pre-deployment and/or post-deployment health assessment indicates health concerns such as unresolved medical or dental problems or plans to seek mental health counseling or care.[14] This follow-up may take the form of an interview or examination of the servicemember, and forms the basis of a decision as to whether a referral for further specialty care is warranted. In our samples, the number of assessments that indicated a health concern was relatively small, but large percentages of these assessments were not referred for further specialty care. For example, our sample at Travis Air Force Base included five pre-deployment health assessments that indicated a health concern, but four (80 percent) of the health assessments were not referred for further specialty care.

Noncompliance with the requirement for pre-deployment health assessments may result in servicemembers with existing health problems or concerns being deployed with unaddressed health problems. Also, failure to complete post-deployment health assessments may risk a delay in obtaining appropriate medical follow-up attention for a health problem or concern that may have arisen during or following the deployment.

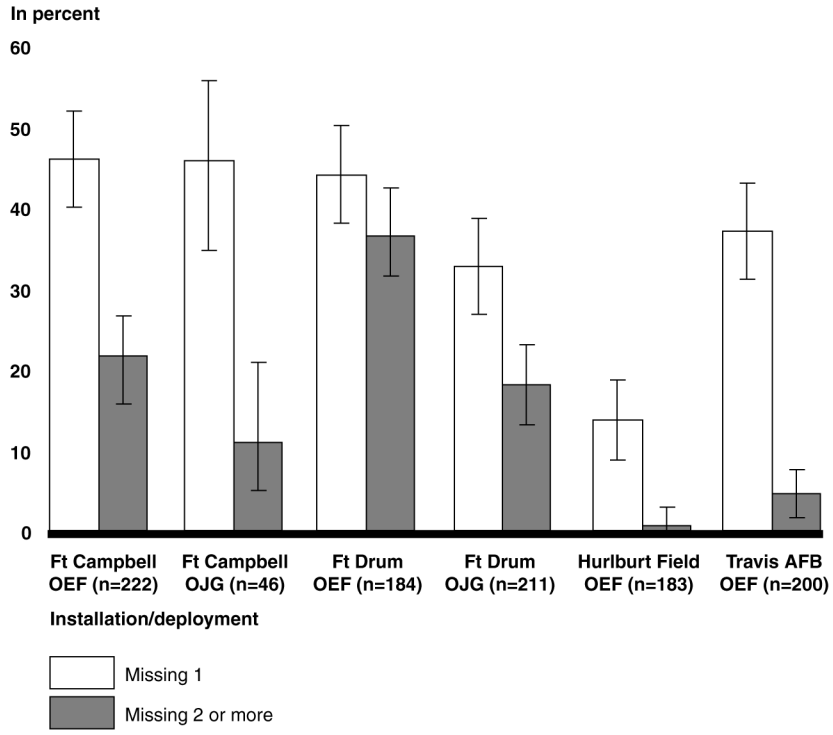
[13] The Joint Staff, Joint Staff Memorandum MCM-251-98.

[14] Office of the Chairman, The Joint Chiefs of Staff, Memorandum MCM-0006-02, "Updated Procedures for Deployment Health Surveillance and Readiness," February 1, 2002.

Immunizations and Other Pre-Deployment Health Requirements Not Met

Based on our samples, the services did not fully meet immunization and other pre-deployment requirements. Evidence of pre-deployment immunizations receipt was missing from many servicemembers' medical records. Servicemembers missing the required immunizations may not have the immunization protection they need to counter theater disease threats. Based on our review of servicemember medical records for the deployments at the four installations we visited, we found that between 14 and 46 percent of the servicemembers were missing one of their required immunizations prior to deployment (see fig. 2). Furthermore, as many as 36 percent of the servicemembers were missing two or more of their required immunizations.

Figure 2: Percent of Servicemembers Missing Required Immunizations



Sources: GAO analyses of documentation from servicemember medical records and DOD medical databases.

Notes: [= 95 percent confidence interval, upper and lower bounds for each estimate.

The U.S. Central Command required the following pre-deployment immunizations for all servicemembers that deployed to Central Asia in support of OEF: hepatitis A (two-shot series); measles, mumps, and rubella; polio; tetanus/diphtheria within the last 10 years; yellow fever

within the last 10 years; typhoid within the last 5 years; influenza within the last 12 months; and meningococcal within the last 5 years.[15] For OJG deployments, the U.S. European Command required the same immunizations cited above, with the exception of the yellow fever inoculation that was not required for Kosovo.[16]

Furthermore, deploying servicemembers in our review that were missing a current tuberculosis screening ranged from 7 to 40 percent. A screening is deemed "current" if it occurred 1 to 2 years prior to deployment. Specifically, the U.S. Central Command required servicemembers deploying to Central Asia in support of OEF to be screened for tuberculosis within 12 months of deployment.[17] For OJG deployments, the U.S. European Command required Army and Air Force servicemembers to be screened for tuberculosis with 24 months of deployment.[18]

U.S. Central Command and U.S. European Command policies require that deploying servicemembers have a blood serum sample in the serum repository not older than 12 months prior to deployment.[19] While nearly all deploying servicemembers had blood serum samples held in the Armed Services Serum Repository prior to deployment, as many as 29 percent had serum samples that were too old. The samples that were too old ranged, on average, from 2 to 15 months out-of-date.

[15] U.S. Central Command, "Personnel Policy Guidance for U.S. Individual Augmentation Personnel in Support of Operation Enduring Freedom," October 3, 2001.

[16] Headquarters U.S. European Command, "Greece and the Balkans: Force Health Protection Guidance," January 4, 2002.

[17] U.S. Central Command, "Personnel Policy Guidance for U.S. Individual Augmentation Personnel in Support of Operation Enduring Freedom," October 3, 2001.

[18] Headquarters U.S. European Command, "Greece and the Balkans: Force Health Protection Guidance," January 4, 2002.

[19] U.S. Central Command, "Personnel Policy Guidance for U.S. Individual Augmentation Personnel in Support of Operation Enduring Freedom," October 3, 2001; and Headquarters U.S. European Command, "Greece and the Balkans: Force Health Protection Guidance," January 4, 2002.

Servicemember Medical Records and Centralized Database Were Not Complete

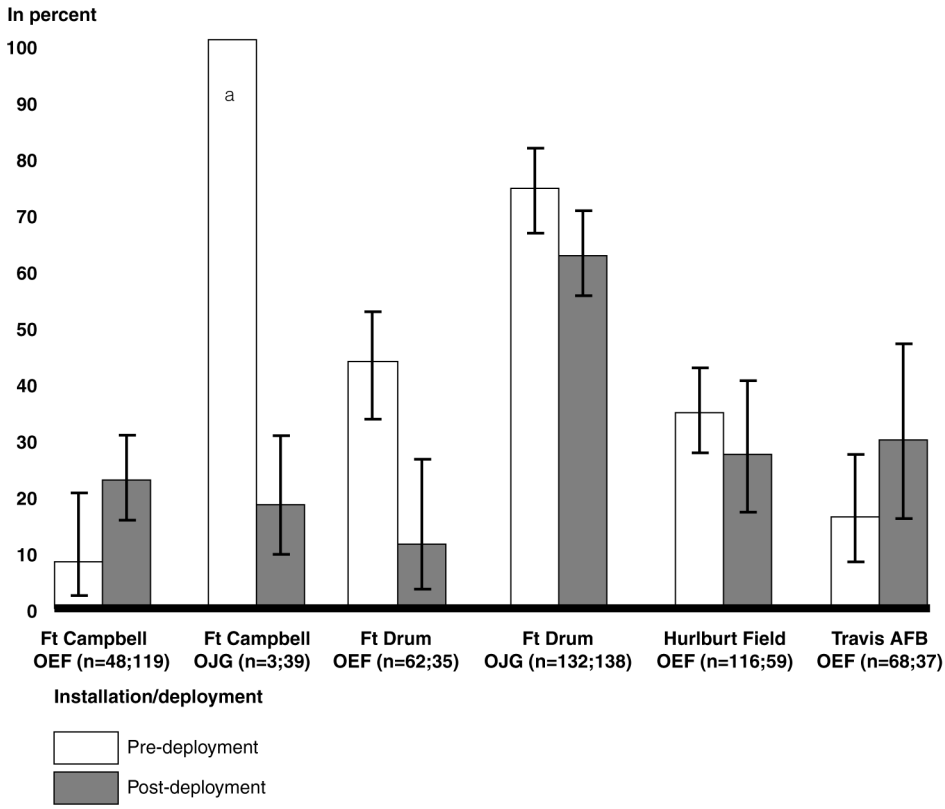
Servicemembers' permanent medical records were not complete, and DOD's centralized database did not include documentation of servicemember health-related information. Many servicemembers' permanent medical records at the Army and Air Force installations we visited did not include documentation of completed health assessments and servicemember visits to Army battalion aid stations. Similarly, the centralized deployment record database did not include many of the deployment health assessments and immunization records that we found in the servicemembers' medical records at the installations we visited.

Many Completed Deployment Health Assessments and Medical Interventions Were Not Documented in Servicemembers' Medical Record

DOD policy requires that the original completed pre-deployment and post-deployment health assessment forms be placed in the servicemember's permanent medical record and that a copy be forwarded to AMSA.[20] Figure 3 shows that completed assessments we found at AMSA and at the U.S. Special Operations Command for servicemembers in our samples were not documented in the servicemember's permanent medical record, ranging from 8 to 100 percent for pre-deployment health assessments and from 11 to 62 percent for post-deployment health assessments.

[20] Office of the Chairman, The Joint Chiefs of Staff, Memorandum MCM-0006-02, "Updated Procedures for Deployment Health Surveillance and Readiness," February 1, 2002.

Figure 3: Percent of Assessments Found in Centralized Database That Were Not Found in Servicemembers' Medical Records



Sources: GAO analyses of documentation from servicemember medical records and DOD medical databases.

Notes: [ ] = 95 percent confidence interval, upper and lower bounds for each estimate.

[a]All three pre-deployment cases at Fort Campbell found in the centralized database were missing from servicemembers' medical record, but unable to compute confidence intervals due to insufficient size.

Army and Air Force policies also require documentation in the servicemember's permanent medical record of all visits to in-theater medical facilities.[21] Except for the OEF deployment at Fort Drum, officials were unable to locate or access the sign-in logs for servicemember visits to in-theater Army battalion aid stations and to Air Force expeditionary medical support for the OEF and OJG deployments at the installations we

[21] Army Regulation 40-66, "Medical Records Administration," October 23, 2002, and Air Force Instruction 41-210, "Health Services Patient Administration Functions," October 1, 2000.

visited. Consequently, we limited the scope of our review to two battalion aid stations for the OEF deployment at Fort Drum. We found that 39 percent of servicemember visits to one battalion aid station and 94 percent to the other were not documented in the servicemember's permanent medical record. Representatives of the two battalion aid stations said that the missing paper forms documenting the servicemember visits may have been lost en route to Fort Drum. Specifically, a physician's assistant for one of these battalion aid stations said the battalion aid station moved three times in theater and each time the paper forms used to document in-theater visits were boxed and moved with the battalion aid station. Consequently, the forms missing from servicemembers' medical records may have been lost en route to Fort Drum.

The lack of complete and accurate medical records documenting all medical care for the individual servicemember complicates the servicemembers' post-deployment medical care. For example, accurate medical records are essential for the delivery of high-quality medical care and important for epidemiological analysis following deployments. According to DOD and VA health officials, the lack of complete and accurate medical records complicated the diagnosis and treatment of servicemembers who experienced post-deployment health problems that they attributed to their military service in the Persian Gulf in 1990-91.

DOD is implementing the Theater Medical Information Program (TMIP) that has the capability to electronically record and store in-theater patient medical encounter data. TMIP is currently undergoing operational testing by the military services and DOD intends to begin fielding TMIP during the first quarter of fiscal year 2004.

Centralized Database Missing Health-Related Documentation

Based on our samples, DOD's centralized database did not include documentation of servicemember health-related information. As set forth above, Public Law 105-85, enacted November 1997, requires the Secretary of Defense to retain and maintain health-related records in a centralized location. This includes records for all medical examinations conducted to ascertain the medical condition of servicemembers before deployment and any changes during their deployment, all health care services (including immunizations) received in anticipation of deployment or during the deployment, and events occurring in the deployment area that may affect the health of servicemembers. A February 2002 Joint Staff memorandum

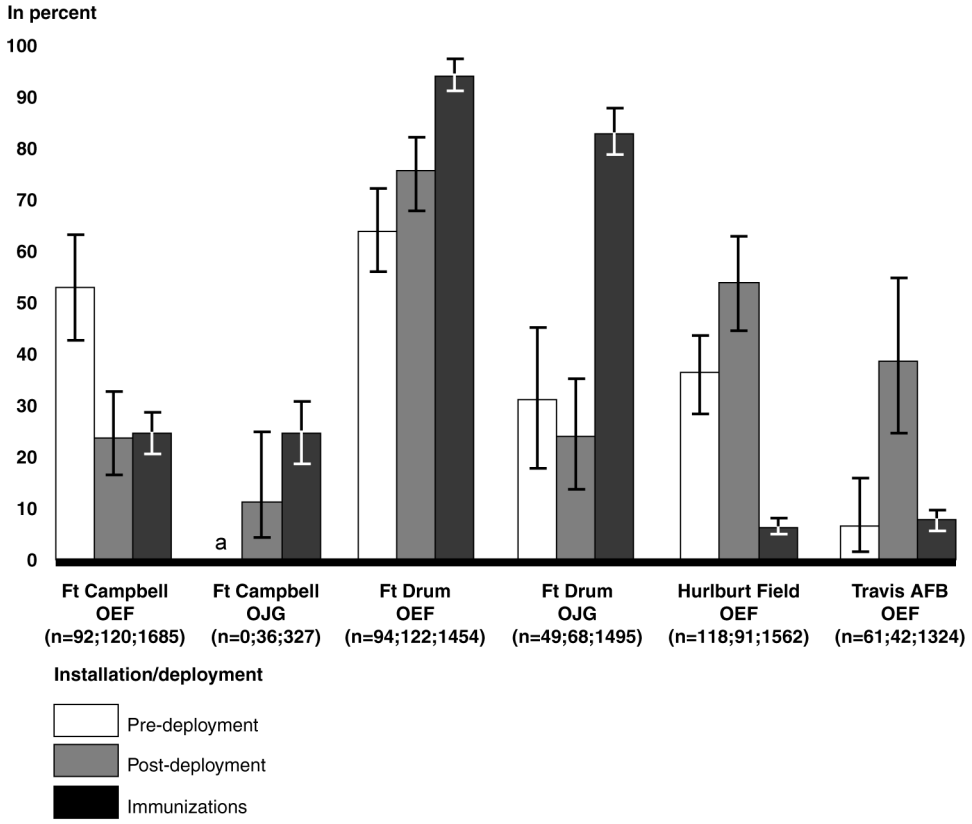
requires the services to forward a copy of the completed pre-deployment and post-deployment health assessments to AMSA for centralized retention.[22] Also, the U.S. Special Operations Command (SOCOM) requires deployment health assessments for special forces units to be sent to the Command for centralized retention in the Special Operation Forces Deployment Health Surveillance System.[23]

Figure 4 depicts the percentage of pre-deployment and post-deployment health assessments and immunization records we found in the servicemembers' medical records that were not available in a centralized database at AMSA or SOCOM. Health-related documentation missing from the centralized database ranged from 0 to 63 percent for pre-deployment health assessments, 11 to 75 percent for post-deployment health assessments, and 8 to 93 percent for immunizations.

[22] Office of the Chairman, The Joint Chiefs of Staff, Memorandum MCM-0006-02, "Updated Procedures for Deployment Health Surveillance and Readiness," February 1, 2002.

[23] U.S. Special Operations Command Directive 40-4, "Medical Surveillance," October 18, 2000; Appendix 1 to Annex Q to U.S. Central Command Operations Order, "Special Operation Forces Deployment Health Surveillance System," November 30, 2001.

Figure 4: Percent of Assessments and Immunizations Found in Servicemembers' Medical Records That Were *Not* Found in the Centralized Database



Sources: GAO analyses of documentation from servicemember medical records and DOD medical databases.

Notes: [ ] = 95 percent confidence interval, upper and lower bounds for each estimate.

Centralized database is AMSA for all but Hurlburt Field, which reports to either AMSA or SOCOM based on classification of military personnel. Hurlburt Field results reflect combined health assessment and immunization data found at either AMSA or SOCOM.

[a]Zero cases found in servicemembers' medical record that were not found in the centralized database.

All but one of the servicemembers in our sample at Hurlburt Field were special operations forces. A SOCOM official told us that pre-deployment and post-deployment health assessment forms for servicemembers in special operations force units are not sent to AMSA because the health assessments may include classified information that AMSA is not equipped to receive. Consequently, SOCOM retains the deployment health assessments in its classified Special Operations Forces Deployment Health Surveillance System. Also, a SOCOM medical official told us that the

system does not include pre-deployment immunization data. A Deployment Health Support Directorate official told us that the Directorate is examining how to remove the classified information from the deployment health assessments so that SOCOM can forward the assessments to AMSA. For presentation in figure 4, we combined the health assessment and immunization data we found at AMSA and SOCOM for Hurlburt Field.

An AMSA official believes that missing documentation in the centralized database could be traced to the services' use of paper copies of deployment health assessments that installations are required to forward to the centralized database, and the lack of automation to record servicemembers' pre-deployment immunizations. DOD has ongoing initiatives to electronically automate the deployment health assessment forms and the recording of servicemember immunizations. For example, DOD is implementing a comprehensive electronic medical records system, known as the Composite Health Care System II, which includes pre-deployment and post-deployment health assessment forms and the capability to electronically record immunizations given to servicemembers. DOD has deployed the system at five sites and will be seeking approval in August/September 2003 for worldwide deployment.[24] DOD officials believe that the electronic automation of the deployment health-related information will lessen the burden of installations in forwarding paper copies and the likelihood of information being lost in transit.

DOD and Installations Did Not Have Oversight of Force Health Protection and Surveillance Requirements

DOD did not have an effective quality assurance program to provide oversight of, and ensure compliance with, the department's force health protection and surveillance requirements. Moreover, the installations we visited did not have ongoing monitoring or oversight mechanisms to help ensure that force health protection and surveillance requirements were met for all servicemembers. We believe that the lack of such a system was a major cause of the high rate of noncompliance we found at the units we visited. The services are currently developing quality assurance programs designed to ensure that force health protection and surveillance policies are implemented for servicemembers.

[24] In September 2002, we reported that DOD had experienced delays and cost overruns in implementing the Composite Health Care System II. See U.S. General Accounting Office, *Information Technology: Greater Use of Best Practices Can Reduce Risk in Acquiring Defense Health Care System*, GAO-02-345 (Washington, D.C.: Sept. 26, 2002).

Although required by Public Law 105-85 to establish a quality assurance program,[25] neither the Assistant Secretary of Defense for Health Affairs nor the offices of the Surgeons General of the Army or Air Force had established oversight mechanisms that would help ensure that force health protection and surveillance requirements were met for all servicemembers. Following our visit to Fort Drum in October 2002, the Army Surgeon General wrote a memorandum in December 2002 to the commanders of the Army Regional Medical Commands that expressed concern related to our sample results at Fort Drum. He emphasized the importance of properly documenting medical care and directed the commanders to accomplish an audit of a statistically significant sample of medical surveillance records of all deployed and redeployed soldiers at installations supported by their regional commands, provide an assessment of compliance, and develop an action plan to improve compliance with the requirements.

At three of the four installations we visited, officials told us that new procedures were implemented that they believe will improve compliance with force health protection and surveillance requirements for deployments occurring after those we reviewed. Specifically, following our visit to Fort Drum in October 2002, Fort Drum medical officials designed a pre-deployment and post-deployment checklist patterned after our review that is being used as part of processing before servicemembers are deployed and when they return. The officials told us that this process has improved their compliance with force health protection and surveillance requirements for deployments subsequent to our visit. Also, the hospital commander at Fort Campbell told us that they implemented procedures that now require all units located at Fort Campbell to use the hospital's medical personnel in their processing of servicemembers prior to deployment. The hospital commander believes that this new requirement will improve compliance with the force health protection and surveillance requirements at Fort Campbell because the medical personnel will now review whether all requirements have been met for the deploying servicemembers. At Hurlburt Field, officials told us that they implemented a new requirement in November 2002 to withhold payment of travel expenses and per diem to re-deploying servicemembers until they complete the post-deployment health assessment. Officials believe that this change will improve servicemembers' completion of the post-deployment health assessments. While it is noteworthy that these

[25] 10 U.S.C. sec. 1074f(d).

installations have implemented changes that they believe will improve their compliance, the actual measure of improvements over time cannot be known unless the installations perform periodic reviews of servicemembers' medical records to identify the extent of compliance with deployment health requirements.

In March 2003, we briefed the Subcommittee on Total Force, House Committee on Armed Services, about our interim review results at selected military installations.[26] Subsequently, at a March 2003 congressional hearing, the Subcommittee discussed our interim review results with the Assistant Secretary of Defense for Health Affairs and the services' Surgeons General. Based on our interim results that DOD was not meeting the full requirement of the law and the military services were not effectively carrying out many of DOD's force health protection and surveillance policies, in May 2003 the House Committee on Armed Services directed the Secretary of Defense to take measures to improve oversight and compliance. Specifically, in its report accompanying the Fiscal Year 2004 National Defense Authorization Act, the Committee directed the Secretary of Defense "… to establish a quality control program to begin assessing implementation of the force health protection and surveillance program, and to provide a strategic implementation plan, including a timeline for full implementation of all policies and programs, to the Senate Committee on Armed Services and the House Committee on Armed Services by March 31, 2004."[27]

In April 2003, the Under Secretary of Defense for Personnel and Readiness issued an enhanced post-deployment health assessment policy that required the services to develop and implement a quality assurance program that encompasses medical record keeping and medical surveillance data.[28] In June 2003, the Office of Assistant Secretary of Defense for Health Affairs' Deployment Health Support Directorate began reviewing the services' quality assurance implementation plans and establishing DOD-wide compliance metrics—including parameters for conducting periodic visits—to monitor service implementation.

[26] Prior to briefing the Subcommittee, we also briefed the Senior Military Medical Advisory Committee including the Assistant Secretary of Defense for Health Affairs and the military services' Surgeons General or their representatives about our interim review results.

[27] H.R. Rep. No. 108-106 at 336 (2003).

[28] Under Secretary of Defense for Personnel and Readiness Memorandum, "Enhanced Post-Deployment Health Assessments," April 22, 2003.

Centralized Deployment Database Still Missing Information Needed for Deployment Health Surveillance

The DMDC deployment database still does not include the deployment information we identified in 1997 as needed for effective deployment health surveillance. In 1997, we reported that knowing the identity of servicemembers who were deployed during a given operation and tracking their movements within the theater of operations are major elements of a military medical surveillance system.[29] The Institute of Medicine reported in 2000 that the documentation of the locations of units and individuals during a given deployment is important for epidemiological studies and for the provision of appropriate medical care during and after deployments.[30] This information allows (1) epidemiologists to study the incidence of disease patterns across populations of deployed servicemembers who may have been exposed to diseases and hazards within the theater, and (2) health care professionals to treat their medical problems appropriately. Because of concerns about the accuracy of the DMDC database, we recommended in our 1997 report that the Secretary of Defense direct an investigation of the completeness of the information in the DMDC personnel database and take corrective actions to ensure that the deployment information is accurate for servicemembers who deploy to a theater.

DOD's established policies notwithstanding, the services did not report location-specific deployment information to DMDC prior to April 2003, because, according to a DMDC official, the services did not maintain the data. DOD Instruction 6490.3, issued in August 1997, requires DMDC, under the Department's Under Secretary for Personnel and Readiness, to maintain a system that collects information on deployed forces, including daily-deployed strength, total and by unit; grid coordinate locations for each unit (company size and larger); and inclusive dates of individual servicemember's deployment.[31] In addition, the Joint Chief of Staff's Memorandum MCM-0006-02, dated February 1, 2002, required combatant commands to provide DMDC with their theater-wide rosters of all deployed personnel, their unit assignments, and the unit's geographic locations while deployed.[32] This memorandum stressed that accurate

[29] GAO/NSIAD-97-136.

[30] Institute of Medicine, *Protecting Those Who Serve: Strategies to Protect the Health of Deployed U.S. Forces* (National Academy Press, Washington, D.C.: 2000).

[31] DOD Instruction 6490.3, "Implementation and Application of Joint Medical Surveillance for Deployments," August 7, 1997.

[32] Office of the Chairman, The Joint Chiefs of Staff, Memorandum MCM-0006-02, "Updated Procedures for Deployment Health Surveillance and Readiness," February 1, 2002.

personnel deployment data is needed to assess the significance of medical diseases and injuries in terms of the rate of occurrence among deployed servicemembers. The Under Secretary of Defense for Personnel and Readiness expressed concern about the services' failure to report complete personnel deployment data to DMDC in an October 2002 memorandum.[33]

To address the services' lack of reporting to DMDC, the Under Secretary of Defense for Personnel and Readiness established a tri-service working group that outlined a plan of action in March 2003 to address the reporting issues. In July 2003, a DMDC official told us that significant improvements had recently occurred and that all of the services had begun submitting their classified deployment databases—including deployment locations—to DMDC. DMDC is currently reviewing the deployment information submitted by the services to determine its accuracy and completeness. It plans to complete this review during the summer of 2003.

With regard to DMDC's efforts to create a system for tracking the movements of servicemembers within a given theater of operations, DMDC officials told us that little progress has been made. They said that the primary reason for a lack of progress in developing this system is that the source information has generally not been available from the services and this may require the development of new tracking systems at the unit level. In June 2003, a DMDC official told us that it had been recently determined that the Air Force has implemented a theater tracking system that may have applicability to the other services. The tracking system—known as the Deliberate Crisis and Action Planning and Execution Segment (DCAPES)—enables field teams to enter classified information about the whereabouts of deployed Air Force personnel at the longitude/latitude level of detail. DMDC began receiving information from this system in April 2003. The Under Secretary of Defense for Personnel and Readiness is reviewing this system to determine whether it could be used for the same purposes by the other services.

Also, DOD is developing the Defense Integrated Military Human Resource System (DIMHRS), which will have the capability to track the movements of all servicemembers and civilians in the theater of operations. As of

[33] This memorandum was dated October 25, 2002, and sent to the Vice Chief of Staff of the Army, Vice Chief of Staff of the Air Force, Vice Chief of Naval Operations, and the Assistant Commandant of the Marine Corps.

June 2003, DOD plans to implement this system for the Army by about September 2005 and for the other services by 2007 or early calendar year 2008.

Concluding Observations

While DOD and the military services have established force health protection and surveillance policies, at the units we visited we found many instances of noncompliance by the services. Moreover, because DOD and the services did not have an effective quality assurance program in place to help ensure compliance, these problems went undetected and uncorrected. Continued noncompliance with these policies may result in servicemembers with existing health problems or concerns being deployed with unaddressed health problems or without the immunization protection they need to counter theater disease threats. Failure to complete post-deployment health assessments may risk a delay in obtaining appropriate medical follow-up attention for a health problem or concern that may have arisen during or following the deployment. Similarly, incomplete and inaccurate medical records and deployment databases would likely hinder DOD's and VA's ability to investigate the causes of any future health problems that may arise coincident with deployments.

Mr. Chairman, this concludes my prepared statement. I will be pleased to answer any questions you or other members of the committee may have at this time.

Contacts and Acknowledgments

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