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DEPLOYMENT FORCE PROTECTION AND HEALTH ISSUES

HEARING

BEFORE THE

SUBCOMMITTEE ON HEALTH

OF THE

COMMITTEE ON VETERANS' AFFAIRS
HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

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DEPLOYMENT FORCE PROTECTION AND HEALTH ISSUES

WEDNESDAY, FEBRUARY 27, 2002

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH,
COMMITTEE ON VETERANS' AFFAIRS,
Washington, DC

The committee met, pursuant to notice, at 2:04 p.m., in room 334, Cannon House Office Building, Hon. Jerry Moran (chairman of the subcommittee), presiding.

Present: Representatives Moran, Simmons, Evans, Filner, and Rodriguez.

OPENING STATEMENT OF CHAIRMAN MORAN

Mr. MORAN. The subcommittee will come to order. We will commence our subcommittee's hearing this afternoon.

I know a lot is going on in Congress today in other committees, but also within our VA full committee, as it continues to hear from veterans on some very important issues.

Good afternoon. I'd like to welcome our witnesses and our Members that are present. Mr. Filner, we anticipate, will join us momentarily.

We have an important topic before us: protecting the health of military members, especially those now serving in Afghanistan, before they become our next generation of veterans.

Last month, the subcommittee held a hearing to explore lessons learned by the government from the Persian Gulf War and how these lessons were or were not applied to the current deployment of Americans who are now serving in Afghanistan.

How well did the Department of Defense and Veterans Affairs Department implement policies based on lessons learned from earlier wars? We meet again today to delve further into this issue.

Our subcommittee is working to take a proactive approach to ensuring that the men and women of the armed forces are cared for today while doing their duty in the Middle East, in the Philippines, or elsewhere around the world, so that we can avoid the mistakes that we believe were made in past wars.

Better oversight now by Congress and better leadership by the Administration can head off untold difficulties that lie in our future.

The issue of force protection includes a series of important topics, including joint medical surveillance, pre- and post-deployment health assessments, environmental security, the use of drugs for health protection, transparency and ease of record-keeping and

record transfer, and equipment, procedures, systems, and documentation in the theater.

Today the subcommittee has asked the General Accounting Office to offer testimony on its work to review force protection and medical readiness policies now in place in the Department of Defense, and to review the VA's role in coordinating care and benefits for veterans. As we will learn, there are some gaps.

We look forward to examining the two Departments' responses to the GAO's review of their programs, and working together to assist our servicemen and women.

[The prepared statement of Chairman Moran appears on p. 57.]

Mr. Rodriguez, any opening statement?

OPENING STATEMENT OF HON. CIRO D. RODRIGUEZ

Mr. RODRIGUEZ. Let me just first of all thank you for allowing us to hear the testimony, and I'm looking forward to hearing the testimony.

Let me just say that you're right. As indicated during the Vietnam War as well as during the Gulf War, there's a lot of things that we can learn.

I know that it's a very closed system, for a good reason, but because of that, it's also very difficult for it to change and to learn from itself, and so we're hoping that we can gain some knowledge, and as we move forward, that we don't make some of the same mistakes. We need to prepare ourselves with the new types of engagements with bio and chemical warfare we will face.

So thank you very much.

Mr. MORAN. Thank you very much, Mr. Rodriguez.

We would welcome to our table Cynthia Bascetta, Director of Veterans' Affairs Health and Benefits Issues for the General Accounting Office; and Ms. Ann Calvaresi-Barr, Assistant Director, also from the GAO, who accompanies her.

Good afternoon, and you may proceed.

STATEMENT OF CYNTHIA A. BASCETTA, DIRECTOR, HEALTH CARE, VETERANS' HEALTH AND BENEFITS ISSUES, GENERAL ACCOUNTING OFFICE; ACCOMPANIED BY ANN CALVARESI-BARR, ASSISTANT DIRECTOR

Ms. BASCETTA. Thank you.

Mr. Chairman and members of the subcommittee, thank you for inviting us to discuss DOD's medical surveillance system, a key component of force health protection. With me today is Ann Calvaresi-Barr, who led this work.

Medical surveillance of environmental threats and disease monitoring, in particular, is critical to protecting and ensuring the fitness of deployed troops, and as you know, the collection and analysis of this information is also vital to the care of our nation's veterans and to compensating them for service-connected disabilities.

We're here today to talk about applying lessons learned during the Gulf War and subsequent deployments to the current war on terrorism.

We know that complete and accurate data on the health status of servicemembers before, during, and after deployment are needed; we know that tracking the changing location of troops will be cru-

cial, especially in highly mobile situations; and we know that monitoring environmental threats in theater is critical to casualty prevention in the field and to mitigating the adverse health effects of exposures when they occur.

These fundamentals of a strong surveillance program are articulated in numerous policies that DOD has issued since the Gulf War, including the recent Joint Chiefs of Staff memo effective this Friday. Together, these policies lay out the conceptual framework for complying with recommendations made by the Institute of Medicine and others.

In our view, this represents DOD's most notable progress in moving medical surveillance forward, but much more room for improvement remains in the actual implementation of these policies.

It's in this light that I'd like to highlight some concrete examples of the strengths and weaknesses of implementation so far, and then to offer our insights into the prospects for successful surveillance in Afghanistan and future deployments.

On the positive side, we found that during Operation Joint Endeavor, which began in 1995, DOD issued guidance on in theater threat assessment and routine data collection and analysis, including weekly reports on the incidence rates of major categories of diseases and injuries.

From these reports, preventive measures could be identified and forwarded to commanders to take appropriate action.

Another important step was the establishment of the U.S. Army Center for Health Promotion and Preventive Medicine, which greatly enhanced DOD's ability to perform environmental monitoring and tracking.

It's deployable Public Health Lab, for example, was sent to Bosnia to conduct air, water, soil, and other monitoring.

At the same time, we noted shortcomings in DOD's ability to maintain reliable health information.

Deployment records for at least 200 Navy servicemembers were not included in DOD's central database 1½ years after they were deployed to Bosnia, but Air Force personnel who were never actually deployed were in the database.

Moreover, more than half of the post-deployment assessments for over 600 Army personnel were not in DOD's central database.

According to the Army's European Surgeon General, these assessments were often lost by servicemembers who were responsible for hand-carrying their own records from the theater back to their home units.

Also, DOD hadn't developed a system for tracking the locations of servicemembers within theater, or archiving the data for future use.

We also reported that not all medical encounters in theater, especially for immunizations, were being recorded in individual medical records. For example, almost a fourth of the records we reviewed did not document vaccination for tick-borne encephalitis.

We also found that paper records on the dates and lot numbers of vaccinations did not always match records in DOD's database. At the worst installation, discrepancies about vaccinations lot numbers occurred for more than 90 percent of the time.

IOM also found deficiencies in medical recordkeeping for both deployed active duty and reserve forces, and they emphasized the need to include immunization in the records.

A longstanding weakness of concern to us is the state of information technology in DOD and VA. For several years, DOD and VA have tried to establish an electronic link between their multiple and disparate data systems.

GCPR, the government computerized patient record, is a joint effort designed to meet this need. We reported last year, however, that planning weaknesses, competing priorities, and inadequate accountability made it unlikely that the benefits of GCPR would be realized anytime soon.

For now, DOD and VA are reconsidering their approach and they're focusing on providing VA access to selected DOD health data, lab and radiology tests, outpatient prescriptions, and patient demographics; but VA still won't be able to view data on baseline health status or medical care provided to reservists, or care provided by Tri-Care Network providers.

DOD officials told us that they expect full operation of this near-term solution to begin later this year.

So what are the prospects for successful medical surveillance?

DOD characterizes its new vision for force health protection as the most significant reformulation of military medicine in 50 years. To help achieve this vision, DOD has issued clinical practice guidelines, developed collaboratively with VA, for primary care providers to better manage patients with deployment-related health conditions.

DOD has also reorganized, to place responsibility for implementing its medical surveillance policies with a single authority, the deputy assistant secretary for defense for force health protection and readiness.

These are encouraging signs of progress, but these steps alone will not be sufficient to ensure success.

Implementing and maintaining a comprehensive military medical surveillance system will also require a profound culture change in addition to technological and logistical changes.

Most notably, it will require overcoming the challenge of integrating the multiple programs that now exist across the services, and it will require sustained attention, resources, and accountability, not only at the highest departmental levels, but also in the field, to the best possible results.

Mr. Chairman, there's no doubt that this is a complex and daunting challenge. Even if all the policies could be fully implemented, scientific uncertainty about the health effects of exposures and the technological and operational feasibility of tracking the location of troops and detecting and measuring hazards they encounter complicate the outlook for successful surveillance.

But regardless of these difficulties, DOD and VA face a compelling need to do better, both to protect our deployed troops and to meet their needs as future veterans.

I'd be happy to respond to any questions that you or the other subcommittee members might have.

[The prepared statement of Ms. Bascetta appears on p. 59.]

Mr. MORAN. Thank you very much for your statement. Let me call on Mr. Filner, who has now joined us, and see if he has an opening statement and any questions for this witness.

OPENING STATEMENT OF HON. BOB FILNER

Mr. FILNER. Thank you, Mr. Chairman. I apologize for being late.

I appreciate your holding this hearing and your leadership, because clearly, the special needs that our servicemen and women will have in the future should not wait until they actually present their problems to the VA when they return.

There seems to be a fatal flaw that has been recognized in dealing with veterans of the Persian Gulf and prior combat periods, and I'm glad you're leading our efforts to try to anticipate these problems for future veterans.

I take it that the charge of this committee, from this hearing and from our witnesses, is to ensure that the federal institutions that care for our homecoming troops and future veterans share concerns about prevention, detection, and planning for treatment and research options.

I have looked at all the statements of the panelists, and I think there is a growing recognition of this in both the VA and the DOD. We have a long ways to go, but I think there is a recognition of the problems.

My sense of our dealing with the issue during the Persian Gulf War and the apparent lack of recordkeeping, the lack of baseline records from which we could draw some conclusions afterward, post-deployment health assessments—these did not occur, and I'm hopeful that they will in the future.

Troops apparently self-administered drugs that may have interfered with the aim that other injections had. The anthrax vaccination records were not kept accurately. Visits to clinics and hospitals were unrecorded.

So I think our military intelligence failed our veterans. The alarms of chemical and biological weapons that were never really analyzed why they were false, or if they were legitimate—how did you even keep the logs and other evidence about them? They have since been lost or mishandled. We have got to come to grips with these issues.

I have always said, as I looked at the VA and the DOD's response to the problems that occurred with our veterans that we called the Persian Gulf War illness, that these problems were first dismissed, then they were rejected as not being problems; then they were dismissed as mental problems and they were stonewalled; and we still have not come to grips with those issues.

When we could send men and women in our Armed Forces to that same area at any moment, given the statements of the administration, it seems to me that the best policy for national security has to be to find the truth.

That is, we have to find out what occurred, deal with it in the most truthful fashion, and deal with it as quickly as possible, so we don't put our men and women in harm's way again, or in double jeopardy because of what they face from an enemy and what they face from our inability to figure out how to deal with these injec-

tions and vaccinations and chemical and biological problems that could recur in the 21st century war.

So thank you for holding this hearing, and I think we have to get closer to the truth for the benefit of all our men and women who will face this in the future.

Mr. MORAN. Mr. Filner, thank you very much. Do you have any questions for the GAO?

Mr. FILNER. No questions.

Mr. MORAN. No questions. Mr. Evans.

[No response.]

Mr. MORAN. Mr. Rodriguez.

Mr. RODRIGUEZ. Let me ask you, is this the latest study that we have?

Prior to this, had we done any other studies? Because I would presume that there's probably a pattern where they haven't corrected certain things. Have they indicated any desire in moving forward on some of this stuff?

Ms. BASCETTA. Actually, I don't think I would characterize it quite that way.

In the Gulf, there were things that simply didn't happen, and there weren't policies in place; and then, in the future deployments in Operation Joint Endeavor, certain policies were put in place, but there was a lot left to be done in a more comprehensive way during implementation.

Since then, there have been more advances made, and we do see more of a commitment on the part of the department to do a much better job.

But I have to tell you that we, the work that we did is really a synthesis of work that was done up through about 1998, so we don't know today how well they're doing in the current deployment and how much progress they've made.

We see positive steps both in terms of commitment and the establishment of actual additional capabilities that have been put in place. For example, the Center for Promotion and Preventive Medicine, a new adverse reporting system, and an updating of the policies and a pulling together of policies in a more centralized fashion.

Mr. RODRIGUEZ. Are you suggesting that there's a need for us to go back and do this thing all over again?

Ms. BASCETTA. No. I'm suggesting that, right now, the department needs to be making sure that the policies that it has in place are enforced as much as possible, because that's the only way that we'll know that we're really getting an effective implementation of the policies.

Mr. RODRIGUEZ. Is there something we could be doing right now, for example, to check what's going on in Afghanistan in order to observe if anything has changed. Could we actually do some things that might help gather more appropriate data to determine if things have actually changed or not?

Ms. BASCETTA. Well, I think the most important thing is to monitor whether or not the recordkeeping that is supposed to be going on is, in fact, going on, and is housed in a central repository so that when analysis needs to be cone, that information is available.

Mr. RODRIGUEZ. What about coordination between the DOD and the VA? Where are we at there?

Ms. BASCETTA. I could answer that in a couple of ways.

With regard to the adjudication of benefits, actually, one of the most important steps forward is that there is now a pre-discharge exam that occurs, and this is important, because the health status of the servicemember as they're leaving the service is recorded at that moment, VA is supposed to have access to that information so that the information doesn't get old when they're ready to adjudicate a claim.

On the other side, in terms of medical surveillance, we see a couple things happening.

One is that VA and DOD have issued, very recently, joint clinical guidelines for primary care providers to use in assessing the health of servicemembers who come back with deployment-related conditions, and that's a very positive step forward, but we would like to see much more of that, much more collaboration. We would like to see DOD as a full partner in VA's newly formed centers for the study of war-related illnesses.

I think probably the best way to put it is that there has been a long history of poor coordination and collaboration between the departments.

The presidential management agenda lists better collaboration and working together as a top management priority. There's a presidential task force to put pressure where it needs to be to try to move forward in this area, and we think that the more communication there is between the departments, the better off they will be.

Mr. RODRIGUEZ. I know GAO has made a lot of past recommendations. What might the GAO be able to do to help out in the process?

Ms. BASCETTA. Well, you've used us often as an effective oversight tool, so we could help out in that way if we were asked.

Mr. RODRIGUEZ. Based on your review of the literature that you have produced, what areas do you think that, if you were utilized, it might be helpful to bring to light where we're at now?

Ms. BASCETTA. Again, I think a checking of what records are actually being kept and whether they're in good condition, whether they're useful, and stored in a way that will be available and accessible for future use is important.

A lot of this has to do with the information technology infrastructure. We could do a lot to, and we are actually doing ongoing work on, for example, the government computerized patient record, to keep that effort moving along in the way that it should be.

Mr. RODRIGUEZ. Thank you very much.

Mr. MORAN. Thank you very much. I appreciate the GAO report. It is very timely and fits in very well with this subcommittee's interest and agenda in this topic of health readiness for deployment of National Guard, reservists, and active military in Afghanistan and elsewhere.

Please give the subcommittee a reference for the time frame in which your report was done, in comparison to September the 11th and the beginning of the Operation Enduring Freedom.

Ms. BASCETTA. We were asked by Senator Rockefeller in September to pull together what we had from not only our work but the work of others, most notably, the IOM.

Our last report on medical surveillance I believe was issued in 1998.

Mr. MORAN. Do you detect a change in policies, change in attitude or approach to this issue of coordination and cooperation as a result or post the beginning of the Enduring Freedom Operation? Do we see things changing at the Department of Defense or VA as a result of our country being engaged in a battle?

Ms. BASCETTA. I think so, but I could give you a better answer to that if we had more recent work on what's actually going on right now, and I don't have that current information.

What we have is our quick review over the last month of those policies and a few high-level interviews where clearly there is a renewed commitment not only to working together, but to doing better in this current deployment.

Mr. MORAN. You mentioned a Joint Chiefs of Staff memo this Friday. Are there items that you're aware of, policies, pronouncements, statements, that are forthcoming from DOD or VA that this subcommittee ought to be aware of?

Perhaps you could, at a minimum, describe to me this memorandum of this Friday.

Ms. BASCETTA. The memorandum is the most recent updating of the procedures for health surveillance in current deployments.

The biggest difference between this memo and the previous policies is that this pulls many of the policies together in one place and incorporates the policies for occupational and environmental surveillance so that those are now embedded in the same guidance.

There are a couple of other smaller differences between this policy and hone it supersedes.

For example, all of the forms that are supposed to be used across the services, are included in the memo.

Mr. MORAN. When you say across the services, are there any role models within the Department of Defense that we ought to be highlighting or using as an example of the way it should be done—Air Force, Navy, Army, Marines?

Ms. BASCETTA. That, I don't know. I could go back into our work and see if we've had any insights into that.

Ann, do you have anything to add?

Ms. CALVARESI-BARR. I don't think in any of the work there were any service distinctions actually laid out.

I think there was just the overall issue that there were differences among h services in terms of how they are implementing the baseline policies, and there was a concern about that, recognizing the need to have a certain core baseline set of procedures and making sure that that's operationalized uniformly across all services.

But I know, as part of the refocus on this, that's one thing that the department says that it wants to focus on and make sure that we get standardized and basic information that leads to a good medical surveillance system.

Mr. MORAN. So the policies are the same, Department of Defense-wide; is that correct?

Ms. CALVARESI-BARR. The policy for medical surveillance is the same.

Mr. MORAN. And is there a distinction, then, in its implementation?

Ms. CALVARESI-BARR. That's our understanding, that in the implementation you do have varying degrees, and it could even be within the service. It depends on the, you know, unit commanders', you know, application and execution of those policies, so you can see those variations based on that, as well.

Mr. MORAN. If the GAO or Congress was interested in pursuing this issue further about implementation—I think there's two issues here, the policies and then their implementation.

Are the policies appropriate and are they designed in a way that increases the health, preparedness, and safety of our men and women serving; and secondly, are those policies being implemented in a way that would attain that result?

Are there things that this subcommittee ought to be looking at? Where would you direct us to go? If you were going to pursue an additional study by the GAO, what items would be of interest?

Ms. CALVARESI-BARR. I think the one thing that needs to be done, first of all, is there needs to be some sort of set oversight or monitoring of what's coming out of these various deployments, and that's something that I don't think we've seen up to this point.

I think that's something that the department might be able to pursue a little more directly to try to find out: here's what the baseline guidance said we're supposed to be collecting; here's the information; this is where it's supposed to be captured; this is how it's supposed to be shared and with whom. To what extent did that happen among all the services that were deployed, for example, to Afghanistan?

And that's the kind of oversight that I think the department might be able to yield now with the new deployments and with all the positive changes that they made to their policies.

Mr. MORAN. And those are questions you can't answer because of the timeliness of your review?

Ms. CALVARESI-BARR. Exactly.

Mr. MORAN. Are there other GAO reports in progress in this arena?

Ms. BASCETTA. The one ongoing effort is the continuing evaluation of the government computerized patient record, which, of course, will be a critical piece of being able to keep this information in a centralized fashion that's available to both departments and that's in a usable form.

Mr. MORAN. Okay. You mentioned the Presidential Task Force. Could you describe for the subcommittee its role and how it's been utilized?

Ms. BASCETTA. The presidential task force began last year as a formal way to try to promote more, first of all, resource sharing between the departments, but in a larger sense to look more broadly at how the two departments can work better together, because there's been a longstanding recognition that the taxpayer dollars could be spent more effectively and efficiently if DOD and VA could find common areas where they should be working together, and to pursue those much more aggressively.

Mr. MORAN. And your impression as to whether or not that's occurring? Is this task force in use? Is it working? Is it functioning?

Ms. BASCETTA. Well, it's awfully early to tell. You know, you always get the best results when the departments do things because they want to, not because there's external pressure on them to do that, but if that's what it takes to get the ball going, it's certainly a good first start.

We're hopeful that it will have a big impact.

Mr. MORAN. Are there legislative barriers to greater cooperation between the Department of Defense and the VA?

Ms. BASCETTA. Yes, there are. Ann is the resource-sharing expert. Do you want to describe some of those barriers?

Ms. CALVARESI-BARR. Sure. I think, actually, some of the barriers are less in the ways of legislative and more in the way, though, actually, of cultural barriers.

GAO has been involved in this issue for a number of years, almost two decades now, and our reports over the past 20 years have resulted in some legislative changes to allow for greater flexibility between the two departments to share.

I think for the most part, legislatively, you know, the authority is certainly there. It's in place.

Are there certain policies, maybe, within the departments, that get in the way of greater collaboration? You know, I certainly think there are.

We reported in a report that we did on the status of health resource sharing that, essentially, the implementation of Tri-Care and the desire of the department for folks that are not treated in a military treatment facility to be seen by Tri-Care Network providers created a bit of confusion for folks at the unit level, sharing between DOD and VA.

While VA can be a member of the Tri-Care Network, it's not always going to be possibly the first stop or maybe even the preferred stop, based on the case management.

So there were some concerns that, the VA being one of a number of providers to go to, sort of thwarted or worked against an incentive to share more, but the department did revise its policy and made it clear that, where resource sharing could occur within the government between the two agencies, that they needed to move forward.

I think some of the things that are in the way are less in terms of barriers but more in terms of commitment, and cultural acceptance of sharing.

Certainly places where we saw resource sharing was very robust and was working were places where you had really command and directors of the VA and DOD who were willing to try to find opportunities to share more, from past experience saw the value of doing that, and pursued those opportunities, places where they really tried to find out where there was excess capacity, and where there was need for certain services.

So there are certainly some lessons learned and we point to many of those in our reports that we did on resource sharing.

Mr. MORAN. I assume that there are higher quality of services available with greater cooperation and sharing. That would be one desired outcome. I also assume that there are financial savings to be had.

Is there any estimate of what those dollars might be?

Ms. CALVARESI-BARR. That's always been a difficult thing to try to identify, actually costing out what it costs to send someone over to the DOD or VA versus what it costs to go even within the network or outside of that, something that we did try to get our arms around for the House VA Committee as well as for Armed Services but had difficulty getting that information from the officials that we talked to.

Part of the problem is a lot of sharing that goes on is in a barter kind of arrangement, as well, so dollar values aren't really assigned to that; so that added yet another level of complexity or challenge to trying to capture that information.

But we tried real hard for you-all. We knew that was something that you were interested int.

Ms. BASCETTA. We also did a report last year on the savings from jointly procuring pharmaceuticals, and there the estimate, I believe, was $300 million or more; so they're not insignificant.

Mr. MORAN. Is it fair to say that savings would be substantial?

Ms. BASCETTA. Yes, we think so.

Ms. CALVARESI-BARR. Based on the pharmaceutical finding, I think that's just one example.

Mr. MORAN. That's substantial in and of itself?

Ms. CALVARESI-BARR. Yeah. Yeah.

Mr. MORAN. Do you have a sense that if our men and women return from Operation Enduring Freedom today, that our Department of Defense and VA are in better shape to care for those men and women should they complain of the symptoms that were complained of post-Persian Gulf?

Ms. BASCETTA. I think they certainly have heightened sensitivity to the kinds of problems that will develop if they don't act on some of these policies that they've laid out.

The framework is there to do a much better job. The question is will the priority be put there to carry out those policies and will the resources be available for them to implement their policies as much as they possibly can?

Mr. MORAN. Mr. Filner, any additional questions?

[No response.]

Mr. MORAN. Mr. Rodriguez?

[No response.]

Mr. MORAN. We thank you very much for your testimony.

Ms. BASCETTA. Thank you.

Mr. MORAN. Our next panel of witnesses consists of Ms. Ellen Embrey, Deputy Assistant Secretary of Defense for Force Health Protection and Health Affairs at the Department of Defense.

She's accompanied by Col. Maul, the Command Surgeon of the Central Command, CENTCOM.

Joining our Department of Defense witnesses, our usual witness, Dr. Frances Murphy, Acting Under Secretary for Health at the VA.

She's accompanied by Kenneth Hyams, the Chief VA Consultant, Occupational and Environmental Health.

I'm told we also have Dr. Kilpatrick, Director of Deployment Health Support at the Department of Defense.

Ms. Embrey, welcome back. We'll begin with your testimony.

STATEMENTS OF ELLEN EMBREY, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR FORCE HEALTH PROTECTION AND READINESS, DEPARTMENT OF DEFENSE, ACCOMPANIED BY COL. RONALD A. MAUL, M.D., COMMAND SURGEON, CENTRAL COMMAND, U.S. ARMY AND MICHAEL KILPATRICK, M.D., DIRECTOR OF DEPLOYMENT HEALTH SUPPORT, DEPARTMENT OF DEFENSE; AND FRANCES MURPHY, M.D., ACTING UNDER SECRETARY FOR HEALTH, DEPARTMENT OF VETERANS AFFAIRS, ACCOMPANIED BY KENNETH CRAIG HYAMS, M.D., CHIEF CONSULTANT, OCCUPATIONAL AND ENVIRONMENTAL HEALTH STRATEGIC HEALTH CARE GROUP, DEPARTMENT OF VETERANS AFFAIRS

STATEMENT OF ELLEN EMBREY

Ms. EMBREY. Mr. Chairman, thank you so much for the opportunity to come back and visit you. I'm especially pleased to come back and discuss the continuing efforts that we're doing to improve force health protection and to address the concerns that GAO has offered for the record at our last hearing.

DOD appreciates the comments and suggestions of GAO and we generally agree with all of them, and we recognize that even with the significant progress made in force health protection since the Gulf War we have much to do.

Today I am accompanied by Dr. Ronald Maul, as you indicated. He is the U.S. Central Commander in Chief's command surgeon. He is prepared to answer and provide any comments you would like about on-the-ground force health protection in CENTCOM today, which I think you would have great interest in.

I'm also pleased to be accompanied again by Dr. Michael Kilpatrick, who is available to address any concerns you might have about the department's lessons learned from the Gulf War as far as health is concerned.

Let me reiterate that the department is committed to providing a world class health care system for its servicemembers and their families.

Our goal, and my primary focus, is to ensure that we deploy fit and healthy military personnel and that we monitor their health and environmental exposures while they are deployed, and that we assess their health status and address their health concerns when they return.

To that end, both the Office of the Secretary of Defense and the Joint Chiefs of Staff have issued policy guidance to the services to help define and standardize health protection for our servicemembers, particularly with respect to deployment health surveillance.

As a result, we are now collecting and archiving health data that will allow retrospective analysis by DOD and VA, ultimately, for those servicemembers who deploy and subsequently become ill.

Building comprehensive systems to do that is neither easy nor quick, not nearly as quick as I would like it nor would you like it, I'm sure.

My written testimony mentions many of the systems that are in development and nearing at least the first stages of implementa-

tion, and those are very critical to our success in capturing the kind of information we're all interested in.

servicemembers must meet stringent physical standards and pass periodic physical exams with blood tests. They are expected to have annual dental examinations and go through annual medical record reviews to update routine immunizations.

Programs are in place to facilitate the establishment of and regular updates to this baseline health information for the servicemembers, and to ensure the medical readiness of the military personnel to deploy worldwide in support of their missions.

The pre-deployment health assessment that we've instituted or requested that be installed is one part of that system.

During these deployments, health treatment is typically documented in an abbreviated standardized individual medical record that is prepared and deployed with Army and Air Force servicemembers, while health care for Navy and Marine Corps servicemembers is documented in their out-patient service records, medical records.

At the end of a deployment, servicemembers are to complete a post-deployment health assessment to document any immediate concerns or systems they have, and this assessment will trigger appropriate medical followup to those concerns.

DOD anticipates there will be servicemembers who, despite the best preventive efforts, may become ill during their deployment or following their deployment.

The newly implemented post-deployment clinical practice guideline that we worked on with VA will provide a focus to the health care providers in both agencies, ways to ensure that individuals who have deployment-related health concerns are effectively and appropriately addressed.

In addition to the department's efforts to improve health care before, during, and after deployments, we recognize the need to improve our ability to relate the location of servicemembers during a deployment with possible toxic exposures and environmental hazards.

GAO is correct. We do not have a single system to track movement of servicemembers within the deployment theater. As much as I would like to report that we have a way to track who was where when, I can't. This remains a complex problem involving the difficult challenges fusing operational and technological needs and requirements, that we cannot yet meet.

Each service has leveraged the best technology available to support this objective, but we do not yet have a satisfactory joint solution. We are, however, working very hard to get there.

As a result, we do capture data through service-specific systems and we do still rely on paper to ensure that the information documented in theater, whether electronically or otherwise, is effectively linked to individual medical records.

We agree with GAO that the establishment of the U.S. Army's CHPPM, Center for Health Promotion and Preventive Medicine, was a major improvement to the ability of our department to monitor, track, and warn about environmental hazards.

The center is continuing occupational and environmental health surveillance measures in support of combatant commanders and

their medical units deployed in support of Operation Enduring Freedom.

The center is a key component of the department's force health protection program, and is a resource identified as essential to support our joint medical surveillance and U.S. Central Command force health protection policies and guidelines.

In conclusion, I believe the department has made great progress to meet needs for medical surveillance, but we have much to do.

We will continue to pursue initiatives that will enhance our ability to establish a comprehensive medical surveillance system for our deployed forces, to share data, and collaborate with the Department of Veterans Affairs, and to develop a world-class health care system for our servicemembers, veterans, and their families.

Thank you very much.

[The prepared statement of Ms. Embrey appears on p. 74.]

Mr. MORAN. Dr. Murphy, maybe we ought to take our recess now. I was not anticipating votes for 5 hours. It's been about two. So this is unexpected.

Mr. Filner has a question for Ms. Embrey, and then we'll recess for a few moments while we vote, and return.

Mr. FILNER. Just correct me if I'm wrong. The last time we all were together, I had asked a question about the immunization records and could they be delivered to us, and you said no problem.

Ms. EMBREY. Yes, sir.

Mr. FILNER. Have we received them yet?

Ms. EMBREY. You have not received them. However, we have been spending the time since my testimony——

Mr. FILNER. Day and night?

Ms. EMBREY (continuing). Getting the information together. They have been assembled.

As I understand it, we have some privacy issues with the names and so forth on the records, and we need to overcome that before providing them to you, but I can assure you that we will provide them to you as soon as they're ready to come.

Mr. FILNER. Thank you so much. Thank you, Mr. Chairman.

Mr. MORAN. This is one vote. The subcommittee will stand in recess until the sound of the Chairman's gavel.

[Recess.]

Mr. MORAN. I call the subcommittee back to order. Dr. Murphy, we're ready for your testimony.

The circumstances on the House floor have become much more fluid than I thought. Anyone who suggested no votes for 5 hours was entirely wrong, and we may be interrupted shortly again.

So let's proceed absent my colleagues. Dr. Murphy, we're ready for your testimony.

STATEMENT FRANCES MURPHY, M.D., M.P.H.

Dr. MURPHY. Mr. Chairman, thank you for the opportunity to testify today on the importance of actions taken to protect the health of American forces. I've submitted a formal statement for the record.

Today I'm accompanied by Dr. Craig Hyams. He is the chief consultant of VA's Occupational and Environmental Health Strategic Health Care Group and a Gulf War veteran.

VA has worked in collaboration with DOD over the past decade to understand the health consequences of military deployments. Our collaboration is made all the more relevant by the recent deployment of U.S. troops in the war against terrorism.

Based on our experience with previous conflicts, we recognize the critical importance of good health documentation and lifelong medical records that cover the periods before, during, and after deployment.

Our understanding of many veterans' health issues has been hampered by inadequate baseline health information and inadequate documentation of health during active duty.

As noted by GAO, many Gulf War health issues are not verifiable, due to the lack of detailed computerized medical records documenting pre-enlistment and pre-deployment health status.

DOD and VA have recognized this shortcoming and we are attempting to work at this problem through development of the recruit assessment program to collect routine baseline health information on U.S. military recruits.

This program will establish baseline health information for use during military service and for veterans' health compensation and research programs. These efforts will help us to evaluate health problems among servicemembers and to address post-deployment health questions.

The RAP program will required the continued support of DOD senior leadership, both in concept and in application of resources.

The Armed Forces Epidemiology Board and the National Academy of Sciences' Institute of Medicine have endorsed the program concepts.

A pilot program and testing are under way in the Marine Corps, Navy, and Army Recruit Training Commands.

VA and Congress, in the past, have also recognized the importance of providing health care and health surveillance for veterans as soon as possible following combat missions.

Section 102 of Public Law 105–368 authorized VA to provide health care to servicemembers who served on active duty in combat in any war after the Gulf War or during a period of hostilities after November 11, 1998.

Health care may be provided to these veterans for a 2-year period following their release from active service for any illness, even if there is insufficient medical evidence that that condition is related to military service.

This 2-year period will allow VA to collect basic health information and aid in evaluation of specific health questions and illnesses, such as the difficult-to-explain illnesses we saw after the Gulf War.

Based on lessons learned from previous conflicts, I believe that the continuation of this treatment authority is critical to VA's ability to provide comprehensive health care to veterans who serve in future combat missions.

VA also responded to the issue of the health consequences of military deployment by establishing two National Centers for Study of War-related Illnesses. These centers are located in Washington, DC and East Orange, New Jersey. They will focus on areas of medical care, research, risk communication, and education for health care personnel.

We look forward to working closely with the DOD Centers on Military Health in collaborative activities related to illnesses after deployment.

These new centers will also work collaboratively with the Department of Health and Human Services to ensure that lessons learned are applied to veterans and to active duty members.

We also worked with DOD to develop the new Clinical Practice Guidelines that were referenced in the GAO testimony. We feel that this is a major step forward in our ability to assess post-deployment health problems.

These new guidelines will give VA primary care providers the tools they need to diagnose and treat veterans with illnesses after deployment.

The Gulf War made clear to us the value of access to timely and reliable information about the health risks servicemembers face during deployment. Therefore, VA has developed a brochure that addresses the main health concerns for military service in Afghanistan and South Asia. We provided copies of that brochure to the committee today.

We believe that this brochure will help answer health-related questions that veterans, their families, and health care providers may have about military deployment to this region as they present to VA medical centers upon their return.

It also describes medical care programs that VA has developed in anticipation of the health needs of these veterans returning from combat and peacekeeping missions abroad.

The brochure was coordinated in its development with DOD and the brochure will be distributed to all medical centers within the VA system in March of 2002, and will also be available to veterans, their families, and their private health care providers, for reference.

Access to accurate information is the key to success in providing services to veterans. There currently is no complete single repository for active servicemembers' and veterans' health data that can be used to ensure continuity of care, improve health care delivery, and provide valid, reliable data for disability claims.

Last fall, however, VA, DOD, the Indian Health Service, and other agencies began to substantially expand the health information program entitled HealthePeople.

In my full testimony, I described the activities that are included in that effort, and their ability to improve our delivery of health care services to veterans in the future.

Although VA and DOD are closely collaborating on a number of initiatives, the transition of records from DOD to VA is still a work in progress.

What can be said now is that, based on recent experience, the VA can expect a complete roster of deployed personnel after the first phases of the current deployment are completed. From this roster, VA can obtain records needed to determine who is a veteran of the deployment and to evaluate potential health threats.

Work on deployment health issues has been positively impacted by inter-governmental coordination between VA, DOD, and HHA.

The initiation in 2000 of the tri-agency Military and Veterans Health Coordinating Board served to institutionalize future inter-

agency coordination. While the board may be replaced by the VA/DOD Executive Council in the future, formalization of governmental coordination will continue to play a critical role in addressing the health problems among veterans of future conflicts and peacekeeping missions.

Mr. Chairman, I remain concerned that VA authority and health care policy has not kept pace with the role of reservists and National Guard members in the 21st century American defense system.

We need to look carefully at the adequacy of health surveillance policy and VA health care policy as reservists and National Guard members are routinely utilized for deployment to conflicts and response to terrorist events.

Mr. Chairman, a veteran separating from military service and seeking health care today will have the benefit of VA's decade-long experience with Gulf War health issues.

From the lessons learned in serving veterans of past conflicts, VA today is in a better position than ever before to meet the needs of veterans who serve in all capacities, both at home and abroad. We look forward to continuing our work with our partners in DOD.

That concludes my statement, and Dr. Hyams and I will be happy to answer any of your questions.

[The prepared statement of Dr. Murphy appears on p. 78.]

Mr. MORAN. Thank you both, Madame Secretaries, for your testimony.

I've heard you testify about changes in policies. Both of you talk about that.

First of all, when we were here last month, we talked about 12 policies that were already in place at the Department of Defense. You have provided me with a list of those 12 policies.

Since that hearing, I think I understand that there is another set of policies that are being developed by DOD related to this issue. Is that correct?

Ms. EMBREY. In a continuing effort by the leadership through out the DOD, the Joint Staff, on 1 February 2002, published a policy memorandum that updated procedure for deployment health surveillance and readiness originally contained in a December 1998 policy memorandum. This memorandum provides standardized procedures for assessing health readiness and conducting health surveillance in support of all military deployments. The updated policy, which is effective 1 March 2002, contains expanded guidance on conducting occupational and environmental health surveillance, reporting diseases and non-battle injuries, and assessing servicemembers' health status before and following a deployment. This updated document is directly related to the goal of improving areas of Force Health Protection that have been found lacking during the Operations Desert Shield and Desert Storm and the many subsequent deployments conducted by our servicemen and women. (See p. 29.)

Mr. MORAN. So the memorandum that the GAO witnesses talked about that will be issued on Friday is an update of the past policy?

Ms. EMBREY. I'm sorry. I was not here during the GAO testimony, so I'm not familiar with what they were talking about.

Mr. MORAN. We would be glad to have you answer that question after you have a chance to review the information.

Ms. EMBREY. All right. Thank you.

Mr. MORAN. These changes in policies—are they generally or exclusively related to what occurred with our military personnel and ultimately our veterans post-Persian Gulf War?

Is that the impetus for this discussion within the Department of Defense and VA? What's causing us to move in this direction of developing these policies?

Dr. MURPHY. From the VA's standpoint, we've been learning more about how to care for veterans after conflicts, really, since the Korean War.

From our experience after the Vietnam War was we learned it was difficult to assess the impact of that deployment on Vietnam veterans, because we didn't even have a computerized roster of individuals who served in the conflict.

It took us years to develop a list that we could do valid population-based research studies from. We had to go back and obtain a record from DOD in order to get the DD–214 and verify that the veteran had served in the theater of operations and to verify other exposure issues.

Since the Gulf War, we've recognized that we need to start to build a lifelong medical record for a veteran. We believe that needs to be anchored in the Recruit Assessment Program (RAP). Every subsequent health examination and health intervention that gets done during that military members' career needs to be entered into a relational database so that we can build a record that allows us to assess the health status of that military member, and on into their veteran life.

We also need to make sure that DOD is collecting pre-deployment health assessments, doing environmental monitoring in the theater of operations, and doing post-deployment health assessments to really address the impacts of deployment on the health of a military member. Those are the main issues, VA has identified with the changes in policy and force health protection within the Department of Defense.

Mr. MORAN. Dr. Murphy, the critique of the circumstances the VA found itself in post-Vietnam War—is that any different than the critique of post-Persian Gulf?

The problems you described following the Vietnam War, the records and the lack of a database, is that a different scenario than what you would say about the circumstances the VA found itself in 10 years ago?

Dr. MURPHY. I have to compliment DOD on the progress that they've made. There have been dramatic improvements in the programs within DOD. That does not mean that we don't have a lot of work to do together.

We do have computerized rosters of every deployment. We do——

Mr. MORAN. When did that become true?

Dr. MURPHY. That was true beginning with the Gulf War.

Mr. MORAN. Ms. Embrey, anything to add to that, the motivation for what you're about in changing these policies?

Ms. EMBREY. Well, I think we learned a lot from the Gulf War, but I also think that how we were structured to manage and sup-

port health in a deployed situation was for the big war, and we began to operate in much different ways than we were structured to manage, and the systems that we had in place to support a deployed situation.

We've been paper-based for a long time. A deployed, automated option wasn't really something that, way back when, we even considered. The technology didn't support it.

We have had now the opportunity to adjust our capabilities with the technology and to ensure that we integrate what we now know to be a lifelong medical history as something important in understanding how a servicemember is affected by his military service, and we need to capture the appropriate pieces of information so that we can take care of them when they are part of the armed forces, and when they become veterans, the VA can take care of them, as well.

Mr. MORAN. What role does the potential presence of biological and chemical agents have in changing the policies at DOD or VA?

Ms. EMBREY. I believe that the Department of Defense is unique in having confronted this issue for quite some time.

Biological and chemical weapons were actually considered to be a much higher threat to the military during the cold war, because there were active, offensive programs at the time.

So I think that we've always had a history of understanding what those agents are and taking appropriate precautions, such as equipment and other protective measures. We had a lot of doctors who understood the symptoms.

I think that when those offensive weapon systems went away, then our expertise and understanding of the medical implications of that also went away, or got smaller. We still have it, but it got smaller, and now it's not as widespread.

Mr. MORAN. The question I asked the GAO witnesses about their belief—in this case your belief—of the preparedness for the Department of Defense and the VA, should our veterans return home, become veterans, and begin to experience the symptoms, symptoms similar, or other symptoms related to their health, how well prepared are we to address that, and how much better are we able to do so today than we were 10 years ago?

Ms. EMBREY. From our perspective, the recent implementation of the Post-deployment Clinical Practice Guidelines will be a big help, because it provides the information to the direct care providers of our servicemembers, wherever they get their care, whether it's a VA facility or elsewhere, with a specific focus on the issues and concerns that they have with specific clinical practice guidance to the provider on what to do and how to deal with the issues and to record them and to follow up on them on a rigorous basis.

Mr. MORAN. Dr. Murphy.

Dr. MURPHY. We've taken a much more active stance, having pre-placed clinical practice guidelines so people have the information in hand, and we don't have to play catch-up after people get back.

Having information provided to our health care providers in advance of people returning from Afghanistan and South Asia is very important, so that they have the understanding to speak knowl-

edgeably to veterans and returning military members about any health issues they may have post-deployment.

The other difference in approach, I believe, which is also much more pro-active, is having the research centers, the war-related illness centers focus on the future.

As we develop more understanding about health problems after deployment, we need to start to develop prevention programs. How can we actually prevent people returning with the multi-symptom illnesses that we've seen in the past century after a military combat deployment?

I'd say we also have better legal authority to provide the care. Public Law 105–368 was a major advance, allowing us the authority to provide health care to those who returned from military conflicts.

We don't have that ability yet, though, for some of the individuals who were deployed to New York City and worked at Ground Zero. We had a number of National Guard members there who, frankly, are left without good veterans' or military health benefits after their activation and service.

So we do have some holes and gaps in policy yet that could be addressed.

Mr. MORAN. Secretary Embrey, in regard to the National Guard, Reservists, or active military being deployed in Enduring Freedom, is there any distinction in the way those records are maintained? As you may recall, at the last hearing, I talked about a deployment ceremony in my own home town in which 25 reservists were deployed to the Middle East.

Since that time, 400 National Guards men from Kansas have been deployed.

Is there any different treatment between those reservists, those members of the Guard, and those who are active members of the military in the way that this system works with their health care readiness?

Ms. EMBREY. Well, there have been a number of initiatives in the last several, well, the last year, to address continuity of care for the reservists who are civilians most of the time, and serving on active duty military less than full-time.

When they are activated, however, and deployed, they are treated in the same way that all the other activated military personnel are, and we maintain the records on the provision of care to them in the same way we do for anyone else.

Those records are maintained on that individual, but the continuity of care as they move in and out of their status, active duty status, is being addressed through different policies in OSD Reserve Affairs.

To give you a more detailed analysis on that, I would have to get that information from that office and speak specifically to the kinds of initiatives that we've undertaken.

Mr. MORAN. You talk about the reservists. Is that true also of members of the Guard?

Ms. EMBREY. Yes. Reservist is generic for both Guard and reserve. I'm sorry.

Mr. MORAN. Thank you. Are there countries that the Department of Defense has looked at to review their policies and procedures

that have suggestions about the way we should be managing our health care preparedness? Have we looked at other countries and how they treat their servicemen and women in this regard? Any role models?

Ms. EMBREY. I don't know enough about that to answer it. Unless my colleagues can help, we might have to take this for the record.

Dr. MURPHY. We've actually worked closely with the Australians, the Canadians, our colleagues from the U.K.

In fact, we have a U.K. military member in the audience today who works with the Military Veterans Health Coordinating Board to keep not only VA and DOD health issues at the forefront for deployment health, but also to keep the international coordination alive.

I think that we've learned from each other about the need for good screening prior to deployment and the need for frequent routine periodic health examinations. It may be easier to have periodic health examinations rather than an in-depth screening prior to deployment.

I think that's lesson that I learned from our international collaboration.

The NATO forces tend to look at deployment health issues in slightly different ways, and we do have differences in policies related to preventive health.

You know, the vaccines were very different between the Canadians, the United Kingdom, and the American forces in the Gulf War, but as we work together, we are all refining the policies for deployment health.

Mr. MORAN. Ms. Embrey, one of the questions we talked about at the last hearing was about vaccinations and immunizations, and I think you're to provide some information in that regard.

Is that process different today than it was 10 years ago in the Persian Gulf War? Are we vaccinating and immunizing our servicemen and women differently than 10 years ago?

Ms. EMBREY. I think this goes back to the need to handle total force health protection across the lifecycle of an individual.

There are policies in place for everybody to annually review and update their vaccinations. Oftentimes that doesn't happen, and therefore, as we deploy, we evaluate what immunizations are needed and then take care of that as a matter of deployment criteria.

I believe that, from that perspective, we are making more of a command emphasis on making sure that those immunizations occur on a routine basis over time, rather than pushing it into a pre-deployment situation.

Mr. MORAN. Are there vaccinations that are required before deployment today?

Ms. EMBREY. Yes.

Mr. MORAN. And those are? Dr. Maul?

Col. MAUL. Yes, sir. There are a number of vaccinations that are required, and in fact, I'm prepared to read, if you choose, sir, the specific vaccinations that are required for U.S. Central Command.

Mr. MORAN. I'm happy to have those just submitted for the record.

Col. MAUL. Yes, sir.

Mr. MORAN. That would be fine.

(The information appears on p. 35 (page A–4 of MCM–0096–02, enclosed memorandum.))

Mr. MORAN. Dr. Maul, I appreciate you being here, and I know you came from Tampa.

I thought you might tell the subcommittee what your role is in this issue about health preparedness, and provide us with any thoughts you might have about the success or failures in making certain that our men and women are prepared for service in Enduring Freedom.

I give you the opportunity to just tell us a little bit about your story, and then what suggestions you have for this subcommittee.

Col. MAUL. Yes, sir. I am prepared to read some remarks into the record, if you permit.

Mr. MORAN. That would be fine.

STATEMENT OF COL. RONALD A. MAUL, M.D.

Col. MAUL. Yes, sir. Thank you.

Mr. Chairman, Mr. Filner, and members of the subcommittee, it's an honor to be with you today and speak about the force health protection of our soldiers, sailors, airmen and Marines.

The health of these outstanding citizens who proudly defend this nation's freedom at home and on foreign soil is critical to our state of readiness. We recognize their contributions to this country and thank you for your interest to ensure their health care remains a top priority.

Maintaining a fit force is an involved, continuous process which starts with comprehensive medical screening before an individual enters active duty and continues to the day he is laid to rest with military honors. We refer to this as the cradle-to-grave concept, which involves whole person support and surveillance throughout the individual's life.

At United States Central Command, we are committed to ensure this continuum is maintained while our forces are employed in support of national interests and objectives in the Central Region. Our focus is on the prevention of disease and injury.

We accomplish this effort through the publication and communication of Department of Defense policies to our subordinate service components. Further, we provide strategic oversight of this process to these same components on the force health protection and medical surveillance policies and guidelines.

Prior to Operation Enduring Freedom, an aggressive force health protection program was in place to support our forces who have remained deployed to the Central Region since Operation Desert Storm.

This program included policies and procedures for immunization of the force, publication of preventive medicine guidelines, assessments for the identification, monitoring, and risk management of environmental threats, and establishing policies to ensure safe water and food sources are available to our forces deployed to the region.

As Operation Enduring Freedom commenced and with the assistance of the Army Center for Health Promotion and Preventive Medicine, we researched additional environmental challenges and

potential health threats for our military members in the areas of the Central Asian states as well as Afghanistan and Pakistan.

One particular valuable source of information was drawing upon United States military lessons learned from our past conflicts as well as, in particular, the Soviet experience in Afghanistan.

The Soviet experience, an example of a modern force whose operational effectiveness was seriously hampered by disease and poor field sanitation, provided information on some of the unique threats in that region.

In response to all of these assessments, U.S. Central Command implemented a specific robust force health protection and medical surveillance program to the already established ongoing activities in the area of responsibility.

Preparation prior to deployment, sound prevention, and surveillance while employed, and followup are the key tenets to these programs.

Specific policy guidance for Operation Enduring Freedom was developed and communicated through several media to our service components to assist their planning and preparation efforts.

These included, but were not limited to, publication on regional threats by the U.S. Army Center for Health Promotion and Preventive Medicine and coordination with the U.S. Air Force Institute for Environment Safety and Occupational Health Risk Analysis.

Additionally, guidance was provided to components in detailed medical operations planning and preventive medicine as part of the commander-in-chief's Operation Enduring Freedom campaign plan.

Force health protection and medical surveillance guidance and requirements are specifically articulated in all deployment orders. This guidance is based on joint directives and is detailed further in the Force Health Protection Appendix of the Medical Support Annex to the U.S. Central Command Operation Enduring Freedom Campaign Plan.

The command continually issues followup messages with guidance on potential threats and specific health issues, such as Rift Valley Fever, meningococcal disease, and tuberculosis.

The Land Component Command was particularly aggressive in anticipating the health threat potential posed by detainee operations, and instituted sound preventive policies and procedures to address that threat.

Another particularly valuable tool we have used is a weekly secure video teleconference with all Central Command forward-deployed component medical activities as well as Continental U.S. Service Medical Force providers, the Joint Staff, and the Armed Forces Medical Intelligence Center.

This venue allows the opportunity to discuss realtime issues and simultaneously disseminate information.

As mentioned earlier, prevention is the major focus in deployment of a health fit force. To ensure this state of readiness, each military member completes or revalidates the pre-deployment health assessment no more than 30 days prior to deployment.

This record is reviewed by a health care provider for significant health changes or dental deficiencies which do not meet requirements or are in conflict with service policies.

The focus is on medical or dental deficiencies which make the military member non-deployable and is designed to prevent individuals from deploying until their medical and/or dental situations have been resolved.

Additionally, U.S. Central Command has an extensive medical surveillance program which went into effect after Desert Storm. The Operation Enduring Freedom surveillance process is an extension of this existing program.

We maintain oversight of this program by daily component medical situation reports and weekly disease and non-battle injury reports. We have been able to monitor medical trends for potential impact, future threats, and potential environmental concerns.

Ongoing surveillances and close monitoring of food and water sources supplied by the command's service components for compliance with command policies has, to date, nearly eliminated outbreaks of food-borne contamination and have alerted other commanders to the potential when unsafe conditions exist.

In summary, U.S. Central Command has fully embraced the policy guidance provided by the Defense Department, and we have established strong force health protection and medical surveillance programs and policies now being executed by our deployed components in support of Operation Enduring Freedom.

We will continue monitoring the health and well-being of our military forces through followup assessments—that is, the individual post-deployment assessment—and additionally work with other functional areas and agencies for continuity of documentation and further care.

There is still much we can do, and we will continue to improve our methods and procedures as we proceed in the campaign ahead. Our servicemembers deserve no less than the best quality of care our nation may provide now and in the future.

Thank you very much, Mr. Chairman.

Mr. MORAN. You're very welcome, colonel.

For my understanding, would you describe your responsibilities in this arena and how you relate to the troops of Enduring Freedom?

Col. MAUL. Yes, sir. I am U.S. Central Command command surgeon. I am the senior medical advisor to the Commander in Chief, Central Command, Gen. Franks.

In that role, I am the theater surgeon, if you will, for all activities going on, not only in the Central Command area of responsibility, which involves 25 countries, but also for the particular conflict in Operation Enduring Freedom right now.

Mr. MORAN. Were you engaged in a similar capacity during the Persian Gulf War?

Col. MAUL. No, sir, I was not. I was much less in rank at that time, in a different capacity.

Mr. MORAN. Do you have an appreciation for what your testimony would be, someone in your position 10 years ago, if they were in front of this committee telling us the same story with me asking similar questions about our preparedness for the Persian Gulf War?

Can you tell me the improvements that you believe have been made? Are there substantial changes in the way we operate today compared to 10 years ago?

Col. MAUL. Yes, sir, I believe there are many substantial improvements.

As I mentioned, we provide and instruct, actually, our subordinate service components to brief their servicemembers thoroughly on the medical threat that we prepare, in this case for Afghanistan, those particular measure that we recommend they undergo to prepare their troops for deployment.

We have continuous information available on our web site, for example, that lists the immunizations required for our area of responsibility, our area of operation, also updating the medical threats for particular parts of our AOR.

And then also, as I mentioned, in our deployment order, before we actually launched troops, if you will, from the U.S. to Afghanistan, there is also specific guidance in there on immunizations required, chemical prophylaxis for certain diseases that we know exist, again emphasizing the need to complete the pre-and-post-deployment health care assessments, and the like.

So I mean, commanders are very sensitive these days, as are the servicemembers, as are the medical support personnel who provide in-theater care for those servicemembers, all are very sensitive these days to the need to not only carry out the preventive medicine measures, but also to continue this surveillance while in country and then be sure to follow up once the troops are re-deployed.

Mr. MORAN. You pointed out something that I hadn't thought about, which was we have military personnel deployed in that area pre-Operation Enduring Freedom. We've had military men and women in the Middle East subsequent to the Persian Gulf War.

I've kind of framed the questions as 10 years ago and today, but the reality is we've had men and women we've had to worry about over the last decade on a daily basis in that arena, and I appreciate the reminder that this is not just then and now.

I assume that we've made changes over the course of time to protect the men and women that have served there continuously.

Dr. HYAMS. Can I add something to that?

Mr. MORAN. Sure, doctor.

Dr. HYAMS. Mike Kilpatrick and I—I'd like to mention this—we have actually an Infectious Disease Research Laboratory in the Navy that's been in Cairo, Egypt since 1947.

Mike and I were both stationed in that lab. In fact, Dr. Kilpatrick was the commanding officer of that lab at one time.

So we've routinely, since the late 1940s, trained military physicians in the infectious disease threats that you would face in that area of the world, so when we first deployed to Saudi Arabia in August 1990, we already had a very good idea of at least the infectious disease risk that we would expect amongst our troops at that time.

Mr. MORAN. Are those kind of facilities elsewhere, besides Cairo?

Dr. HYAMS. Yes, sir. Mike, do you want to mention the other labs?

Dr. KILPATRICK. The Army and the Navy work this worldwide infectious disease surveillance program together, both with their own

labs—the Army has one in Kenya, which is primarily focused on malaria.

The Navy has another lab in Peru, which looks at all the infectious diseases that are in that area of the world. The Navy has a lab in Indonesia, which is not fully operational right now, but they're opening a satellite lab in Vietnam. And the Army has a big lab in Bangkok.

They're both, all of those overseas labs are tethered to an Army-Navy consolidated lab here in the Washington, DC area that focuses all of research.

In addition to what the Army and Navy are doing individually, they are really coordinating what's called the global emerging infectious surveillance program, where they're looking at infectious disease threats worldwide with organizations like PAHO, World Health Organization, state and other national laboratories reporting data on what are the diseases being seen in their people.

In fact, that lab, that whole program, the GEIS program is really designing what is our flu vaccine going to look like next year, so that it has more than just military application.

That kind of info is available. That kind of information is provided to the surgeons for the theaters and certainly is part of what the medical people going into the theater have training on, so they are up to date.

Mr. MORAN. I want to try to wrap this up. It's unusual for me, even as the chairman of this subcommittee, to have more than 5 minutes, and so I've enjoyed the opportunity to have a conversation longer than normally allowed, but I don't intend to drag this out a lot longer.

Let me ask, though, Dr. Maul, are there troops in Afghanistan that have experienced illness, and anything unusual about those illnesses?

Col. MAUL. Sir, I'm pleased to report that our DNBI, our disease and non-battle injury rate has been relative low, and this is in part due to the tremendous efforts of our military medical community and commanders' attention to the matter of proper health screening prior to, proper immunizations prior to deployment, maintaining field sanitary, or field sanitation conditions, and the like.

Our DNBI rates are now hovering at about the expected average, and we really have not had, to this point in time, any significant disease trends in the theater.

Mr. MORAN. Any specific concerns you have about those men and women currently deployed, healthwise?

Col. MAUL. No, sir, I would believe not. Certainly with the pre-evaluations, the environmental evaluations that CHPPM has conducted in virtually every one of our basing and staging sites throughout Afghanistan, Central Asia, Pakistan, and so forth, and together with the measures that the commanders and the medical personnel deployed are already taking, we think we have it covered pretty well.

Mr. MORAN. Thank you. The weekly calls you mentioned—to the medical command are there transcripts kept of those conversations?

Col. MAUL. An informal transcript is made available from the Joint Staff. They are invitees to that conference, and they are, as I said, informally recorded.

Mr. MORAN. One of the topics that seems to continue to be at issue is the ability to know where servicemen and women are—and what is necessary to be able to resolve that particular issue?

Col. MAUL. Sir, if I could take that one as to what we're doing right now in Enduring Freedom, again, commanders are very acutely aware of the need to maintain a close visibility of their servicemembers, their troops, on a 24/7 basis.

With that said, and especially with our special operations forces, who are very active within and without Afghanistan, those servicemembers know, the medical personnel with them know, and so forth, that even though because of security reasons they can't divulge locations during the execution of a particular activity during the campaign, that once they are recovered, that they are to report exactly where they've been when, and so forth.

So at least with the special operations forces, for example, we do have a system in place for obtaining that information after the fact.

With other of our conventional forces, it's a little bit easier, for example, with the Navy, to keep track of them on the ships; Air Force, keep track of them on air bases, and that kind of thing.

But again, commanders and troops are acutely aware of the need to maintain location, excuse me, awareness of location.

Mr. MORAN. Colonel, let me ask one more about the men and women in Afghanistan.

Have our troops encountered biological and chemical agents?

Col. MAUL. Not to this date. We have no anecdotal evidence or intelligence to suggest that we have been exposed to any chemical or biological agents.

Mr. MORAN. Good. That's good news. I do have several other questions, but in light of the vote, you're saved from having to listen to me any longer.

I do appreciate the testimony. I particularly want to make sure that you ultimately answer the question about the GAO report and your intentions to implement their recommendations, the final, the remaining items that have not been implemented, whether that's an intention of the Department of Defense and the VA. I'll submit the few more questions in writing, including that one.

I appreciate the panel's testimony. Thank you very much for your time this afternoon. The committee will stand adjourned.

We will have an additional joint committee hearing with the Personnel Subcommittee of the Armed Services Committee next week, March 7 at 11 a.m., so this conversation and issue will continue.

That joint hearing is to examine the VA-DOD sharing under Public Law 97–174. I appreciate Congressman McHugh, Chairman McHugh, working together to see that our two subcommittees pursue these kinds of issues.

Thank you again, and we look forward to continued dialogue.

[Whereupon, at 3:53 p.m., the subcommittee was adjourned.]

APPENDIX

OFFICE OF THE CHAIRMAN
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MCM-0006-02
1 February 2002

MEMORANDUM FOR: Distribution List

Subject: Updated Procedures for Deployment Health Surveillance and Readiness

1. Force Health Protection (FHP) provides the conceptual framework for optimizing health readiness and protecting Service members from all health and environmental hazards associated with military service. A comprehensive health surveillance system is a critical component of FHP. Deployment health surveillance includes identifying the population at risk through personnel unit databases and pre- and post-deployment health assessments, recognizing and assessing potentially hazardous occupational and environmental health exposures and conditions, employing specific preventive countermeasures, monitoring of real time health outcomes, and timely reporting of disease and non-battle injury (DNBI) data to higher headquarters at least weekly. This memorandum provides standardized procedures for assessing health readiness and conducting health surveillance in support of all military deployments. Occupational and environmental health surveillance procedures have been added. General guidance is provided at Enclosure A and specific guidance is outlined in enclosures B through F.

2. Effective 1 March 2002, the health surveillance and readiness procedures described in this memorandum will be adhered to for all deployments (as defined at Enclosure A). This memorandum supersedes the health surveillance reporting procedures contained in the Joint Staff memorandum MCM-251-98,[1] and supports the implementation of DODD 6490.2,[2] DODI 6490.3,[3] and ASD(HA) policy memorandum.[4]

3. The Army Medical Surveillance Activity (AMSA) manages the Defense Medical Surveillance System (DMSS) deployment health data repository. All deployment health surveillance information will be forwarded to the DMSS for permanent archival and integration with DOD health information systems.

4. Tri-Service Reportable Events Guidelines and Case Definitions, blank pre- and post-deployment health assessment forms, DNBI reporting forms, and DMSS contact information are located on the AMSA web site at: http://amsa.army.mil. Questions may be directed to DSN 662-0471, or

commercial (202) 782-0471. The fax number is DSN 662-0612 or commercial (202) 782-0612.

5. The Joint Staff point of contacts are Major Brian Balough and Major Jeffrey Gillen, J-4, Medical Readiness Division, DSN 223-5101 or commercial (703) 693-5101. This document is also available electronically on the Joint Staff web site at http://www.dtic.mil/jcs/j4/divisions/mrd/.

For the Chairman of the Joint Chiefs of Staff:

JOHN P. ABIZAID
Lieutenant General, USA
Director, Joint Staff

Enclosure

References:

1 MCM-251-98, 4 December 1998, "Deployment Health Surveillance and Readiness"
2 DODD 6490.2, 30 August 1997, "Joint Medical Surveillance"
3 DODI 6490.3, 7 August 1997, "Implementation and Application of Joint Medical Surveillance for Deployments"
4 ASD-HA memorandum, 25 October 2001, "Updated Policy for Pre- and Post-Deployment Health Assessments and Blood Samples"

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ENCLOSURE A

GENERAL GUIDANCE

1. **Deployment**. For the purpose of joint health surveillance, a deployment is defined as a troop movement resulting from a Joint Chiefs of Staff (JCS)/combatant command deployment order for 30 continuous days or greater to a land-based location outside the United States. This deployment location does not have permanent US military medical treatment facilities (i.e., funded by the Defense Health Program) and may or may not be directly supported by deployed medical forces. Routine shipboard operations that are not anticipated to involve field operations ashore for over 30 continuous days are exempt from the mandatory requirements for pre- and post-deployment health assessments. Commanders are highly encouraged to accomplish deployed health surveillance activities for operations which may fall outside the current deployment definition. If the duration of deployment is uncertain, then the surveillance requirements described in this enclosure (pre- and post-deployment health assessments, health readiness, and DNBI reporting) will be met.

2. **Occupational and Environmental Health Surveillance**. Occupational and environmental health (OEH) hazards can seriously impact the mission and erode public confidence in the military's ability to protect US personnel. These hazards include exposures to harmful levels of environmental contaminants such as industrial toxic chemicals, chemical and biological warfare agents, and radiological and nuclear contaminants. "Harmful levels" include high-level exposures that result in immediate health effects and significant impacts to mission capabilities. Health hazards may also include low-level exposures that could result in delayed or long-term health effects that would not ordinarily have a significant impact on the mission.

a. Environmental Baseline Survey (EBS). Conducting an EBS of the deployed site should be accomplished as early as possible to meet force health protection mandates. The EBS identifies and quantifies occupational and environmental health and safety hazards that pose potential risks to US personnel at US Force locations. The EBS is intended to document occupational and environmental health hazards so they can be considered during operational planning as part of the operational Force Health Protection program. Technical guidance for conducting these surveys can be found in Army Field Manual FM 3-100.4 or the Air Force Air Mobility Command Environmental Baseline Survey protocol, at https://amc.scott.af.mil/sg/sgpb/readiness.html.

b. Industrial Hazard Assessments (IHA). The Armed Forces Medical Intelligence Center (AFMIC) has developed reports that identify potential local industrial operations and the hazards normally associated with those operations. IHAs should be utilized when pre-screening potential bed-down locations and during follow-on validation of the EBS when completing the OEH risk assessment. Preventive Medicine units use IHA information and EBS data integrated with the Operational Risk Management (ORM) process to identify OEH hazards, assess their risks, determine appropriate countermeasures, and develop effective risk communication techniques for commanders and deployed personnel.

3. **Disease Non-Battle Injury (DNBI).** DNBI rates are an important tool at the unit level. Abnormal rates indicate a problem may exist which could negatively impact mission readiness and preventive medicine countermeasures need to be implemented. Historically, DNBI cost the field commander 99% of all personnel lost from deployed forces (validated during Operation DESERT STORM) and are largely preventable. The most valuable DNBI surveillance data is near real-time. Timely DNBI monitoring will permit: early casualty identification with potential adverse health trends, assessment of countermeasure effectiveness, and determination for enhanced countermeasures.

4. **Pre-deployment.** The supported combatant command, through deployment orders and separate instructions, will require the supporting combatant commands and Services to accomplish the following at the home station or processing station of the deploying military member. The supported combatant commands will incorporate the requirements of this memorandum into their deliberate and crisis action planning:

a. Theater-Wide Health Preparedness.

(1) Review infectious disease and environmental health risks for the area of operations. At a minimum, the infectious disease risk assessment, environmental health risk assessment, and disease occurrence worldwide regional updates produced by AFMIC should be reviewed. These resources are available through the intelligence component of the JS/combatant command staff (e.g., J-2, G-2, S-2). AFMIC maintains the Medical Environmental Disease Intelligence and Countermeasures (MEDIC) CD-ROM and up to date information on the following websites:

http://mic.afmic.detrick.army.mil/ (unclassified)

http://www.dia.smil.mil/intel/afmic/afmic.html (SECRET GCCS)

http://www.dia.ic.gov/intel/afmic/afmic.html (SCI JWICS)

(2) Establish requirements, allocate and assign appropriate medical resources to meet occupational and environmental health assessment and surveillance requirements, particularly in the earliest operational phases.

(3) Ensure commanders as well as all deployable personnel are trained in Service-specific operational risk management methods.

(4) Based on the threat, conduct studies at potential deployment sites to establish pre-deployment environmental health baseline conditions. Ensure these are integrated with related efforts conducted in accordance with Joint Publication 4-04, "Joint Doctrine for Civil Engineering Support."

(5) Complete risk assessments for all known health hazards in accordance with Joint Publication 5-00.2, "JTF Planning Guidance and Procedures," Joint Publication 2-01.3, "Joint Tactics, Techniques, and Procedures for Joint Intelligence Preparation of the Battlespace," and Service operational risk management guidance. Incorporate Health Risk Assessments into overall operational plans and specify requirements for risk control decisions by the appropriate level in the command.

(6) Incorporate risk management and surveillance recommendations into the Force Health Protection Appendix, Annex Q (Medical) of the deliberate or crisis action plan. Ensure these risks are reflected in the overall Operational Risk Summary evaluation. Communicate this information to subordinate units for inclusion into their unit-level planning. Medical threats should also be integrated into Annex B (Intelligence) as appropriate.

(7) Inform Service members of all known and perceived significant health threats, including endemic diseases; entomological hazards; nuclear, biological, or chemical (NBC) contaminants; toxic industrial materials (agricultural and industrial); deployment related stress; and climatic/environmental extremes (e.g., heat, cold, high altitude, wind blown sand and dirt).

(8) Employ proven preventive medicine countermeasures, to include, avoidance of hazardous locations when consistent with operational goals, and the use of appropriate personal protective measures and equipment.

(9) Conduct pre-deployment vulnerability assessment of preventive medicine concerns (validating AFMIC-identified medical threats). Assess vulnerabilities to local food and water sources, potential epidemiological threats, local medical capabilities, vector/pest threats, and hygiene of local billeting and public facilities. These assessments will provide the necessary information to determine the initial force protection strategies and resources required to mitigate risks to DOD personnel and assets.

b. Individual Medical Readiness. The DD Form 2766, "Adult Preventive and Chronic Care Flowsheet," is the DOD standard form in the medical record for

recording essential readiness indicators listed below. This will be the common location for minimum documentation by all Services, which may be supplemented by other forms such as Public Health Service Form PHS 731 and Service-specific forms. The DD Form 2766 will deploy with the individual. Complete individual medical readiness processing, including the following:

(1) Immunizations

(a) DOD Minimum Requirements. Must be current (as defined by most recent Advisory Committee on Immunization Practice vaccine specific schedules) in tetanus-diphtheria, influenza, hepatitis A, MR/MMR, and polio.

(b) Service-specific Requirements. Refer to AFJI 48-110, AR 40-562, BUMEDINST 6230.15, and CG COMDTINST M6230.4E, "Immunizations and Chemoprophylaxis," 1 November 1995.

(2) Deployment-specific medical countermeasures. Based upon the geographical location, the combatant command will determine the need for:

(a) Additional immunizations (e.g., anthrax, meningococcus, Japanese Encephalitis vaccine).

(b) Chemoprophylactic medications (e.g., Mefloquine, Chloroquine, Doxycycline)

(c) Other individual personal protective measures (such as insect repellent, bednetting, and uniform impregnation).

(3) Required occupational health personal protective equipment and training. For example: hearing protection, eye protection, NIOSH approved respiratory protection (including spare filter cartridges), protective clothing, and personal exposure dosimeters such as those that monitor chemical or radiation exposures.

(4) Individual Health Assessment. Conduct pre-deployment health assessments using the DD Form 2795 (Pre-deployment Health Assessment) and processing guidance at Enclosure B and ensure medical and dental requirements are current IAW Service policy, including:

(a) Mandatory occupational health examination and training requirements (e.g., respirator exams and fit testing).

(b) Dental Class I/II.

(c) No significant health conditions (e.g., P-4 profile, pregnancy).

(d) Collection of additional baseline biological samples as warranted by the deployment health threat.

(e) HIV testing IAW Service policy or the supported combatant command policy (serves dual purpose: HIV screening and pre-deployment serum sample).

(f) The most recent tuberculosis skin test (TST) results must be documented appropriately in the deployment health record. Currency (or periodicity) of TST is established by Service specific policies based upon analysis of Service unique risk factors. Thus, Service policies may permit more than a 24 month period to elapse between TSTs. For previous PPD converters handle IAW Service policy.

(g) DNA sample on file. To confirm the unit/individual status of DNA specimens on file, contact the DOD DNA Specimen Repository (voice 301-295-4379, fax 301-295-4380, or e-mail afrssir@afip.osd.mil).

(h) 90-day supply of prescription medications.

(i) Required medical equipment (glasses, protective mask inserts, hearing aids, dental orthodontic equipment, etc.).

(5) Medical Record. Create/Update the deployed medical record (DD Form 2766) with:

(a) Blood type.

(b) Medications/allergies.

(c) Special duty qualifications.

(d) Corrective lens prescription.

(e) Immunization record.

(f) DD Form 2795, Pre-deployment Health Assessment .

(g) Medical summary sheet identifying medical conditions (G6PD deficiency, sickle cell trait (HbS), etc.)

c. Pre-deployment Health Threat Brief. Provide information to deploying personnel identifying health threats and countermeasures to include applicable immunizations and other pre-exposure investigational new drugs such as pyridostigmine bromide.

5. **During Deployment.** The supported combatant command will provide guidance and support to component commands to:

a. Ensure subordinate medical activities conduct timely, standardized, comprehensive surveillance, risk assessments, and prevention of health hazards. These activities are based on the threat assessment and guidance provided in the Services' implementing instructions to DODI 6490.3, "Implementation and Application of Joint Medical Surveillance for Deployments," DODI 6055.1, "Department of Defense Safety and Occupational Health," to include DNBI (Enclosure C), reportable medical events (Enclosure D), and Occupational and Environmental Health Surveillance (Enclosure E).

b. Ensure DOD health surveillance requirements are met for reporting and archiving of health surveillance data and reports (DNBI, Reportable Medical Events, occupational and environmental health surveillance data, etc.). Ensure documentation in the individual medical records of all individual health treatment provided at all levels of care and any notable environmental and occupational exposures. Special attention is needed to ensure individual exposure records can be linked to individual health records.

c. Ensure environmental health risk assessments are continuously reviewed and updated throughout the deployment using data collected in theater. Ensure newly identified in-theater risks are assessed and incorporate operational risk management processes to provide commanders information for dissemination to military members. Collect data that are appropriate for medical record documentation. Significant newly identified risks should be communicated to all appropriate organizations, including the Defense Intelligence Agency (DIA) through AFMIC, Joint Task Forces (JTFs), combatant commands, Services, and Service Occupational and Environmental Health Centers.

d. The JTF/combatant command personnel readiness unit will ensure the Defense Manpower Data Center (DMDC) is provided theater-wide rosters of all deployed personnel, their unit assignments (company-sized or equivalent) and the unit's geographic locations IAW the reporting requirements of DODI 1336.5, "Automated Extract of Active Duty Military Personnel Records," Enclosure 5, including attachment. Accurate personnel deployment rosters are required to assess the relative significance of medical disease/injury in terms of the rate of occurrence among the deployed population. Without the means to identify the locations of deployed personnel it will not be possible to accurately determine potential exposures to hazardous materials and agents.

e. Conduct pest control operations using the integrated pest management (IPM) program described in DODI 4150.7, "DOD Pest Management Program," 22 April 1996, and current Armed Forces Pest Management Board guidance (Technical Information Memorandum No. 1, "AFPMB Publications," January 2001). Document the types, concentrations, amounts, application methods, dates and times, locations, and the personnel potentially exposed to the

hazardous substances IAW OASD(AT&L) memorandum, dated February 1, 1999.

6. **Post-Deployment.**

a. The combatant command or Service components will provide guidance and support to ensure the following are accomplished in-theater prior to re-deployment:

(1) Conduct timely post-deployment health assessments using DD Form 2796 and processing guidance at Enclosure F.

(2) Identify Service members in need of medical evaluation upon return to home/processing station based on review of medical treatment received in theater, the post-deployment health assessment form, and other pertinent health surveillance data. Reserve component members in need of a more detailed medical evaluation or treatment shall complete DD Form (Report of Medical Assessment) and, with the member's consent, be retained on active duty pending resolution of their medical conditions as provided in section 12301 of Title 10, United States Code, and implemented in ASD(RA) memorandum, 26 May 2000, "Authority to Call Reserve Component Members to Active Duty for Medical Purposes."

(3) Conduct medical debriefing with re-deploying Service members on all significant health events, exposures, and concerns (also identified on post-deployment health assessments). Ensure these events and exposures are documented in individual Service member's health records. Medical debriefing ideally occurs within 5 days prior to departure from theater, but may be conducted within 5 days upon return to CONUS/home station.

(4) Ensure significant occupational and environmental health related events/exposures are included in operational After Action Reports (AARs). This shall include any disease outbreaks, location of industrial sources, contaminated sites (hazardous materials/wastes, NBC, other), presence of disease vectors, and other operational factors that affected the overall health status (acute, chronic, or latent effects) of the deployed Service members. Ensure AARs are provided to the intelligence community (including AFMIC) and Service centers for lessons learned to be incorporated into future operational planning. Ensure all occupational and environmental health data is forwarded for analysis and archival in accordance with the procedures in Enclosure E.

(5) Develop and forward force health protection lessons learned to the Joint Uniform Lessons Learned System (JULLS).

b. The Services or supporting combatant commands must accomplish the following at the home station or processing station of the re-deploying service member:

(1) For deployments to high TB threat areas or operations such as those involving close contact with large refugee populations, conduct TB screening between 3 and 12 months after redeployment IAW Service-specific requirements. For deployments to non-high TB threat areas, conduct TB screening IAW Service-specific policy. Interpretation of the Tuberculin Skin Test (TST) results should be IAW Service policy.

(2) Collect, when indicated by Service policy, a serum sample for HIV testing and storage in the serum repository. Collect additional biological samples as warranted by the events occurring in theater or post-deployment health assessment responses and evaluations.

(3) Conduct additional health assessments and/or health debriefings when indicated.

c. Service members returning from a theater with deployment related health concerns will be evaluated using the Post-Deployment Health Clinical Practice Guideline. Health care providers should consult the DOD Post-Deployment Health web site, www.pdhealth.mil, for further information on the clinical practice guidelines.

ENCLOSURE B

PRE-DEPLOYMENT HEALTH ASSESSMENT FORM (DD Form 2795) PROCESSING GUIDANCE

1. Service members must complete or re-validate the health assessment form at their home station or processing station within 30 days prior to their deployment. Internet forms may be locally reproduced. Blank forms are available for download from the Army Medical Surveillance Activity (AMSA) at the following web-site: http://amsa.army.mil. Forms should be printed on both sides in a head-to-head orientation. Forms should not be stapled or treated with chemicals.

2. The form must be administered and then immediately reviewed by a health care provider. The provider can be a medical technician, medic or corpsman for administering and initially reviewing the questionnaire. However, positive responses to questions 2-4 and 7-8 must be referred to a physician, physician's assistant, nurse, or independent duty medical technician.

3. The original of the completed form must be placed in the Service member's permanent medical record. Copies will be immediately forwarded to the AMSA, Building T-20, Room 213 (ATTN: Deployment Forms), 6900 Georgia Avenue, N.W., Washington, D.C., 20307-5001, DSN 662-0471 or commercial (202) 782-0471.

4. AMSA receives pre-deployment health assessments, performs data entry, and integrates the data into the Defense Medical Surveillance System (DMSS). AMSA has the capability to provide the Joint Staff, combatant commands, and the Services with periodic trend analysis reports on the completed DD Forms 2795.

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PRE-DEPLOYMENT Health Assessment

Authority: 10 U.S.C. 136 Chapter 55. 1074f, 3013, 5013, 8013 and E.O. 9397

Principal Purpose: To assess your state of health before possible deployment outside the United States in support of military operations and to assist military healthcare providers in identifying and providing present and future medical care to you.

Routine Use: To other Federal and State agencies and civilian healthcare providers, as necessary, in order to provide necessary medical care and treatment.

Disclosure: **(Military personel and DoD civilian Employees Only)** Voluntary. If not provided, healthcare WILL BE furnished, but comprehensive care may not be possible.

INSTRUCTIONS: Please read each question completely and carefully before marking your selections. Provide a response for each question. If you do not understand a question, ask the administrator.

Demographics

Last Name

Today's Date (dd/mm/yyyy) / /

First Name MI

Social Security Number - -

Deploying Unit

DOB (dd/mm/yyyy) / /

Gender
- O Male
- O Female

Service Branch
- O Air Force
- O Army
- O Coast Guard
- O Marine Corps
- O Navy
- O Other

Component
- O Active Duty
- O National Guard
- O Reserves
- O Civilian Government Employee

Pay Grade

O E1	O O1	O W1
O E2	O O2	O W2
O E3	O O3	O W3
O E4	O O4	O W4
O E5	O O5	O W5
O E6	O O6	O Other
O E7	O O7	
O E8	O O8	
O E9	O O9	
	O O10	

Location of Operation
- O Europe
- O SW Asia
- O SE Asia
- O Asia (Other)
- O South America
- O Australia
- O Africa
- O Central America
- O Unknown

Deployment Location (IF KNOWN) (CITY, TOWN, or BASE):

List country (IF KNOWN):

Name of Operation:

Administrator Use Only

Indicate the status of each of the following:

Yes	No	N/A	
O	O	O	Medical threat briefing completed
O	O	O	Medical information sheet distributed
O	O	O	Serum for HIV drawn within 12 months
O	O	O	Immunization's current
O	O	O	PPD screening within 24 months

33823

PLEASE FILL IN SOCIAL SECURITY # ___ - __ - ____

Health Assessment

1. Would you say your health in general is: O Excellent O Very Good O Good O Fair O Poor
2. Do you have any medical or dental problems? O Yes O No
3. Are you currently on a profile, or light duty, or are you undergoing a medical board? O Yes O No
4. Are you pregnant? (FEMALES ONLY) O Don't Know O Yes O No
5. Do you have a 90-day supply of your prescription medication or birth control pills? O N/A O Yes O No
6. Do you have two pairs of prescription glasses (if worn) and any other personal medical equipment? O N/A O Yes O No
7. During the past year, have you sought counseling or care for your mental health? O Yes O No
8. Do you currently have any questions or concerns about your health? O Yes O No

   Please list your concerns: _____

Service Member Signature

I certify that responses on this form are true.

Pre-Deployment Health Provider Review (For Health Provider Use Only)

After interview/exam of patient, the following problems were noted and categorized by Review of Systems. More than one may be noted for patients with multiple problems. Further documentation of problem to be placed in medical records.

REFERRAL INDICATED

O None
O Cardiac
O Combat / Operational Stress Reaction
O Dental
O Dermatologic
O ENT
O Eye
O Family Problems
O Fatigue, Malaise, Multisystem complaint
O GI
O GU
O GYN
O Mental Health
O Neurologic
O Orthopedic
O Pregnancy
O Pulmonary
O Other _____

FINAL MEDICAL DISPOSITION: O **Deployable** O **Not Deployable**

Comments: (If not deployable, explain)

_____

I certify that this review process has been completed.

Provider's signature and stamp.

Date (dd/mm/yyyy) __ / __ / ____

End of Health Review

33823

DD FORM 2795, MAY 1999 ASD (HA) APPROVED SEPTEMBER 1998 Ver 1.3

ENCLOSURE C

WEEKLY DISEASE AND NON-BATTLE INJURY (DNBI) REPORT INSTRUCTIONS

1. Disease and Non-Battle Injury Rates - The Vital Signs of the Unit

a. Disease and non-battle injury (DNBI) rates are an important tool at the unit level. The DNBI report summarizes the weekly DNBI data rates and provides baseline rates for comparison. Abnormal rates indicate a problem exists which could negatively impact readiness and indicates preventive medicine countermeasures need to be implemented. Unit data must be reported weekly (ending Saturday 2359 hrs local) via command channels through the JTF Surgeon to the Combatant Command Surgeon. Additionally, DNBI data must be simultaneously reported to the Service Surveillance Centers for further analysis and to the DMSS for repository purposes. Service Health Surveillance Centers (AFIERA, NEPMU, and CHPPM) further analyze DNBI data, identifying adverse trend and reporting health threat anomalies to the JTF/Combatant Command Surgeon. The supported Combatant Command Surgeon will release DNBI reports to the Joint Staff and the Services/components when significant medical threats are encountered.

b. The DNBI report is based on unit logs, which must record at a minimum the following information on every patient encounter. Some information required for record as part of the DNBI data collection (e.g. name, SSN, gender, unit, etc.) is not required for completion of the "Weekly DNBI Report". The purpose of collecting this information is to allow local medical authorities to quickly review pertinent data that describes the occurrence of medical events. This is particularly useful for investigation of outbreaks or other medical problems, which may occur during the deployment. Information sources for the DNBI report include the sick call log, electronic patient record, and accident reports:

(1) Patient's name, SSN, gender, unit, unit identification code (UIC), and duty location.

(2) Type of visit - new, follow-up, or administrative.

(3) Primary complaint.

(4) Final diagnosis.

(5) Injuries, a classification into recreation/sports, motor vehicle accident (MVA), work/training, or other.

(6) Final disposition into one of the following categories:

- Full duty.

- Light duty (number of days).
- Sick in quarters (number of days).
- MTF in-patient admissions (number of days).

(7) DNBI category (case definitions provided at the end of this enclosure).

c. Sick call logbooks, electronic patient records, and other records of raw data compiled to create the DNBI report must be retained by the medical unit at the conclusion of the deployment for at least one-year. Medical units will forward copies of all deployment sick call logs annually to DMSS for archiving.

2. DNBI report instructions.

a. Record the administrative data in the spaces provided at the top of the "Weekly DNBI Report" form, located at the end of this enclosure. Obtain average troop strength for the reporting period from the S-1/J-1.

b. Review the sick call log and add up the total number of new cases (excluding follow-ups) seen during the week in each DNBI category. Fill in the appropriate block. Add up the total DNBI and record the number in the space provided.

c. To calculate DNBI rates, divide the total number of patients seen in each category by the average troop strength, and multiply by 100. For the gynecologic category, the FEMALE troop strength must be used to calculate the rate, not the total troop strength. Remember to calculate an overall DNBI total rate.

Example. If there were 20 dermatological cases this week in 500 troops, the DNBI rate (percent) for dermatological cases would be calculated as follows:

$$DNBI\ (\%) = \left(\frac{\#Patients}{\#Troops}\right) \times 100$$

$$DNBI_{derm}(\%) = \left(\frac{20}{500}\right) \times 100$$

$$DNBI_{derm}(\%) = (0.04) \times 100$$

$$DNBI_{derm}(\%) = 4\%$$

d. Next, add up the total number of estimated light duty days, lost workdays (total of sick-in-quarters days plus in-patient admission days), and MTF in-patient admissions in each category, and fill in the appropriate block.

e. Compare calculated rates for each category with the suggested reference rate for that category (comment is required under the section "Problems Identified - Corrective Actions" for all categories where rates are above the suggested reference rate). When comparing rates, keep the following information in mind:

(1) The suggested reference rates are only approximate and should be used as a rough guide only. The combatant command or JTF Surgeon may modify the "Suggested Reference Rates" based upon theater/deployment specific trends. Establishing statistical confidence levels of 2 and 3 standard deviations is desirable when sufficient DNBI data has been collected.

(2) Exceeding a rate by 0.1 percent is not necessarily an indication of a significant problem. Rates between 2 and 3 standard deviations should heighten surveillance. Rates exceeding 3 standard deviations indicate that there is a health problem requiring urgent attention, possible intervention, and reporting to the JTF/Combatant Command Surgeon.

(3) The individual suggested reference rates are not intended to add up to the total DNBI suggested reference rate. An individual category could have a high rate without causing the total rate to exceed the reference rate - attention to the individual category is appropriate and necessary in this situation. Alternatively, the total DNBI rate could be high without causing individual categories to exceed their reference rates – attention to systemic problems causing general sick call visits to rise is appropriate and necessary in this situation.

(4) Use common sense in interpreting the DNBI rates. Track DNBI rates over time and compare current DNBI rates with your unit's past DNBI rates for comparable situations.

3. Report weekly DNBI data to the unit commander and to medical personnel at higher echelons (as noted in the first paragraph of these instructions). The combatant command is the releasing authority for all reportable DNBI outcomes. Service centers will coordinate with theater medical surveillance teams, if deployed, or JTF surgeon when adverse trends occur. The theater surveillance teams will augment organic preventive medicine units to investigate the cause of the adverse DNBI incident.

CASE DEFINITIONS

Notes:

1. Count only the initial visit. Do not count follow-up visits.

2. All initial sick call visits should be placed in a category. Some patients with multiple ailments may need to be counted in multiple categories.

3. If in doubt about which category, make the best selection.

4. Estimate days of light duty, lost workdays, or admissions resulting from initial visits.

Combat/Operational Stress Reactions – Includes acute debilitating mental, behavioral, or somatic symptoms thought to be caused by operational or combat stressors, that are not adequately explained by physical disease, injury, or a preexisting mental disorder, and that can be managed with reassurance, rest, physical replenishment, and activities that restore confidence.

Dermatological - Diseases of the skin and subcutaneous tissue, including heat rash, fungal infection, cellulitis, impetigo, contact dermatitis, blisters, ingrown toenails, unspecified dermatitis, etc. Includes sunburn.

Gastrointestinal, Infectious - All diagnoses consistent with infection of the intestinal tract. Includes any type of diarrhea, gastroenteritis, "stomach flu," nausea/vomiting, hepatitis, etc. Does NOT include non-infectious intestinal diagnoses such as hemorrhoids, ulcers, etc.

Gynecological - Menstrual abnormalities, vaginitis, pelvic inflammatory disease, or other conditions related to the female reproductive system. Does not include pregnancy.

Heat/Cold Injuries - Climatic injuries, including heat stroke, heat exhaustion, heat cramps, dehydration, hypothermia, frostbite, trench foot, immersion foot, and chilblain.

Injuries, Recreational/Sports - Any injury occurring as a direct consequence of the pursuit of personal and/or group fitness, excluding formal training.

Injuries, Motor Vehicle Accidents - Any injury occurring as a direct consequence of a motor vehicle accident.

Injury, Work/Training - Any injury occurring as a direct consequence of military operations/duties or of an activity carried out as part of formal military training, to include organized runs and physical fitness programs.

Injury, Other - Any injury not included in the previously defined injury categories.

Ophthalmologic - Any acute diagnosis involving the eye, including pink-eye, conjunctivitis, sty, corneal abrasion, foreign body, vision problems, etc. Does not include routine referral for glasses (non-acute).

Psychiatric, Mental Disorders – Debilitating mental, behavioral or somatic symptoms that meet diagnostic criteria for or have been previously diagnosed as a psychiatric/mental disorder. Does NOT include symptoms due to identified physical disease or injury, or symptoms better explained as a transient combat/operational stress reaction.

Respiratory - Any diagnosis of the: lower respiratory tract, such as bronchitis, pneumonia, emphysema, reactive airway disease, and pleurisy; or the upper respiratory tract, such as "common cold," laryngitis, tonsillitis, tracheitis, otitis and sinusitis.

Sexually Transmitted Diseases - All sexually transmitted infections including chlamydia, HIV, gonorrhea, syphilis, herpes, chancroid, and venereal warts.

Fever, Unexplained - Temperature of 100.5°F or greater for 24 hours, or history of chills and fever without a clear diagnosis (this is a screening category for many tropical diseases such as malaria, dengue fever, and typhoid fever). Such fever cannot be explained by other inflammatory/infectious processes such as respiratory infections, heat, and overexertion.

All Other, Medical/Surgical - Any medical or surgical condition not fitting into any category above.

Dental - Any disease of the teeth and oral cavity, such as periodontal and gingival disorders, caries, and mandible anomalies.

Miscellaneous/Administration/Follow-up - All other visits to the treatment facility not fitting one of the above categories, such as profile renewals, pregnancy, immunizations, prescription refills, and physical exams or laboratory tests for administrative purposes.

Definable - An additional category established for a specific deployment based upon public health concerns (e.g., malaria, dengue, airborne/HALO injuries, etc.).

WEEKLY DNBI REPORT

Unit/Command: _____ Troop Strength: _____

Dates Covered: _____ (Sunday 0001) Through _____ (Saturday 2359)

Individual Preparing Report: _____

Phone: _____ E-Mail: _____

CATEGORY	INITIAL VISITS	RATE	SUGGESTED REFERENCE RATE	DAYS OF LIGHT DUTY	LOST WORK DAYS	ADMITS
Combat/Operational Stress Reactions			0.1%			
Dermatologic			0.5%			
GI, Infections			0.5%			
Gynecologic			0.5%			
Heat/Cold			0.5%			
Injury, Recreational/Sports			1.0%			
Injury, MVA			1.0%			
Injury, Work/Training			1.0%			
Injury, Other			1.0%			
Ophthalmologic			0.1%			
Psychiatric, Mental Disorders			0.1%			
Respiratory			0.4%			
STDs			0.5%			
Fever, Unexplained			0.0%			
All Other, Medical/Surgical						
TOTAL DNBI			4.0%			
Dental		XXXXXX				
Misc/Admin/ Follow-up		XXXXXX				
Definable						
Definable						

Problems Identified: _____

Corrective Actions: _____

DNBI Reporting Form for Joint Deployments

JOINT STAFF APPROVED – NOVEMBER 1998

ENCLOSURE D

TRI-SERVICE REPORTABLE MEDICAL EVENT LIST

Condition	ICD-9 code
1. Amebiasis	006
2. Anthrax	022
3. Biological Warfare Agent Exposure	E997.1
4. Botulism	005.1
5. Brucellosis	023
6. Campylobacter	008.43
7. Carbon Monoxide Poisoning	986
8. Chemical Agent Exposure	989
9. Chlamydia	099.41
10. Cholera	001
11. Coccidioidomycosis	114
12. Cold Weather Injury (All)	
a) CWI, Frostbite	991.3
b) CWI, Hypothermia	991.6
c) CWI, Immersion Type	991.4
d) CWI, Unspecified	991.9
13. Cryptosporidiosis	007.4
14. Cyclosporiasis	136.8
15. Dengue Fever	061
16. Diphtheria	032
17. E. Coli 0157:H7	008.04
18. Ehrlichiosis	083.8
19. Encephalitis	062
20. Filariasis	125
21. Giardiasis	007.1
22. Gonorrhea	098
23. H. Influenzae, Invasive	038.41
24. Hantavirus Infection	079.81
25. Heat Injuries	
a) Heat Exhaustion	992.3
b) Heat Stroke	992.0
26. Hemorrhagic fever	065
27. Hepatitis A	070.1
28. Hepatitis B	070.3
29. Hepatitis C	070.51
30. Influenza	487
31. Lead poisoning	984
32. Legionellosis	482.8
33. Leishmaniasis (all)	
a) Leishmaniasis, Cutaneous	085.4
b) Leishmaniasis, Mucocutaneous	085.5
c) Leishmaniasis, Visceral	085.0
d) Leishmaniasis, Unspecified	085.9
34. Leprosy	030
35. Leptospirosis	100
36. Listeriosis	027.0
37. Lyme Disease	088.81
38. Malaria (all)	
a) Malaria, Falciparum	084.0
b) Malaria, Vivax	084.1
c) Malaria, Malariae	084.2
d) Malaria, Ovale	084.3
e) Malaria, Unspecified	084.8
39. Measles	055
40. Meningococcal disease	
a) Meningitis	036.0
b) Septicemia	036.2
41. Mumps	072
42. Pertussis	033
43. Plague	020
44. Pneumococcal pneumonia	481
45. Poliomyelitis	045
46. Q fever	083.0
47. Rabies, Human	071
48. Relapsing Fever	087
49. Rheumatic Fever, Acute	390
50. Rift Valley Fever	066.3
51. Rocky Mountain Spotted Fever	082.0
52. Rubella	056
53. Salmonellosis	003
54. Schistosomiasis	120
55. Shigellosis	004
56. Smallpox	050
57. Streptococcus, Group A, Invasive	038.0
58. Syphilis (All)	
a) Syphilis, Primary/Secondary	091
b) Syphilis, Latent	096
c) Syphilis, Tertiary	095
d) Syphilis, Congenital	090
59. Tetanus	037
60. Toxic Shock Syndrome	785.59
61. Trichinosis	124
62. Trypanosomiasis	086
63. Tuberculosis, Pulmonary	011
64. Tularemia	021
65. Typhoid Fever	002
66. Typhus fever	080
67. Urethritis, Non-Gonococcal	099.40
68. Vaccine, Adverse Event	979.9
69. Varicella, Active Duty Only	052
70. Yellow Fever	060

NOTES:
1) This list represents minimum reportable events and can be supplemented by the Combatant Command, as necessary.
2) Tri-Service Reportable Events Guidelines and Case Definitions are available at: http://amsa.army.mil under "Documents" heading.

ENCLOSURE E

OCCUPATIONAL AND ENVIRONMENTAL HEALTH SURVEILLANCE

1. Introduction. Traditionally, deployment medical risk analysis and assessments have concentrated on the historically proven threats posed by infectious disease as a major cause of Disease and Non-Battle Injury (DNBI). Recent studies conducted by AFMIC, "DIA Report – Medical Intelligence Assessment of Deployment Environmental Health Risks," Jan 99, DI 1816-8-99, considered the risks of exposure to chemical and physical hazards from environmental contamination as an increasingly important element of force health protection, whether as the result of an accidental release, existing contamination or a directed action by an adversary.

2. Occupational and Environmental Health (OEH) Risk Assessment Process.

a. Background. Occupational and environmental health hazards can seriously impact the mission and erode public confidence in the military's ability to protect US personnel. These hazards include exposures to harmful levels of environmental contaminants such as toxic chemicals, radiation, or biological agents. "Harmful levels" include high-level exposures that result in immediate health effects and significant impacts to mission capabilities. Health hazards may also include low-level exposures that could result in delayed or long-term health effects that would not ordinarily have a significant impact on the mission. Commanders must utilize OEH surveillance to identify these hazards, assess the potential risks, determine appropriate risk control measures, and communicate these risks to their forces via Operational Risk Management (ORM) processes.

b. ORM as outlined in Service Doctrine, is a process for identifying, assessing, and controlling risks from operational hazards, including OEH hazards. Risk is determined by estimating the probability and severity of a potential adverse impact that may result from hazards due to the presence of an adversary or some other hazardous condition (i.e., such as environmental contamination). Risks range from low through extremely high. Leaders seek to mitigate risk by evaluating hazards and implementing ORM options during operational planning. When applied by medical personnel the ORM process allows planners to include the assessment of the severity of hazards, characterize the risks in the context of the proposed operation, and then effectively communicate the risk assessments and appropriate control measure options to the Commander. Commanders then make informed decisions by balancing the OEH risks and other operational risks with mission requirements.

c. Risk Assessment Process. The matrix below summarizes the ORM process. It is a qualitative tool, but the process of categorizing the health effects is largely quantitative. The quantitative parameters include, but are not

limited to: dose, exposure time, route of exposure (skin, inhalation, ingestion, etc.), and comparisons to established acute and chronic toxic thresholds.

RISK ASSESSMENT MATRIX

HAZARD SEVERITY	HAZARD PROBABILITY				
	Frequent (A)	Likely (B)	Occasional (C)	Seldom (D)	Unlikely (E)
Catastrophic (I)	Extremely High	Extremely High	High	High	Moderate
Critical (II)	Extremely High	High	High	Moderate	Low
Marginal (III)	High	Moderate	Moderate	Low	Low
Negligible (IV)	Moderate	Low	Low	Low	Low
	RISK ESTIMATE				

(1) Hazard Probability (horizontal-axis). The likelihood of a Service member encountering a hazard. Effective employment of mitigation strategies, such as personal protective equipment or avoidance, usually shifts the Hazard Probability to the right, thereby decreasing health risk.

(2) Hazard Severity (vertical-axis). A measure of the impact of the interaction of the hazard with the human, this relates biochemical and/or physiological side effects (short and long term) to health outcome.

(3) Risk Estimate. The body of the matrix defines the risk estimate ranging from extremely high to low.

d. Risk Assessment Components. The OEH Risk Assessments should include an evaluation of occupational health exposures from deployed operational tasks and ambient environmental health exposures: air, soil, potable and non-potable waters, ionizing and non-ionizing radiological sources, vector borne threats and other physical hazards. OEH hazards may be present as contamination from historical site usage, battle damage, stored stockpiles, and adjacent commercial or residential sites. The OEH Risk Assessment requires initial and continued surveillance of the following criteria components:

(1) Ambient Air. The assessment should monitor for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PAHs), pesticides, metals, radiation, total and respirable particulate matter (PM), and combustion-related pollutants such as carbon monoxide, sulfur dioxide, ozone, and nitrogen oxides. Other contaminants may include: chemical warfare agents, military smokes and obscurants, riot control agents, and other toxic industrial materials expected to be present in the area of operations.

(2) Soil. The assessment should monitor for heavy metals, pesticides, herbicides, VOCs, SVOCs, explosives, and radiation. Additional samples should be collected following hazardous material, petroleum, oil and lubricants (POL) spills and prior to closure of the site to document final conditions. Data to support this assessment may be available from the Environmental Baseline Surveys (see paragraph 3a below).

(3) Water. The assessment should include an evaluation for chemical, metal, biological, and radiological content of potable and non-potable waters IAW the DOD Tri-Service Field Water Guidance (Sanitary Control and Surveillance of Field Water Supplies (AFOSH 48-7/NAVMED P-5010-9/TBMED 577)). This criteria includes water-vulnerability assessments identifying difficulties in maintaining a potable water source, essential non-potable water availability needs (e.g., sanitary and fire fighting) and vulnerability to sabotage or process upsets. Identify and evaluate proposed wastewater (including greywater) collection and treatment or disposal systems.

(4) Radiological Surveys. The assessment should include an evaluation of the need to survey sites for background radiation, ionizing and non-ionizing radiation sources, and radiological contamination. If battle damage is present, perform a rapid hazard assessment for radiation sources and radioactive contamination. Acceptable exposure levels should be established for the theater according to NATO STANAG 2473.

(5) Noise. An environmental noise assessment should be performed if industrial or other noise-producing hazards exist.

(6) Occupational Health. Assess occupational hazards and determine whether control measures are in-place and adequate. Recommend appropriate countermeasures, document occupational health exposures, and report results to immediate supervisors and commanders.

e. Record keeping and Reporting Requirements.

(1) Document the following data for each sample collected : a unique sample number/designation, sample location (established with military GPS, if available), date and time the sample was taken, sample type (e.g., bulk, grab, composite, blank), sample media (air, water, soil), sampling method, sample

site conditions, any immediate corrective actions required, sampling personnel information, and laboratory information.

(2) As operations allow, report sample results and risk assessments as quickly as possible to local medical units and JTF Surgeon in accordance with theater policy. Summary reports will be sent from the JTF Surgeon to the Combatant Command Surgeon. Copies of all data, data summaries, final reports, and investigations will be forwarded, at least quarterly, from the JTF Surgeon to the Combatant Command Surgeon and to the Deployment Environmental Surveillance Program (DESP), US Army Center For Health Promotion and Preventive Medicine, ATTN: MCHB-TS-EES, 5158 Blackhawk Road, Aberdeen Proving Grounds, MD 21010-5422, 1-800-222-9698, DSN 584-6096 or commercial (410) 436-6096. The DESP will provide advanced technical support and coordinate data archival with the DMSS.

(3) Documentation of negative results is just as critical for future analysis to identify the lack of an environmental or occupational hazard exposures. Therefore, it is extremely important that all results reported per above instructions.

3. Pre-deployment. The supported and supporting combatant commands will:

a. Develop and maintain an Environmental Baseline Survey (EBS) utilizing Industrial Hazard Assessments (IHAs) (see Enclosure A, paragraph 2b) for all pre-selected critical operating locations (aerial ports, seaports, and key land areas) identified during the deliberate planning stage in the supported command's operation plans. IHAs utilize current intelligence information to assist postulating health risks that may have potential mission impact.

b. Establish countermeasures or risk control actions to decrease specific OEH risks identified in the IHA as part of the overall operational planning process (i.e., Intelligence Preparation of the Battlefield).

c. Identify the medical resources required to validate the IHA and to conduct follow-on OEH risk assessment and EBS operations during all phases of the deployment. Incorporate these requirements into operational staffing requirements.

d. Establish a risk communication plan addressing the OEH risks in understandable terms for the commanders, operational planners, and deploying personnel.

e. Establish record keeping and archiving procedures to provide OEH data to assist in post-deployment health assessments and evaluations of OEH risk management processes.

f. Incorporate the above information into the Force Health Protection appendix to Annex Q to the Operations Plan.

4. During Deployment. Based on the pre-deployment OEH risk assessment conducted during the planning process, the combatant commands will develop and maintain an appropriate OEH surveillance and monitoring program for the deployment. If the resource requirements are beyond the capabilities of organic preventive medicine assets, the JTF/Combatant Command Surgeon should request the required capability/expertise and oversee the assignment of technically-specialized unit(s) or detachment(s) to perform these functions in theater.

a. Preventive medicine personnel will assess the need to collect on-site samples. Unless adequate, pre-existing data is available, preventive medicine personnel will employ appropriate field sampling, laboratory and analytical techniques to conduct these assessments in the minimal time required to accurately assess the OEH risk.

(1) Potential "High" and "Extremely High" risk situations require rapid health risk assessment using real/near real time on-site methods. On site methods usually require confirmatory laboratory analysis.

(2) Potential "Moderate" risk situations may be assessed by collection of samples for off-site analysis, with rear area laboratory support as required.

(3) Potential "Low" risk situations may be assessed off-site, using mathematical models to assign risks, with sampling and rear area laboratory support as operational resources allow.

b. Assistance regarding potential hazard severity, hazard probability, assessment techniques, and rear area laboratory support can be obtained from the Service Health Surveillance Centers.

5. Post-deployment. The combatant and supporting commands will:

a. Document occupational and environmental health assessments. Forward assessments to the DMSS archive.

b. Ensure all sample results and risk assessments have been reported in accordance with the instructions listed in Enclosure A.

c. Document appropriate medical follow-up to address occupational and environmental health concerns related to review of DD Form 2796 responses.

d. Develop any OEH Surveillance Lessons Learned and forward IAW Service-specific lessons learned guidance with a copy to the Service Health Surveillance Centers and DMSS.

ENCLOSURE F

POST-DEPLOYMENT HEALTH ASSESSMENT FORM (DD Form 2796)
PROCESSING GUIDANCE

1. Service members must complete the health assessment form in theater, within 5 days upon redeployment back to their home station. Internet forms may be locally reproduced. Blank forms are available for download from the Army Medical Surveillance Activity (AMSA) at the following web-site: http://amsa.army.mil. Forms should be printed on both sides in a head-to-head orientation. Forms should not be stapled or treated with chemicals.

2. The DD form 2796 must be administered and immediately reviewed by a health care provider. The provider can be a medic or corpsman for administering and initially reviewing the questionnaire. Positive responses must be immediately referred to a physician, physician's assistant, nurse, or independent duty medical technician for further review of their deployment health records (DD forms 2766, 2795, and 2796).

3. The original completed form must be placed in the Service member's permanent medical record or in the deployed medical record for transfer to their permanent medical record upon redeployment to their home station. Copies will be immediately forwarded to the AMSA, Building T-20, Room 213 (ATTN: Deployment Forms), 6900 Georgia Avenue, N.W., Washington, D.C., 20307-5001, DSN 662-0471 or commercial (202) 782-0471.

4. AMSA receives post-deployment health assessments, performs data entry, and integrates the data into the Defense Medical Surveillance System (DMSS). AMSA has the capability to provide the Joint Staff, combatant command, and the Services with periodic trend analysis reports on the completed DD Forms 2796.

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POST-DEPLOYMENT Health Assessment

Authority: 10 U.S.C. 136 Chapter 55, 1074f, 3013, 5013, 8013 and E.O. 9397

Principal Purpose: To assess your state of health after deployment outside the United States in support of military operations and to assist military healthcare providers in identifying and providing present and future medical care to you.

Routine Use: To other Federal and State agencies and civilian healthcare providers, as necessary, in order to provide necessary medical care and treatment.

Disclosure: **(Military personel and DoD civilian Employees Only)** Voluntary. If not provided, healthcare WILL BE furnished, but comprehensive care may not be possible.

INSTRUCTIONS: Please read each question completely and carefully before marking your selections. Provide a response for each question. If you do not understand a question, ask the administrator.

Demographics

Last Name

First Name MI

Deployed Unit

Today's Date (dd/mm/yyyy) / /

Social Security Number - -

DOB (dd/mm/yyyy) / /

Date of arrival in theater (dd/mm/yyyy) / /

Date of departure from theater (dd/mm/yyyy) / /

Gender

- O Male
- O Female

Service Branch

- O Air Force
- O Army
- O Coast Guard
- O Marine Corps
- O Navy
- O Other

Component

- O Active Duty
- O National Guard
- O Reserves
- O Civilian Government Employee

Pay Grade

O E1	O O1	O W1
O E2	O O2	O W2
O E3	O O3	O W3
O E4	O O4	O W4
O E5	O O5	O W5
O E6	O O6	O Other
O E7	O O7	
O E8	O O8	
O E9	O O9	
	O O10	

Location of Operation

- O Europe
- O SW Asia
- O SE Asia
- O Asia (Other)
- O South America
- O Australia
- O Africa
- O Central America
- O Unknown

Deployment Location (CITY, TOWN, or BASE):

List country (IF KNOWN):

Name of Operation:

Administrator Use Only

Indicate the status of each of the following:

Yes	No	N/A	
O	O	O	Medical threat debriefing completed
O	O	O	Medical information sheet distributed
O	O	O	Post-Deployment serum specimen collected, if required

PREPARED STATEMENT OF CHAIRMAN MORAN

We have an important topic before us: protecting the health of military members, especially those now serving us in Afghanistan, before they become our next generation of veterans.

Last month, the Subcommittee held a hearing to explore lessons learned by the government from the Persian Gulf War, and how these lessons were, or were not, applied to the current deployment of American troops in Afghanistan. *How well have DOD and VA implemented policies based on lessons learned from earlier wars*?

We meet again today to delve further into this issue. Our Subcommittee is working to take a proactive approach. to ensuring that the men and women of the armed forces are cared for today, while doing their duty in Afghanistan or in the Philippines, so that we might avoid some of the mistakes of past wars.

Better oversight now by Congress, and better leadership by the Administration, can head off untold difficulties that lie in the future.

The issue of force protection includes a series of important topics, including:

- Joint Medical Surveillance,
- Pre- and Post-Deployment Health Assessments,
- Environmental Security,
- Use of Investigational Drugs for Health Protection,
- Transparency and ease of record keeping and record transference,
- Equipment, procedures, systems, and documentation in the theater

Today, the Subcommittee asked the General Accounting Office to appear before us to offer testimony on its work to review force protection and medical readiness policies now in place in the Department of Defense, and in review the VA's role in coordinating care and benefits for veterans. As we will learn there are gaps. We look forward to examining the two Departments' responses to GAO's review of their programs and working together to help our service men and women.

The Subcommittee will continue to monitor and examine the health care initiatives intended to protect the health of our US soldiers. When we commit troops to defend our country, we need to work to ensure that they receive proper protections and equipment, and good medical care before, during, and especially after their duty is done.

The Department of Defense and Department on Veterans Affairs seem to be focused on this common objective, but the Subcommittee will continue to be persistent in monitoring these agencies.

PREPARED STATEMENT OF CONGRESSMAN STEARNS

Chairman Moran, thank you for holding this follow-up hearing to January 24th's on medical readiness. I would also like to introduce Bibi Ramos from the State of Florida Veterans Approving Agency, who devotes her daily life to the care of former servicemembers.

As we learned following the Persian Gulf War, as former Senators Rudman and Riegle testified in January, and as our witnesses will testify today, there are some ripe opportunities to improve on health care management and treatment on the battlefield and sea before it becomes tomorrow's cause of great suffering and budget-busting in the Department of Veterans Affairs. Medical conditions not recognized in a timely, more cost-efficient manner while one is still active duty can explode later as very expensive chronic conditions. We must ask ourselves: Did we do "enough" for Persian Gulf War soldiers' health care before they became sick PGW vets?

I note one area in particular in GAO Director Bascetta's testimony: databases in the DOD do not "talk to one another". Harmonizing the "numerous databases" seems one springboard for progress. Furthermore, it seems to me, from various testimony and software demonstrations I observed in hearings the Committee on Energy and Commerce held during the fall, that useful, simple to use information systems are available that could play a tremendous role in health status surveillance and population-wide reporting of certain areas of conflict or entire theaters. Properly applied, a sound database could be the preventive tool needed here for identifying and assessing epidemiological and other symptomatic trends. We ask that the DOD to take every care of today's men in women fighting in Afghan, so that they enter the DVA system as the healthiest veterans they could be.

PREPARED STATEMENT OF CONGRESSMAN MILLER

Thank you Mr. Chairman.

I am pleased to be with you today and to be a new member of this subcommittee. I would like to thank the GAO, Ms. Embrey and Dr. Murphy for their testimony. Since coming to Washington, I have been surprised that the VA and DOD are not always on the same page when it comes to finding the best way to serve our service members and veterans, but I do commend you on your work and cooperation in support of the health of our nation's active duty members and veterans.

I am pleased that the Committee is delving into how the Department of Defense's policies regarding active duty force protection and health care are adapted and coordinated into systems of care for veterans needing post-deployment care. With the proliferation of biological and chemical weapons, protecting active duty military members has never been more complex, especially for those now serving our nation and the cause of freedom in Afghanistan.

It is crucial that we ensure the same mistakes made during the Gulf War deployment do not repeat themselves. I am encouraged by the progress that has been made, but it is important to note that these changes cannot be integrated quickly enough. I look forward to working with my colleagues and the Administration to do our part to make sure that both the policies and implementation of those policies are comprehensive and complete.

Thank you.

PREPARED STATEMENT OF CONGRESSMAN EVANS

Mr. Chairman, thank you for allowing me to participate today. I appreciate your foresight in holding this hearing. We must build on the lessons we have learned from past periods of combat. We know that our failure to document today's events will hinder our ability to help tomorrow's veterans.

Every combat period offers its own unique challenges—risks and exposures that are specific to the time and place in which a service-member is deployed. Yet veterans from every combat period share certain exposures, such as stress. In previous testimony to this Subcommittee, Dr. Hyams who today accompanies acting Under Secretary Murphy, has pointed to historical documentation of the health consequences of war from the Civil War to the modem battlefield. Veterans of these combat periods often share unexplained, but sometimes severe and long-lasting, physical "symptom syndromes", often including symptoms such as chronic fatigue, anxiety, and headache.

I believe both the "unique" exposures and the common experience of war can affect the health of veterans during and often long after wartime deployments. I believe that the physical suffering veterans endure is very real. I believe there may be multiple exposures that cause these health outcomes and without better information about the veterans experience during war, we cam never hope to fully understand how to protect our troops.

This information must come from the systematic collection of data related to veterans' health status prior to and immediately following combat, accurate and individualized information about troop locations and exposures (both certain and presumed) during the combat period. VA must also have access to this information in order to make appropriate treatment plans that will best serve our homecoming troops. Without this information, we will continue to lack definitive answers about why veterans are sick and how we can best aid their recovery. Thank you. I look forward to hearing from our witnesses.

United States General Accounting Office

GAO

Testimony

Before the Subcommittee on Health, Committee on Veterans' Affairs, House of Representatives

For Release on Delivery
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VA AND DEFENSE HEALTH CARE

Military Medical Surveillance Policies in Place, but Implementation Challenges Remain

Statement of Cynthia A. Bascetta
Director, Health Care—Veterans' Health and Benefits Issues

GAO-02-478T

Mr. Chairman and Members of the Committee:

We are pleased to be here today to discuss the Department of Defense's (DOD) efforts to establish a medical surveillance system that enables DOD—along with the Department of Veterans Affairs (VA)—to respond to the health care needs of our military personnel and veterans. A medical surveillance system involves the ongoing collection and analysis of uniform information on deployments, environmental health threats, disease monitoring, medical assessments, and medical encounters. It is also important that this information be disseminated in a timely manner to military commanders, medical personnel, and others. DOD is responsible for developing and executing this system and needs this information to help ensure the deployment of healthy forces and the continued fitness of those forces. VA also needs this information to fulfill its missions of providing health care to veterans, backing up DOD in contingencies, and adjudicating veterans' claims for service-connected disabilities. Scientists at VA, DOD, and other organizations also use this information to conduct epidemiological studies and research.[1]

Given current military actions responding to the events of September 11, and what has been reported about DOD's medical surveillance activities, you asked us to comment on DOD's medical surveillance during the Gulf War and Operation Joint Endeavor.[2] You also asked us to review the implementation status of DOD's directives on military medical surveillance that have been issued since the Gulf War. This statement is based on our reports[3] and reports issued by the Institute of Medicine (IOM), the Presidential Advisory Committee on Gulf War Veterans' Illnesses,[4] and others over the past several years. This statement is also based on interviews we held in October 2001 and February 2002 with various

[1]Epidemiology is the scientific study of the incidence, distribution, and control of disease in a population.

[2]United States and allied nations deployed peacekeeping forces to Bosnia beginning in December 1995 in support of Operation Joint Endeavor, the NATO-led Bosnian peacekeeping force.

[3]See list of related GAO products at the end of this statement.

[4]The President established this committee in May 1995 to conduct independent, open, and comprehensive examinations of health care concerns related to Gulf War service. The committee consisted of physicians, scientists, and Gulf War veterans.

Defense Health Program officials, including officials from the Army Surgeon General's Office.[5]

In summary, we, IOM, and others have reported extensively on weaknesses in DOD's medical surveillance capability and performance during the Gulf War and Operation Joint Endeavor and the challenges DOD faces in implementing a reliable medical surveillance system. Investigations into the unexplained illnesses of Gulf War veterans uncovered many deficiencies in DOD's ability to collect, maintain, and transfer accurate data describing the movement of troops, potential exposures to health risks, and medical incidents during deployment. DOD improved its medical surveillance system under Operation Joint Endeavor, which provided useful information to military commanders and medical personnel. However, we and others reported a number of problems with this system. For example, information related to service members' health and deployment status—data critical to an effective medical surveillance system—was incomplete or inaccurate. DOD's numerous databases, including those that capture health information, are currently not linked, which further challenges the Department's efforts to establish a single, comprehensive electronic system to document, archive, and access medical surveillance data.

DOD has several initiatives under way to improve the reliability of deployment information and to enhance its information technology capabilities, as we and others have recommended. Although its recent policies and reorganization reflect a commitment by DOD to establish a comprehensive medical surveillance system, much needs to be done to implement the system. To the extent DOD's medical surveillance capability is realized, VA will be better able to serve veterans and provide backup to DOD in times of war.

Background

An effective military medical surveillance system needs to collect reliable information on (1) the health care provided to service members before, during, and after deployment, (2) where and when service members were deployed, (3) environmental and occupational health threats or exposures during deployment (in theater) and appropriate protective and countermeasures, and (4) baseline health status and subsequent health

[5]The Secretary of the Army is responsible for medical surveillance for DOD deployments, consistent with DOD's medical surveillance policy.

changes. This information is needed to monitor the overall health condition of deployed troops, inform them of potential health risks, as well as maintain and improve the health of service members and veterans.

In times of conflict, a military medical surveillance system is particularly critical to ensure the deployment of a fit and healthy force and to prevent disease and injuries from degrading force capabilities. DOD needs reliable medical surveillance data to determine who is fit for deployment; to prepare service members for deployment, including providing vaccinations to protect against possible exposure to environmental and biological threats; and to treat physical and psychological conditions that result from deployment. DOD also uses this information to develop educational measures for service members and medical personnel to ensure that service members receive appropriate care.

Reliable medical surveillance information is also critical for VA to carry out its missions. In addition to VA's better known missions—to provide health care and benefits to veterans and medical research and education—VA has a fourth mission: to provide medical backup to DOD in times of war and civilian health care backup in the event of disasters producing mass casualties. VA needs reliable medical surveillance data from DOD to treat casualties of military conflicts, provide health care to veterans who have left active duty, assist in conducting research should troops be exposed to environmental or occupational hazards, and identify service-connected disabilities to adjudicate veterans' disability claims.

Medical Recordkeeping and Surveillance During the Gulf War Was Lacking

Investigations into the unexplained illnesses of service members and veterans who had been deployed to the Persian Gulf uncovered the need for DOD to implement an effective medical surveillance system to obtain comprehensive medical data on deployed service members, including Reservists and National Guardsmen. Epidemiological and health outcome studies to determine the causes of these illnesses have been hampered by a lack of (1) complete baseline health data on Gulf War veterans; (2) assessments of their potential exposure to environmental health hazards; and (3) specific health data on care provided before, during, and after deployment. The Presidential Advisory Committee on Gulf War Veterans' Illnesses' and IOM's 1996 investigations into the causes of illnesses

experienced by Gulf War veterans confirmed the need for more effective medical surveillance capabilities.[6]

The National Science and Technology Council, as tasked by the Presidential Advisory Committee, also assessed the medical surveillance system for deployed service members. In 1998, the council reported that inaccurate recordkeeping made it extremely difficult to get a clear picture of what risk factors might be responsible for Gulf War illnesses.[7] It also reported that without reliable deployment and health assessment information, it was difficult to ensure that veterans' service-related benefits claims were adjudicated appropriately. The council concluded that the Gulf War exposed many deficiencies in the ability to collect, maintain, and transfer accurate data describing the movement of troops, potential exposures to health risks, and medical incidents in theater. The council reported that the government's recordkeeping capabilities were not designed to track troop and asset movements to the degree needed to determine who might have been exposed to any given environmental or wartime health hazard. The council also reported major deficiencies in health risk communications, including not adequately informing service members of the risks associated with countermeasures such as vaccines. Without this information, service members may not recognize potential side effects of these countermeasures or take prompt precautionary actions, including seeking medical care.

[6] *Health Consequences of Service During the Persian Gulf War: Recommendations for Research and Information Systems*, Institute of Medicine, Medical Follow-up Agency (Washington, D.C.: National Academy Press, 1996); *Presidential Advisory Committee on Gulf War Veterans' Illnesses: Interim Report* (Washington, D.C.: U.S. Government Printing Office, Feb. 1996); *Presidential Advisory Committee on Gulf War Veterans' Illnesses: Final Report* (Washington, D.C.: U.S. Government Printing Office, Dec. 1996).

[7] *National Science and Technology Council Presidential Review Directive 5* (Washington, D.C.: Executive Office of the President, Office of Science and Technology Policy, Aug. 1998).

Medical Surveillance Under Operation Joint Endeavor Improved but Was Not Comprehensive

In response to these reports, DOD strengthened its medical surveillance system under Operation Joint Endeavor when service members were deployed to Bosnia-Herzegovina, Croatia, and Hungary. In addition to implementing departmentwide medical surveillance policies, DOD developed specific medical surveillance programs to improve monitoring and tracking environmental and biomedical threats in theater. While these efforts represented important steps, a number of deficiencies remained.

On the positive side, the Assistant Secretary of Defense (Health Affairs) issued a health surveillance policy for troops deploying to Bosnia.[8] This guidance stressed the need to (1) identify health threats in theater, (2) routinely and uniformly collect and analyze information relevant to troop health, and (3) disseminate this information in a timely manner. DOD required medical units to develop weekly reports on the incidence rates of major categories of diseases and injuries during all deployments. Data from these disease and non-battle-injury reports showed theaterwide illness and injury trends so that preventive measures could be identified and forwarded to the theater medical command regarding abnormal trends or actions that should be taken.

DOD also established the U.S. Army Center for Health Promotion and Preventive Medicine—a major enhancement to DOD's ability to perform environmental monitoring and tracking. For example, the center operates and maintains a repository of service members' serum samples—the largest serum repository in the world—for epidemiological studies to examine potential health issues for services members and veterans. The center also operates and maintains a system for integrating, analyzing, and reporting data from multiple sources relevant to the health and readiness of military personnel. This capability was augmented with the establishment of the 520th Theater Army Medical Laboratory—a deployable public health laboratory for providing environmental sampling and analysis in theater. The sampling results can be used to identify specific preventive measures and safeguards to be taken to protect troops from harmful exposures and to develop procedures to treat anyone exposed to health hazards. During Operation Joint Endeavor, this laboratory was used in Tuzla, Bosnia—where most of the U.S. forces were located—to conduct air, water, soil, and other environmental monitoring.

[8]Health Affairs Policy 96-019 (DOD Assistant Secretary of Defense Memorandum, Jan. 4, 1996).

Despite the Department's progress, we and others have reported on DOD's implementation difficulties during Operation Joint Endeavor and the shortcomings in DOD's ability to maintain reliable health information on service members. Knowledge of who is deployed and their whereabouts is critical for identifying individuals who may have been exposed to health hazards while deployed. However, in May 1997, we reported that inaccurate information on who was deployed and where and when they were deployed—a problem during the Gulf War—continued to be a concern during Operation Joint Endeavor.[9] For example, we found that the Defense Manpower Data Center (DMDC) database—where military services are required to report deployment information—did not include records for at least 200 Navy service members who were deployed. Conversely, the DMDC database included Air Force personnel who were never actually deployed. In addition, we reported that DOD had not developed a system for tracking the movement of service members within theater. IOM also reported that during Operation Joint Endeavor, locations of deployed service members were still not systematically documented or archived for future use.[10]

We also reported in May 1997 that for the more than 600 Army personnel whose medical records we reviewed, DOD's centralized database for postdeployment medical assessments did not capture 12 percent of those assessments conducted in theater and 52 percent of those conducted after returning home.[11] These data are needed by epidemiologists and other researchers to assess at an aggregate level the changes that have occurred between service members' pre- and postdeployment health assessments. Further, many service members' medical records did not include complete information on the in-theater postdeployment medical assessments that had been conducted. The Army's European Surgeon General attributed missing in-theater health information to DOD's policy of having service

[9] *Defense Health Care: Medical Surveillance Improved Since Gulf War, but Mixed Results in Bosnia* (GAO/NSIAD-97-136, May 13, 1997).

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

[11] In many cases, we found that these assessments were not conducted in a timely manner or were not conducted at all. For example, of the 618 personnel whose records we reviewed, 24 percent did not receive in-theater postdeployment medical assessments and 21 percent did not receive home station postdeployment medical assessments. Of those who did receive home station postdeployment medical assessments, the assessments were on average conducted nearly 100 days after they left theater—instead of within 30 days, as DOD requires.

members hand-carry paper assessment forms from the theater to their home units, where their permanent medical records were maintained. The assessments were frequently lost en route.

We have also reported that not all medical encounters in theater were being recorded in individual records. Our 1997 report indicated that this problem was particularly common for immunizations given in theater. Detailed data on service members' vaccine history are vital for scheduling the regimen of vaccinations and boosters and for tracking individuals who received vaccinations from a specific vaccine lot in the event that health concerns about the lot emerge. We found that almost one-fourth of the service members' medical records that we reviewed did not document the fact that they had received a vaccine for tick-borne encephalitis. In addition, in its 2000 report, IOM cited limited progress in medical recordkeeping for deployed active duty and reserve forces and emphasized the need for records of immunizations to be included in individual medical records.

Current Policies and Programs Not Fully Implemented

Responding to our and others' recommendations to improve information on service members' deployments, in-theater medical encounters, and immunizations, DOD has continued to revise and expand its policies related to medical surveillance, and the system continues to evolve. In addition, in 2000, DOD released its Force Health Protection plan, which presents the Department's vision for protecting deployed forces and includes the goal of joint medical logistics support for all services by 2010.[12] The vision articulated in this capstone document emphasizes force fitness and health preparedness, casualty prevention, and casualty care and management. A key component of the plan is improved monitoring and surveillance of health threats in military operations and more sophisticated data collection and recordkeeping before, during, and after deployments. However, IOM criticized DOD's progress in implementing its medical surveillance program as well as its failure to implement several recommendations that IOM had made. In addition, IOM raised concerns about DOD's ability to achieve the vision outlined in the Force Health Protection plan. We have also reported that some of DOD's programs designed to improve medical surveillance have not been fully implemented.

[12]Joint Staff, Medical Readiness Division, *Force Health Protection* (2000).

Recent IOM Report Concludes That DOD Has Made Slow Progress in Implementing Recommendations

IOM's 2000 report presented the results of its assessment of DOD's progress in implementing recommendations for improving medical surveillance made by IOM and several others. IOM stated that, although DOD generally concurred with the findings of these groups, DOD had made few concrete changes at the field level. In addition, environmental and medical hazards were not yet well integrated in the information provided to commanders.

The IOM report notes that a major reason for this lack of progress is that no single authority within DOD has been assigned responsibility for the implementation of the recommendations and plans. IOM said that because of the complexity of the tasks and the overlapping areas of responsibility involved, the single authority must rest with the Secretary of Defense.

In its report, IOM describes six strategies that in its view demand further emphasis and require greater efforts by DOD:

- Use a systematic process to prospectively evaluate non-battle-related risks associated with the activities and settings of deployments.
- Collect and manage environmental data and personnel location, biological samples, and activity data to facilitate analysis of deployment exposures and to support clinical care and public health activities.
- Develop the risk assessment, risk management, and risk communication skills of military leaders at all levels.
- Accelerate implementation of a health surveillance system that completely spans an individual's time in service.
- Implement strategies to address medically unexplained symptoms in deployed populations.
- Implement a joint computerized patient record and other automated recordkeeping that meets the information needs of those involved with individual care and military public health.

Our Work Also Indicates Some DOD Programs for Improving Medical Surveillance Are Not Fully Implemented

DOD guidance established requirements for recording and tracking vaccinations and automating medical records for archiving and recalling medical encounters. While our work indicates that DOD has made some progress in improving its immunization information, the Department faces numerous challenges in implementing an automated medical record. DOD also recently established guidelines and additional policy initiatives for improving military medical surveillance.

In October 1999, we reported that DOD's Vaccine Adverse Event Reporting System—which relies on medical staff or service members to provide

needed vaccine data—may not have included some information on adverse reactions because these personnel had not received guidance needed to submit reports to the system.[13] According to DOD officials, medical staff may also report any other reaction they think might be caused by the vaccine, but because this is not stated explicitly in DOD's guidance on vaccinations, some medical staff may be unsure about which reactions to report.

Also, in April 2000, we testified that vaccination data were not consistently recorded in paper records and in a central database, as DOD requires.[14] For example, when comparing records from the database with paper records at four military installations, we found that information on the number of vaccinations given to service members, the dates of the vaccinations, and the vaccine lot numbers were inconsistent at all four installations. At one installation, the database and records did not agree 78 percent to 92 percent of the time. DOD has begun to make progress in implementing our recommendations, including ensuring timely and accurate data in its immunization tracking system.

The Gulf War revealed the need to have information technology play a bigger role in medical surveillance to ensure that information is readily accessible to DOD and VA. In August 1997, DOD established requirements that called for the use of innovative technology, such as an automated medical record device that can document inpatient and outpatient encounters in all settings and that can archive the information for local recall and format it for an injury, illness, and exposure surveillance database.[15] Also, in 1997, the President, responding to deficiencies in DOD's and VA's data capabilities for handling service members' health information, called for the two agencies to start developing a comprehensive, lifelong medical record for each service member. As we reported in April 2001, DOD's and VA's numerous databases and electronic

[13] *Medical Readiness: DOD Faces Challenges in Implementing Its Anthrax Vaccine Immunization Program* (GAO/NSIAD-00-36, Oct. 22, 1999).

[14] *Medical Readiness: DOD Continues to Face Challenges in Implementing Its Anthrax Vaccine Immunization Program* (GAO/T-NSIAD-00-157, Apr. 13, 2000).

[15] DOD Directive 6490.2, "Joint Medical Surveillance" (Aug. 30, 1997).

systems for capturing mission-critical data, including health information, are not linked and information cannot be readily shared.[16]

DOD has several initiatives under way to link many of its information systems—some with VA. For example, in an effort to create a comprehensive, lifelong medical record for service members and veterans and to allow health care professionals to share clinical information, DOD and VA, along with the Indian Health Service (IHS),[17] initiated the Government Computer-Based Patient Record (GCPR) project in 1998. GCPR is seen as yielding a number of potential benefits, including improved research and quality of care, and clinical and administrative efficiencies. However, our April 2001 report described several factors—including planning weaknesses, competing priorities, and inadequate accountability—that made it unlikely that DOD and VA would accomplish GCPR or realize its benefits in the near future. To strengthen the management and oversight of GCPR, we made several recommendations, including designating a lead entity with a clear line of authority for the project and creating comprehensive and coordinated plans for sharing meaningful, accurate, and secure patient health data.

For the near term, DOD and VA have decided to reconsider their approach to GCPR and focus on allowing VA to access selected health data on service members captured by DOD. According to DOD and VA officials, full operation is expected to begin the third quarter of this fiscal year, once testing of the near-term system has been completed. DOD health information is an especially critical information source given VA's fourth mission to provide medical backup to the military health system in times of national emergency and war. Under the near-term effort, VA will be able to access laboratory and radiology results, outpatient pharmacy data, and patient demographic information. This approach, however, will not provide VA access to information on the health status of personnel when they enter military service; on medical care provided to Reservists while not on active duty; or on the care military personnel received from providers outside DOD, including TRICARE providers. In addition, because VA will only be able to view this information, physicians will not

[16] *Computer-Based Patient Records: Better Planning and Oversight by VA, DOD, and IHS Would Enhance Health Data Sharing* (GAO-01-459, Apr. 30, 2001).

[17] IHS was included in the effort because of its population-based research expertise and its long-standing relationship with VA.

be able to easily organize or otherwise manipulate the data for quick review or research.

DOD has several other initiatives for improving its information technology capabilities, which are in various stages of development. For example, DOD is developing the Theater Medical Information Program (TMIP), which is intended to capture medical information on deployed personnel and link it with medical information captured in the Department's new medical information system.[18] As of October 2001, officials told us that they planned to begin field testing for TMIP in spring 2002, with deployment expected in 2003. A component system of TMIP—Transportation Command Regulating and Command and Control Evacuation System—is also under development and aims to allow casualty tracking and provide in-transit visibility of casualties during wartime and peacetime. and Also under development is the Global Expeditionary Medical System (GEMS), which DOD characterizes as a stepping stone to an integrated biohazard surveillance and detection system.

In addition to its ongoing information technology initiatives, DOD recently issued two major policies for advancing its military medical surveillance system. Specifically, in December 2001, DOD issued clinical practice guidelines, developed collaboratively with VA, to provide a structure for primary care providers to evaluate and manage patients with deployment-related health concerns.[19] According to DOD, the guidelines were issued in response to congressional concerns and IOM's recommendations. The guidelines are expected to improve the continuity of care and health-risk communication for service members and their families for the wide variety of medical concerns that are related to military deployments. Because the guidelines became effective January 31, 2002, it is too early for us to comment on their implementation.

[18]Composite Health Care System II (CHCS II), currently being field tested, is expected to capture information on immunizations; allergies; outpatient encounters, such as diagnostic and treatment codes; patient hospital admission and discharge; patient medications; laboratory results; and radiology. CHCS II is expected to support best business practices, medical surveillance, and clinical research.

[19]Department of Defense and Veterans Health Administration, *Clinical Practice Guideline for Post-Deployment Health Evaluation and Management* (Sept. 2000, updated Dec. 2001).

Finally, DOD issued updated procedures on February 1, 2002, for deployment health surveillance and readiness.[20] These procedures supersede those laid out in DOD's December 1998 memorandum. The 2002 memorandum adds important procedures for occupational and environmental health surveillance and updates pre- and postdeployment health assessment requirements. These new procedures take effect on March 1, 2002.

According to officials from DOD's Health Affairs office, military medical surveillance is a top priority, as evidenced by the Department's having placed responsibility for implementing medical surveillance policies with one authority—the Deputy Assistant Secretary of Defense for Force Health Protection and Readiness. However, these officials also characterized force health protection as a concept made up of multiple programs across the services. For example, we learned that each service is responsible for implementing DOD's policy initiatives for achieving force health protection goals. This raises concerns about how the services will uniformly collect and share core information on deployments and how they will integrate data on the health status of service members. These officials also confirmed that DOD's military medical surveillance policies will depend on the priority and resources dedicated to their implementation.

Concluding Observations

Clearly, the need for comprehensive health information on service members and veterans is compelling, and much more needs to be done. However, it is also a very difficult task because of uncertainties about what conditions may exist in a deployed setting, such as potential military conflicts, environmental hazards, and the frequency of troop movements. Moreover, the outlook for successful surveillance is complicated by scientific uncertainty regarding the health effects of exposures and changes in technology that affect the feasibility of monitoring and tracking troop movements. While progress is being made, DOD will need to continue to make a concerted effort to resolve the remaining deficiencies in its surveillance system and be vigilant in its oversight. VA's ability to perform its missions to care for veterans and compensate them for their service-connected conditions will depend in part on the adequacy of DOD's medical surveillance system.

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

Contact and Acknowledgments

For further information, please contact Cynthia A. Bascetta at (202) 512-7101. Individuals making key contributions to this testimony included Ann Calvaresi Barr, Diana Shevlin, Karen Sloan, and Keith Steck.

Related GAO Products

VA and Defense Health Care: Progress Made, but DOD Continues to Face Military Medical Surveillance System Challenges (GAO-02-377T, Jan. 24, 2002).

Gulf War Illnesses: Similarities and Differences Among Countries in Chemical and Biological Threat Assessment and Veterans' Health Status (GAO-02-359T, Jan. 24, 2002).

Computer-Based Patient Records: Better Planning and Oversight by VA, DOD, and IHS Would Enhance Health Data Sharing (GAO-01-459, Apr. 30, 2001).

Coalition Warfare: Gulf War Allies Differed in Chemical and Biological Threats Identified and in Use of Defensive Measures (GAO-01-13, Apr. 24, 2001).

Medical Readiness: DOD Continues To Face Challenges in Implementing Its Anthrax Vaccine Immunization Program (GAO/T-NSIAD-00-157, Apr. 13, 2000).

Medical Readiness: DOD Faces Challenges in Implementing Its Anthrax Vaccine Immunization Program (GAO/NSIAD-00-36, Oct. 22, 1999).

Chemical and Biological Defense: Observations on DOD's Plans to Protect U.S. Forces (GAO/T-NSIAD-98-83, Mar. 17, 1998).

Gulf War Veterans: Incidence of Tumors Cannot Be Reliably Determined From Available Data (GAO/NSIAD-98-89, Mar. 3, 1998).

Gulf War Illnesses: Federal Research Strategy Needs Reexamination (GAO-T-NSIAD-98-104, Feb. 24, 1998).

Gulf War Illnesses: Research, Clinical Monitoring, and Medical Surveillance (GAO/T-NSIAD-98-88, Feb. 5, 1998).

Defense Health Care: Medical Surveillance Improved Since Gulf War, but Mixed Results in Bosnia (GAO/NSIAD-97-136, May 13, 1997).

(290173)

House Committee on Veterans Affairs
Subcommittee on Health

Statement
by
Ms. Ellen Embrey
Deputy Assistant Secretary of Defense
for Force Health Protection and Readiness
Department of Defense

February 27, 2002

Mr. Chairman, I appreciate the opportunity to return to the House Veterans Affairs' Subcommittee on Health to discuss the Department of Defense's continuing efforts to improve its force health protection and to address the concerns of the General Accounting Office in its testimony provided for the record at your hearing on January 24, 2002. The Department appreciates the comments and suggestions of the GAO, and we recognize that even with the significant progress we have made in force health protection since the Gulf War, there is still much to do.

First, let me reiterate that the Department of Defense is committed to providing a world-class health care system for its servicemembers and their families. The Department's goal—and my primary focus—is to ensure that we deploy fit and healthy military personnel, that we monitor their health and environmental exposures while they are deployed, and that we assess their health status and address their health concerns when they return. To that end, both the Office of the Secretary of Defense and the Joint Chiefs of Staff have issued policy to help define and standardize force deployment health protection, particularly health surveillance, for our servicemembers.

The August 1997 Department of Defense Directive 6490.2, "Joint Medical Surveillance," and Department of Defense Instruction 6490.7, "Implementation and Application of Joint Medical Surveillance for Deployments," set out health surveillance requirements. An Assistant Secretary of Defense for Health Affairs memorandum dated October 25, 2001, updated the policy for pre- and post-deployment health assessments and blood samples. Data from these assessments are maintained by the Defense Medical Surveillance System at the U.S. Army Center for Health Promotion and Preventive Medicine. A Chairman, Joint Chiefs of Staff memorandum, MCM-251-98 (December 4, 1998), "Deployment Health Surveillance and Readiness," spelled out the conceptual framework for force health protection with health surveillance as a critical component. A new CJCS memorandum MCM-0006-02 (February 1, 2002), "Updated Procedures for Deployment Health Surveillance and Readiness," takes effect on the first of March. It supersedes and updates MCM-251-98 and provides standardized procedures for assessing health readiness and conducting health surveillance in support of all military deployments. In addition, it requires the combatant command to determine the need for deployment specific medical countermeasures, including immunizations, chemoprophylactic medications, and other individual personal protective measures.

As a result, we collect and archive health data that will allow retrospective analysis by DoD and the VA for those servicemembers who deploy and subsequently become ill. Building comprehensive systems that serve these purposes is neither easy nor quick. The necessary pieces of such systems are in various stages of design and implementation. For convenience, I will divide them into actions to be taken before, during, and after periods of deployment.

Health Care Before Deployments

Upon entry to the armed services, each military member must first pass a rigorous physical examination, which includes blood tests. Servicemembers must then pass periodic physical examinations, again with blood tests; annual dental examinations; and annual medical record reviews to update routine immunizations. DoD is piloting the Recruit Assessment Program (RAP) to develop a baseline of health on entry to the military, and perhaps allow us to make early interventions that will better protect our people from deployment-related illnesses. The Health Evaluation Assessment Review (HEAR) is another routine self-assessment of health for all military healthcare beneficiaries. These programs facilitate establishment of baseline health status for servicemembers and help ensure the medical readiness of military personnel to deploy worldwide in support of mission requirements. The pre-deployment health assessment is an addition to this system. Advances in health information management and technology are being aggressively pursued and applied in the Military Health System (MHS). Such initiatives include the next generation DoD Composite Health Care System (CHCS II) and automated immunization tracking and recording systems. In collaboration with the Department of Veterans Affairs, we are implementing the GAO's recommendations and initiating the Federal Health Information Exchange, previously known as the Government Computerized Patient Record or GCPR.

Health Care During Deployments

During deployments, health treatment is typically documented in an abbreviated, standardized individual medical record that is prepared and deployed with Army and Air Force servicemembers, while health care for Navy and Marine Corps servicemembers is documented in their outpatient medical records. Health surveillance information, including Disease and Non-Battle Injury (DNBI) data and inpatient and outpatient biostatistics, are routinely collected, reported, analyzed for adverse trends, and archived for future reference and research as part of the Defense Medical Surveillance System (DMSS). Significant health-related events, such as exposures to occupational and environmental hazards or chemical and biological warfare agents, are also documented to ensure that individual health records can be linked to exposure records.

While the majority of health care documentation during today's deployments is contained in paper-based medical records, we are continuing to focus on the development of automated systems such as the Theater Medical Information Program (TMIP). We are in the initial phase of field testing TMIP and will include the deployable version of the next generation Composite Health Care System (CHCS II), as well as the Transportation Command Regulating and Command and Control Evacuation System (TRAC2ES). TMIP will integrate health data on deployed personnel and function as the medical component of DoD's Global Combat Support System. We have also selected the Common Access Card Electronic Information Carrier as the automated device for documenting individual health data and treatment in theater.

Health Care After Deployments

At the end of a deployment, servicemembers will complete a post-deployment health assessment to document any immediate concerns or symptoms. The DoD anticipates there will be servicemembers who, despite the best preventive efforts, may become ill following deployment. A newly implemented Post-deployment Clinical Practice Guideline will focus DoD and Veteran's Affairs' health care providers on appropriately caring for individuals who have deployment-related health concerns. The DoD will also continue to monitor post-deployment health through research studies like the Millennium Cohort Study and through registries like the DoD Birth Defects Registry. DoD also analyzes trends of diagnoses for all inpatient and outpatient healthcare. With proper collection and archiving of this health information, the DoD should enhance its ability to detect long-term changes in the health of servicemembers, as well as provide better information for transfer to the VA.

Tracking the Movement of Servicemembers

In addition to the Department's efforts to improve health care before, during, and after deployments, we recognize the need to improve our ability to relate the location of servicemembers during a deployment with possible toxic exposures or environmental hazards. The GAO is correct – we do not have a single system to track movement of servicemembers within the deployment theater. From our experience in analyzing possible Gulf War exposures, we recognized fully the importance of tracking individual servicemember and unit locations over time. I believe we have made steady, significant progress against this requirement.

As much as I would like to report that we know "who was where when," I must underscore that this is a complex problem. Today, we cannot field practical, mission-compatible technologies that would permit capturing, recording, and archiving data on where each servicemember is to square-meter accuracy, minute by minute. At present, we assign people to units and identify unit locations. Personnel systems record individuals' unit assignments. Tracking unit locations is an operational responsibility with reporting in separate channels. In addition, fluid contingency deployment situations involve troops accompanying or being temporarily attached to units other than their own. Unit location data generally is classified when prepared and particularly sensitive for special operations forces like those used extensively in Afghanistan. Furthermore, unit-level locations may not always translate into servicemember locations. For instance, platoon-level or squad-level elements can operate miles from their assignment unit's main location.

We also have fielded, planned, or have under development future capabilities that should help overcome the remaining challenges. For example, the Global Status of Resources and Training System permits the combat commanders and the Joint Staff to regularly track units' status and locations. We are now archiving these data monthly. The Joint Personnel Asset Visibility system, under development as part of the larger Joint Total Asset Visibility system, will greatly assist in tracking servicemembers deploying to or from contingencies, including medical evacuations. The Personnel Tempo reporting system also will feed individual's location and unit of assignment data to the DoD archive database. The Defense Integrated Military Human Resources System (DIMHRS) will eventually replace about 80 separate Service personnel systems. When fully implemented, DIMHRS will provide uniform information

availability on individual assignments and many other personnel aspects with unprecedented accuracy and detail. DIMHRS has provisions for regular data archiving. As we improve real time environmental surveillance and when technology becomes capable of validating environmental exposures from individual sampling, detailed location tracking data may become less critical.

Environmental Surveillance

Again, we agree with GAO that the establishment of the U.S. Army Center for Health Promotion and Preventive Medicine was a major improvement to the ability of the Department to monitor, track, and warn of environmental hazards. Its work has continued for the current deployment assisting commanders prepare servicemembers before deployment. For example, the Center has developed several "Staying Healthy Guides" for several countries/regions, including Afghanistan/Pakistan, Central Asia, Southwest Asia, and other countries. These documents and others are included on a web site for Operation Enduring Freedom. The site identifies numerous guidance documents on deployment related issues such as force health protection, environmental exposures, pest management issues, and retrograde issues. Links to other sites are also provided.

The Center is continuing occupational and environmental health surveillance measures in support of Department of Defense medical units deployed for Operation Enduring Freedom. It conducts pre-deployment and during-deployment environmental health intelligence preparation of the battlefield measures through the development of industrial hazard assessments for planned and identified base camps or forward operating bases. The Center collaborates with the Armed Forces Medical Intelligence Center in producing these assessments, which are classified. The Center is providing deployed medical units with occupational and environmental health surveillance equipment sets, which contain sampling equipment, media, and administrative supplies, so that air, water, and soil field samples can be collected. In addition, it is conducting operational risk management estimates for base camps and forward operating bases where occupational and environmental health surveillance field samples have been collected and analyzed. This involves the assimilation and comparison of the analyzed field sample results to military exposure guidelines, where any identified medical and/or health threats are assessed. Appropriate conclusions and recommendations are communicated to the Commander in operational risk management terminology. In summary, these activities support Force Health Protection measures outlined in Department of Defense Joint Medical Surveillance Directives and US Central Command Force Health Protection guidance.

In conclusion, I believe the Department of Defense has made great progress to meet the needs for medical surveillance, but we are not satisfied. We will continue to pursue initiatives that will enhance our ability to establish a comprehensive medical surveillance system for our deployed forces and a world-class health care system for our servicemembers, veterans, and their families.

Statement of
The Honorable Frances M. Murphy, M.D., M.P.H.
Deputy Under Secretary for Health
Department of Veterans Affairs
Before the
Subcommittee on Health
House Committee on Veterans' Affairs on
Issues Related to Operational and Medical
Readiness in the Active Duty Force

February 27, 2002
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Mr. Chairman, I thank you for the opportunity to testify before the subcommittee today on the impact of medical surveillance on VA health care based upon ten years of experience helping Gulf War veterans. I am accompanied today by Dr. Craig Hyams, VA's Chief Consultant for Occupational and Environmental Health.

As you know, the General Accounting Office found the need for better health surveillance data collection by the Department of Defense (DoD) on U.S. service members deployed in combat and peacekeeping missions abroad, and for better transmission of that data to the VA. My testimony will address initiatives related to these issues.

GULF WAR VETERAN MEDICAL SURVEILLANCE

During the Gulf War, approximately 697,000 men and women served in Operations Desert Shield and Desert Storm from August 1990 to June 1991. To date, VA has provided nearly 300,000 Gulf War veterans with outpatient or inpatient health care. But even before the conclusion of Operation Desert Storm, VA recognized that the collection of health data on returning Gulf War veterans would be important.

Medical Surveillance: Gulf War Veterans' Health Examination Registry

To respond to the immediate health concerns of returning Gulf War veterans, VA established a health examination registry modeled after its Agent Orange Registry program for Vietnam veterans. This *Gulf War Veterans' Health Examination Registry* incorporates data on symptoms, diagnoses, and reported hazardous exposures of Gulf War veterans who come to VA for this systematic clinical examination. To date, VA has evaluated more than 83,000 Gulf War veterans in this clinical registry program. VA's Registry is an important mechanism

for bringing veterans into the VA health care system and for suggesting areas of research on Gulf War health questions. The insights provided by the Registry have also proven invaluable for developing appropriate outreach efforts. Operation of the registry at VA medical centers throughout the United States has produced a large cadre of physicians and other health care providers who are knowledgeable about Gulf War health care issues.

Medical Surveillance: Depleted Uranium (DU) Health Surveillance Program

VA also initiated a DU Health Surveillance Program, originally for "friendly fire" victims who could have retained DU shrapnel in their bodies. Medically, we have nearly 50 years experience with health effects from exposure to uranium. But we have much less experience with human exposure to DU shrapnel. Published results so far show indicate that the primary concern for these veterans remains the traumatic injury caused by the initial shrapnel wound rather than any subsequent health effects from DU. Nevertheless, as a matter of prudent caution, VA will continue this health surveillance program. We have also made DU exposure screening available for other Gulf War veterans. We've had about 540 requests for this 24-hour urine screen. Among those veterans given 24-hour urine tests, we've had 3 samples with elevated uranium levels, and the source of this elevation is currently under investigation.

Communicating Results of Medical Surveillance Programs

VA has recognized the importance of keeping veterans and their families informed on data about environmental health risks related to the Gulf War. To meet this objective, VA uses Veterans' Service Organizations (VSO) briefings, direct mailing of a quarterly Gulf War Newsletter with a distribution of over 400,000 copies, fact sheets, posters, web sites, and a national telephone helpline. From analysis of registry data, we now understand that veterans have substantial concerns about a wide range of specific exposures and experiences during the Gulf War. In response, VA has ensured that Gulf War outreach and information products provide in-depth coverage of each of these concerns.

Medical Surveillance: Research

The principal finding from VA's systematic clinical registry examinations of about 12 percent of Gulf War veterans is that veterans are suffering from a wide variety of mostly recognized illnesses that receive conventional treatments. A new or unique "Gulf War" syndrome has not been identified. Subsequent research studies, some based upon initial data derived from the VA Registry, have confirmed these conclusions. These studies were summarized at the "Conference on

Illnesses Among Gulf War Veterans: A Decade of Scientific Research," held January 24 to 26, 2001, in Alexandria, VA.

VA has initiated other studies to collect data on the long-term health consequences of service in the Gulf War. Despite the value of the clinical registry I mentioned earlier for improving basic health care and in generating hypotheses for further research, clinical registries are limited because participants are self-selected and exposure assessments are self-reported. Although registry findings suggest that Gulf War veterans do not have a single type of health problem, these findings cannot be used to determine if veterans are suffering from specific diagnoses or symptoms at higher rates than expected. To determine prevalence and incidence, population-based epidemiological studies are needed.

As the lead federal agency on Gulf War related research, VA has been responsible for coordinating federally sponsored epidemiological and other relevant scientific studies. As of today, this coordinated approach has obligated approximately $174 million for 193 research projects on a very broad array of Gulf War health issues. Much of this work is still ongoing, and much of it is at non-governmental institutions, including independent research universities.

VA's own research and data analysis activities include 1) the VA comprehensive mortality study; 2) an interagency study of hospitalization rates; 3) the VA National Gulf War Health Survey; and 4) longitudinal health studies currently under development that will evaluate the long term health consequences of hazardous deployments.

As a whole, the research program has focused upon specific questions related to the Gulf War. Nevertheless, there is an appreciation that the issues involved extend beyond this cohort of veterans and include a broad range of health effects associated with all military deployments. The lessons learned from this integrated Gulf War research program, therefore, will provide critical insights into anticipating, diagnosing, and treating the health needs of future returning veterans and their families, including veterans from our current war on terrorism.

National Health Survey of Gulf War Veterans and their Families

VA's National Health Survey of Gulf War Veterans and their Families is a major ongoing study initiated in recognition of the need to better characterize the health status of the entire Gulf War veteran population. Survey questionnaires were mailed to a random sample of 15,000 Gulf War veterans and an equal number of non-deployed controls. The study compared incidence rates of symptoms and illnesses, and evaluated self-reported wartime exposures.

Results from the initial two phases of this study show that Gulf War veterans are reporting significantly higher rates of diverse symptoms, including joint, muscle, respiratory, gastrointestinal, and skin problems. This population also reports higher

rates of chronic fatigue and symptoms of post-traumatic stress disorder (PTSD).

VA recently completed the final phase of this study, which includes a physical examination with laboratory diagnostic testing of veterans and their families – a report will be completed shortly. In this phase, 2,000 veterans and approximately 3,000 spouses and children have been thoroughly evaluated. The clinical investigation focused upon neurological and cognitive dysfunction, chronic fatigue syndrome, fibromyalgia, PTSD, arthritis, hypertension, asthma, bronchitis, and birth defects among children. This study has produced critical, objective data about the health status of a fully representative sample of Gulf War veterans and their families.

NEXT STEPS -- LESSONS FOR THE FUTURE

Veteran Health Surveillance and Outreach

Recruit Assessment Program (RAP): Based on the Department's experience with Gulf War veterans health care and benefits programs, we recognize the critical importance of good health documentation and life-long medical records that cover pre, during and post deployment. Many Gulf War service member and veteran health issues were not verifiable due to lack of detailed computerized records documenting pre-enlistment and pre-deployment health status. Our understanding Gulf War veterans' illnesses is hampered by inadequate base-line health information, and inadequate documentation of health during active duty.

DoD and VA have recognized this shortcoming and are attempting, through development and implementation of the Recruit Assessment Program, to collect routine baseline health data from U.S. military recruits involved in current and future combat or peacekeeping missions. The program will establish baseline health information for use in appropriate health databases and future veterans' health, compensation and research programs. Taken together, these efforts will help us to evaluate health problems among service-members and veterans after they leave military service and to address post-deployment health questions. This program will require the continued support of the DoD senior leadership both in concept and in application of resources. The Armed Forces Epidemiology Board and the National Academy's Institute of Medicine have also endorsed the program concept. Pilot program development and testing are under way at the Marine Corps, Navy, and Air Force recruitment and training commands.

Health Care and Surveillance following Future Combat Missions: VA and Congress have also shown an appreciation for the importance of providing health care and health surveillance for veterans as soon as possible following future combat missions. Section 102 of Public Law 105-368, enacted in 1998, authorizes VA to provide health care to service members who served on active duty in combat

in a war after the Gulf War or during a period of hostilities after November 11, 1998, for a two-year period following their release from active service for any illness even if there is insufficient medical evidence to conclude that such condition is attributable to such service.

This two-year period will allow for the collection of basic health information and aid in the evaluation of specific health questions such as difficult to explain illnesses. Based upon lessons learned from the Gulf War, I believe that the continuation of this treatment authority is critical for VA's ability to provide comprehensive health care to veterans who serve in future combat missions.

Veterans Health Initiative: Data collection can have a broader significance for helping to provide adequate care for veterans. For example, Dr Garthwaite and I have built on the lessons learned from our experience with Gulf War and Vietnam veterans programs and implemented an innovative new approach to health care for veterans. The Veterans Health Initiative, is a comprehensive program to recognize the connection between certain health effects and military service, to allow veterans to better document their military history, to prepare health care providers to better serve their veteran patients and to establish a database for further study. The Education component is a voluntary program that prepares VA healthcare providers to better serve their veteran patients. It provides continuing medical education and provides cash bonuses to those who successfully complete the program. Modules are being developed on Spinal Cord Injury, Cold Injuries, Traumatic Amputation, PTSD, Sensory Loss (blindness/visual impairment and hearing loss), Radiation, Agent Orange and Gulf War. The Spinal Cord Injury, Cold Injury, Amputation, Agent Orange and Gulf War modules have already been completed. These important tools will enable practitioners to better understand and recognize the relationship between certain health effects and military service. We look forward to expanding and enhancing this program in the near future.

Medical Surveillance and Enhanced Outreach: The Gulf War made plain to us the value of timely and reliable information access to veterans and their families about the health risks they faced during deployment. In this regard, VA has developed a new brochure that addresses the main health concerns for military service in Afghanistan and South Asia. It answers health-related questions that veterans, their families, and their health care providers will have about this military deployment to fight terrorism. It also describes some relevant medical care programs that VA has developed in anticipation of the health needs of veterans returning from combat and peace-keeping missions abroad. The brochure will be distributed to all VAMCs in March 2002 and will be available to veterans and their families, as well as to health care providers. In anticipation of this brochure, on

February 14, 2002, we released to all VAMCs an information letter and accompanying fact sheet, on which the brochure is based.

Better Transmission of Health Data between VA and DoD

As GAO noted in their recent report, we currently do not have a complete single repository of active service members' and veterans' health data that can be used to ensure continuity of care, improve health care delivery, and provide valid, reliable data for disability claims. Last fall, however, VA, DoD, the Indian Health Service, and other agencies began a substantially expanded health information system, entitled HealthePeople, whose purpose is to improve sharing of health information; develop and adopt common standards; seek appropriate opportunities for joint procurements and/or building of systems; work toward improved, model health information systems; and explore the potential convergence of VA and DoD health information software applications.

With respect to health data repositories or databases, specific actions are being taken.

- VA and DoD are establishing a national repository under the Government Computer-based Patient Record (GCPR) Project that allows for sharing of select DoD patient data at VHA locations. Additional phases of this project will support DoD viewing of VHA information. GCPR is being renamed the Federal Health Information Exchange (FHIE) to convey more accurately the original and current intention of this interagency activity.
- DoD is establishing a national patient record using a Health Data Repository product from 3M. VA intends to pursue a comparable solution and has staff working with DoD on a regular basis.
- DoD and VA are currently considering separate repositories to ensure privacy and security and to reduce the consequence of any failures. We expect both repositories to be operational before 2005, with common data standards to support retention of records from DoD and VA.
- VA intends to explore potential with DoD to create a second phase to this effort that supports creation of government-owned repository architecture/software, not dependent on vendor technology. This architecture/software could also be used throughout government to create health care repositories that can easily share patient information.

While VA and DoD are collaborating on a number of initiatives to improve information technology and electronic information transfer, the transition of records from DoD to VA is a work in progress. What can be said now is that based on

recent experience, the VA can expect a complete roster of deployed personnel after the first phases of the current deployment are completed. From this roster, VA can obtain the records needed to determine who is a veteran of the deployment and to evaluate potential health threats.

The VA/DoD Executive Council Information Management and Information Technology Work Group manages the VA/DoD interagency GCPR/FHIE program. The goal is to make DoD data available to VA clinicians with the highest functionality at the lowest cost. The transfer of DoD data to VA is in the testing phase. In FY 2002, VA and DoD are developing a joint business case and implementation plan to address the interoperability of GCPR/FHIE with CHCS II (DoD's new system in development) and VistA (VA's patient information system).

Additionally, the VA Deputy Secretary and the DoD Under Secretary for Personnel and Readiness have agreed to conduct quarterly reviews of VA-DoD coordination initiatives. Other information technology sharing efforts underway between DoD and VA include: Health Insurance Portability and Accountability Act of 1996 (HIPAA); standards development; pharmacy initiatives; technology integration laboratories; VA/DoD Laboratory Data Sharing and Interoperability; and collaboration for a VA/DoD Consolidated Mail Order Pharmacy (CMOP) pilot.

The complexity and magnitude of the two health care delivery systems and their health information systems present a challenge in building health data repositories for each organization that can handle the large number of health records, appropriately ensure privacy and security, and support sharing of information.

Interagency and International Collaboration on Medical Surveillance

Enhanced Interagency Collaboration: Work on Gulf War health issues has significantly increased intergovernmental coordination between the VA, DoD, and Department of Health and Human Services (HHS). Many in and out of government concluded that the government's response to veterans' concerns about illnesses they believed were related to their service in the Gulf War was not well coordinated among the affected Departments and agencies of the Executive Branch. The initiation in 2000 of the tri-agency *Military and Veterans Health Coordinating Board* served to institutionalize future interagency cooperation. The Coordinating Board expanded the important interagency collaborative activities of the earlier Persian Gulf Veterans Health Coordinating Board to cover interagency coordination for all veteran and military deployment health issues. Governmental coordination will continue to play a critical role in addressing health problems among veterans in future conflicts and peace-keeping missions.

International Collaboration: Increased collaboration has also extended beyond America's borders and strengthened coordination with Military and Veteran Affairs Departments/Ministries from other countries. On post-war health issues, such as those arising after the Gulf War, VA scientists and policy makers collaborate and share lessons learned with their counterparts in Canada, the United Kingdom, and Australia. Based upon the similarity of health problems among war veterans of different countries, these collaborations have begun to focus on the health questions that consistently arise among military personnel returning from all hazardous deployments.

The collective experience of caring for Gulf War veterans from the United States, Canada, the United Kingdom, and Australia also has led to a greater appreciation of the need to assist veterans with unexplained symptoms. Disabled U.S. Gulf War veterans are entitled to just compensation for disabilities resulting from illnesses and injuries incurred during military service. However, the paucity of scientific knowledge regarding the relationship between military environmental exposures and human health consequences has hindered VA's ability to fully understand Gulf War veterans' health problems. This difficulty has been further exacerbated by the reality that some veterans have disabling multi-symptom illnesses for which no established medical diagnosis can be found.

Conclusion

In summary, a veteran separating from military service and seeking health care today will have the benefit of VA's decade-long experience with Gulf War health issues. VA has successfully adapted many existing programs, resulting in a clinical health registry, improved outreach and education, and readjustment counseling services for Gulf War veterans. VA has also relied on prior experience with Vietnam veterans and Agent Orange to develop a fair policy on compensation. In collaboration with other federal agencies, VA has also initiated new programs for developing and coordinating federal research on veterans' health questions.

Mr. Chairman, this concludes my statement. My colleague and I will be happy to respond to any questions that you or other members of the subcommittee might have.

WRITTEN COMMITTEE QUESTIONS AND THEIR RESPONSES

CHAIRMAN MORAN TO DEPARTMENT OF DEFENSE

House Committee on Veterans Affairs
Subcommittee on Health
Hearing on Military Medical Surveillance System Challenges
February 27, 2002

Question 1: Are the challenges of maintaining an accurate medical surveillance system too great to overlay onto a modern battlefield?

Answer: No. Comprehensive deployment health surveillance begins prior to placing anybody in harm's way with the collection and analysis of medical intelligence to determine what occupational and environmental health hazards may be present in a region or specific area. Under ideal circumstances, if the mission allows, an on-site assessment is conducted prior to positioning troops in any site to validate the medical intelligence information. This information is incorporated into the overall operational plan so that the mission goals are accomplished while the total risks (combat and non-combat) to the deployed Service members are minimized. Finally, while troops are deployed, regular health surveillance is conducted to monitor the air, food, water and other environmental conditions (i.e., disease bearing insects) and to analyze medical problems in personnel. During actual combat, there is monitoring for those agents (i.e., nuclear, biological, chemical) that could defeat the mission. The goal is to preserve the health of deployed military personnel.

Traditional risk factors for disease have long been the focus of military medicine and have come to be largely anticipated before troops deploy. As a result, effective measures to eliminate, avoid, or mitigate such risk factors are standard elements of military deployments. Examples of such measures are immunizations and prophylactic drugs, provision of safe food and water, individual and unit measures to prevent vector-borne disease, use of modern uniforms, and so on. Effective use of these measures reduces the impact of disease and injury during the mission. These measures have reduced the frequency of such preventable morbidity to a fraction of historical levels. That trend is known by virtue of the other arm of health surveillance during deployments, the monitoring of the incidence of disease and non-battle injuries. Such surveillance is valuable not only for validating force health protection actions but also, in real time, for detecting increases in disease which may indicate the need for reemphasis of protective measures or the development of new ones.

Non-traditional risk factors are those that may insidiously affect the health of the deployed force or may cause illness that manifests itself long after the deployment is over, perhaps years later. Recognition of the importance of anticipating and countering non-traditional health risks during deployments is a relatively recent development and underlies the emphasis on occupational and environmental health surveillance in recent Defense policies. Occupational and environmental health surveillance in the Balkans permitted the identification of potential toxic health threats and facilitated the use of measures to eliminate, avoid, or mitigate such threats. Achieving this objective requires appropriate medical intelligence so commanders are alerted for such threats and so medical personnel may assist commanders in characterizing the threats and in countering them. The pre-emptive nature of occupational and environmental health surveillance is critical, because the illnesses to be prevented may not occur during the deployment and thus may not be detectable by concurrent surveillance for disease and non-battle injuries.

Execution of a methodical and sensitive surveillance effort has been done somewhat successfully in the Balkans. These systems are designed to protect the population at risk and it should be recognized that there would always be individual instances where failure or error could occur. During high intensity conflict, it may not be possible to conduct methodical and sensitive surveillance, or even to know exactly where individuals are located. Planning to reconstruct the events of high intensity conflict shortly afterwards and preserving appropriate documentation is the solution for maintaining a comprehensive medical surveillance system.

House Committee on Veterans Affairs
Subcommittee on Health
Hearing on Military Medical Surveillance System Challenges
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Question 2: Are there any concrete benefits associated with DoD's new surveillance system deployed in Operation Joint Endeavor – in other words, have policy changes to protect forces occurred as a result of its implementation?

Answer: Department of Defense policies for Force Health Protection result in the Services implementing programs to provide protective measures for those who deploy. In actuality, Force Health Protection brings together all of the health protection programs which the Services have always provided, adds the contributions from medical intelligence and occupational and environmental health surveillance and brings this total package to the oversight responsibility level of the military commander in the field.

In the pre-deployment phase there are medical intelligence assessments of the potential medical threats from endemic diseases, chemical and biological hazards, sanitation and environmental threats, and diseases in the local population. Troops about to deploy are briefed on the potential deployment site health hazards. They're then provided information and appropriate vaccines or prophylactic medications to eliminate, avoid or mitigate such threats. Ideally, an on-site occupational and environmental health assessment is done in areas where troops are planned to be staged, and those results are provided to the commander. Finally, a pre-deployment health questionnaire is completed by each military member to bring any medical problems or concerns to the commander's attention and to appropriate medical attention. Each military member's medical record is checked to ensure an HIV sample has been collected within the previous 12 months, validating that a pre-deployment serum sample is in the DoD Serum Repository. These actions ensure that healthy people are deployed.

During deployment, there is ongoing occupational and environmental health surveillance, monitoring for disease vectors such as insects and rodents, monitoring of food and water quality, and frequent analysis of the medical problems (disease, non-battle injuries) occurring in the troops. Any indication of unusual or greater than expected diseases or symptoms would result in appropriate medical investigation and changes in the Force Health Protection procedures.

After deployment, a post-deployment health questionnaire is completed by each military member to bring any medical problems or concerns or questions about exposures to the commander's attention and to appropriate medical attention. The routine HIV sample done subsequent to deployment constitutes the post-deployment serum sample in the DoD Serum Repository. These pre- and post-deployment serum samples can be used to evaluate for possible subsequent concerns of immune system exposures. Analyses of medical lessons learned from every deployment can result in changes in the Services' programs to implement the Force Health Protection policies, and may even result in policy changes, if necessary.

The concrete benefit of Force Health Protection is the preservation of the health of the individual men and women who deploy. Their ability to carry out their mission is enhanced, as is their confidence in their leader's concern for their health.

House Committee on Veterans Affairs
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Question 3: GAO raises the important issue of data standardization among the Service branches. What steps is DoD taking to address this need?

Answer: The Department of Defense is an active participant in one of the presidentially-sponsored e-Government initiatives—Consolidated Health Informatics (CHI). The goal of this initiative is to adopt federal health care information interoperability standards and to provide a simplified and unified system for sharing and reusing medical record information among government agencies and their private health care providers and insurers.

In addition to its participation in this federal initiative, DoD is actively pursuing a solution to the medical data standardization problem within the Department through the Military Health System (MHS) Information Management Proponent Committee (IMPC). The IMPC membership includes the TRICARE Management Activity Deputy Executive Director, the Deputy Surgeons General of the three Services, the Deputy Assistant Secretary of Defense for Health Operations and Policy, the Deputy Director for Medical Readiness (Joint Staff), and the MHS Chief Information Officer. The IMPC has endorsed the principle of centralized configuration management processes for requirements, data standards and architecture and approved establishing an MHS centralized data management program. The MHS Data Standards Configuration Management Board (DSCMB) has been chartered to act as the centralized authority to review, approve and provide conflict resolution for the Data Standards Configuration Management process. The process will be designed to ensure enterprise data consistency and effective exchange both within the MHS and with external sources.

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Question 4: Has DoD ever assessed the reliability of self-reported exposures and conditions on its pre- and post-deployment troop surveys? For example, are the questions understandable to the troops? Does DoD make any efforts to "audit" the surveys using medical records and clinical examinations to confirm self-assessments? Why or why not?

Answer: The pre- and post-deployment health questionnaires are designed to provide the individual Service member the opportunity to bring his or her medical problems or concerns to the attention of his or her command just before or after a deployment, and have those problems or concerns addressed by the appropriate medical personnel. If there are no medical problems or concerns raised, there is no medical intervention. This process is the same that is used whenever a military member interacts with the military healthcare system, whether it is for periodic physicals or routine or emergency medical evaluations. The reliability of the information provided by the military member is assessed at the time by the medical provider, as part of the patient-provider relationship. Clarification of any questions the military member may not understand would occur at the time the information provided is reviewed with the member. Pre- and post-deployment health questionnaires are part of the individual military member's health record, and as such, they are not surveys or research instruments to be statistically analyzed.

GAO Response to Questions From the Honorable Lane Evans
Following February 27, 2002, Testimony Before the
House Subcommittee on Health, Committee on Veterans' Affairs

1. *How could a reliable DOD medical surveillance system that shared information with VA have assisted VA in developing services for Persian Gulf vets?*

A reliable medical surveillance system could have produced information that VA could have used in both providing medical treatment to veterans and adjudicating their claims for disability compensation. In the health care area, relevant deployment and health information could have provided key data for diagnosing Gulf War veterans' illnesses, potentially allowing VA to provide more targeted treatment. As we first reported in 1997 (*Defense Health Care; Medical Surveillance Improved Since Gulf War, but Mixed Result in Bosnia,* GAO/NSIAD-97-136, May 13, 1997), the Presidential Advisory Committee on Gulf War Veterans' Illnesses and the Institute of Medicine (IOM) found that research efforts to determine the causes of illnesses experienced by veterans who served in the Gulf were being hampered by the lack of complete data on (1) the names and locations of deployed personnel, (2) the exposure of personnel to environmental health hazards, (3) changes in the health status of personnel while deployed, and (4) immunizations and other health services provided to personnel during deployment. The Advisory Committee further concluded that many of the health concerns of Gulf War veterans may never be fully resolved because of a lack of data. In absence of a specific diagnosis, VA has had to treat the symptoms of Gulf War veterans with chronic and undiagnosed illnesses.

In the benefits area, comprehensive medical surveillance data also could have helped VA adjudicate disability claims for Gulf War veterans with undiagnosed illnesses. In November 1994—more than 3 years after troops were withdrawn from the Persian Gulf—the Congress enacted legislation allowing VA to pay compensation benefits to veterans for Persian Gulf-related undiagnosed illnesses. However, in May 1996, we reported that due to a lack of evidence required to support claims for disabilities related to undiagnosed illnesses, VA had initially denied almost 95 percent of the more than 4,000 claims it had processed for veterans claiming such disabilities (*Veterans' Compensation: Evidence Considered in Persian Gulf War Undiagnosed Illness Claims*, GAO/HEHS-96-112, May 28, 1996). Subsequent to our report, VA issued guidance to help ensure claims processors provided veterans with clear and useful information regarding the types of evidence that could be used to support their claims. In February 1998, we reported that VA readjudicated the denied claims and an estimated 8 percent resulted in veterans receiving benefits for undiagnosed conditions (*Veterans' Benefits: Improvements Made to Persian Gulf Claims*, GAO/T-HEHS-98-89, Feb. 5, 1998). A better military medical surveillance system could also have helped to establish a clear link between deployment and adverse health effects and provide the data needed to establish a presumption for any diseases related to deployment exposures.

2. *Is it realistic to expect DOD to maintain an accurate medical surveillance system on the battlefield?*

We recognize that ensuring complete recordkeeping—a critical component of an accurate medical surveillance system—will be difficult in times of high intensity combat activities. As evidenced from the Gulf War, gathering more accurate medical surveillance data on deployed personnel is critical to VA in carrying out its mission. DOD has had some success in gathering certain surveillance information in theater—perhaps most notably through its deployable 520th Theater Army Medical Laboratory. DOD used this capability in Bosnia under Operation Joint Endeavor to conduct air, water, soil, and other environmental sampling and analyses.

DOD is also developing several electronic information systems that, if successfully implemented, have the potential to greatly improve its efforts to ensure comprehensive surveillance. For example, DOD's Theater Medical Information Program, planned for field testing this spring, is intended to capture medical data on deployed personnel and link it with medical data captured in Composite Health Care System II—DOD's new medical information system, which is also at the field testing stage. Regarding DOD's deployment data, we recommended in May 1997 that corrective action be taken to ensure the complete and accurate capture of such data. In August 1997, DOD issued its directive and instruction on deployment health surveillance and readiness, recently updated in February 2002. However, because few deployments occurred between August 1997 and last fall when

Operation Enduring Freedom began, we have no current data to determine how well the new policy is being implemented.

3. *Are there any concrete benefits associated with DOD's new surveillance system deployed in Operation Joint Endeavor—in other words, have any policy changes to protect forces occurred as a result of its implementation?*

Since the Gulf War, DOD has issued a number of medical surveillance policies aimed at protecting deployed forces, including the January 1996 medical surveillance plan for U.S. ground forces deployed to Bosnia under Operation Joint Endeavor. A year and a half later, DOD issued its directive and instruction on medical surveillance for all subsequent deployments; these policies were updated in February of this year. DOD also implemented post-deployment clinical practice guidelines, which became effective January 31, 2002. The guidelines, developed in collaboration with VA, are intended to improve health-risk communication and continuity of care by providing a structure for primary care providers to evaluate and manage patients with deployment-related health concerns.

However, in our past work, we found that many of these policies had not been fully implemented and that DOD made minimal progress in improving its military medical surveillance system. Poor recordkeeping continued to be a major concern, and DOD's goal to develop state-of-the-art systems to capture comprehensive health and deployment information has not yet been realized. Because DOD's updated deployment health policies and post-deployment clinical practice guidelines have only recently been issued, it is too soon to comment on any benefits that these policies may yield. However, GAO is beginning work for the House Armed Services Committee to evaluate DOD's ongoing efforts to improve its military medical surveillance system.

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