

TRANSCRIPT

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Q: Welcome to Lieutenant General Eric B. Schoomaker. I'm sure you all see the family resemblance.

A: We dress alike. [Laughter].

Q: He is the 42nd Surgeon General of the Army and also the Commander of US Army Medical Command. You just got back from a trip to Afghanistan and Alaska and some other places.

A: I did. I was privileged to travel first to Qatar to join the Central Command Surgeons Conference. That is all of the joint surgeons--Army, Navy, Air Force, Marine Corps--who are active right now in the Central Command area of operation hosted by the Central Command Surgeon, Brian Gamble out of Tampa. It was held in Doha, Qatar. From there we went on, a group of three of us, the Joint Staff Surgeon, Rear Admiral David Smith; and the Assistant Secretary of Defense for Health Affairs, Dr. [Warden Cassells]; we all went together to really observe the continuum of care from the point of injury or illness at the front of the battle back through as far as we could get, the so-called level two and level three care, or what the NATO force calls roll 2 and roll 3 care. Of course being a NATO activity a lot of the work being done in Afghanistan today is through our NATO partners, especially the Canadians and the Brits and the French right now.

A very good trip. We spent most of our time in the Southern District and in the East where Task Force 101 is now stationed. We had a chance to meet all the way from the senior leadership of the military through the medical support right down into the Afghan National Army and the Afghan National Police who are very active as well.

I was very impressed. My last trip to Afghanistan was almost three years ago when I had a large group of my own medics--doctors, nurses, administrators, enlisted, officer--who were deployed to Afghanistan in support of Operation Enduring Freedom when I was a regional medical commander in the Southeast United States, and many of our own

doctors and nurses and others were taken out of our hospitals and sent over there with deployable hospitals. I've seen a tremendous improvement in the overall coordination and integration of care.

I was very impressed with our coalition partners and the degree of interaction among the three services. Today, as an example, the hospital that I visited two or three years ago at Bagram Air Force Base which was our air base that was run by an Army combat support hospital is now run largely by the Air Force with an embedded Army unit as well. So as you walk through this now permanent structure that has been built for them on Bagram Air Base you see a mixture of Air Force, Army and a smattering of Navy providers there doing just a superb job.

On our way back, because it's nice to get out there and see where care is being delivered, I went out to Alaska to Fort Richardson and Fort Wainwright and Fort Greeley, Alaska, to see how things are going there. Not surprisingly, in that part of the world too,---

Q: Would you like a breakfast?

A: Oh, no, I'm going to pass. I have a feeling I'm going to be answering questions pretty actively here. It's also bad PR for the Army Surgeon General to be eating bacon while-- [Laughter].

Q: We were watching to see what you'd do.

A: I could see it in your eyes. I was looking for the few healthy things on the table. I'm drinking my orange juice. My wife has got cameras everywhere watching. [Laughter].

But in Alaska we have a really, really good level of interaction among the Air Force and Army largely, it's an Air Force and Army force, but the Veterans Administration, too. We have embedded community-based out-patient clinics in both the Elmendorf Air Force Base Hospital, the 3rd Med Group, and in the new hospital that we've opened in Fort Wainwright, Alaska. For any of you who have a chance to get up there, it's really worth seeing. This is a state of the art hospital that's been built, Bassett Army Community Hospital, has an embedded VA clinic, a so-called community-based out-patient clinic, and the hospital design is all around native Alaskan art as well as reflects the fact that half of the year they spend in the dark so they've got simulated natural sunlight and the like to help overcome-- But a wonderful place and a great deal of interaction and cooperation among the services and the civilian network out there.

So that's how I spent the last couple of weeks. I'm happy to talk about that or anything.

Q: When you were in Afghanistan did you pick up any additional information on the problem of depression, mental health, suicides, the mental psychiatric side of soldiering that, recently there's been quite a lot said about that, in Afghanistan particularly.

A: First of all, I can tell you that I was very impressed with the Army leadership, the sensitivity of Army leadership right down to the small unit level about their orientation

to their soldiers' well being and the fact that the stresses of combat and especially of the multiple deploying soldier, the soldier who's gone back again and maybe a third time. The impact that has on the families.

The outgoing ISAF commander is General Dan MacNeil who was formerly the Forces Commanding General down at Fort McPherson, Georgia. General MacNeil was one of the first Army leaders who really embraced, and because of his position as the FORSCOM Commander, the whole notion of proactively seeking to screen returning soldiers for the symptoms of post traumatic stress.

That's something I think the media sometimes and the public are confused about. But we recognize increasingly that soldiers, being the human dimension of war and of national security, are subject to the human responses of severe stress. Combat is among a number of stressors that anyone, maybe the most extreme form of stress that human beings can experience. Others are obviously natural disasters, family violence, rape, any number of things that can happen to which a human can fall victim, and war is among those.

We know that any human being exposed to that environment has the susceptibility to develop specific symptoms related to that stress. Right now from a series of now five annual surveys that we've conducted in the Army, the Mental Health Advisory Team (MHAT) surveys that have been conducted, we know that somewhere between 15 and 25 or 30 percent of returning soldiers will experience symptoms of post traumatic stress.

What's really clear is that's not Post Traumatic Stress Disorder which we associate with much more well established and a longer chronic illness that may develop. I know it's tempting to just lump this all as PTSD, but in fact these are the symptoms that can be associated with Post Traumatic Stress Disorder. But we feel very strongly that if we can identify these early in folks and we can provide specific therapy for them, frankly, psychiatrists tell us, psychologists tell us, and our patients themselves tell us that the insight that this is a normal reaction to a very serious set of events in their life is itself somewhat therapeutic. We expect that the majority of these folks if found early enough and if appropriately treated, are going to have resolution of their symptoms and not go on to a chronic disorder.

One of the things that we're working the hardest on and General MacNeil was very active in, is recognizing that this is a natural course of any human, any combatant's experience of combat, and that we anticipate with the appropriate treatment that they're going to get better. We even find from our MHAT studies exactly when that screening ought to take place. We used to screen soldiers for health problems and mental health problems before they deployed and then immediately upon post-deployment, but we discovered through our MHAT series that soldiers frequently are so excited by it and so consumed by the work of reintegration and redeployment that these symptoms don't arise immediately upon arriving back in their deployment, site, you know. Fort Lewis, Washington; Fort Hood, Texas; or Camp Shelby, Mississippi. But three to six months later we begin to see a rising trend of these symptoms emerging. Sometimes when they're back home as National Guard or Reserve soldiers.

So every unit now has a mandatory post-deployment reassessment, PDHRA, that is mandated by the Department of Defense and that we're tracking. That's where we begin to find symptoms arriving. Symptoms of sleeplessness and hyper vigilance, sometimes relational problems.

Experience has taught us that if we can address these specific symptoms and we can prevent soldiers from getting involved in drugs and alcohol, some of the family discord that accompanies this. If we can keep families together, if we can educate families as well and alert them to the fact that this returning soldier's experiencing some of the things that we're seeing. Maybe problems with a relationship or ease of anger. And not to see this as directed at them but really an expression of post traumatic stress, that we're going to keep them out of the problems that we saw previous generations of soldiers experiencing.

Q: I could go on a long time about that.

A: And I could talk at length about how great I saw our commanders engaging their soldiers about this.

Q: If you could just clarify, I think one of the problems when you mentioned that people misunderstand this, is when we're searching around for a way to find the size of the problem, what we always get is 15-20 percent of men had symptoms. Is there a better way to do that then? Are there medical records where we can say after six months this many exactly were diagnosed with it? With the disorder or with something?

I understand what you're talking about, people misunderstanding, but we don't have any other numbers to use there.

A: I think we're in our infancy right now in fully knowing what the extent of this is and how best to track it. Along the continuum of care that extends from the military health care system into the VA and the private sector. I kind of see this as a continuum of a potential chronic illness, not unlike diabetes. People are predisposed, diabetics we know are predisposed by virtue of their genetic construct and other physical attributes and the like to develop diabetes; but to have early symptoms or signs of diabetes does not make them a fully blown, fully expressed diabetic. That's how I kind of think of this.

What we're trying to do is keep them on the safer side of early recognition of symptoms and then look at how many of them mature. I think over time we'll be able to provide you perhaps with better statistics about how large the problem is. If we're as successful as I hope we are working with the VA, then we'll move as many of these as possible back into a realm of treatable and treated, successfully treated cases and not so much into the realm of established Post Traumatic Stress Disorder.

Q: So you're saying we can stick with 15 to 20 percent but remember to always call it symptoms and not--

A: Yes, ma'am. It's hard to write a good headline when you've got to say "symptoms of." I notice, and I won't name the paper, but one of our papers is even calling this GIs. We haven't been called GI for a whole long time. But it's easy to say GI.

Q: Just to clarify. There's post traumatic stress and there's Post Traumatic Stress Disorder. Can you clearly define the difference in your mind between those two? What makes it a disorder?

A: I'm not a psychiatrist or a social worker or psychologist, but my sort of, I call myself a sophisticated layman's view, is that what the majority of our soldiers are experiencing, and soldiers I'll use in the generic--soldiers, sailors, airmen, marines, coast guardsmen--are symptoms associated with Post Traumatic Stress Disorder. But some of us have called this post traumatic stress normal reaction. This is the normal reaction to post traumatic stress. They may include any of a number of symptoms that are associated with the fully expressed Post Traumatic Stress Disorder in the diagnostic category that psychiatrists use in diagnosing it. So that's how I see it. I see this as symptoms of a state, human response to stress which if not appropriately treated is going to mature into or has the predisposition of maturing into a full blown Post Traumatic Stress Disorder. Much more resistant, much more chronic and requiring longer therapy.

Does that explain that?

Q: I was asking in a similar vein, on the PTSD, though, we must have some measure of, some indication of the number who actually are being diagnosed. It would be helpful to have some lead on that.

Do you think it would be helpful to have another later assessment? And if you could just talk also a little bit about what you see as the most common triggers and things like [inaudible] techniques for treating it, [inaudible].

A: Again, I have to make my response conditional or qualify it as I'm not a psychiatrist or a psychologist or a social worker and I don't spend all of my time in this realm. So I'm giving you what I best understand is--

I don't think right now we do have good numbers, but we're working very hard with the VA, for example, and with the National Guard and Reserves to get a better feel for or grasp on how big that is. Remember, some of these insights about the delay in the emergence of symptoms are only two years old or so. When we refined the Post Deployment Health Reassessment, PDHR reg.

We also recognize that a large number of our deployed soldiers belong to National Guard and Reserve units who return to places in the United States which are removed from military treatment facilities and maybe even at some distance from VA medical centers where they might receive care. So what we have to do is collect this information in cooperation with the Veterans Administration and our managed care support contractors.

The other thing I have to point out is that much of the information around care for behavioral health, mental health, psychological health, all three of those words have been used to address this category, psychological, mental or behavioral health, are confidential. We're trying very hard to encourage soldiers and families to seek care and to not have them feel in any way, shape or form that we're looking over their shoulder or that we're invading their privacy or seeking to violated their confidentiality about their care. In fact we have for Military 1 Source and 800 numbers available to them, ways of seeking care which are anonymous and that we can't get ready access to. I think that's the preferred way to do it.

I hear a lot of discussion in the press and other places about mandatory this or mandatory that. Quite frankly, much of what we're talking about, especially against a national background in which, not just the military but society in general stigmatizes going after problems of behavioral and psychological health. We want to do everything we can to minimize any percent of our soldiers that they're being watched while they're going through this. We want them to get care, period.

But I think over time, working with those three partners--the military, the VA and the managed care support contractors--we will have a better feel for or handle on the numbers that you're talking about. We recognize this is a great concern to the American public.

Does that answer the question?

Q: Yes. On the triggers and what you see as the most common triggers and anything new that you're learning about treatment that's particularly effective?

A: A very good question. One of the things--a lot of what we're doing as well is to try to fore-warn and to arm soldiers and families with the knowledge that when they go to war and return some of the skills, if you will, and some of the traits that they develop that are highly adaptive to combat are brought back with them. Such as hyper-vigilance. We all know the story of the soldier that hears a backfire on the street and jumps under the table. The glass breaks and we all go under the table. But that's an expression of this hyper-vigilance. When you're in a combat zone and you're constantly alert to a threat to you or your comrades, coming back home requires a whole new kind of reeducation of that.

Some of the things that soldiers learn when deployed are frankly very adaptive to life. We try to point out, we have a series of training programs we generically have labeled battle mind training that we provide for soldiers and families before they go and try throughout the life cycle of the soldier and the family to reinoculate them, if you will.

What we've learned, by the way, in our MHAT, our Mental Health Advisory Team studies, is that soldiers who have been provided the battle mind training generically do better in terms of lowering stigma associated with seeking psychological help and raises their awareness of issues that they may encounter later.

But some of that training that we give them is aimed at recognizing when these things are adaptive and when they're mal-adaptive. Coming back into society being hyper-vigilant and being suspicious about your family or about friends is not adaptive to you or not functional.

So the things that we look for specifically and the triggers they may experience are just what I talked about. The soldiers is hyper-vigilant about perceived or real threats that may be in his or her environment. They may have difficulty establishing or maintaining good relationships with people so that there's a sense of distance. Many of our married soldiers' spouses were the first to alert us to the fact that three to six months after the soldier returned, they weren't the same. How can I get my husband or my wife back to being how they were before? That was one of the first signs that we had that maybe we need to recheck some of these symptoms later.

Sleep problems are a very common issue as well. Sleep disorder and other symptoms that may suggest depression.

Is that okay?

Q: Yes.

Q: General, it occurred to me that one of the things that's most helpful for us is not knowing how many people have been diagnosed with specific PTSD symptoms, but how many people are receiving treatment? Can you talk about that a little bit? Also--

A: I can't tell you because I don't have those numbers for the reasons that I explained a moment ago to Ann.

Q: You don't know how many people are getting treatment?

A: No, I don't.

Q: Is that because of the anonymity of it?

Q: Shouldn't we know that? The follow up question was going to be are there enough facilities? Do you have enough people? Are there enough mental health care caseworkers to provide the services you need? But if you have no idea how many people are getting services, I guess we can skip [inaudible].

A: We have the number of diagnosed--I can look into records through our electronic health record and tell you how many have a diagnosis related to post traumatic stress symptoms or Post Traumatic Stress Disorder. I can't with confidence tell you that universally covers all soldiers or families who are seeking care through the military, the VA or other sources. I'm being very honest with you. I can tell you within my system how many have sought and are getting care, but I can't tell you universally for the entire force how many are seeking care for the reasons I just explained a minute ago.

Q: So if a soldier at Fort Carson goes off post to seek help for screaming nightmares, you wouldn't know that?

A: Not necessarily, no sir.

Q: Do you want to know that? Should you know that?

A: I think some of our commanders have asked the same question. Should I be made aware of care that's being rendered. Right now I will tell you that we don't provide those commanders specific knowledge about psychiatric or psychological care that soldiers are receiving.

What we look for is commanders down to the small unit commander and fellow soldiers to help us identify if there is a soldier whose behavior or whose performance has slipped, or who is using alcohol or drugs inappropriately or seeking other avenues for solving the problem.

The chain teaching that was conducted by the Chief of Staff of the Army all the way down, the Secretary of the Army, all the way down to the last soldier was really aimed at that exact thing.

In other words, I think it's entirely appropriate that a soldier and his or her family are given access to anonymous or confidential treatment in order to encourage their getting treatment, and we focus on the behavior. We're doing that.

Q: Do you know how many mental health facilities you have or how busy they are?

A: Sure.

Q: Can you say whether those facilities are adequate for the problem?

A: I think we can say as a nation that our mental health facilities and access to mental health providers is not adequate for the need right now. Part of the problem that we as a military are suffering is a shared national problem of access to high quality and evidence-based mental health treatment. By that I mean treatments, especially for post traumatic stress, which have been subjected to good, scientific studies and that show improvements as a consequence of that therapy. There are some well recognized forms of treatment that we can get you further details about that work, that are successful.

We as an Army recognized sometime ago that we needed additional help. We began an effort to hire over 300 additional mental health, behavioral health specialists. This includes psychiatrists, psychologists, psychiatric nurses, social workers, technicians--uniformed and non-uniformed technicians who can serve as extenders of social work and psychiatrists. We're also working very hard with our primary care providers, our family practitioners, our interns. I'm a general internist, sub-specialist internist, but I practice mainly general internal medicine. I can tell you an awful lot of behavioral

health, psychological health, takes place in the primary care sector with family medicine doctors and internists and the like.

Recognizing that we don't have enough, we went out and have sought to hire an additional 300-plus, both for the continental United States and outside of the continental United States. We're up to about 180 of those positions now. Our managed care support contractors, that is the three major contractors--HealthNet in the north, Humana in the south, and TriWest Health Care Alliance in the west--have all been adding additional mental health providers as well. I think they've added about 3,000 or more in the last several years. Mental health providers.

But I think, sir, you're talking about a national problem--access to high quality mental health givers.

Q: General Schoemaker, the Army anesthesia community has linked chronic pain with symptoms of PTSD or post traumatic stress, and have said that if they had more pain service teams in the battlefield at the point of evacuation and also at Landstuhl that they'd be better off in the long run with chronic pain. Is there a move to put more pain service teams out on the battlefield, similar to the team that's at Walter Reed which was recently expanded?

A: That's news to me, what you just told me. I thought we were doing pretty well with pain management. We've been one of the leaders in pain management. We early on recognized, especially in the severely injured patient who had injuries to the extremities--remember, this is a war that has really turned the pattern of injuries on its head. We've now put some pretty effective battle body armor on soldiers in Kevlar and ballistic goggles, so wounds that previously would have killed a soldier to the body and the head now are often being prevented, and what they're left with is extremity wounds. Very early on we had some terrific folks from the anesthesia community who identified that placing catheters, for example, that did regional anesthesia. And then sending a soldier back with an infusion pump. In fact we did a rapid assessment of a small infusion pump that allowed them to self-administer narcotics while they were en-route to relieve suffering. That's been very very successful. So this is kind of news to me that we don't have enough of those folks out there and I need to go back and look at that. If you'd give me a point of contact I'd be happy--Is it Trip Buckenmeyer?

Q: Yes. Ye said the regional anesthesia and the nerve block is spotty, it's sort of a crap shoot whether a soldier will get that or not. So a lot of soldiers are flying first to Germany and then home in agony because they're infused with morphine rather than having the nerve block.

A: I'll take a look at that. This is a good point of departure for a bigger issue. One of the things that we did when we were in Afghanistan, for example, and I did when I was in Iraq several months ago, is we now have a system of trauma management called the Joint Theater Trauma System, JTTS, which is a tri-service--Army, Navy, Air Force--which are the three principal medical services, and it extends to the Marines through the Navy. A system that looks at literally every aspect of care from the point of injury or

illness back to the evacuation chain and extending now into the VA system and asks the question what can we do at every step of management, evacuation, to improve the outcome for that patient. This has resulted in I think a remarkable improvement in how, in survival and in overall care of our soldiers. It includes a better-trained medical at the point of injury or wounding as the NATO group calls it. Better devices carried by soldiers. We've made the first improvement in the individual first aid kit in probably 50 years in issuing that [IFAC]. Now every soldier has a one-hand tourniquet, has a bandage, a combat application bandage, has an airway. Soldiers frequently, as you probably know, the first provider of care is not a medic, it's a fellow soldier. And many units now go to battle having trained almost every one of their soldiers as combat life savers. To evacuation.

It was observed that even in Iraq where the ambient temperature might be 120, 130 degrees, if you've lost a lot of blood you're going to have trouble maintaining your core temperature. If you arrive at a very skilled combat support hospital, forward surgical team, but your temperature has slid down into a dangerously low level because of blood loss, you may not survive the resuscitation efforts. So we fielded a blanket, a thermal blanket. As I went around to places in Afghanistan and Iraq I always check to see if they have those things in stock. They do.

So now we monitor through the JTTS what the core temperature of the patient arriving in the hospital, then ask the question, why wasn't it maintained? If there's a problem. Because we know if it drops [inaudible] as well.

So every one of these steps. And to do that what you have to do is impose a certain standard and make sure that standard is being upheld across the theater, to include extending into our coalition partners now. We're trying to reach out to the coalition partners and ask the same question. Are you a part of, you and the British Hospital, are you a part of this JTTS? How can we network with you so we have an international standard of care? They're very much read into this. In fact they're leaders in some of this care.

Q: Are you concerned about chronic pain in the larger community of amputees and people suffering--

A: Absolutely. We know that long term chronic pain predisposes to depression. Your brain changes when you have pain for a protracted period of time. Anyone who has chronic pain, whether that's combat induced pain, trauma from a motor vehicle accident, or just back pain and headache, we know that the human brain changes and there are mood changes that are a consequence, so we're very very concerned about that.

Q: General, earlier this month both the Secretary and the Chairman of the Joint Chiefs made a big issue about destigmatizing the need to get mental health care. I'd like to take you back to your talk about Post Traumatic Stress Syndrome. You referred to them as natural and normal. You talk to soldiers sometimes and they go well how come they call it a disorder. Is it a bad name?

A: You're lining me up to be--

Q: Battle fatigue wasn't so strained as PTSD.

Q: Shell shock.

Q: Shell shock, World War I. Is it pejorative?

A: It's reminiscent, I'm not trying to change the topic, but it's reminiscent of why it's difficult for people to understand how you can have a mild traumatic brain injury--mild and trauma? But I think of trauma, you scrape your hand, that's trauma. If it's a simple abrasion it's mild trauma. So I guess you'll have to forgive us that sometimes we don't get, maybe we're not as sensitive as we might be to communicating things like disorder and the like.

You raise a very interesting point. I'll have to talk that over with my psychiatric colleagues to see if there's a way of using different terminology that doesn't have people stigmatized by it.

We talk about these being symptoms associated with, symptoms of Post Traumatic Stress Disorder. The attempt was made by those who are doing the surveys to make sure that they were being very scientifically rigorous when they looked for symptoms that might later emerge or progress to Post Traumatic Stress Disorder, which is what we associate with it as a bonafide diagnosis within the psychiatric community. I think that's how it came about.

Whether we're better off using a term to describe this from a monetary state, that's a good question.

I can tell you that in past wars combat fatigue, shell shock, things like this, I think were a mixed bag of probably concussive brain injury and post traumatic stress symptoms. So I would be reluctant to adopt some of those earlier nomenclature, but I think it's an interesting concept.

Q: Along the same lines, the DoD Awards Advisory Panel is now studying whether or not PTSD should warrant the Purple Heart. Have they asked you for your views on this? If not, what do you think in any event?

A: No, they haven't asked my opinion about it, and I think this is a question for operational commanders and not for me.

Q: Do you think it would reduce stigmatization?

A: I think the things that have so far been effective is for leadership, and this is what I emphasize when I go around. When I talk to a brigade commander and his or her NCO leaders, and I point out that you lead by example. If you're up front with your soldiers and get them to understand that you yourself might be experiencing some of these

symptoms and that you will readily seek care, maybe be at the front of the line as some commanders have been in returning, that's going to make a big difference. I think that's what I found to be very encouraging about talking with field commanders in Afghanistan. Some of the senior leaders who recognize right up front that this is an issue that they are addressing.

It's true coming back now, in Alaska we just had returning one of the brigades of the 25th Infantry Division to Fort Richardson. Again, very up front with a need to get in there and seek care if you're experiencing symptoms, without stigma associated with it.

I think taking the question out of the security question had a profound impact. We've already heard from many people who have said that had that been removed earlier they would have had an easier time seeking care themselves and had been more forthcoming about this.

I can tell you in experiences I've had in the past where we've dealt with communities that are very much involved with security questionnaires, they readily agree, the most enlightened of their leaders, that soldiers, sailors, airmen, marines, civilians who are part of that community, they would much rather they voluntarily seek care and stay healthy psychologically than to be hampered by the fear of later having to admit that they sought that care. So having that question removed I think has been enormously successful in de-stigmatizing.

I can't tell you if getting a Purple Heart is going to have the same effect.

Q: If I could just clarify, get you to clarify your answer to Mark real quick. So do you not believe or do you believe that PTSD is a battlefield wound that deserves or is analogous to getting [inaudible]?

A: I think the symptoms of post traumatic stress are certainly associated with exposure to combat. Whether or not a medal should be awarded is not in my purview, it's not in my lane. I go back to saying, I think the senior operational commander in the Army needs to decide that. Does that clarify it?

Q: Yes, thank you.

And you mentioned traumatic brain injury. Before that you mentioned some equipment that you're fielding including thermal blankets, the new first aid kit. Are there any other equipment improvements that you believe could be made to prevent or mitigate other wounds that you've seen in the theater? Have you thought about some of these things? Particularly traumatic brain injury.

A: If I had one right in mind I wouldn't be in this room right now, I'd be out there fielding it, to be perfectly honest with you. [Laughter].

Right now I've been very encouraged by the pace at which the community of military traumatologists and civilian, academic traumatologists have all united to make improvements rapidly in this realm. And we're working on a number of those.

One of the things that we're working on the hardest right now is so couple insights into the pattern of wounding and the nature of wounds with the nature of the personal protective equipment to include helmets and goggles and body armor, but also vehicles. So that we can go back and look at soldiers, generic soldiers--soldiers, sailors, airmen, marines, coast guardsmen--who have survived or not survived wounds; and then what has helped or not helped protect that soldier from a wound. That's being looked at again through this Joint Theater Trauma System.

Congress was very generous two years ago in both funding and providing guidance and directive that we bring together all research within the military community having to do with blasts, in a blast injury program. That program is administrated out of a former command of mine, the United States Army Medical Research and Materiel Command at Fort Dietrich, Maryland. And part of that program is aimed at looking at the full extent at which blast injury can injure a human being. Looking at gaps in what we know about those injuries, I will tell you, I've said it as often as I can, we talk about signature injuries of this war. I don't believe there is a signature injury of the war. I think there's a signature weapon. The signature weapon is blast. It's being used very effectively by an adaptive enemy. But that blast blinds people, it deafens people, it causes traumatic brain injury, it exposes people to the trauma of combat, having them come back with post traumatic stress symptoms. It can amputate, it can burn.

So what we've looked at is a balanced approach, a balanced portfolio, to where are our gaps in knowledge about the [act of] blast, no pun intended, and then where can we close those gaps. I think we're doing very well with that.

I would say in general what we're trying to do is to study comprehensively what blast is doing, how our protective equipment is protecting us, and if possible, how we can change that and then how we can change the treatments that are applied to those injuries. Does that answer it?

Q: General, my understanding of past studies has indicated there's a difference in the potential for combat stress, duration of combat, and there's often been in the past a difference between leadership positions. Officers and senior NCOs seem to suffer less than the junior ranks. Is there a study showing any kind of correlation?

A: I think the MHAT studies would confirm what you just said, would validate that. That is to say symptoms and other stressors, for example family discord, the expressed willingness of a soldier to separate or to divorce following a deployment seems to increase with time of that deployment. The frequency, the number of deployments that they've been on, also by rank. Junior grade soldiers tend to have a higher expressed intent. I have to be very careful here. The MHAT studies talk about expressions or intentions to act. They did not look at completed divorces or separations, which we haven't seen yet. There's been sort of a discordance between expressed intention to

divorce and actual divorce rates. But they seem to document what you just said. The more junior soldier tends to suffer more than the more senior officer. But I would have to tell you that I think across the board, officers and senior NCOs are also humans and they're experiencing some of the same symptoms.

Let me just say too, we're again in a very fertile period of discovery about many aspects of combat exposure to include concussive brain injury, severe penetrating injury, but also post traumatic stress. The VA has been a leader in the last 20, 30, 40 years since the end of the Vietnam War in better understanding post traumatic stress and Post Traumatic Stress Disorder.

We're working very hard in understanding the basic science of all of these problems. One of the things we haven't talked about here is the variability in human beings and what makes some human beings perhaps somewhat resilient or resistant to it and others not. I think some soldiers self-selected by virtue of the units that they belong to, or maybe by long service in uniform which might explain why a senior NCO who's elected to stay despite many exposures to combat and many deployments or separations from family may be relatively resistant. I don't know. I think those are areas of inquiry.

Q: [There are still] complaints about the gap between military medical care and VA. [Inaudible] emphasis has been on trying to close that gap. What's your feeling for how successful you are in easing that transition [inaudible]? Particularly in the Guard and Reserve, where they don't have that supportive structure [inaudible] in the military community.

A: I can tell you that I and my colleagues in the senior leadership of military health care have a very collegial, very ready access to the VA leadership and right down to individual regions and hospitals within the VA. Secretary Peak is a former boss of mine and mentor. He's not loathe to pick up the phone and call me, nor I he. And I placed a senior liaison, his military assistant is an Army doctor, Army physician that was active in formulating the Army Medical Action Plan. Many of the senior leaders of the VA you may know have credentials, have been physicians or nurses or administrators in uniform. So I think we have a very good relationship with them and we're working very actively to close that gap.

Secretary Peak has also made as one of his targeted areas this large number, numbering in the hundreds of thousands or reservists--National Guard and United States Army Reserve--and other services who are back in civilian uniforms and living throughout the United States. He's as concerned as anyone, I think, in outreach and has done an outreach program to try access those folks.

Q: You mentioned the 15 to 20 percent returning servicemen complain of some level of symptoms of PTSD and another population that may be seeking treatment for a diagnosis that the system doesn't know about. How much of a concern is it that some of these folks who are either displaying symptoms or have been diagnosed and the Army doesn't know about them being redeployed to Iraq or Afghanistan?

A: Just given the numbers that I've given you, I think we can count on the fact that there are going to be people who experience these symptoms and who get them treated are going to be redeployed. I go back to the model that if this is a normal reaction of a large number of human beings to exposure to combat, and our troops are being exposed to combat, no question about it, and separations, that once treated they're going to be back in the queue and ready to go again.

So are we concerned, am I concerned that the treatment is successful and they're ready to go? Absolutely. We want to make sure they get the very best treatment possible and that their problems are resolved and that they have insights into how to prevent recurrence of those symptoms, or if they do recur how to seek care.

Q: There are still some gaps in terms of tracking everybody out there who is either seeking treatment or has successfully completed it. Is there a way of knowing, a conclusive way [inaudible]?

A: We're a community, as I said earlier to Mark, we're a community that focuses on behavior. At the end of the day this rests on other soldiers, small unit leaders, knowing their fellow soldiers and their subordinates and being competent in their performance, watching for signs of degradation in performance, watching for signs that they may be using alcohol or drugs inappropriately, watching for signs that they may have difficulty in families. This is part of the Army taking care of the Army.

At the end of all this it's going to be the end behavior of any soldier.

Q: If I can just follow up on that, are you finding in theater that people are, an extraordinary number of people are getting back into theater with problems that maybe they shouldn't have been sent back?

A: No, not that I'm aware of. We do know there is a subset of soldiers who are over there that have received treatment and actively are on medications, for example, for prior or ongoing treatment. But by all accounts, that's being done well.

Q: Can you quantify that?

A: We know that from both the MHAT studies and others that about, I think the number is 12 to 15 percent of soldiers are on a combination of either mild antidepressants or sleep medications. About half of those are on antidepressants, so-called selective serotonin reuptake inhibitors--SSRIs. So about half of that or maybe five to six percent of our soldier are on SSRIs for a variety of symptoms--anxiety, sleep problems, mild depression, lingering systems of post traumatic stress.

Q: General, what advances in medicine, medical technology writ large, do you see emerging from the current conflicts? You mentioned [inaudible] brain injury and PTSD, treatment of wounds to the extremities. Are any other [inaudible]? Whether it's a new discovery, new--

A: I think two areas that I think are very exciting, you've already mentioned a couple of them. I think our impact on trauma care has been remarkable, the partnership with civilian traumatologists and the like. The fact that I was, as a Boy Scout I was taught never to put a tourniquet on a limb unless I was willing to sacrifice that limb. Now we know that tourniquets have saved countless lives, and we've tracked the number of soldiers and marines who have had tourniquets placed which after the fact they didn't need that tourniquet. We've not compromised a single one yet. At least in this theater of operation where that tourniquet may be on the limb for at most a couple of hours, we don't think there's any danger and we've saved far more lives and we don't have evidence that we've done any harm. So impact on trauma has been remarkable.

You mentioned the impact on the brain and post traumatic stress. One of the things I'm very excited about, I think in this decade of the 21st Century, we're beginning to penetrate the fusion of Eastern and Western science in medicine. We're taking a much more holistic view of how you care for people both with post traumatic stress and anxiety disorders, and that includes things that in decades past we wouldn't have approached like acupuncture, liked meditation, like yoga. I think we're beginning to use good evidence-based approaches to study any of a variety of complementary and alternative approaches to treatment of psychological and behavioral health including chronic pain to see how it may improve outcome predictions.

Then we have a whole new area that's kind of almost SciFi of regenerative medicine in which adult stem cells, that is cells that you and I carry around in our bodies and that are there that may regenerate any number of tissues, we can harvest and activate--we collectively, not me--but people who have been studying this now for a number of years who have combined a whole range of technologies from cell culture to knowledge about insights and isolation of specific hormones and chemicals that activate specific classes of cells, and then the development of biodegradable membranes that you can build a new organ or a new tissue around, I think this has given us an opportunity to rebuild parts of injured warriors that may have been destroyed by war. New noses, new ears, new skin. Go down to the burn center in San Antonio, they'll tell you that the rate limiting step for survival and even after the patient survives, the rate limiting step for full recovery cosmetically as well as functionally is skin. If we can grow large quantities of skin safely that we can put on a soldier almost from the beginning of their injury I think we'd be far better off. That's where we stand.

So this regenerative medicine area I think is an area that I see very promising.

Q: Could you see the Army as an institution embracing things like non-traditional medicine, alternative--

A: We already are. Acupuncture is frankly a mainstream treatment right now because good studies have now been performed on it and I think there are ongoing studies in our institutions in association with academic institutions and others on the use of yoga and meditation.

Q: General, what role does your office have [inaudible] Army standpoint? Specifically [inaudible] aeromedical evacuation?

A: I don't have any specific planning role that I'm aware of other than to participate as a team with the Air Force Surgeon General on manning and standards that are attached to aeromedical evacuation. In other words, Jim Roudebush, the Air Force Surgeon General who has the responsibility for health policy with regards to the Air Force and my group work very closely together. We are a combined aeromedical community--Army, Navy, and Air Force. We have a lot of aircraft, as you know, in the Army so many of our standards are identical to the standards of the Air Force. And because we place devices and instruments, for example our small infusion pump on Air Force aircraft, we have to make sure that whatever we have is going to be accepted by the Air Force when it comes time to evacuate a patient.

Many of the critical care aeromedical teams that ferry patients back from the war, and we haven't talked about that specifically, but I'll tell you, that's another major success story. They have evacuated now upwards to 50,000 soldiers, sailors, airmen, marines and otherwise, and haven't lost a single soldier. That's a remarkable achievement given the fact that they're doing that sometimes within the first 24 hours of a major injury. That wasn't possible in prior wars, but it's contributed to rapid evacuation and [inaudible] care back in the continent of the United States. We work pretty closely with the Air Force in developing that.

My biggest role in planning for the growth of the military has been in building the medical infrastructure that's going to support a growing Army, the GTA, the Grow the Army Initiative, as well as realignment of Army units under BRAC and under restationing as we draw down from Korea or Europe and realign close to 150,000 soldiers in communities across the United States where they have not been in the past. Fort Bliss, Texas; Fort Carson, Colorado; Fort Riley; Fort Hood; Benning. A whole range of camps, posts and stations, I'm part of the planning, and my people, for how are we going to provide health care for those, and do we have enough care providers in different species, so to speak, to be able to provide that. Does that answer that?

Q: Just a tiny follow up. You did mention that you know the number of people [inaudible] within the military system and [inaudible] number [inaudible]. But can you provide that to us? Even though it's not complete--

A: This is reliant upon the coding for those specific diagnoses. We can give you that.

[Inaudible discussion].

A: We can give you this. Everything we give you is conditional. You have to understand that while we also were collecting this information, we're fielding an electronic health record so our ability in the Army to capture diagnosable diseases is better than it's ever been before. So you're going to see higher numbers, which I can't tell you is because the epidemiology of the disorder has changed, or because we're able to capture it better. This is part of our quandary.

Q: General, can you define for us please what [inaudible] PTSD is?

A: It's a recognizable diagnosis that is in the DSM-4 manual of diagnoses that the behavioral health community uses for mental health disorders. It has to comply with a certain number of recognizable symptoms over a specific period of time in order to be diagnosed. That's how they deal with it.

Q: But in order for us to have a better understanding, it would be useful to know how one might distinguished between someone who has symptoms of PTSD as opposed to, as you say, full blown.

A: We can get for you the diagnostic criteria for PTSD if you'd like. That's generally available. You can go to a web site for the DSM manual and find that. But we'd be happy to find it for you.

Q: Sir, when the Rand study was released you welcomed it and said it will help raise the issue, perhaps have a national debate on it. I'm wondering sort of what are the issues and who are all the people that you want to debate on this? Is it the medical community, is it the average person to keep paying their taxes so we'll have the budgets for this. What's the national debate, and who are all the debaters?

A: What I said, when I was outbriefed by the Rand investigators I commended them for I think doing a very good study and I was relieved, as many of my colleagues were, that their study really pretty much was complementary of what we've been doing through the MHAT over the last five years. They were looking at a different sampling. They were looking at a national sampling where as the MHAT studies were looking specifically at deployed units in Afghanistan and Iraq, but their numbers and our numbers were very symmetrical, very complementary. That helped me understand that we weren't seeing in the samples that we had either a lower or higher estimate of this, and that we were all dealing with essentially the same problems.

I've been asked in a number of fora from congressional hearings to settings like this, about the military's role in reducing stigma in accessing high quality health care. My response to the Rand folks was that their study is going to help elevate on a national level the problem that we as a nation have in accessing high quality health care. I mean many of our soldiers, as I explained earlier, are civilians now. They're living in civilian communities and having some of the same problems that their neighbors have in overcoming stigma and seeking and receiving quality health care for mental health problems. So who's to participate in a debate like that I think probably starts with every community public health officer and state public health officer in the country. I know the American Psychiatric Association has been actively involved in this. They had a meeting recently in which they said some of the very same things about the problems of the nation accessing high quality health care that's evidence based, that is associated with a reduction in stigma.

Does that answer that?

Q: Yes.

Q: Let me ask you a political question since we're waiting for the copies to come back.

A: A political question? This is a lot like, I have a PhD. When I had to get through my PhD I sat through a panel of my professors. And it was very much like this. I'm feeling some of the same post traumatic stress symptoms. [Laughter].

Q: We talk a lot about the troops and mental health and psychiatric problems and concerns. As we were discussing downstairs, after Vietnam there was the crazy vet image that became almost universal, in Hollywood, in books, in public discourse. It was completely inaccurate, but it was there.

Do you worry about, the more you discuss this kind of problem which you must do, nevertheless it might be feeding that kind of public image of the troops. How do you combat that, or do you not see that as a problem?

A: I think it's always a problem. You can cast an unknown in a way that is made to be fearful, but I think one of the things that we need to do in this realm is to bring it out of the closet, so to speak, and confront these perceived demons that mental health problems are often cast as. I think one of the problems that we have in the stigma of seeking behavioral or psychological health is that every human, in my experience, resists kind of going into his or her own deep recesses of hidden trauma and having to expose them.

I liken this to a good science fiction horror movie. The best movies are always the movies that the monster is never brought out into the open. As soon as you bring the monster into the open it's really not as scary as it seems to be. But there's an awful lot of resistance to bringing that monster out.

I think this is a human trait. I don't think this is unique to the military. I reminded people of the name Thomas Eagleton recently. He wasn't in the military. I think we all, even at the highest levels of government, have problems confronting our fears about psychological health and the confidence that we have that people who seek care and counseling for problems, even problems that are, as we said about combat stress, predictable for a large number of people, that somehow they're weak or unpredictable in their behavior thereafter. When the opposite is probably the case. People who actively seek care for this are people in the long run that are probably more predictable and have greater insights into their own behavior.

Q: Are you saying there's [inaudible] or [inaudible] injuries? Does it tend to be [inaudible] more prone to [inaudible]?

A: Again, you caught me at a disadvantage, being not a psychiatrist. But I think there clearly are several psychopathologic states where, like schizophrenia, where if you've got a serious disorder you're going to have a recurrence of problems long term, but I work

with a number of people who have, that in past generations would not have been able to hold a long term job in part because of the perception that they were undependable. But because of modern psychotherapy and psychotropic drugs and the like, some of my very best colleagues [inaudible]. So I'd have to tell you yes, to some degree they are stronger for it.

I'll tell you one thing, knowing what problems are out there is a lot easier for me as a leader than not knowing that there are hidden problems that we're not addressing.

Q: We're out of time. We'll have to leave it there.