UNITED STATES DEPARTMENT OF DEFENSE

DEFENSE HEALTH BOARD

OPEN MEETING

Arlington, Virginia

Tuesday, December 11, 2007

P R O C E E D I N G S

(9:10 a.m.)

DR. POLAND: Good morning, everybody. Welcome to this meeting of the Defense Health Board. My name is Dr. Poland. I am President of the Board. We have a variety of extremely important topics to discuss today, so we'll go ahead and get started, and I'll ask Ms. Embrey to call the meeting to order.

MS. EMBREY: Thank you, Dr. Poland. As the Delayed Designated Federal Official for the Defense Health Board which is a federal advisory committee to the Secretary of Defense, the Surgeons General, and the Assistant Secretary of Defense for Health Affairs, I hereby call this meeting of the Defense Health Board to order.

DR. POLAND: Thank you, Ms. Embrey. A tradition that we have established with the board is a moment of silence to honor and remember those who have served and those who particularly during this season are away from their families and are sacrificing on our behalf. So if all in the room

would please stand and observe a moment of silence.

(Moment of silence.)

DR. POLAND: Thank you very much. I particularly want to welcome Dr. Ward Cassells who is the Assistant Secretary of Defense for Health Affairs. It's an honor to have you here with us today, and we want to thank you for your support of the board and interest in the board's activities and joining us today. I understand you have some welcome remarks, but let us greet you formally.

SEC CASSELLS: Dr. Poland, I don't have any prepared remarks. I'd just like to thank you, Ellen Embrey, and Roger Gibson, for your service here and all the board. This is a tremendous turnout and testament to the importance of what we all collectively are doing. And Gail Wilensky, there aren't words to thank you for the work that you did on the other task force and this task force which you had led. This is the final of the six major task forces. It is keenly awaited, and

you will find not just me but the whole defense department taking notes and working toward implementation of these results. So we thank you for the tremendous numbers of hours you've put into this working long and working hard and working smart. And I am sure that the board will be able to add their perspectives too and they are very, very welcome. So Dr. Poland, thank you so much for doing this.

DR. POLAND: Colonel Gibson will have some administrative remarks I think and then we'll begin.

COL GIBSON: I want to thank the staff at the Crystal City Sheraton for helping make the arrangements for the board members and also thanks to my staff, Karen Triplett and Lisa Gerrett for all their hard work in preparing for this, and Ms. Ward back home.

If you haven't done so, please sign the attendance roster that is on the table outside the room. There are also rosters for those folks who want to make statements, and there is a roster for

the press.

For those who are not seated at the tables, for this afternoon's sessions we'll have handouts available for the briefings that are given at that time. Restrooms are around the corner outside to your left when you leave this room. And if you need telephone, fax, copies, et cetera, see Ms. Triplett. The next meeting of the board will be April 23rd and 24th in Tacoma, Washington. Our host will be Mattigan Army Regional Medical Center at Fort Lewis. At this meeting we'll complete deliberations on a number of open board business items.

Through the Uniform Services University we have been able to get 2.6 continuing education credits for this meeting. To receive the credits you need to sign the CME attendance roster and complete the evaluation form and attestation statement for the meeting and hand it in to Ms. Gerrett or Ms. Triplett. For board members, your evaluation forms are in your notebooks. We will mail out the CME certificates when we receive them

USU. Refreshments are available for both the morning and afternoon sessions. We will have a catered working lunch for the board members, preventative medicine officers, distinguished guests, and speakers. There are a number of hotels right around here for others who will be breaking for lunch.

Finally as a reminder, this meeting is being transcribed so please speak clearly into the microphones and state your name before you begin. And please turn off your pagers, Blackberries, and cell phones. The Blackberries, for the board members, keep them below the table. They do interfere with the microphones from what I am told.

DR. POLAND: Our first order of business today is the deliberation of the draft findings and recommendations of the task force on the future of military health care. As the board members will recall, the task force was formed last year at the direction of Congress and charged with examining matters related to the future of

health care with the Department of Defense. The task force was to make assessment of and recommendations for sustaining the health care services being provided to members of the armed forces, retirees, and their families. A copy of the congressional language is at Tab 2 of your briefing books.

As a subcommittee of the Defense Health Board, the task force and board are required by federal advisory committee statutes to deliberate task force findings and recommendations in an open session before they are finalized. The task force will deliver the final report to the Secretary of Defense in the very near future. The report is a product of the task force. The board as a part of the committee will provide any comments regarding the task force report in a separate document.

All of the members have received a copy of the task force draft findings and recommendations. I remind you that this document is a draft and not yet a public document. Our discussions today will center on primarily the

general findings and recommendations and not on for example specific numbers recommended by the task force.

For those in attendance, the discussions today will be between the members of the Defense Health board and the Task Force on the Future of Military Health Care. If time allows, at the end we'll take questions and statements from the public. We ask that you register to speak at the desk right outside this room. Everyone however has the opportunity to submit written statements to the board. Those statements can be submitted today at the registration desk or by email at dhb@ha.osd.mil, or they mailed to the Defense Health Board office. The address is also available on fliers located at the registration table.

I'd like for us now to go around the table and introduce ourselves, and I'd like to start by having our newest member, Colonel Retired Reverend Robert Certain introduce himself.

COL CERTAIN: I think you just did, sir,

but I'm Robert Certain, retired Air Force Chaplain, Colonel. During Vietnam I was a B-25 crew member POW.

DR. POLAND: Thank you and welcome. Other distinguished guests today include Dr. Floabel Mullick, principal director of AFIP, Brigadier General William Fox, a member of the Board's Panel for the Care of Individuals with Amputations and Functional Limb Loss, Major General Retired Mary Ann Matthewson, Chaplain for the V.A., and Mr. Larry Leitner from USAMRID here representing Mr. Bill Howell.

So if we could, we'll go around and introduce ourselves and I'll turn to Ms. Embrey and then Dr. Wilensky.

MS. EMBREY: I'm Ellen Embrey. I am the Designated Federal Official for the board, and in my real job I am the Deputy Assistant Secretary for Force Self- Protection Medical Readiness.

MS. WILENSKY: I'm Gail Wilensky. I'm Co-Chair of the Task Force on the Future of Military Health Care. And since Bill Fox is here,

I'd better also indicate I have a real day job which is a Senior Fellow at Project HOPE, although for the last year I have thought my day job is actually worrying about military health care.

RADM SMITH: I'm Dave Smith. I'm the Joint Staff Surgeon and a member of the task force, and I am also a customer of the Defense Health Board.

MS. BADER: Good morning. Christine Bader, Executive Secretary.

MR. HALE: I'm Bob Hale, task force member, former Comptroller of the Air Force.

MR. HENKE: Bob Henke, task force member, CFO to V.A.

MG ADAMS: Nancy Adams, Major General, U.S. Army Retired, task force member.

RADM MATECZUM: John Mateczum, task force member.

GEN MYERS: Dick Myers, General Retired, task force member.

LTG ROUDEBUSH: Jim Roudebush, task force member, Surgeon General of the Air Force.

MG SMITH: Bob Smith, Major General Retired Reserves, and task force member and former international controller of Ford Motor Company.

MG KELLEY: Joe Kelley, task force adviser and retired Major General.

MR. GARDNER: Pierce Gardner, Defense Health Board member and a professor of medicine and public health at the State University of New York at Stony Brook.

DR. WALKER: David Walker, Defense Health Board member, chair of pathology, University of Texas Medical Branch at Galveston.

BG FOX: Bill Fox, subcommittee member for the Amputee Care and Functional Limb Loss Subcommittee, and Chief Operating Officer for Project HOPE.

DR. SILVA: I'm Joe Silva, professor of internal medicine, dean emeritus, University of California at Davis School of Medicine.

DR. SHAMOO: Adil Shamoo, professor of bioethics, University of Maryland School of Medicine.

DR. PARKINSON: Mike Parkinson, president, American College of Preventive Medicine, member of the Defense Health Board.

DR. PARISI: Joe Parisi, member of the Defense Health Board, Chair of the Subcommittee for Pathology and Laboratory Services, and professor of pathology at the Mayo Clinic.

DR. OXMAN: Mike Oxman, member of the Defense Health Board and professor of medicine and pathology at the University of California at San Diego.

DR. MILLER: Mark Miller, member of the Defense Health Board and associate director for research at the Fogarty International Center, National Institutes of Health.

DR. MCNEILL: Mills McNeill, board member, and Director of the Public Health Laboratory at the Mississippi State Department of Health.

DR. LEUPKER: I'm Russell Leupker, and I'm a board member and a cardiologist and epidemiologist from the University of Minnesota.

DR. LOCKEY: Jim Lockey, professor of international medicine and environmental health at the University of Cincinnati and a board member.

DR. LEDNAR: Wayne Lednar, member of the Defense Board and global chief medical officer for Dupont.

DR. HALPERIN: Bill Halperin, member of the board, chair of preventive medicine, New Jersey Medical School, Newark, New Jersey, and chair of quantitative methods, School of Public Health, Newark, New Jersey.

DR. CLEMENTS: I'm John Clements. I'm a member of the health board. I am the chairman of microbiology and immunology at Tulane University School of Medicine in New Orleans.

COL GIBSON: I'm Colonel Roger Gibson. I'm the Executive Secretary for the Defense Health Board.

DR. POLAND: And I'm Greg Poland, professor of medicine and infectious disease and vice chair of the department of medicine at the Mayo Clinic, in Rochester, Minnesota. I am going

to read a statement I wrote, and it is better to come clean. I just flew in from Amsterdam last night so hopefully what I have to say is coherent, but we'll give it a try here.

It was of interest in that it gave me about 10 hours in a coach seat to read through this report in detail. I was amazed as I think you will be to learn that in fiscal year 2001 the cost of the military health mission was $19 billion, and by fiscal year 2007 it had increased by more than 100 percent to $40 billion serving 9 million beneficiaries. Pharmacy benefits have gone up from $1.6 billion to $6.5 billion in a 7-year time period. And the task force has estimated that at it current rate of growth, the military health system costs will be $64 billion by 2015 which will be 12 percent of the DOD budget. To give you a number or an anchor with which to understand that 12 percent, that number was 4-1/2 percent in 1990.

The military health system includes 133,000 personnel, 86,000 military medical folks,

and 47,000 civilians, working at over a thousand geographic locations. This morning the DHB will as the parent board vet the report produced by the task force on the future of military health care. The task force you will recall delivered an interim report focusing primarily on pharmacy benefits in May 2007. The report before you is now the draft of their final report. It's obvious that much work and thought have gone into its formulation and we thank the co-chairs General Corley and Dr. Wilensky for such a deep dive into a complex topic as this one and the very honest assessment that came from it. Thank you very much.

I have read it with interest and indeed selfish interest. By way of disclosure, my family since 1955 have been beneficiaries of the military health care system, and 5 days ago my son Eric received his letter of acceptance from the Air Force Academy. So we are fully in this one. The changes proposed and the implications of it will affect him and all other beneficiaries long after

virtually every one of us in this room have retired. So this is an important step on the never-ending journey needed to provide for those who ensure our safety and security while being financially prudent.

I also want to just by overview talk a little bit about the recommendations of the task force. I was pleased that they started with a set of guiding principles, something you often do not see in a task force, and those included three overarching ones, that DOD must maintain a health care system that meets readiness needs, that they must make changes in business and health care practices aimed at improving effectiveness of the military health care system, and that veterans and their dependents, and I like the word they chose, deserve a generous health care benefit.

They had a series of specific recommendations, and I will just read the topics of those without going into detail of them. I guess maybe the co-chairs will read some of those. That's fine. The one area that the task force

addressed but did not give recommendations on for very good reasons is this issue of the DOD organizational structure and the committee noted that the lack of an integrated system here resulted in a "cumbersome disintegrated system with adverse effects primarily related to fragmentation, the inability to coordinate, manage, and implement best practices, and the lack of a uniform cost-accounting system."

I want to now move us as a board to discussion of the task force's report. Costs and fees are not really within the board's sphere of decision making and I would ask that we not focus on these but, rather, spending our time on discussion of the substantive issues before us. Similarly, issues outside of the task force's charge would be less relevant or fruitful in our discussion this morning. Finally, while those in attendance as I mentioned earlier are welcomed and encouraged to listen, this first discussion is between the task force and the Defense Health Board, and later is there is time and if you have

registered, we will provide time for the public to make statements.

So if I can, I will move to Rear Admiral Smith who is here representing General Corley, and then Gail Wilensky for their opening remarks.

RADM SMITH: Good morning, Dr. Poland, Defense Health Board, Dr. Cassells, Ms. Embrey, task force members, and guests, welcome. And on behalf of the task force, thank you for the opportunity to appear before you this morning to share Task Force on the Future of Military Health Care's final report, findings and recommendations.

General Corley, our co-chair, sends his regrets. He could not be here this morning, and I think it is telling of senior flag officer and general officer schedules that even a four star cannot control his schedule because he sincerely wanted to be here but has to be overseas at this time. So Dr. Wilensky will carry on without him.

Earlier this year in our interim report the task force provided you preliminary findings and recommendations relative to DOD health care

costs in general, and recommendations concerning cost sharing in the pharmacy program in particular. Those preliminary findings and recommendations have been further developed and supplemented in the final report. Congress asked the task force to address a broader array of elements in its final report such as the DOD wellness initiatives, disease management programs, the ability to account for true and accurate costs of health care in the military health system, the adequacy of military health care procurement systems, as well as an assessment of the government cost- sharing structure required to provide military health benefits over the long-term.

Earlier in our term as Dr. Poland pointed out, we adopted a set of guiding principles presented in our interim report that have remained the same and helped us frame our final assessments and recommendations. With those in mind, we have sought to preserve the best aspects of the current system, which has many, and

to identify ways to further enhance delivery of acceptable quality health care for the long-term. With that short introduction, I will now turn over the presentation and the discussion to our co-chair, Dr. Gail Wilensky, for her remarks.

DR. WILENSKY: Thank you very much Admiral Smith. As he indicated and as I have had email correspondence with General Corely, he very much wishes he could be here today but has been a very active member of the task force.

It has been just about exactly a year that the task force has been meeting to assess and make recommendations for sustaining military health care services for members of the armed forces, retirees, and their families. The work that we have been engaged in has been a very large task indeed. The 14 members of the task force and our executive director and very able staff have worked very hard to make this actually come to fruition within the course of 12 months. We have during the last 12 months convened some 15 public meetings in order to gather information. We have

visited areas in different parts of the country to try to better inform ourselves. Several of us had the opportunity to travel to Qatar, Iraq, and Germany, to better understand some of the forwarding- operating base health care delivery operations and morale issues that our servicemen and -- women are facing.

We would like people to understand that in trying to look at these very complicated issues that Congress asked us to address, we did it within the context of the U.S. health care system since it is impossible to assess what is going on in any other way. The task force is independent. All of us came on to this activity agreeing that we would have not preconceived outcomes or opinions or recommendations, but would let ourselves be guided by what we heard and the facts as we know them, and that is what we have done. As has been indicated, this is a final piece in what has been a deliberative, open, and transparent process and it is important that it is regarded in that way.

In looking at the issues that we have been asked to address with regard to the future of military health care, we understand that health care in the military is increasing just as it is increasing everywhere else in the United States. It is a problem that has been an issue for this country. In making sure that we get both the best value and find ways to moderate spending on health care has been an issue for all of health care as well as the Department of Defense. We also note that the Tricare premiums and cost-sharing provisions have been level, that is flat in actual dollar terms, for nearly a decade and that has been contributing to some of the issues that we have been facing.

As Dr. Poland indicated and as we very much believe, that looking at the role of the military and the role of military health care places it in a unique position. The deployments and duties of people who are part of the military is different from that which most of the rest of us face in this country. Military health care has

been an important part of the compensation and benefits system. In trying to go forward as you heard again, we set out some guiding principles that we felt were important to articulate at the beginning at our first formal document, our interim. That is that the Department of Defense must maintain a health care system that meets military readiness, appropriately sized and resourced; able to withstand and support the long war on terror as well as the support of conventional war; and that equally it is important that quality, accessible, cost-effective health care is available and provided for the long-term. We have recognized and we have said it in our interim report and say it again multiple times as we go forward that it is important that we have a generous health care benefit in recognition of the importance service that our members, retirees, and their families have provided.

But we also recognize that it is important for the American taxpayers to be comfortable that there is some balance in terms of

quality and efficiency, fiscal responsibility, and affordable cost. What we have attempted to do over the course of these last 12 months is to bring some balance.

We believe that many of the recommendations if implemented will affect how health care is provided through the military health care system and that it is important that the recommendations that we are making to the extent that they involve changes in cost will not affect active- duty personnel or their families for health care and we thought this was an important principle that we should maintain.

I am going to describe the major recommendations that we have come to agreement on as a task force. The action items will be something that we can discuss in greater detail as we come to complete deliberation for this report. But the recommendations themselves have been discussed sufficiently that we feel comfortable saying this is where the task force now is and reflects the best belief of this group as ways to

go forward.

In our final report we will indicate those activities that can be accomplished administratively by the Department of Defense, and those relatively few items that will require congressional action. As a member of the Dole-Shalala Commission, I have learned two important strategies over the course of this year. The first is to try to limit the number of recommendations that we are making. We are making 12, and actually in many ways 10 with the last two of a somewhat different level of order. And also to indicate those areas that can be accomplished administratively, therefore we can try to pressure the Department of Defense to go do what it is able to do now without waiting for congressional action but highlight those things which will require congressional action and try to have that occur in as expeditious manner as is possible.

The recommendations are the following. The first and in many ways the most overarching recommendation is to develop a strategy for

integrating direct and purchased care. That is, the department needs to have a more deliberate planning and management strategy that integrates the direct health care system with the purchased health care system and to promote the integration at the level where health care is being provided. We understand the need for having flexibility and the desire for optimizing the delivery of health care to all DOD beneficiaries and we think that it will be very difficult to have this function well without better integration at the local level where care is actually provided than occurs in the current environment.

Our second recommendation is that there be a better collaboration with other payers on best practices. Specifically, we think there should be an advisory group to enhance military health care collaboration with the private sector and other federal agencies in order to share, adopt, and promote best practices. There are some areas where the Department of Defense and the Veterans Administration already represent best

practices, but there are other areas where there is much to be learned from best practices that go on in the private sector and we think more needs to be done here.

The third is that there should be an audit of financial controls. DOD should request this audit to determine the adequacy of the processes by which the military ensures that only those who are eligible for health benefit coverage receive such coverage and that there is compliance with law and policy regarding Tricare as a secondary payer and that it be done in a uniform way. While we do not have explicit indication that there is a problem, we are that when such audits have been done elsewhere in the private sector they have usually indicated a possibility for improved processes and we think that is likely to be the case in the military and will only know that when such audit occurs.

The fourth recommendation is that there should be wellness and prevention guidelines implemented. That is, the department should

follow the national wellness and prevention guidelines and promote the appropriate use of resources through standardized case management and disease management programs. It is not that these do not occur in any way, they do not occur in a sufficiently uniform way across all of the health care delivery sites.

The fifth is that there should be priority given to acquisition at the Tricare management activity. DOD needs to restructure the Tricare management activity in order to place greater emphasis on its role in acquisition.

The sixth recommendation has to do with implementing best practices in procurement. Because the Department of Defense is such a large procurer of health care services, it is important that ways be found to aggressively assess and incorporate the best practices that go on in both the public and private sectors with respect to health care purchasing.

The seventh recommendation has to do with existing contracts. We are recommending that

the department reassess requirements for purchase care contracts to determine whether more effective strategies can be implemented to obtain those services and capabilities.

The eighth recommendation is to improve medical readiness of the Reserve component. We believe it is important that the department improve the medical readiness for the Reserve component recognizing that its readiness is a critical aspect of overall total force readiness and that it is not operating in that way during the current environment.

The ninth recommendation is that there should be a change in the incentives in the pharmacy benefit. Congress and DOD need to revise the pharmacy tier and co- pay structures based on what is known about clinical and cost-effective standards in order to promote greater incentives to use preferred medication and more cost-effective points of service.

The tenth recommendation has to do with revising enrollment fees and deductibles for

retirees. It is a multiple-part recommendation. We believe that the department should propose and Congress should accept phased-in changes in enrollment fees and deductibles for retirees under the age of 65 that would restore cost- sharing relationship put in place when Tricare was created. We believe that most of these fees and deductibles should be tiered so that they are higher for those receiving higher retirement pay. The task force also recommends changes in other features such as co-payments and a catastrophic cap which should be phased in over a period of years and which should be reassessed in a periodic manner.

In addition, we believe that the department should propose and Congress should accept a modest enrollment fee for Tricare for Life beneficiaries. This is not being proposed in order to reduce the department's cost but, rather to foster personal accountability and consistent with the task force's philosophy that military retiree health care should be very generous but

not free. It is also a change even though there is a very modest enrollment fee that should be phased in order a number of years. The task force believes in addition that DOD should propose and that Congress should accept automatic annual indexing of enrollment fees that maintain the cost-sharing relationship put in place when Tricare was created to account for future increases in per capita military medical records. Unless there is an automatic indexing put in place, the cost shares restored at any one point in time in terms of retiree cost sharing will not be maintained. Other elements of cost sharing such as deductibles and co- payments should not be indexed annually, but they should be reassessed at least every 5 years.

The eleventh recommendation is that pilot programs be considered and studied that would aim at having a better coordination between Tricare and private insurance coverage. The department should commission a study and then consider pilot programs aimed at better

coordinating insurance practices among those retirees who are eligible for private health care insurance as well as for Tricare.

Finally, as the twelfth recommendation, we believe that metrics need to be developed so that the success of the military health care system's transformation can be assessed appropriately. That is, as these changes are being implemented, the department should develop metrics so that the success of any of the planned transformations of the command-and-control structure of the military health care system which is now in process of occurring will be able to be considered along with its costs and benefits.

In summary, what we are suggesting is a focus on strategy integration, preserving what we regard as the best aspects of the current system, creating efficiencies by streamlining operations, improving effectiveness and the accessibility of quality care, borrowing where appropriate the best practices from both the public and private sectors, and changing in ways that will not

diminish the trust of beneficiaries or lower the current high quality of health care services provided military personnel, family members, retirees, and their families. We believe it is urgent that the department and the Congress act now. Given the current and likely future military commitments, there needs to be a sense of urgency in resolving the persistent problems that the department has been facing and is likely to face in terms of new challenges. Thank you.

DR. POLAND: Thank you very much, Dr. Wilensky. I would also like to give an opportunity for members of the task force to make any comments that they would like to make or any additions.

DR. WILENSKY: I would like to indicate though the enormous amount of work that the task force has provided in coming to the recommendations and in writing up the various chapters. This has very much been a collective effort and it would have been impossible to produce a document such as you have seen in draft

form without the very hard work of the task force members in addition to the very able staff supporting them.

DR. POLAND: Yes, ma'am?

MG ADAMS: Actually I was going to say almost the same thing that Dr. Wilensky said. This task force really did our homework. We did not take anything at face value. If there was information to be gathered on a topic, we aggressively went after it. There was much debate among the group, but I am proud to say there was total consensus. Everyone's voice was heard and these recommendations reflect our collective support of the recommendations. So it did not come easy, but I think what we put forth is very worthwhile and will stand the test of time, and I want to thank the assistant secretary for the opportunity to with this group. I cannot think of a better group of professionals who could have come forth with this type of report, so thank you.

DR. POLAND: Other comments from members of the task force? We will open it up to the

board. I will maybe give my own opinion first. I always have a morbid of being on an airplane without enough work to do and you have prevented that fear from becoming reality. So I really did have time to in-depth look at it several times.

I am going to keep this report because I think it is a model of how reports should be written. What I mean by that to reiterate again, I very much like and appreciate that it started with a set of guiding principles and as best I can tell, every recommendation fits under the rubric of those guiding principles. Even more importantly, in a task as complex as this, I appreciate that there was not a simplistic view of let's do these five things and it fixes the system. Indeed, what I saw, and I would almost like to add a subheading to the title of your report, is a roadmap for transformation, and to me that is what this actually provides. It provides 12, wounds like a twelve-step problem, but 12 steps by which to begin the process of this journey of further improving the health care

system.

I also want to say my personal opinion is that military health care is one of the crown jewels of DOD and I would not like to have somebody think that this is a task force or a recommendation designed to fix a failing system. I do not believe that to be the case. I have been the beneficiary of military health care. I have seen it as president of this board and as a member of the predecessor board, the AFEB. Members of this board have been for example to the Center for the Intrepid. It is a state-of- the-art facility that is the envy of the world. What is at issue here I believe is how to take this crown jewel and keep it in a way that is fiscally feasible to continue into the future. In a way, maybe to put another word on it, this is sort of a sleeping beauty and it just needs that roadmap to reach the next level of evolution. So again I commend you very much on a superb report, very well thought out. I often approach reports much like reviewing a grant where my job as a reviewer is to fine the

hole. I did not find holes. Every recommendation I saw was data driven. The data was transparent. It is available to anybody that would want to have it. So bravo and congratulations for just a superb report.

Let me now open it to other members of the board to ask questions or to make comments that you may have. Mike?

DR. PARKINSON: Thanks, Greg, and thank you, Dr. Wilensky for the overview of the report and for all the hard work. I agree with Dr. Poland's comments.

As a veteran of the DOD and working on a not exactly similar project for the last 2 years of my military career called the MHS Optimization Plan which was designed in many ways to deal with the staffing issues and the financing issues related to Tricare, I know how difficult this is. I really hope that the integrated 12 recommendations can make an impact in the department as well as on the Hill.

I have some comments that I am going to

make in really no particular order and if you deem so to respond or react to them, that is fine, but they are really meant to be constructive in the sense of reading through the report much as Dr. Poland did with a fine-tooth comb.

Full disclosure, I spent 6 years as a medical director in a consumer-driven startup plan that was subsequently acquired by the nation's largest health insurer so I come at this a little bit from just having left the inside of a big industry, if you will, and some of the perspectives might be very personal at this point, but they are personal. And also with kind of a long commitment to prevention and behavior change which also is kind of the core sine qua non and if the country is going to get ahead of this it has to do that. So it is really those two recent experiences that I do that.

As Dr. Poland mentioned, DOD in certain areas of medicine and health care has been the unparalleled leader in infectious disease, trauma care. Certainly these are the areas that are the

foundation of the EPE Board and now the reenergized Defense Health Board. But in other areas where DOD could exert tremendous market power and also clinical innovation and business innovation, for a variety of well-understood reasons we have not done it. I would hope that one of the tones of the report is that DOD commit to being a cutting-edge innovator. Given that there are political challenges with benefit structure, there is no reason that we should not be as innovative in the way we deliver peacetime health care or the way we buy peacetime health care as we are in the way we do trauma care or the way we do preventive medicine. So we have a benchmark, and as Greg noted we have those, and part of what I see us doing not so much in this report, but we should surpass best practices with a very innovative prototyping R&D type of entity just as we would do for new weapons systems to demonstrate to the country that DOD can lead as well as just catch up to whatever the big Fortune 500 companies are doing with large health plans.

So it is a sense of tone that we should commit to leading perhaps the nation.

Daniel Fox who is in at Milbank and came down and saw our effort in 1998 and 2000 said this is important. The military should lead just as they led in such major areas as racism and discrimination under Eisenhower. If we have a country that is amok and a medical industrial complex that will spend all the GDP, maybe DOD can offer something there as well. It is in the report, but the way it is articulated might be a little more proactive and positive. Just a thought.

The V.A. is an example, and I am not going to make any comments about the Unified Medical Command except to say somewhere in here there is a best practice and I sometimes opine out loud. If the progress that the V.A. Has made in relatively dramatic fashion around certain quality and standardization across facilities all over the country, a rhetorical question, could they have done that without Ken being the strong head of the

V.A. that he was and a structural line of sight that went from him to the visns (?). We will leave that aside, but in an organization that knows command and control, who knows it better than DOD, and I would urge us around this table to go with all the political considerations aside, what is the best practice to get efficiency so that cost goes down faster in DOD than it goes up anywhere in our U.S. health care system? It should. We are blessed with people who come with better risk factors, they are healthy enough to be in the military, 10, 20, 40, 60 years downstream we should benefit from that if you will health capital that we bring in in the way we make them a fit and healthy fighting force.

David Walker I saw met with your committee which is great. David is on a campaign as you know as the Comptroller General of the United States going around and essentially saying from a unique platform because he is a relatively free voice which I should we all listen to, is that unless we do three things, it does not matter

what system you are in and you are not going to cap costs and hurt the economy any more than it has with health care, and that is true of DOD's overall budget. In DOD we see the tail of health care wagging the dog of DOD rather than vice versa in a way, and that is just the same that every corporate employer has seen.

Those three things are align incentives at all levels. So if the individual does the right thing, they should be rewarded for it meaning lower health care costs not higher health care costs, more incentives, premium differentials, whatever that might be, all of which are being pushed and experimented with in the private sector, as you know, Dr. Wilensky. And the tone of their report had in little bit in there about incentives, about smoking cessation, and we don't really cover that, but there is dramatic work being done in the private sector. You do not need to go into it in the report if you do have a best practices panel that says no, many employers have dramatic differentials in smoking

and in weight and in things like that you see, and there is some allusion to those in couple of places but it might be stronger around incentives.

Number two as David Walker says is foster transparency. That is not co-pays, it's not deductibles, it's the full cost of the services. You do mention in that in your recommendations. We want transparency to the beneficiary not to the doctor or the MTF, but they need to see it as well because they don't have a clue how much a drug costs either I can tell you. But everybody needs to see the full price of the drug, not the co-tiered payment, that's a structure, but even if I pay $10, you should know that the drug itself is $180 or whatever the number is. So an emphasis on transparency which I liked in there, but there might be an exclamation point around it because it drives dramatic changes in personal behavior when people see the full cost of a doctor's visit.

Then finally, the notion of accountability. So incentives, transparency, and

accountability. They are in your report, but I would just hope that as we go forward in this effort that we pull those front and center because those are the reorganization of magnetic fields that drive behavior change throughout the whole system.

Specific areas for comment, and I'll just throw these out to get our discussion going. I have spent a lot of time with Fortune 50, Fortune 100, Fortune 1,000 employees over the last 6 years and I will tell you that they are not aware and frankly they may not care that Tricare was ever intended as a second payer. They are in business to survive globally and if you find employees who have a $460 family benefit versus whatever, it is good economic sense for the company to promote that, and they do. From a public good as a citizen, is that bad? If I'm giving a $187 billion tax exemption to employers and we can debate whether or not we should do away with that and go to an individually purchased which is on the platforms of the presidential

campaigns, but I am not sure what to do with that because good employers are saying why in the world would they be on mine if they already are entitled after 20-plus years in the military to a reasonable benefit that is just as good, and as a matter fact, we don't even pay them to move that way? You know, Dr. Wilensky, many people are saying I'll pay you to take somebody off of our coverage. I am glad you raised that issue, but I will tell you after doing this for 6 years there is no awareness among employers that it was ever intended as a second payer, nor I think among the beneficiaries who are now military retirees who understand that. It's just if it's a better deal, why not? So I am think I'm glad you raised that. I do think some specific language around consumer-driven account-based plans would be nice. It doesn't have to be in here.

You can underwrite these models even with the Tricare benefit, and the rapid prototyping of a Tricare choice or Tricare consumer model might be something to look at very

quickly and roll out and determine how that might fit because even though there's relatively little out of pocket now, particularly if you raise co-pays and deductibles, you could put enough bucket of money together to initially fund a health reimbursement arrangement or health savings account and go forward such that people have the right behavior and they monetize the benefit.

Even Medicaid is doing that for Medicaid disabled now, giving the voucher equivalent of purchasing power to Medicaid rather than the usual co-pay models.

So, just something to think about. I know it's in your import to have best practices, but it might emphasized because McKinsey will be releasing their second report shortly, looking at the experience of consumer-driven plans. They mitigate healthcare costs faster and, if done with incentives, with higher satisfaction than traditional PPOs or HMOs.

One of the questions I had at the end of reading the report is would a DoD beneficiary be

able to take advantage, under this scenario, of emerging low-cost, high- value innovations in the provider sector? Can I walk in to Wal-Mart, if I so choose, and get one of the 400 drugs for $4 if I'm a DoD beneficiary? Isn't that a good deal? Okay?

Can I walk into a MinuteClinic and, for 60 different services at $40, pay out of my pocket as an alternative to whatever I might get under one of the big three mega-contracts?

So we might want to think because the provider sector is rapidly fleeing some of the practices of traditional managed care contracts. So, 2000 retail clinics staffed by physician assistance and nurse practitioners who, by the way, we started in DoD, are growing all over the country, flat fee, totally transparent, $40. Those are the types of innovations that I would ask, going forward, do we allow those types of things in our contracts?

Just again, positive questions: Reimbursable e- visits; if I want to pay my doctor

$25 over the internet as opposed to waiting to see him through a Tricare support center, can I do that? You've got that in your best practices panel. They can talk about that.

Incentives with teeth; as I mentioned before, financial incentives right back into the accounts, premium differentials up-front, additional rewards for care engagement and completion. You've mentioned some of those things, but they're very impactful. I notice that Congress wants to hear a lot about incentives.

And, then, you say it in here very nicely, but I would just put an exclamation point. In 2007 or 2010, our big mega national contracts, which are farther away from transparency, farther away from direct interaction of the consumer with a doctor and the consumer with a facility, is that the direction that is going to create a highly efficient that roots out inefficiencies and the consumer, the beneficiary, benefits? If we can find those low- hanging fruit, it may not be possible to do it through mega regional contracts,

and you've raised that nicely in the questions through some of the things you've talked about, looking at the best business practices.

So, a long-winded way of saying, yeah, there are some things there that I would have liked to see personally a little bit more based on our experience in dealing with a lot of employers, but you hit the mark. It's just yea, verily, you know, exclamation point under the recommendations you did make.

So, thank you for the opportunity to comment.

DR. POLAND: Thank you, Mike. Other comments from Board members? Wayne?

DR. LEDNAR: Wayne Lednar. I'd like to add to Dr. Poland and Dr. Parkinson, my appreciation for the real Herculean task the taskforce took on, and I really like the crispness of the recommendations and how they fall together.

I guess a couple of just impressions that I would share: I like the fact that this is data-supported. Decisions really need to be made

in a fact-based way.

I like the fact that it's mission-focused. Much of healthcare is, in fact, focused on healthcare and not the real question of why do we provide it. So the mission focus for DoD is a very critical area that I think you've brought attention to, and I wish more of our colleagues in the healthcare business would attend to that as you have.

We shouldn't forget, as Dr. Poland mentioned, this is an activity which is global in presence. It's not just domestically placed; it's global. In effect, what we want to do is build on the long tradition of success of military healthcare and make it even better for the future.

When I think back of some of the evidence of some of that success, the DoD has been a leader in clinical diagnostics and therapeutics, techniques that have been adopted by the private sector because of the response to the need, particularly on the battlefield.

I think about providing support for good

care management, the electronification of medical records, the challenge of trying to coordinate care from the battlefield and the theater of operations back to the tertiary care medical centers, whether they're in Europe or back in the U.S., a very complex set of moving parts, and I think we want to build from that success in the future.

SO, a couple of ideas: One is to really promote and encourage innovation with accountability, not just new ideas but accountability, and accountability in a way that ties the parts together. You mentioned sourcing, and logistics is a very important area of activity.

I think that there are some activities in the private sector, perhaps in government, around sourcing which is not only looking at the individual contract and contractor and their performance but rather how do the parts fit together, in fact, to sign up the entire supply chain for a common goal with revenues at risk for

the performance of the chain, not just their individual part. This will get parts talking to each other and making decisions that rationalize for the good of DoD rather than the individual contracting company.

When we think about metrics, clearly important to know, keep the focus on priorities to make sure progress is being made, but I would encourage that we need more than just metrics on transactional care process. We need more metrics on outcomes. Is it really helping patients? Does it make a difference, and especially does it make an impact on mission? Not just healthcare, health outcomes, does it make an impact for line commanders and to make that link very explicit and to really show that?

Then the last thought I'd offer is a solution that has the goal of sustainability. Clearly, we want a system that continues, that can get the mission accomplished, can meet the future needs regardless of what they are. We have an aging healthcare task, a healthcare set of

providers. We have an aging set of capital facilities. We have needs for bringing in new technology. How do we develop a system that doesn't just patch it for the ability to continue today but really to thrive as we go into the future?

So, thank you from the Board's point of view for your hard work and for these recommendations and the chance to comment.

DR. POLAND: Thanks, Dr. Lednar. Mike mentioned his area of expertise in this area. I should also say Dr. Lednar has been a critical mover in first Kodak's and now DuPont's, healthcare delivery transformation too.

Other comments? Dr. Silva?

DR. SILVA: I want to also add my congratulations to your committee. It took on a lot of tough issues which obviously the civilian community is also dealing with, and there are a lot of different formulations that are corrected.

I wonder, was there any thinking within your committee, how to sequence these changes in?

Are there some components that are so interconnected that they should be pieced out into a stage one versus stage two or can all these be implemented at variable speeds?

Thank you.

DR. POLAND: Let me now, before taking further comments, allow Dr. Wilensky or other members of the Board. I'm sure this will have stimulated some thoughts or comments that you may want to make.

DR. WILENSKY: Let me respond to a couple of the issues. These are very good, thoughtful points that people have raised and reflect the fact that you have read our drafts and given them a lot of thought, and I appreciate that.

One of the areas that we have struggled the hardest with is the notion of coordination with private plans for retirees who are still working. The Congress has made it illegal for employers, as I understand it, to actually pay to push people out of their healthcare plans, but we

recognized that there are two issues that are still important to be dealt with. The first is making sure for people who actually carry both Tricare and private insurance, that Tricare does function as the second payor. We think there is some reason to believe that does not happen all the time and that we need to make sure it does happen.

There's a comparable issue for employed individuals after the age of 65 where their employer- sponsored insurance is first payor and Medicare is second. In this case, Medicare is also a first payor to Tricare. But to make sure that Tricare, when they're in the face of held existing insurance, is really the second payor and that there are a number of strategies that can be done to make sure that the system is functioning as the Congress intended and as all of us think it should.

The more complicated issue, which we've raised -- I think we've raised it more than we've resolved it -- which is why the recommendation was

to study, assess and consider doing pilots, is recognition that there are issues of both benefits and economics on the one hand for individuals to consider. We were as worried about the downside of not having a good integrated plan for individuals and believe that having one coordinated plan, whichever that is, Tricare or the private plan, is superior for many times for most people to using two plans.

And so, what we are suggesting in our recommendation to assess and do pilots is whether there may be ways to focus on a single plan but of a plan of the choosing of the individuals and to structure in a way that all parties feel they are better off. Not easy to do, but that was the thinking that underlay the recommendation number 11 that I mentioned during my presentation.

We very much agree with the notion of being an innovator in wellness and in aligning incentives and try to reward the kind of behavior that we think is appropriate and try to indicate the importance of wellness and prevention for DoD

to carry on its mission readiness functions as well as providing best healthcare, and so, we'll have to see as to how to best frame it.

The notion, I was attracted to the comment you made that we all recognize the innovations in trauma care and surgery that occur during wartime and maybe having that as a model in our minds for the role that the Department of Defense for military healthcare can have in terms of prevention and wellness are to be taken with that same drive. I'm not sure that we quite thought about it that way. I thought that was a very interesting way to look at it.

The challenge will be something that we'll think about over the course of the next week or 10 days about the sequencing of activities. Some of them fit together more obviously than others. In changing either some of the benefits or the payments, our interest is in doing so in what we think is a fair and predictable way. So we have a lot of emphasis on phasing in. Our phase-in is presumed to be, for the most part, a

four-year phase-in and to have periodic reassessments for those things that don't lend themselves to annual indexing so that, on a regular basis, you look to see where you are. Those, I think, are one set of activities.

But with regard to the contracting and the assessment of changes in the unified command and particularly the need with regard to better integration between the purchased care and the direct delivery of care. Those are as soon as at all possible to get started on, but the realities will depend somewhat on the contracting cycles that are beyond the control, basically, of probably anybody in this room, even Dr. Cassells, because they're in motion already in terms of what the contracting schedules are.

But we had, as our first recommendation, a better integration between the purchased care and the direct delivery care, not because no one has thought of this before -- we're aware that this type of recommendation has been made to the Department -- but that it is so integral to

everything else that comes after, that it is impossible to really have an alignment of incentives at any stage including the interesting one of putting revenues at risk for the performance of the chain.

None of this can occur without having a better integration between purchased care and delivery care, and everything that spins off of that, all of the procurement, all of the contracting, all of that is contingent on this notion of what it is you're trying to produce at the end of the day and all of the pieces that move. So, thinking about what has to go together and what not is something we'll have to ask people on the taskforce, particularly those who are more involved in that portion to give us more thought. That is not something I personally have thought about.

Are there comments from any of the other taskforce members, specifically about the issues that have been raised thus far? Dr. Roudebush?

LTG ROUDEBUSH: I thought Dr. Parkinson

provided some very thoughtful points for consideration, and I think many of those were raised during the deliberations relative to various aspects that we addressed.

Something I would offer for your consideration as you discussed alignment of incentives, and command and control is an opportunity to drive efficiency. Those are certainly things that we considered. I think efficiency, in and of itself, is obviously an important aspect of what we considered and continue to consider.

But, quite honestly, effectiveness is a significant and perhaps more important driver in much of what we do. If you look at what our military medical system is asked to do in terms of providing a healthy, fit force that's protected and prepared to go forward and do what we ask our military to do in virtually any situation around the globe, that's one aspect. Providing medical personnel that are prepared, trained and able to, one, do all that's necessary to produce that

healthy, fit force and then support them wherever they find themselves, take care of them and bring them home safely should something adverse occur is an aspect of what we do.

Providing the healthcare to our beneficiaries, which, one, provides that healthy, fit force and, two, provides those trained, current and competent and capable medics to go forward, all of these activities with the incentive being that healthy, fit force, that prepared medic, that operationally-effective military, those incentives are not necessarily always efficient. So much of what we considered, we considered on the basis of cost- effective. Managing each resource so that the best benefit was derived in the most responsible and cost-effective way is one of those guiding elements that helped us in our deliberations.

So, as we align incentives, the incentive of that operationally-effective force, well supported medically at home and deployed, is not always efficient, and a coalesced command and

control does not necessarily drive that kind of effectiveness, particularly as we look at doctrinally-effective forces: Airspace and cyberspace, (off mike) at sea, subsurface.

There were aspects of that that we did deliberate on, and I think our considerations drove the report to reflect those considerations, but I think your suggestions relative to opportunities to, in fact, engender efficiency wherever and whenever we can is an important aspect. I think that, as Dr. Wilensky pointed out, really drove the consideration of a strategy that appropriately integrates both the direct care system and the contracted or the private care system, so that we manage those both to best effect, to mutual benefit and to best cost and, most importantly, to best outcome. Whether it's a healthy, fit force, whether it's a healthy family member, whatever that best outcome should be, I think, really drove us in our deliberations and allowed the construct of the recommendations as we provided those.

So I think your observations certainly reflect the importance of doing that, and I thought your issues and ideas relative to innovation were also telling and I think should inform the execution and the further deliberations of this report as it's crafted and as it's delivered. So I truly appreciate that. Thank you.

DR. POLAND: Dr. Luepker?

DR. LUEPKER: Yes, Russell Luepker. Your last point, Dr. Wilensky, talks about metrics and measurement. I guess I'd like to hear a little more. In this very complex system and a multilevel set of recommendations, how would you know you've succeeded here?

DR. WILENSKY: That is an excellent question. We were at least clever enough to recognize if we didn't put a directive of setting up metrics so you can assess where you go to in addition to where you've been from, you'll never be able to answer the question of have you succeeded.

Well, our concern about metrics was very much focused both at the first recommendation and with the last recommendation but frankly is true all the way through. That is, as I've indicated, we are not the first group to reflect that the incentives driving the direct care system and the purchased care do not always seem to be aligned. Within each, they may be aligned more or less all right. But in terms of being able to produce the desired outcome at the local level that makes the most sense, given the complex missions which is the medical readiness plus delivery of healthcare per se to the people using the system, how do you try to set up an alignment of incentives that has the best outcomes for the costs that you are incurring?

What that requires is deciding what defines success. As General Roudebush indicated, it is more a focus on the outcome, the health outcome and the readiness outcome, and not on the inputs specifically that are used. So we recognize that the difficulty of saying this is

what you're trying to do and this is how you numerically define that and then try to measure how well you've achieved it or not achieved it.

It was also in reflection to a recently released GAO report that had to do with command and control and going to the issues of unified medical control. We recognized that when we started this taskforce, this had been an issue under considerable debate and discussion in the Department for the preceding year or two or maybe decade or two at some levels and that some initial levels of decision-making -- yes, forever.

Some initial decisions had been made as to how to proceed going forward, but there had been noted in the GAO report that it wasn't clear, if it occurred, what metrics had been used by the Department in terms of assessing the costs and benefits of the various options under consideration, yet alone the actual choice that was ultimately arrived at. And so, what we were indicating is, given that a process is unfolding now, it is important to establish the metrics of

what will define success and then assess how this strategy looks in comparison to those metrics and to the extent that there are other measures of success that could be considered when different strategies or choices are made going forward, that that's clearly defined.

So it is trying to be as clear as we can throughout the report that our concern is a focus on clinical outcomes, on meeting the readiness mission first and foremost which makes all of this more complicated to what is already a complicated issue of how do you know when you've had good quality, cost-effective healthcare being provided. As all of you know, this is not a slam-dunk issue. In the private sector that doesn't have to worry about medical readiness, it becomes much more important.

Complicated, when you do, but not making the metrics clear and measuring as best you can doesn't resolve anything. We just need to acknowledge the complexity of the combined mission.

RADM SMITH: And just to further pile on to that, part of the intent of the first one is that there's been a fair amount of concentration on unit cost but because of the lack of a common accounting system, because we segregate the purchased care from the direct care system, it's difficult to get the whole cost associated and whether or not, as has been shown in other systems, if you spend too much time on the unit cost, you may not actually be reducing the overall whole cost and also may not be helping ultimate outcomes which is clearly our highest priority.

DR. WILENSKY: This was in the discussion, some of the discussions we had on pharmacy benefit, for example. Trying to look at this point, that it is important in general when we're looking at military healthcare, as in healthcare all over, to remember that even if you minimize unit cost, however defined, the cost of producing good, healthy outcomes may not be minimized and that it may require not minimizing unit cost but allowing enough flexibility with an

alignment of incentives and reward structure so that overall healthcare is provided in the way that makes the most sense.

In some instances, that will be different configurations between purchased and direct delivery care and, in some instances, may be to allow for a different view of the use of pharmacy care versus the rest of healthcare and to remember the focus is on the healthcare outcome. It's easy to focus on what you can most easily measure which are the unit costs of care, but that misses the point of what we're trying to do.

DR. POLAND: Dr. Walker had a comment, and then we'll have a response and then maybe take a break and come back to the conversation. Go ahead.

DR. WALKER: I'm another David Walker. I'd like to address recommendation number eight which I think you did excellent an excellent job of explaining the difficulty and the importance of this problem. Maybe it's my lack of insight, but I don't see the solution. I see the

recommendation to do it, but how will it come about?

The recommendation is the Department of Defense should provide medical readiness for the Reserve component which seems to me the most detached and difficult group to maintain their health, recognizing that its readiness is a critical aspect of the overall task for the force readiness.

MG SMITH: I'll take a stab at that. The genesis behind is that more than 50 percent of the medical assets for readiness and for delivery of medical services around the world is in the Reserve components. If you don't have those people coming to the colors and going forth, we cannot have a future military healthcare system when you've got an asset that's over 50 percent.

Recognizing that, we're saying to DoD, you have to ensure that an asset will be in place as we go to the future, and that asset is not always a reach out and touch with an order in 24 hours. That asset has to come from the employer,

has to come from the families and come from America all over.

So what we're saying is what are the inhibitors, whether it be access or the inhibitors for these people coming to the colors. We have found the data at mobilization sites that dental readiness is the number one deterrent for a person being mobilized, and you have other medical things. Well, we don't control the daily lives of the civilians because of their civilian status.

And so we're saying, what can we do to help increase the awareness of a Reservist that they need to be medically fit? What are the processes and procedures that we can employ and help them with? So that if their unit is called, they can come, get through the mobilization site, and we can send those units forward as necessary to do what we have to do for the medical readiness.

And so, we've recognized that, saying that there are some things that we're seeing that need to be emphasized and implemented. We talk

about it. I haven't seen it. We talk about more of the individual understanding that when they sign up for the Reserve components, they're also signing up to say: I want to be medically fit and I'm going to be medically fit and I'm going to do what is necessary through lifestyle, through physical fitness, through eating, diet and various things. So that when our unit is called, I'm going to go forth.

So this is what I think we're really addressing is that we can't have an asset for America, but we can't access that asset or then when we access it, it's not there because they're not medically fit. This is I think what we're trying to drive in recommendation eight and the awareness of this asset.

DR. WILENSKY: There's also a recognition that there have been a number of changes with regard to the Reserve in the last few years, and so we think it's important to assess whether or not some of the changes that occurred with regard to the Tricare Reserve Select Program

have the kind of impact that was hoped for or presumed when they were being implemented. It's something that we think needs to occur but will require a two or three-year period before the effects of having this change occur.

It is a very big issue. As you've just heard from General Smith, most of our focus has been on education, trying to make clear the personal responsibility and accountability of medical readiness by the Reservists. Whether or not this is being appropriately engaged in, in terms basically as a condition of participation, both in terms of the individual and the leadership, is important to be able to achieve this sense of medical readiness and assessing whether what has been done both in terms of medical and dental has improved what existed prior to that or not and, if not, what else might be considered.

DR. POLAND: I think there was another comment.

GEN MYERS: Let me just make one

comment, Dr. Wilensky and Bob.

I think the context for this is a Reserve component that's used a lot differently today than when it was conceived, and so this medical readiness issue is a huge -- a huge issue. As Gail said, this Tricare Reserve Select is an attempt, another attempt to try to fix the medical readiness in the Reserve components.

Whether or not it's going to succeed or not, we don't know, and that's why our recommendation reads as it does. Somebody ought to assess that because there's no question that the Reserve component medical readiness has lagged that of the Active component and, given the way the fundamental shift in the way we use the Reserve component today, that needs to change.

We're hoping the changes have already taken place, but we've increased emphasis here, and we recommend that the Department monitor that to see if it's having the effect, the intended effect that Congress wanted when they implemented Tricare Reserve Select.

DR. POLAND: Ms. Embry?

MS. EMBRY: I'm responsible for medical readiness in the Department. About four years ago we instituted a metric to evaluate individual medical readiness in the services, and it's a metric that every individual is measured in their units by their commanders for their medical readiness. Reserve components are among those that are being tracked.

We use those metrics to push accountability and responsibility in the Reserve components, and we implemented a rather aggressive Reserve component health program to institute annual reviews of health and to accomplish the important immunizations, physical assessments, mental health assessments and so forth as required to achieve and monitor readiness in the Reserve components.

The catch is that it is the Reserve components that pay for that, not the Defense health program, as is appropriate. And so, I think the issue is, for the Reserve components,

there is not enough money. If they actually paid everything they needed to pay for that, they would have little left to pay for the training and readiness of the force to perform the mission. So it's a fiscal issue.

But I do think the Department is doing a considerable amount to address the issue of Reserve component readiness. It's a matter of fiscal priority.

DR. POLAND: Okay, I think we'll take a brief break here and reconvene about 10 to.

Again, if there are members of the public or audience that would like to make comments, if you would register at the desk, I think we should have time in the hour following our reconvening here to entertain those questions. Thank you.

(Recess)

DR. POLAND: Thank you, everybody. We'll reconvene here and continue our discussion of the Task Force on the Future of Military Health Care Report. From the Board members, any

additional questions or comments; Doctor Oxman?

DR. OXMAN: First of all, I'd like to thank the Task Force for a fantastic job. As somebody who's relatively the ignorant in the area, I found the reading compelling and the organization fantastic.

I wanted to ask if you could expand a little bit upon the -- your thoughts about taking advantage of the enormous buying power of the DOD to minimize -- maximize the quality and minimize the cost, particularly in the area of pharmacy benefits?

MG KELLEY: Well, let me just take a stab at that to start off with. And we did talk quite a bit about maximizing the benefits in terms of the ability and using volume for discounts. Most of the people that we discussed that with felt that -- because we talked about it in terms of combining with the VA for even a bigger possibility of a volume, and because of the size of both the VA and the DOD programs, the feeling was that there would be very little marginal gain,

because you've already taken the volume discounts and there's not that much. And so there is some pieces of that, and currently the federal pricing, where we get the volume discounts, is only available in the MTF's and also in the mail order pharmacy, and so none of the retail pharmacies provide that. So it's much more expensive to use the retail pharmacy.

We certainly don't want to take that ability to use the retail pharmacy away, but we want to incentivize the use where we get the volume discounts.

DR. OXMAN: Thank you.

MG ADAMS: Another aspect of that that we talked long about, and without getting into specifics, was that we're aware that there are other practices available in the commercial side of it, where you better manage the pharmacy benefit in terms of the therapeutics of the health care that you're providing.

And looking at some of those unique arrangements, where you're able to prescribe the

drugs, take into effect the clinical efficacy, as well as the cost. And the Department does some of that, but we do it at such a high level that we have not really penetrated the market like we could if we were taking advantage of some of those commercial practices. So I think it was not only the buying power, but also then in terms of what type of new practices based upon the new therapeutics that we're taking advantage of.

DR. WILENSKY: This was one of those issues where lowest unit cost may not give you either best outcome or lowest cost for the treatment of care provided, and it was important to look at that, as Nancy was just indicating, as to whether or not there were best practices that either weren't being or could only be adopted with difficulty.

But we also have felt that the incentives in place didn't reflect the actual cost differences, and part of the changes that need to go forward is to incent and reward those who make use of the lowest cost therapeutics available to

them in the lowest cost setting. And so part of what our recommendations will do is to try not to prevent people from going wherever, but to incent and reward those who make use of the lower cost potentials available.

DR. PARKINSON: There are a couple of questions. I was trying to intuit reading through your introduction the level of analysis that you've done, which is obviously exhausted. But a couple of basic questions. Were you able to parse out for the appropriate comparison population whether or not the DOD, particularly our purchase care benefit, is accelerating equal to, greater than, or less than a civilian health care benefit as purchased by a fortune 1000 company, I mean is that possible even to do? So the rate of acceleration that we see and the numbers that Doctor Poland cited, is that greater than, equal to, or less than what we've seen over the seven year period of time for the civilian sector, because that says something I think about how we purchase, maybe, okay.

The second question is, in terms of the three major buckets that we look at, pharmacy, out-patient services, and perhaps surgery/advanced imagining, which is right now the focus of most of the traditional managed care industry, is looking at the dramatic growth in out-patient surgeries, dramatic growth in advanced scanning, MRI, CT, things like that; do we have any sense in the reports that we get back through the managed care contracts that we're monitoring at least the major building blocks of what makes up trends?

So the first is, our trend versus civilian, and second is components, pharmacy, out-patient services/advanced diagnostics, or scans.

RADM MATECZUN: I'll try to answer both of those, Doctor Parkinson, and some of the dialogue that we had. Try to take a look at the cost and the increase in cost. We did -- were able to parse out part of the root causes of that increase over that time span. Number one cause is increased benefit, so that Congress has added

benefit over time that has added significant cost to that structure, including the Tricare Reserve Select program as an example that we were talking about, so that's number one.

Number two is that as the benefit has not changed in terms of the price structure that's out there, and as people have left the insurance plans that they are in, that has driven an increased population into the benefit population, or at least the population that is actually using the benefit.

That seems to have leveled off. But those are the two causes, root causes of the increase in cost. Therefore, over that period of time, with those two things happening, very hard to compare with a civilian population where the benefit hasn't changed in their plan and try to come to any kind of conclusion.

The second piece on the components of the contract, I guess in short I would say, no, there is no structured way of looking at that. In fact, that is why we recommended that the

Department should have a strategy, to take a look at the components in the purchase care sector, what's going on. I mean there is a cost, we know what the cost is for each of those. But are we able to compare that cost and the effectiveness and efficiency with the cost and the direct care system? No, we are not.

DR. LOCKEY: Just briefly to the first part of your question, we looked at a number of indices in connection with our studies, and the rates of growth and things like the defense, the Military Expenditure Panel Survey, the Kaiser Foundation data, are similar especially since 2000 than we're seeing in Tricare, they're not identical, but they're in the same mix especially since 2000, so I think that goes to the first part of your question.

DR. PARKINSON: Doctor Lockey, a question.

MR. LUEPKER: I found this is an incredible work product, and I really enjoyed reading it. One of the questions I had was

regarding Chapter 11, and that chapter dealt with the mix of military and civilian personnel, and the Task Force was addressed -- was charged to address this appropriate mixture of military and civilian personnel to meet future readiness and high quality health care service requirements. And the problem is well outlined. The problem was that there's always been a -- retain the high quality personnel, that's been a chronic problem for the Armed Forces, and then this conversion of military to civilian health care professionals has created I guess some problems.

But in the conclusions, the issue really was not addressed. It seemed like pending legislative initiatives acted as an impedient in order for the Task Force to address these issues. And it wasn't clear to me why that was the case. I mean it's a very innovative report overall, but in this particular area, there really are no solutions offered.

MG ADAMS: I think the reason why we ended up with that conclusion was that

historically, the services have approached the military/civilian mix differently. But in recent times, within the last three to five years, all three of the military departments were directed to convert more military positions to civilian positions.

And following the direction of Congress, all three military departments significantly increased the number of civilians working in military medicine. However, recently, within the last year to 18 months, the Congress realized that there were problems that were inherent to converting more military to civilian; most importantly, you decrease the rotation base, and therefore, you influence quality of life for those dedicated men and women who are serving in a hostile environment, so they gave the departments permission then to slow down the conversion. So that's -- we're kind of left in the middle flux, where we saw the ramp up with the civilians, but we realize we're not sure how steep that ramp needs to be.

We've got a holding action right now, so I think we need also to let the department sort it out in terms of what is going to be the proper mix for the services for the way ahead, taking into account the deployment needs, as well as the recruiting retention implications when you civilianize more of your rotation basis, which is what we have in terms of the civilian places that are back in the United States.

DR. WILENSKY: This was one of the areas where I hope we were clear, that it's complicated, we think it needs to be assessed, both in terms of understanding where we are now and particularly the appropriate strategies that are available for the future, and that we just -- we're not able to take the time that it requires in order to be able to provide good strategies and alternatives going forward. So there are a lot of ramifications with regard to future work force needs in terms, not just of the civilian military, but the whole reserve, active duty, particularly as it relates to the medical component that ought to be

considered as we go forward, but we really weren't able to do it. So unlike other areas where we thought we understood the issue sufficiently well, that we could make recommendations for a change, this is -- more needs to be done.

LTG ROUDEBUSH: If I might add just one additional perspective to that. I think the Task Force made a wise decision in not being prescriptive, because the appropriate balance of military and civilian members within the MHS is something that begins at a very high level in terms of -- and missions, a national strategy that translates into a national military strategy, and all the forces that are required in order to support and execute that strategy, and that's an evolutionary process.

There is no one prescriptive mix that allows you to fight today's fight and fight tomorrow's, as well. So I think the recommendations that we made support the ongoing process within the department that will, in fact, drive the appropriate balance and mix to give us

the kind of forced structure, both military and civilian, that allows us to meet the mission and deliver the benefit, as well. So I think it almost goes a bit beyond the purview of this Task Force. Although it's clearly within the purview to support and facilitate and help inform that process as it goes forward, with the over arching strategy to appropriately integrate the direct care system and the private sector or contracted care to achieve the best outcome for all the sectors.

So I think it is, as Doctor Wilensky points out, a very complex, but it's a very dynamic and evolutionary process, as well, that does not foster a prescriptive or one time solution.

DR. LOCKEY: Just one follow-up comment.

DR. PARKINSON: Go ahead and follow up and then --

DR. LOCKEY: Does that also apply to the statement about recruiting and retaining high qualified health professionals that's been a

chronic problem for the military? Is this something the Task Force was not really asked to address?

RADM MATECZUN: I'd like to address it a little bit with you right now. The work force and how we get the work force, the necks of the work force are critical questions for us. I think that you heard, we have about 133,000 people working within the military health system. That doesn't include those people that are out there working within the purchase care sector. That's within the direct care system. So it's a very big system, and we have a need for high quality personnel to be able to stay within that work force.

We have not done as well in recruiting in the services over the last few years, and, for instance, our scholarship programs for physicians. This is a problem kind of across the services, and the Department needs help, it needs help from people like yourselves as you go back to your institutions.

And when people are looking for a career, when they're looking for a place to work, would you recommend the military health system? I would, unhesitatingly. The military health system is a great place to work, be in uniform or a civilian, and it's got a fundamental mission that's required for our national security.

So we have I think something to offer all of those members of the work force, regardless of what the mix is. There is a tenure in the nation right now that has to do with taking a look at the military as a career option, not just a career option for military medicine, but a career option for anyone that's looking to serve their county. I think we have to make sure that when we talk to people, that we've been as clear as we can in our own minds that we've sorted through what it is that we want to recommend or not.

When your son graduates from the Air Force Academy, he might like to go to -- to become a military medical physician in uniform. So there's a lot of different pieces to it.

Recruiting and retention has been difficult over the last few years.

DR. WILENSKY: But again, these are -- we recognize these are major issues for the Department, they are very big issues, and I think somewhere specifically we indicate that we think this ought to be the subject of a separate task force, because there are so many issues that go to recruitment and retention, the mix of civilian and military, the mix of active duty and reservists, and how you try to project where you want to be in the future, that was beyond what we thought we could give any justice to, and therefore, other than laying out what we have recognized as the problem, didn't feel it was appropriate to go forward. But it was not because we don't think it's serious, it's really the opposite, we think it's such a big issue that we didn't want to make recommendations that didn't begin to do justice to this issue, so we hope it will be taken with the seriousness going forward that it deserves.

DR. PARKINSON: Let me just point out

before I get to you, Kevin, that Doctor, for the record, that Doctor Dan Blazer has joined us. Dan, we went around and introduced ourselves. Do you want to just briefly tell your affiliation?

DR. BLAZER: Dan Blazer, psychiatrist/epidemiologist, Duke University, I've been on this Board for a while.

DR. PARKINSON: Okay; Kevin.

DR. McNEILL: Thank you. As a former practitioner in the military health care system and now a retiree and beneficiary, I'd like to thank the committee for this excellent report and all of the hard work that went into it. And I mentioned this as -- aside to a couple of members, but I would really like to commend particularly the idea of a better coordination between Tricare and private health insurers. This would be extremely beneficial for retirees such as myself who live in undeserved areas, there's no military installation anywhere around, and there is basically no provider network. And the idea of being able to access either/or, even if it meant

additional, you know, financial contributions by me, I would consider that a wonderful improvement to the current system, because even though the benefits are there, gaining access is very difficult, so I commend that idea, and I think it's certainly a mix for the duration.

DR. PARKINSON: Doctor Parisi.

DR. PARISI: I'd like to echo everyone's congratulations on this very excellent and complete report. I'm impressed with the care and the thought that has been given to many of the issues.

One comment is that the report is great at identifying the problems, but my reality part of me asks is, implementation possible or practical. And I'm sure the committee wants to deliberate about maybe legislative activities that are -- legislative actions that would be necessary to allow the implementation of some of these recommendations, and I just would ask for some of your comments about that.

DR. WILENSKY: The good news is that

relatively few of the recommendations require statutory change, and I regard that at least as the good news. We will be very clear when we issue our final report in terms of the 12 recommendations with the action items as to what we believe can be done administratively and what requires new statutory authority. Most of it is able to be done administratively. That doesn't make it easy, it just makes it easier than needing actions by Congress before you can proceed.

Probably the more difficult issue is that while we tried to be as specific as we could in the action items underneath each recommendation to give guidance as to where or what would be required in order to achieve the outcome we're recommending. They almost by necessity always stay, if not at 30,000 feet, will probably never get much under about 12,000 feet, except for some of the financial changes that we discuss more explicitly.

And therefore, it will require follow-on activity to be embraced by the Department, to pull

together individuals appropriate and concerned to try to make these changes happen.

It doesn't happen that often with task forces, but it can happen. Again, my experience on the Dole Shalala Commission earlier in the year has resulted in what are enormously gratifying efforts by the Department to try to embrace along with the VA those areas that can be done administratively. So there is clear indication that the Department can take these areas that are identified and begin to implement them in a very quick order if it is agreed that they are important and the kind of interest to do so.

So we will make very clear, at least according to the guidance we have, there's always some dispute that goes on as to whose general counsel opines as to exactly who has what authority, but we think probably we will be relatively safe in designating those areas, which probably need legislative change as opposed to the others. But I will tell you, most of what we are recommending, as best we can tell, can be done by

the Department directly.

DR. PARKINSON: Doctor Shamoo.

DR. SHAMOO: Thank you. The military has been at the forefront of issues of equities once they make up their mind. And I think part of my question was asked the last time we were together. There's two types of equity, equity in terms of type of health care services we render, especially behavioral versus other medical ailment issues, and equity, currently it's superb, it's at the peak, and that is equity to, regardless of the service rank, we provide the same health care services. The two part question is, should we have some kind of safeguard, because no one can predict that societal ills don't creep into the system of some inequity, and at the same time, to ensure the equity of the type of health care services we render.

DR. WILENSKY: I don't dispute what sounds like an admiral goal. I'm not sure specifically what, other than following metrics that focus on outcome, that recognize that what it

takes to produce good health may differ in terms of the health care, how it's provided, and when and where it's provided.

That's basically a presumption of medical readiness, that you take individuals as they come in, and achieve a medical readiness so that they can be deployed as the military sees appropriate.

And it is -- it functions more on the desired outcome rather than on the specific inputs that might be required in order to get there. So I mean it strikes me in general, that is the function that the military, particular with regard to its active duty, provides.

It's a little hard to have quite that same specific focus in terms of retiree care, which you can provide our benefits to individuals after they leave active duty military, but other than putting in safeguards that contractors do what they say they will do, and using metrics to make sure that when you think you've changed the system in a way to improve it, that you monitor

the outcomes and not just the input changes. So if you have something else specifically in mind --

DR. PARKINSON: General Kelley and then General Adams.

MG KELLEY: Doctor Shamoo, I think that we did consider this, and as we talked about discussing adjusting co-pays, enrollment fees and that, we talked about the tiering process, so that those individuals who have retired at lower rank or with lower retirement pay would pay less than other individuals.

And so specifically to address your concern about those at economic disadvantage, a disincentive to using the system, we adapted the recommendations to have a tiering process to make it easier for them to use the system.

DR. PARKINSON: General Adams, did you want to --

DR. SHAMOO: May I comment on that? I appreciate your answers, but inequity -- the current inequity creeped in from our society, and that is between behavioral coverage versus

non-behavioral coverage. It's in everywhere in this society, and was not by design, and everybody measures out. So contrary to the existing practices, mental health coverage is one-tenth of what ought to be in all health insurance, whether it's -- everywhere, so I am not -- that the outcomes alone will take care of it, any segment of our society.

DR. WILENSKY: Well, actually, it's rare that people look at outcomes. They mostly -- because they're harder and there's more dispute about measurement. Normally what they do is, focus, if at all, on the amount or the cost of the inputs, and not on the outputs.

With regard to the issues relating to mental health, that has clearly become a much more prominent an issue because of the interest and focus on PTSD and also traumatic brain injury. We do not deal specifically with that issue in terms of the overall strategy of the report. Again, there are a number of other task forces that were specifically focused to that issue. So I mean I

think those are better places to look to.

DR. PARKINSON: Ms. Embrey.

MS. EMBREY: Being the designated federal official and not being a member of the Board, I did not have an opportunity to review the draft. But I do want to -- based on the conversation, I would appreciate it if you could elaborate more specifically on what you mean by improving integration between direct and purchase care system. Is this the management of both in the delivery of care, is it system integration, is it provider focused, is it -- I don't understand what integration means.

RADM MATECZUN: Ellen, I think that's why we said what the Department needs is a strategy for taking a look at the integration. If the Department defines the outcomes that are desires, all of those things you mentioned, any of those things you mentioned, then you can align the two systems to achieve the outcome and work across them to make sure that you haven't disincentivized or given the wrong incentives.

If you're not able to do that, if you don't know, if you don't have a strategy for the outcomes you'd like to achieve, then you're going to achieve the outcomes that you get. So I think that, in part, it was, yeah, the Department needs to take a look at that and say, what are the outcomes that we desire.

MS. EMBREY: So the message is then that we have two systems of care that are not focused on the same goals, and we need to figure out what that is?

RADM MATECZUN: They may or may not be, but there's no strategy that says that they are.

DR. WILENSKY: There was also an intent to recognize the need to make sure there's an alignment of incentives at the place where care is actually delivered, which is at the local level. There may be higher level views of how the integrated -- the purchase care and the direct care align themselves in general, but that doesn't provide the incentive or flexibility to have the best outcomes occur at the place where care is

actually divided, which becomes particularly complicated in areas like our own because of the National Capital region has not only multiple providers between the direct and the purchased, but multiple services active in each.

So it is not clear it is happening at the local level, even when there is just one installation, and it is particularly complicated in the region of the country where there are multiple installations. We visited San Antonio. That was an obvious one. The National Capital region is an obvious one.

But there are others as well. And that's all in addition to making sure that there is a well articulated strategy at the top about what you're trying to do with these two.

But even if that occurs, and we think that more needs to be done to articulate that strategy, that doesn't necessarily mean at the local level, where the care is being provided, there's enough flexibility with the right incentives so that the movement back and forth

between purchased care and direct care can occur in the most effective way.

It's not that there isn't any flexibility. Our sense in interviewing and listening to what people told us is it was very hard and cumbersome to happen, and that was true both from the direct care's point of view and from the contractor's point of view. Thank you.

LTG ROUDEBUSH: And it also underpins the requirement for an accounting system that allows you to properly characterize the cost of delivering that particular type of episode of care so that you can look at best outcome and best cost. And the outcome is certainly a favorable health outcome, but it's also a favorable operational outcome so that you can begin to strategize and put that kind of capability in place and leverage each system, which has strengths, in order to get to the best integrated, not coalesced, but best integrated system overall.

DR. WALKER: That does raise a question, and, you, of course, being currently serving, we

have a joint budgeting process, but we don't have an integrated cost accounting system. Each service has their way of doing that. So from a practical standpoint, is the Committee or is the Task Force recommending that we centralize the cost accounting system for this purpose?

RADM MATECZUM: Standardization I think is, how do you cross those systems. Once again, this is part of the Department's strategy. If the Department doesn't do that, it can never arrive at costs that can be accountable.

DR. WALKER: Well, as you know, each service has to live within the accounting system of that service in order to get its budgets and manage its people and, you know, operate. And so if we had a separate health accounting system that would divorce you from your service accounting systems.

So the challenge is difficult. I would like your views.

LTG ROUDEBUSH: I don't think it necessarily separates us from our services'

accounting system. I think the standardization across the systems because the health accounting system is something that is a bit set aside from much of what the services do. But in terms of how we're able to compare the military systems, one with another and with the private sector, until we have those standardized methods of characterizing those costs and inputs, we have a very difficult time saying this is the best cost for the best outcome.

So I think, as Admiral Madison, points out, it's not so much centralization as it is standardization and getting to a common accounting methodology that allows us to make that comparison.

DR. WALKER: It was one of the issues perhaps not emphasized enough in response to the earlier question of how does the Department of Defense compare relative to the civilian sector.

Yeah, it would be very difficult to make that comparison because there have been rather extensive changes in the benefits during this

decade, and that makes it hard to compare.

But even if that hadn't happened, the problems with the accounting system would make it extremely difficult to be able to make that assessment within and across the Department of Defense.

DR. LUEPKER: Dr. Walker?

DR. WALKER: Thank you.

DR. LUEPKER: Yeah, Russell Luepker. I'd like to go back to Dr. Shamoo's question. We heard a report a few minutes ago from the mental health task force. And they suggested that everything wasn't just fine for either active personnel, reserve personnel, and or their families.

When you said, well, that's a different committee, and it's true, their recommendations were structural ones about how to better integrate the system and deliver services, and it worries me a bit to hear you not talk much about how this comes together.

If we continue to treat behavioral and

mental health problems as separate and out there, they will continue to be problems. And I personally see the overlap with what you're doing a hundred percent. It's part of health services, but it's particularly unique in that it's not doing well.

MS. EMBREY: In my other job, I serve as the line of action lead for the Department of Defense on the Department's response to the Mental Health Task Force recommendations and many other recommendations relating to the subject of how the Department is organized to address traumatic brain injury and mental health and PTSD, and, as we've re-characterized it, psychological health, which sort of embodies not only the medical, but the pre-clinical and non-medical services that support psychological health. We've made a series of accepted all nine -- well, 94 of 95 recommendations coming out of the Mental Health Task Force, and we are actively engaged in implementing many of those as we speak.

So they'll become a component of our

health system, but frankly, some of the new aspects of those programs were not under consideration by this task force, particularly those on the early intervention and prevention programs and the building of resilience in our service members and their families to address stressful situations, such as a war or financial difficulty or whatever.

So I do think that the Department is addressing this issue and expanding capacity, both in personnel and systems.

We will be implementing an electronic mental health record as part of our overall health system record, so it will be accessible to primary care providers. We are embedding mental health professionals in our primary care settings, and we're embedding them in our war fighting units; and we are engaging in significant amount of training and outreach to individuals about what it is to have psychological health and how to maintain that health in the same way that we adjusted for physical health and fitness.

So the impact that we'll have is we will have an infrastructure to address in the mental health realm anyway, and we also have similar initiatives going on in TBI, but I didn't talk about that.

So I think whatever the future of the military health system is going to be, it's going to be part of that infrastructure, and these new programs will have to be addressed as part of that.

So I don't think it will be an equity issue because this is focused on the total force, not only the service members, but their families.

DR. WALKER: It was also -- I served as the liaison between this four-year task force and the Dole- Shalala Presidential Commission that ran from March to the end of July. PTSD and TDI, its impact in active duty military and in the veterans population and the crossover in between and how to try to have that be better effect and more effective as a health care service was one of the six subcommittees of that presidential commission.

We were also aware that there was a task force specifically focused on mental health issues.

Our value added was not to be in those areas given the work that was done, but to attempt to look at what was a very large set of issues that we were asked to look at in terms of the congressional language. Now I don't think it's in any way a sense that more effective care and integration of mental health with the rest of health care is a question in our minds. But if we're going to try to focus on the 10 or 12 most important changes going forward, knowing the work that's been done during the course of the year, it wasn't clear what else we would say on that issue, particularly because our expertise was really designed to try to respond to the issues that were in our charge, and it is I think a very unusual mix of private sector, public sector non-military, and military across the service group that we have put together, but not particularly, starting with myself, expert in terms of mental health per se.

COL GIBSON: Just as a reminder to the Board, we have established a Behavioral Health External Advisory Subcommittee for the Department, as we all as a TBI, Traumatic Brain Injury subcommittee, so you will be hearing more about this and you folks will be part of that Department's solution to these problems.

DR. BLAZER: Just as a member of the Mental Health Task Force, just to make a couple of statements. I think we on the Task Force were very pleased with the initial response of the DoD to the recommendations that we've made. We also are very pleased with the response of Congress in fusing new monies.

There are concerns. This is not a small hill to climb that we'll climb this year. This is a long mountain that's going to take quite a while for us to traverse, and so the issues of sustained funding and sustained emphasis I think is going to be important.

I don't think now is the time to evaluate the DoD's response to the Mental Health

Task Force. I think it's going to take probably three to five years to see how things go.

But we do have a steep hill to climb on this, and I just feel like that we need to recognize that and keep that emphasis for a while. This is not a one-time thing.

DR. POLAND: Yes. Other comments?

RADM MATECZUM: In terms of the question of addressing parity separate from mental health and the benefits that are contained within the current structure, I was trying to think of an example of any time that a coverage has been reduced, and I couldn't think of any.

So the parity may change in proportion, but there -- the Congress has never reduced a benefit once it started, once it's in place.

DR. POLAND: Roudebush, did you have a comment?

LTG ROUDEBUSH: Actually, my comment was a question, and I would direct it back if I would be interested in your thoughts.

Do you see anything in this report that

would preclude the Department and the military health care system from being responsive to the inputs of this task force and others, which, you know, we anticipate will inform both deliberations and actions in the days, weeks, months, and years ahead?

So are you seeing something that takes you in a rather different direction from the work that the task force has provided?

DR. LUEPKER: No, I don't. I was looking for some reassurance that this was being integrated. Ms. Embrey provided that, and I'm comforted by the way this is going forward.

It again is a unique area that has more difficulties than some of the other health-related areas, and but needs to be integrated desperately.

DR. POLAND: Okay. Dr. Halperin, maybe one other comment and then if there are any comments from the public or audience, we'll take those.

DR. HALPERIN: Halperin, from the Board. It is very gratifying to hear the prominence of

wellness and prevention in the major focus of the report.

There has -- and also the idea of creating metrics, and it's also good to know about the implementation of the electronic medical record within the military.

But many of these things as far as are there going to mandated offers; are there going to be mandated benefits? Are people participating in? What's the rate of participation compared to other medical systems -- really does hover around the issue of data. And the source of the data is the electronic medical record.

So I'm wondering whether someone might want to comment about the issue of the focus on electronic medical records within the various pay orders, if you will, and various systems that are -- that are part of this -- these recommendations?

DR. WALKER: We did spend some time with -- in discussions with people from DoD about their progress in terms of the development of the system within DoD and across DoD and VA in terms of where

they were in being able to integrate information which is at the moment primarily outside of the hospital rather than inside in the ancillary care, but movement ahead in terms of the development of in- patient record with plans for how that will integrate with the VA system.

One of the issues we did not specifically address, but since you've mentioned it, I will at least raise, is that there may well be for some time in the future difficulties in integrating purchased care and direct care so long as much of the outside purchased care is not using electronic medical records, and that is probably an issue too big for DoD per se to resolve, although hopefully other pressures and interests in trying to get electronic medical records and interoperability, and the private sector will help resolve that issue.

So we did -- this was not a specific focus, but we did get briefed on where the Department is and how it's progressing and, again, in the Dole-Shalala, we spent more time looking at

how each VA and DoD are moving forward. One of the concerns we had is as much as we want to have it pushed faster, it has taken so long to get it going as well as it is now. There's a lot of reluctance to change its course because it will ultimately delay the process even longer, so we're mindful of that.

But it will be harder to get direct care or "downtown care." However, you want to categorize it, fully integrated, if they're not on the same information systems or at least interoperable information systems.

DR. POLAND: We didn't have anybody sign up, but are there any audience questions or comments?

BG FOX: Dr. Poland, I'm a subcommittee member and therefore did not have the opportunity to read this very detailed report, and I will do so in subsequent time following this.

I would offer the same applause that everyone has in appreciation for the level of work and intensity that went into this and the

recommendations, and the thoughtful health board members who have articulated points back and forth. I would like to come back and illustrate perhaps a little bit that General Roudebush, if I might, sir, your comment about effectiveness, because it's in the understanding of effectiveness of the MSH and what is its purpose that I think we should perhaps put some exclamation points to the unparalleled and Herculean efforts that have been accomplished by the MSH given its primary mission for effectiveness to support a military at war and the defense of the nation. It is a fact that the disease and nonbattle injury rate is the lowest it has ever been in the history of conflict. It is also a fact that the battlefield life- saving capability of our military health system is the best it has ever been in history of conflict. It is also a fact that the military health system that exists today deployed multidisciplinary doctors, nurses, and medics to that battle space and have accomplished that mission in an echelon health care system that is unparalleled by

anything that human history has seen to date.

At the same time that the MHS system has maintained to my knowledge every hospital passing JACO standards, every hospital integrating in doctors and nurses who are from the civilian sector into a military infrastructure and health care system and yet providing quality. So while this panel has rightfully pointed out perhaps a roadmap as you suggest, Dr. Poland, for future reviews and critical reviews of efficiencies, I hope one does not lose the perspective that effectiveness of that system to deploy doctors and nurses and medical staff to not only deal with the complexities of the military environment themselves but be able to deliver the kind of quality of care that they have heretofore delivered to our soldiers, sailors, airmen and Marines in combat should not be lost. Tomorrow's battlefields will not be the same battlefields of today and we are compelled like all military infrastructure is compelled to look at the future, and the system has to be creative and allow that

future to be reviewed and assessed so that we can deploy the right kinds of medical teams to deal with the very flexible and agile battlefields of tomorrow and the very flexible and agile and growing capabilities are combat forces have to deliver combat power in austere places around the globe simultaneously.

That infrastructure has to exist and in that is effectiveness. It may not be the most efficient cost- effective system from the perspective of a civilian health care model which looks at maximum efficiency for the dollar. So I only offer that opinion and comment as one who has been a member of that distinguished system and very proud of it and one who has been equally blessed to be a member of a subcommittee who is very focused on taking care of soldiers, sailors, airmen, and Marines who have been wounded in combat. Thank you.

DR. WILENSKY: I hope, Dr. Fox, as you have a chance to read the report you will see we went to great pains to try to make exactly that

point, that when you look at what is provided by DOD in terms of military health care, you have to be very careful not to judge it by a real cost efficiency point of view because of the complex mission that it has in terms of being able both for the present and in the future to respond to the needs of the military present and retired. So hopefully when you see it you will say, yes, you made that point. If we didn't, we will all feel a little chagrin.

DR. POLAND: Let me say thank you for that comment too. It is why I consider it to be one of the crown jewels of DOD. Seeing no other respondents or comments, we are going to end the morning session of the Defense Health Board. I again want to thank Dr. Wilensky and the other members of the task force for your hard work and for coming to address the draft findings. The process from this point is prior to the board's next meeting, the task force will be disestablished but we will take the comments that we receive today, try to synthesize those into a

cover letter that will accompany the task force's final report.

I would also like as we close here to offer the task force committee members a token of appreciation and remembrance of your service on the task force with the Defense Health Board coin. I will give one of those to each of you as a thank you for the hard work that you have done.

One other thing before we close here is the CME form has gotten lost in somebody's stack of papers, and so we do need to find that. Lisa can take that. Colonel Gibson, do you want to make any other comments with regard to lunch?

COL GIBSON: The board subcommittee members and task force members will have a working administrative lunch in the break room and the liaison officers and other invited guests are welcome. We will reconvene at the appointed time.

DR. POLAND: Very good. 1:30.

COL GIBSON: 1:30. That's all I have.

(Whereupon, a luncheon recess was taken.)

A F T E R N O O N S E S S I O N

COL GIBSON: I was remiss at the end of the last session to not formally thank Colonel Christine Bader and her staff detailed to that Task Force on the Future of Military Health. They put in a tremendous amount of hours and that task force would not have been able to complete that project without them. So for the record, the Board and I thank them very much for their work.

DR. POLAND: Our first speaker for this open session is Mr. Bill Carr, Deputy Under Secretary. He oversees recruiting, retention, compensation and related resource management for the 1.4 million active-duty military members of the U.S. armed services. Mr. Carr will update the board and discuss the disability evaluation system reengineering plan. As the members of the Board will recall, Mr. Carr briefed us at our last meeting. Since that time, a Board subcommittee has met with Secretary Cassells and Mr. Carr to discuss a number of matters related to how the DOD and VA are addressing the concerns outlined by the

Board's Independent Review Group and Mental Health Task Force as well as the Dole-Shalala Commission. Progress has been made in a number of areas, and Mr. Carr is here to update us. His slides I believe are in tab 3. Mr. Carr?

MR. CARR: I am Bill Carr. I am the Deputy Under Secretary for Military Personnel Policy. For this first slide, I will not be on this long. It simply says that in the course of looking at improvements to the Disability -- System, that there was no shortage of advice from the various panels and commissions that assembled. There was enormous overlap in terms of the recommendations' commonality in terms of the recommendations that came from those commissions and the system that we have come up, and you be the judge and I would be delighted to take your comments, is one that the services seem pretty satisfied with that will make the system quicker, although quicker as was pointed out to us by the Army Surgeon General yesterday, is not necessarily anyone's objective because the Army more so than

the other services is interested in saving the career, rehabilitation, and I will report my own appraisal that the Marine Corps and the Air Force on the other hand if the career is not going to work out or rehabilitation is going to be protracted and the member is willing to separate than they normally would separate, so there is a little bit of difference among the services and the way they would approach.

But having said that, we set out to and we have apparently achieved in a small scale the capacity to proceed more quickly than has been the case in the past and also far more simply. This simply shows that there were a lot of things that informed us, and I've got only one slide and that is this slide.

If you look at the top, the essential changes are the ones shown with the Xes. I will describe the flow as it used to exist typically for someone with a broken leg at Fort Bragg, North Carolina. They would go to the emergency room with the broken leg. If it was a severely

compromised knee then the emergency room and their physician may refer them down the hall to the Medical Evaluation Board because it appeared their career was in trouble. At the Medical Evaluation Board they would develop the facts about that injury, they would ask the commander for his appraisal of the sergeant's capacity to do his job, and they would also query about whether or not the injury was incurred in the line of duty, all of which bears on the government's treatment and cognizance over that particular injury.

They would then package that information together if it appeared that the member was going to be probably unfit, meaning they wouldn't meet retention medical standards that are laid out in detail in various policies. In this case, if the flexion in the knee were severely compromised, they probably would not meet retention medical standards. So Fort Bragg, Womack, would pack up the packet from Womack Hospital and sent it to the Army Physical Evaluation Board. There an informal board would be conducted. Let's look at the

papers. I see the knee. I know what the retention medical standards are and I know the person's capacity to do their job. From that I will render a decision about fit or unfit and then I will afford a rating. There is of course a Disability Manual. Proponency rests with the VA, but it is used by VA and DOD. It says, for example, if the flexion in the knee is less than X degrees, then you have a severely compromised knee and the disability is 30 percent. So the Physical Evaluation Board looks at it and says 30 percent and you are unfit, and because it was 30 percent I am medically retired. Had it been 20 or 10, I would have been given a severance payment instead of a retirement and separated from the service.

That is the process. So I leave DOD. But then I start all over again after that line that says separation and I walk across the street to VA, and this is the case today at Fort Bragg, and I submit a claim for the injuries that I have. It is not only knee. I will talk about my sleep apnea and my hypertension. The VA will then

conduct another physical exam. After they have done that, the VA will conduct another rating using the same manual. When that is all done, then VA would award a claim, and that is going to take 6 months minimum.

In the case of an injury of this compromised knee at Fort Bragg, I have been treated at Fort Bragg. They have determined I am in trouble. They have sent it to the Physical Evaluation Board who has the authority to decide I am unfit and to award a rating. They did that. I went to VA and the whole process repeated itself.

What we have done for the National Capital Region, and we started on November 26th, and when we think it is working okay, that may be January, February, or March, whenever we are satisfied that the bugs are worked out, and it appears to be working pretty well so far, then we will begin to gradually extrapolate it worldwide. The way it will work is that we will eliminate DOD doing the rating because that will be done by VA in a means I will describe in just a minute, and I

won't have to submit a VA claim after leaving active duty. I will have already done that while I'm on active duty and VA then would give me the rating. Let me explain how that works, and now I am working from the picture on the bottom.

I have had the injury and I have gone to the physician and the physician said that I'm in a bad way. I have then gone to the Physical Evaluation Board and they have looked at it and said you are probably not going to meet retention medical standards. Here is where the change starts. I will fill out a VA form listing all of my maladies and it will go to a VA certified physician who will conduct the physical exam using templates that the VA has long designed saying if it's hypertension, gather this evidence, if it's a bad elbow, gather that evidence. When all of that is completed by the VA certified physician, in the case of D.C. probably at the VA Hospital, although it may be the physician going over to Walter Reed to do it, those are logistical matters that do not matter, I have been to the Medical Evaluation

Board at Walter Reed, they have decided I am headed for trouble and they've sent me to get a physical exam. I now have that physical exam at the Medical Evaluation Board and I send it to the Army Physical Evaluation Board. Just as in the past, that board makes a decision as to whether or not I'm fit or unfit. Here is another change. If the decision is that I'm not fit, then it's sent to VA to do the rating and DOD will accept their rating unquestioned. Sometimes that leads to the question, I always heard that the VA rates a lot higher, and the answer is, not really. We found in a sample of 12 what one of the commissions found in a sample of 33,000 and just by sheer luck they were identical, and that was that there was an 8-point difference when looking at the same condition. So if DOD and VA look at the same knee or elbow or what have you, they will come up somewhat different, VA a little bit to the high side. Fine. Who knows what's right? Who knows whether it was a 30 or a 20 or a 40 or a 50? So we will simply accept VA's and we will action it

under law on DOD's side of the fence. Remember, DOD's side of the fence addressing only unfit conditions and so in this case if I had hypertension and a bad knee, it is the bad knee that prevents your continued service, not the hypertension, probably. That is treatable on oral meds and so forth and so it is certainly not a reason to be separated.

So I would leave for my bad knee 30 percent disability medically retired, and then I would walk across the street to VA. Remember, they did the physical exam or at least it was done to their standards, they did the rating, and they already have me in their system. So when I walk across the street, within weeks, I'll say a month, the VA says less than a month, but sure faster than 5 months, then my VA payments will commence. So I have done fewer pushups in the system in terms of getting a physical exam and filling out documents and experiencing ratings and it is fully actionable, and it was a lot simpler for me.

That takes us through that turquoise

area and we are now over in the purple area. I went through this new experiment in D.C. I had a bad knee because of a motorcycle accident, it could have been something from the theater as well, but I will work on a Beltway motorcycle accident that compromised the knee, and I have been determined medically unfit. I have been rated by the VA at 30 percent. I have been informed now in a communication from the department that it is 30 percent disability and that I am unfit. I may quarrel with either of those facts. I might say I'm fit, in which case DOD takes care of that. Only the military services decide on fitness for the military. Clearly those are not problems of VA and couldn't be. But if it comes to the rating and I say you rated me at 30 and I believe it to be 50 because of my familiarity or someone has showed me the rating manual and I think it's 50, then VA will give one rebuttal opportunity, and it's a powerful one. While still on active duty you will, just as if it would have happened if it had occurred after

you were separated and you had a quarrel with VA, if I am on active duty and I have a quarrel with the rating, then there is a disability review officer from the VA. They are high-paid talent, a sharp group, they are very good at settling things authoritatively and usually are successful in remaining within the rules and so forth and good government. But in any event, that official will talk to me and that will decide whether or not the rating is 30 or 40. If that official looked at it and said I have looked at it, it's 40, DOD will take that and run with it. Fine. Forty. Then the person is retired at 40 percent disability.

So the system is simple. But let's take one other complication and say I got through all of that. I am now 40 percent retired, but I said 50 and I just don't think I really got justice. Then I would continue after I separate to go through VA appellate processes, appeals courts and so forth, and if one of those decided it was 50, then the case comes back to the secretary of the military department in what is frankly a fairly

straightforward administrative process called the Board for Correction of Military Records and I say here's the deal, here's my packet, there's my file. I got 30, then I got 40, I thought it should be 50, and look here, an appeals court agrees with me that it should be 50. The Board for Correction of Military Records says 50 it is, fixes your record, and it's done.

So we have got this from just about any angle in a straightforward, who's responsible, who's going to say yes or no, I want to talk to an empowered individual, kind of context. So that's what we have delivered for the National Capital Region and we'll be looking at whether or not we could proliferate it.

DR. POLAND: Bill, before you leave that point, is there a double-jeopardy process within that? Might that board say it's 20?

MR. CARR: As a technical matter, yes, they could do that. As a practical matter, it virtually never happens. And that is not my lane. That is a commentary, but that's the way I would

appraise it for you.

DR. MILLER: Two questions. First of all, does that delay the separation point?

MR. CARR: No. It accelerates it.

DR. MILLER: The separation is accelerated? It looks like your diagram, the old way puts separation early in the process rating and now it is later.

MR. CARR: Do you know what I didn't say that I wish I had said? The separation point is about the same. The time to the end of that arrow which involves both system times is cut about in half, but the separation point is about the same because most of the period that was invested prior to your separation was invested in diagnosis and treatment. The administrative part rarely is the long pole in the extent except to the extent that the member would like to protract it and sometimes they do, and that's okay if that's what satisfy them that they received due process, they ask to hold off while they consult with an attorney, then that's okay too. So I would say the separation, I

have no reason to believe it would be anything other than identical, but the total system time would be cut in half.

DR. MILLER: The other question, I hope I am not answering something you already said when I was out of the room answering a page, and that is has anyone looked at 70 people with the same injury in the VA and looked at the range of their ratings?

MR. CARR: They did. What I was told, I asked that question of Tom Pamperin, the Deputy Director of Compensation and Pension Services for the VA, and they do that as a matter of routine. There are something like 58 boards around the nation. So they evaluated them and there were a couple of outliers and I can't quantify it. He qualified it as saying I was amazed at how closely they overlaid. Again that is really a question of the VA and I am parroting what a knowledgeable VA colleague shared with me, but their assertion was that if you went across New Mexico, Arizona, Phoenix, and those various rating panels that VA

was very consistent with a few oddballs.

DR. MILLER: I must say I would like to see that data before betting the ranch.

MR. CARR: That is fair enough. That one will come probably from the VA, but I can gather that from Pamperin and pass that over to the board. That's perfectly legitimate.

CPT JOHNSTON: The VA's rating system, is it compartmentalized between the various conditions that a patient has?

MR. CARR: Let me see if I've got this. Let's say for example I have an orthopedic problem and a cardiovascular problem. It would go to one physician. He may employ specialty consults and so forth. But it all ends up in a package describing templates I talked about that would describe the cardiovascular and the orthopedic. And when they went to VA for a rating, it would just be a single rating panel comparing the medical conclusion which asks for certain empirical facts against a book as an administrative determination.

If there were medical question, then it would go back to a physician, but for the most part these templates force the physician to respond in ways that allow an administrator to cross and walk to the cookbook.

RADM SMITH: But there is a percentage given for each separate diagnosis, if that's your question, if they're compensable.

CPT JOHNSON: Yes, that was it. If you're looking at rating it is that's being used to discharge the person or separate the person, are you only taking into account the bits of it that are applied to the discharging condition?

RADM SMITH: That's correct. It is only the unfitting condition applies on the DOD side.

MR. CARR: Let's take for example there was a 30 percent orthopedic and a 20 percent cardiovascular. We know that the template cause the facts to compare to the cookbook and I decided 30 and 20. Then what that means in terms of rating is I am 30 percent which subtracted from 100 is 70, plus 70 times 20 percent, round up,

that's the way it's mathematically accomplished.

DR. POLAND: Dr. Halperin?

DR. HALPERIN: I am never quite sure I get this, so let me use this as an example. I think you know what I'm going to ask you. I have been in for 20 years and I have this horrendous accident or injury and I'm 50 percent disabled. I get 50 percent times 20 years times 2-1/2 per year, so I get 25 percent of my regular pay. If I've been in for 2 years and I'm 50 percent disabled, I get 50 percent times 2 years times 2-1/2 percent, so I get 2-1/2 percent of my regular pay for being permanently disabled for the rest of my life?

MR. CARR: Yes. One of the provisions we have proposed to the Hill is there be a minimum attached to that, but, yes, that is correct.

DR. HALPERIN: The clearance of the impediments is really very good, but in many ways it's a short-term alleviation of the pain of going through the system. The long-term pain is I'm 50 percent disabled, I'm 20 years old and I'm getting

2-1/2 percent.

MR. CARR: You are correct. For DOD that is the answer. But remember then I would go to VA and I would say to VA I am 70 percent because VA looked at this other stuff like cardio and VA says if you're 70 percent then you receive so many hundreds of dollars per month and that in the case of a retirement is additive.

DR. HALPERIN: If you don't mind if I follow-up on this a little bit, it is a very complex system and as a semi outsider it's -- but I thought if you were disabled, what the VA did was give you that amount of money tax free.

MR. CARR: They do.

DR. HALPERIN: They do?

MR. CARR: They do. That monthly stipend I was talking about, if I were let's say 50 percent disabled, it's going to be something like, and this figure isn't going to rock you, but it's going to be about $500 a month tax free.

DR. HALPERIN: Tax free. So a 50 percent disabled person when you combine the DOD

pension and the VA pension would be getting about $500 a month?

MR. CARR: I would have to do the math. It would be more. $500 is the VA part, but added to that would be whatever pension I was drawing from DOD for my disability retirement.

DR. HALPERIN: Which could be 2-1/2 percent.

MR. CARR: Right.

DR. HALPERIN: So it could be let's say $550 a month for somebody who is 50 percent disabled?

MR. CARR: Yes.

DR. HALPERIN: I think that for us to fully understand this system, whenever I hear this and go through the math I kind of don't really believe that I'm really understanding it.

MR. CARR: For disability, we say 50 percent and it can be tempting to say that means I'm half capable. I wish I could think of a good example of a 50 percent. It may be I think hysterectomy was roughly that. The VA if you look

at the bases for ratings, hemorrhoids, so there are some things that are less sympathetic in terms of capacity to earn a living. I am not talking about quality of life. That's a whole different ballgame. But with regard to capacity to earn a living, we could say 50 percent, but it doesn't mean half capable of earning. It can mean of course that your quality of life for hysterectomy, for example, would be affected, but when we say 50 percent, please don't jump as I did years ago to the notion that it means you're half capable. The person could be considerably less sympathetic.

DR. POLAND: Maybe Bill what you were going to say is it might be nice for the board to see a couple of logical scenarios in order to appreciate how it really works.

DR. HALPERIN: Yes. I would appreciate it. Good idea.

DR. POLAND: It is hard for the board to understand. Dr. Shamoo, and then Dr. Leupker.

DR. SHAMOO: This is not a good analogy, so this is backwards from heaven forbid in a car

accident, the younger you are the more money you get, the older you are thinking gainful number of years is smaller. So if you are 70 years old and have a car accident the average lifespan is 77, so they pay you only for 7 years, whether it's 50 percent or 20 percent, so it's backwards from liability.

MR. CARR: It is. There are actually words for this stuff.

DR. SHAMOO: Yes, I understand.

MR. CARR: I can't remember, but the lifetime earning part is short and the other one is something like -- but you're right, this is not the tort future earnings.

DR. SHAMOO: I understand. I understand. So a young man who volunteered to serve his country and he is truly 50 percent disabled, he will get less money than a 60 year old or a 66, my age who volunteered to serve his country, and we got hurt the same way, that poor young man will get way less than I would?

MR. CARR: It could be.

DR. SHAMOO: I have a second question.

MR. CARR: And we will cover that in the examples so that you can be the judge of that.

DR. SHAMOO: The separation point you have delineated here, do they get paid at the point of separation, and what do they get paid at the point of separation and what do they get paid after the disability has been determined? Could you tell me that? At the point of separation do they get money, a check?

MR. CARR: In the case that you are less than 30 percent disabled, remember, I said if you are 10 or 20 you get a severance pay lump sum, that is one answer, something like $20,000. If on the other hand you're retired, then you don't get that lump sum, you begin an annuity stream.

DR. SHAMOO: At the point of separation?

MR. CARR: At the point of separation.

DR. SHAMOO: What do they get after they are declared disabled 50 percent after all the process after the separation? Do they get additional disability payments?

MR. CARR: Before they separate they will be categorized. So let's stipulate 50 percent at the point of separation. Then in that case they would not receive a lump sum, they would begin an annuity stream. Then they would walk across to VA and they would begin an additional annuity stream.

DR. SHAMOO: After the disability has been determined?

MR. CARR: After.

DR. SHAMOO: After.

MR. CARR: Because the disability is the predicate for all of it.

DR. SHAMOO: Sure.

MR. CARR: In our example where we talked about a percent person who is separated, presumably we are talking about somebody medically separated.

DR. SHAMOO: But is there a way between the point of separation to the point of determination of disability that they get paid something as if they are disabled in order to

compensate for their loss of gainful employment and other things?

MR. CARR: I love the question, and that is going to come up at 3 o'clock. We've got a meeting with Secretary England and the Senior Oversight Council and one of the slides raises that point which we have raised from our office for a while, and that is the following. If you were to ask RAND or someone does the disability system work, then they will answer it by saying let's look at life stream earnings, and the answer is, yes, it works out. The disabled work fewer hours, but, yes, it works out. But they said lifetime earnings. It is absolutely indisputable that in the months immediately following separation you're in a whole because you will have moved from $50,000 a year to $500 a month while you're looking for a job.

DR. SHAMOO: That's right.

MR. CARR: At issue is is that satisfactory to the government or should it be satisfactory to the government. VA might not in

an appropriation context welcome that question, but it is one DOD asks out of interest and so forth, and I'm sure VA asks it of itself too. We unambiguously take somebody at $50,000 or $40,000 and they move to $400 a week until they find a job. Granted, we don't want in the case of a relatively moderate condition --

DR. SHAMOO: No, I understand that.

MR. CARR: But it sure is the case that you've got to come back from Germany, reintegrated yourself in some community, go look for a job. So in any event, that is coming up at 3 o'clock today. I can't answer the question, but I share precisely the point and the concern that you expressed.

DR. POLAND: I am going to ask Colonel Gibson to comment. Then Russ, did you have your hand up? And then Mike and Mark.

COL GIBSON: Just a quick question for clarification. This goes to concurrent receipt. What you are talking about here is a person who is let's say 22 years in service eligible to retire,

is medically retired. From what I am hearing from you, and I know that this is issue of combat, that person would get an annuity from the department and an annuity from --

MR. CARR: I was jumping to the Senate mark-up of the defense authorization. You are quite right. When the Senate passed concurrent receipt which means simply if you are getting money from the VA and you are getting money from DOD, keep them both because before that provision was enacted you could keep either, and you would always pick the VA amount because it was tax free. But if the MDAA proceeds as expected, then what are called Chapter 61 retirees, that means disability retirees, could benefit, would benefit, from concurrent receipt. So I answered it in that context.

COL GIBSON: That individual, if I understand the legislation and granted it is still in mark-ups at this point, correct?

MR. CARR: It's not in mark-ups. It has passed. The conference bill has been produced.

It's going back to both chambers. The likelihood of the Congress passing it approaches 100 percent. The promise of the president signing it I don't know, not for that reason, but for other reasons.

COL GIBSON: This does not have an impact on an individual who retires, goes to the VA, is found to be 40 percent disabled. That person in the way I read it is not eligible for concurrent receipt.

MR. CARR: That person is not a part of my presentation. They are not disability retirees.

COL GIBSON: And this would take away the issue of just strictly for combat medically retired, this would open it up for all folks who are DOD medically retired?

MR. CARR: I think we got too many questions collinear. With regard to a retiree, that's a longevity transaction, not disability, not medical. Granted, a retiree for longevity might pursue a claim with VA and they are welcome to. That's a separate matter which we could talk

about, but I'm not talking about it in this context. Then the second part of the question?

COL GIBSON: The question was that the legislation before made concurrent receipt possible for combat veterans, people who were disabled due to combat or training for combat. Will this new legislation open that up for noncombat medical disability?

MR. CARR: That I'm going to have to get back with you on. I frankly can't remember that aspect.

COL GIBSON: Thank you.

MR. CARR: Thank you.

DR. POLAND: Dr. Leupker?

DR. LEUPKER: When you were here a few months ago one of the questions that was raised was duration that it was taking to do this. It looks like it's been simplified, and I realize you are in pilot testing, but do you have any estimate what kind of dwell time you're likely to have if this all works as planned?

MR. CARR: There is an answer to that

and I will get back with you. What we had stipulated for the pilot is a threshold for each event. VA has 30 days to do this, and then for those metrics would then have a data plan proving it. That is knowable, answerable, and I will pass that back to the committee. It's going to be something on the order of 4 or 5 months, something like that. Most of that is spent again in medical procedures and so forth, not in administrative procedure.

DR. POLAND: Mike?

SPEAKER: I think Colonel Gibson approached this, but let me clarify it for myself a little bit. Is there a different between somebody whose knee injury occurred in combat versus somebody whose knee injury occurred when they were on leave and on their motorcycle?

MR. CARR: In terms of the military disability system, no.

SPEAKER: Thank you.

MR. CARR: There is I will comment for traumatic injuries, loss of a limb, loss of

vision, loss of hearing, for traumatic injuries there is a special lump-sum payment. That aside, the treatment is identical.

DR. BLAZER: And that has nothing to do with combat?

MR. CARR: You are right, that does not have anything to do with combat. Let me clarify that. The traumatic, if I lost a leg whether it be in a motorcycle accident or an IED, then I would receive that amount which brings me back to the first point, the simple answer is, no, there is not a difference.

DR. POLAND: I think it was Dr. Miller, Dr. Lednar, and there was one other. Then we will need to wrap up here to move on to the next one.

DR. MILLER: Is there any differentiation between this system and mental-health disorders, or are mental- health disorders also incorporated into this?

MR. CARR: It's incorporated in this.

DR. MILLER: Posttraumatic stress

disorders and others?

MR. CARR: The administrative handling of it becomes you are faced with when will PTSD be comfortably diagnosable. So what VA does is for a claim of PTSD knowing that it's going to take some time to answer that question, they start it at 50 percent. So if I were to present with PTSD and it appeared reasonably that that could be medically possible, then VA will immediately start payments at 50 percent. I might subsequently be rated at 30 or 70, but they will start immediately at 50 because that is an ambiguous area, so they will give substantial benefit of the doubt to the affected veteran.

DR. MILLER: How about for a naturally occurring disease like multiple sclerosis, for example? How is that compensated for?

MR. CARR: If one were found unfit for a congenital disease, it falls under the same rating. There is a different rule for how long you have in service, frankly. So if I were with more than 8 years of service, then it would be as

if I just acquired it or any other injury that rated at 40 percent. If however I had fewer than 8 years of service the MDAA seeks to make it 6 months, then it would be until it does change if I had less than 8 years, then it is preexisting and it's not compensable. So again at the 8 year point, but that 8 year point is about the slide to the left to 6 months. So it's a practical matter. If it's when it's discovered then it would be as compensable as a broken knee.

DR. POLAND: Dr. Lednar and then Mike.

DR. LEDNAR: Would it be fair to say that a goal of this process change is to speed up the cycle time from beginning to decision?

MR. CARR: It is to speed it up, but it's to make it transparent and friendly just about as equal imperatives.

DR. LEDNAR: So simpler and more customer friendly?

MR. CARR: Simpler, friendlier, faster, all in about equal quantity.

DR. LEDNAR: Part of the reason I'm

asking is if there are steps that you can take out of the current system if the pilot works, should the board have confidence that someone else in the department is not going to try to cash those savings, shrink the staff, and end up basically in the same position we started with?

MR. CARR: There is never a guarantee except that we would say it is something for 10 years, 12 years, the public conscience is going to be wounded on this one as is defense's for a good 10 to 20 years. So could those savings be pulled off to a tank? I don't think so because first the administrative costs are not very great. The medical costs simply stay in medical. So I don't see how you can dent things very much as a programmatic possibility.

DR. LEDNAR: The clarity of the goal of the change and keeping that right up front?

MR. CARR: Yes, sir, you are right. It is not a money saver.

DR. LEDNAR: So the solution is judged against that.

MR. CARR: Yes. In fact, a lot of times that's a wrap that comes out in the media, let's see if we can do personality disorders instead of PTSD, a whole new area. We can go there if you have a lot of time. But the notion being that we are going to try and save some money, there is no incentive like that. It doesn't exist. I have never heard of it, never felt it, never sensed it. Ask those in uniform if you're -- look, please don't give them this diagnosis, we want to get them out on the cheap, I have never met any physician military or civilian that can tell me any of that stuff exists in Earth. I don't know. If it does, say it. But I don't sense it does. So I don't think it is about saving money, never was, never is.

It is about faithful execution of what can be a government rule that looks cheap to us. So we might say for example I've looked at the cookbook and it says you lose your leg, you're 10 percent. It doesn't say that. But that's a fair hit because that's a systematic government

behavior. But to say that we would try to diagnose this way which by the way requires a psychiatrist or a Ph.D. or a psychologist and that they are in collusion with us to save a few bucks, it just can't happen.

DR. POLAND: Dr. Parkinson?

DR. PARKINSON: I recently reread Kafka. I just got to shake my head. We have been knocking at this for 46 minutes. People don't know how this works.

MR. CARR: Pardon me?

DR. PARKINSON: People don't know how this works. Have we missed the mark?

MR. CARR: I don't think so.

DR. PARKINSON: Let me just say this. The average American does not know the distinction between DOD and VA.

MR. CARR: Right.

DR. PARKINSON: They don't understand any of this. In any company in America, you get hurt on the job, off the job, there is some process to determine disability and to pay you

promptly or recourse to do it.

MR. CARR: Right.

DR. PARKINSON: That's what they know.

MR. CARR: Right.

DR. PARKINSON: Way upstream of this, and I just don't remember in the multiple reports we've seen, in the legislative agenda of DOD and VA is there a bill or something in place that would eliminate three-quarters of that slide?

MR. CARR: Yes. The president has proposed the Dole-Shalala Bill.

DR. PARKINSON: Where is that bill and what do we need?

MR. CARR: In the hands of the Congress. It wasn't adopted.

DR. PARKINSON: I appreciate you going to one slide, but there's another whole set of slides on the other side which is the VA system when they go into the DVA, that little box down there that says oops, hop to the next slide which is the DVA claims going over there now. You know, so I'd have hoped that because we're feeling

uncomfortable with the lingo that to the average citizen and the person of the military and their dependents, it's still (off mike).

MR. CARR: Right.

DR. PARKINSON: And so if we can maybe, Mr. Chairman, if we can have an update perhaps, Roger, on this status of legislation to take out the things that -- you're a good job, you have to execute the statute --

MR. CARR: Um-hmm.

DR. PARKINSON: -- but the statute needs to be changed so that as soon as I know that I'm disabled, I can no longer serve in the Air Force, wham. I can either have one or two things: If the law is going to continue to say, you're belong 30 percent and you get a single check, great; or, if I'm above 30 percent, even if that's true, then you get a check from sustenance for the rest of your life.

MR. CARR: Right.

DR. PARKINSON: (off mike) pride, which is not to understand the grid, it's to change the

grid.

MR. CARR: Good. There is -- my answer is not complicated. You're right, the President proposed what Dole and Shalala suggested. What they suggested is simply this: DoD decides if you're unfit; and if you are, you immediately leave with an annuity. And VA hikes up the benefits. I can talk about how. That's what the President proposed.

By the time he proposed it, by the time Dole/Shalala finished their work, the House and the Senate had their ideas, and they chose not to go there, and I think there was some partisan considerations in there -- my opinion just as a taxpayer, not a public official. And so the Congress stayed with really the current framework, and they embellished a little bit and talked about workload management, but it didn't change the fundamentals, and the President's would have.

So if what were the legislation, Dole/Shalala, read the President's things, whitehouse.gov. It's very straightforward, and

it's very clear, it's no mystery. And the Congress chose not to do that. While anybody in the administration agrees with you, that is not what the Congress did.

DR. POLAND: Roger -- Colonel Gibson, you wanted to ask a couple of questions?

COL GIBSON: Yes, just a couple of technical questions. Where are the -- for this pilot, where are the VA physicals being done, at VA or in DoD facilities?

MR. CARR: I've got to ask Dr. Cassells or one of the health affairs colleagues. Karen, do you know?

LTC FAVRET: All that --

COL GIBSON: Use the mike.

MR. CARR: It varies. It's going to be by VA protocols, but HA, that's their line and they're still working that out, Health Care.

LTC FAVRET: But we decided for the -- because you needed a VA certified provider to actually do these exams, the only ones in the area that we have right now are at the VA Medical

Center. So anybody who is capable of being transported -- I mean, we're not taking inpatient folks and bringing them down to the VA Medical Center, but they are able to schedule the exams at multiple providers in one day.

So we think it may shorten it because we have access to these certified examiners. At least here this may be false, but we at least get an idea that we can use the VA exam, and it is more equitable. That, to me, if you're going to take away something, each member will have an equitable exam. What we saw was different ones, and so the VA has the worksheets. The VA is going to do these at the Medical Center. They're going to do review of medical records for people who cannot be transported and give them their rating.

MR. CARR: Goods. And as Karen would say, well, that's the case for D.C., when we go to another little site, it's a whole new ball game, might be done at DoDMTF.

LTC FAVRET: We have --

MR. CARR: But for DoD for D.C. that's

the answer.

COL GIBSON: Very quick follow-on question. MEBs are making narrative sums up to make their decision on fit or not fit. Is that information being forwarded to VA, and is it part of their decision process?

MR. CARR: No.

LTC FAVRET: What is being boarded to the VA is the -- is a referral, which is pretty consistent with the normal narrative summary that most docs write.

Once the referral goes with all the conditions that the doc thinks, and a basic medical history and the complete medical record, the VA will have a copy of the complete medical record. Every member will get a general medical exam, and then whatever the claim conditions are, it's specified in --

MR. CARR: : Let's be clear about one term.

LTC FAVRET: And that --

MR. CARR: You used the term "narrative

summary." It has a distinct meaning.

LTC FAVRET: Right.

COL GIBSON: Purposely.

MR. CARR: It is that which happens at the end of the MEB.

LTC FAVRET: Right.

MR. CARR: Now, we don't know what should be in that summary until the physical, therefore your question is, does the "nar sum" go to the VA doctor? It cannot, because it has to be written after that.

LTC FAVRET: Right. So there's a terminology that we did site about initial Navy term of "nar sum" will be called a referral across the Services, and the narrative summary which will be the final evaluation of all the records, they may agree with the VA, they may not, but here's the provider, referring provider, to the MEB who will write the narrative summary.

COL GIBSON: I asked that narrative sum purposely, and thank you very much for the answer.

DR. POLAND: Okay, I'm going to end.

We're about a half hour over, but I think it reflects the importance of the issue.

Thanks again, Mr. Carr, you're very patient with our questions. The Board, obviously, remains very interested in how DoD and the VA are working to make the disability system more in line with the needs of our service member. Please engage with us in any area where you think we can help, and I'd also say that we'll plan on inviting you for yet another update at our April meeting, particularly to see if we can look at some of the scenarios of the legislative issues and any results of the pilot that might be available by then. So thank you very much.

Okay, the next part of our meeting will be on the Psychological Health External Advisory Committee Report. Our speaker will be Lt. Colonel James -- is it Favret? Favret. He will brief us on their information. You can look under tab 4 for his information.

LTC FAVRET: Thank you and good afternoon. I would also, should like to just give

a -- rather than go through slide by slide -- to give a synopsis, if that would be preferable, given the time?

DR. POLAND: That's fine.

LTC FAVRET: Okay, very good. Just is 102 -- this is an informational briefing. I've been working on the Red Cell, which is a team of folks put together to work Live Action 2, which is working traumatic brain injury and PGSD, which we extended out to the broader psychological health. And this briefing was just to inform you of two conferences that were held in the fall on some topics, specific topics that are recommended by the DoD Mental Health Task Force.

One was on women's psychological health needs and there was a recommendation from Task Force to do certain things with regard to addressing women's psychological health needs in DoD and VA. And the other was a recommendation from the Task Force that we look across DoD at imbedding psychological providers into operational units as a way to make our services more

accessible and to decrease stigma.

So real quickly, you can look at your slides. The COFT reports are included in your information. Both these conferences are brought together, subject matter experts, essentially with the women's psychological health issues. The thrust of the recommendations were that the DoD and the VA try to discern where are women's psychological health needs different than men? And, specifically, with combat trauma, with sexual assault trauma, with treatment, with surveillance, do we need to consider -- we do need to consider and look at how do we best serve women and where their needs and issues and concerns are different from men, and is there a better way to do it?

When we develop things such as the battle mind program that the Army put together to foster resilience in soldiers, are we including women in those scenarios to try to address their issues and needs?

There was also a portion of that conference that dealt with two issues where the

preponderance of victims are women, and that is domestic violence and sexual assault. A few years ago you may be aware that DoD offered restricted reporting to victims of sexual assault as a means to enable them to seek treatment and care without having to trigger an investigation. So further assessment and evaluation of how we're dealing with restrictive reporting, and how effective is it getting folks into treatment and care sooner, and having more victims get the help that they need?

The other area that I mentioned, it was a separate conference at looking at imbedding mental health providers into line units. And, essentially, what they found is that each of the Services have -- are doing this to a limited extent, and it seems to be effective. But each Service is different in how they're configured and how they deploy, so what the Conference tried to do is look at sort of the commonalities and the needs of, you know, how does it make sense to try to imbed mental health providers? How does it

make it work for commanders and for troops and so forth? And again, I would refer you to the conference report for specific recommendations and highlights from those conferences.

And I will entertain any questions that you have. Sorry so brief, but I do want to try to get you heading back to getting on time, if possible.

DR. POLAND: Questions or comments from the Board?

DR. BLAZER: Dr. Blazer. Just one comment. If you do rev up the imbedding of individuals into combat forces, it seems to me that that's something that would lend itself very well to documenting what the effectiveness of that is. I just would hope that an effectiveness evaluation mode is put into that.

LTC FAVRET: Yes, sir, thank you.

COL GIBSON: This is Colonel Gibson. I would add again, we do -- we have stood up to subcommittees that are going to be working very closely with the Center of Excellence on doing

exactly the types of recommendations that Dr. Blazer has mentioned. We also have two members of that subcommittee sitting right beside me here, so --

LTC FAVRET: Thank you.

COL GIBSON: -- that's basically what I add at this time.

LTC FAVRET: Yeah, there's a strong push in the Mental Health Task Force recommendations for using evidence-based treatment, and I think with the Center of Excellence is going to help us so each Service isn't just going out doing whatever they think is going to work that, especially when it comes to assessment and treatment for psychological needs, we use things based on good research evidence.

DR. POLAND: Very good. Thank you very much.

LTC FAVRET: Thank you very much.

DR. POLAND: Just to let everybody know that I've approved the establishment of the Board Psychological Health External Advisory Committee,

and I understand from Colonel Gibson that candidates to serve on the subcommittee have been identified, and they'll be forwarded for nomination in the next few weeks.

Okay, our next speakers are Ms. Kathy Helmick and Ms. Hollman. They'll present information on the new subcommittee traumatic brain injury family caregivers panel, and information on their presentation is under tab 5.

MS. HELMICK: Thank you. Good afternoon to the Board. I wanted to give you a quick brief on a new initiative called the Traumatic Brain Injury Family Caregiver Panel. The creation of the TBI Family Caregiver Panel came about in December 2006 when Congress addressed the needs of current former armed service members and their families. They passed the National Defense Authorization Act which was an unfunded mandate given to MRMC up at Fort Detrick, and therefore given to the Defense and Veterans Brain Injury Center, DVBIC, whom I represent today.

This mandate was given to us in April

2007. Of note is that this congressional mandate originally went to uses and was transferred over due to DVBIC's expertise in the spring of 2007. The funding for this project came through in September 2007, and staff was hired to begin the project.

What does the law really say? It's an establishment of a 15-minute member panel, and this panel should develop a coordinated, uniform, consistent training curricula to be used in training family members in the provision of care and assistance of members and former members of the Armed Forces with traumatic brain injury. So this was Congress' response to allow family members to get clear criteria and guidance to help support them as patients go through the recovery trajectory.

The law stipulates that these 15 panelist members should come from certain categories, and some of these have listed below medical professionals that specialize in traumatic brain injury as well as combat PBI, including

psychologists with expertise in the mental health arena. Family caregivers and representatives of family caregivers or Family Caregivers Associations, DoD and DVA, health and medical personnel with expertise, as well as experts in training criteria -- training curriculum. Finally, family members of members of the Armed Forces.

The panel members are appointed after receiving the DoD and White House approval. Certain tasks of this panel group are to review the literature and evidence for curricula content. They'll develop consistent curricula for TBI caregiver education and recommend dissemination modalities throughout the DoD and VA. So, basically, this panel will assemble, give guidance for development of curricula, and also give guidance in terms of how this curricula can be disseminated to get to the stakeholders, which are families and patients.

The panel selection. How this came about was that panel nominees which we forwarded

to you all were selected via the following methods. We have established the DVBIC network within the TBI field. DVBIC has been around for 15 years and we have a long established collaboration with many federal and civilian agencies.

The panelists were also selected based on the guidelines that I just outlined in the law, at least those five sectors that were represented, as well as geographical representation. We prepared the slate of panel nominees that included ex officio members, expert consultants and contingency members. The nominee slate was forwarded for review on 26 October, and currently the nomination package is at Health Affairs' front office for SIC.

There are two scheduled panelist meetings that are planned. The first one's coming right up within a month 9-10-January, 2008, in Silver Spring. This will be the coordinated meeting to get the work started as well as to discuss the curricula contents.

The second meeting is anticipated during your board meeting in April out at Washington state, and that meeting is slated to present to you at that time the pilot curricula. So about four months to get this curricula planned and be ready to be disseminated.

DVBIC's role at this project is to provide programmatic and logistical support to ensure that the development of the criteria is along with congressional language as well as the content validity and accuracy, and then a very important implementation phase so we get the product out there. Part of the implementation will be evaluation of the curricula and to see what needs to be tweaked, to see what needs to be added so that it compliments the caregiver experience after traumatic brain injury.

The education, the ongoing effort of this family education panel and further education directives will be through the DoD Center of Excellence for Psychological Health and Traumatic Brain Injury.

Currently, activity as we're gearing up to the panel meeting in about four weeks, work is being done to identify health education writers and editors as well as research organizations that specialize in qualitative focus-group type research, family care organizations with curricula experience. And we are in the throes of the logistical work that it takes to assemble folks from around the country to get together and begin their group work.

The benefits of a consistent curricula is exactly that: It provides consistent constant message. The curricula also gives tools for coping and gaining acceptance and assistance as well as giving hope on navigating life posttraumatic brain injury. The curriculum will be informative and accurate, provide self-management skills, be user friendly and culturally appropriate.

Questions?

DR. POLAND: Colonel Gibson?

COL GIBSON: I have a few comments to

add to this that will help clarify for the board members what does this have to do with us.

If you look carefully at the slide of the members that Congress said had to be on this panel, there are nonfederal folks on there. That, by definition, makes it a federal advisory committee. We went, after discussing this with Dr. Poland, we went to the DoD lawyers and said, Can we make this a subcommittee of the Defense Health Board as a panel?

After due deliberation, the lawyers came back and said, yes, we can, similar to what we did with mental health and the past, present, and future military health care, and the IRG. This is a subcommittee of the Defense Health Board as soon as Dr. Poland says it can be. DoD says and wants it to be. It's up to Dr. Poland as the president of the Board to say, Yes, that's okay.

What we have done is through DVBIC come up with the nominees, the candidates for nomination. Dr. Cassells is the only one who can nominate, formally nominate to the Secretary of

Defense those panel members where that package is forwarded to him for his signature, and we are hoping desperately to have everything signed out and these members appointed for this January meeting so they can go to work.

Final piece to this is once this panel delivers that set of recommendations, and, hopefully, that'll be in April, we will then turn over the oversight of that execution, including pilot tests, et cetera, to the TBI External Advisory Committee for long-term follow up.

As you all know, there's no such thing as a final curricula. They are iterative products, and it's going to have to have care and feeding for a long, long time.

DR. POLAND: Thank you, Roger, for that introduction and, obviously, I've agreed to the creation of it. But awful, I think, important for the Board and others to understand that increasingly we'll be doing business this way, given the breadth and the depth to which each of these panels and subcommittees will have to go,

and we'll begin to function more as the Defense Science Board, for example, functions in a very similar way.

So any comments or questions about this? I'll just make one, and I think you answered it when you talked about DVBIC. And it harkens back to Dr. Blazer's question of valuation of the effectiveness in this case of the curricula. And I think I heard you say that they'll actually be responsible for that aspect of it, and it will occur.

MS. HELMICK: That's correct, and that will occur of the focus groups using qualitative research techniques to evaluate the curricula and make recommendations for edits.

DR. POLAND: Dr. Lednar?

DR. CLEMENTS: I guess a question I have about the curricula and its goals, if the goal of the curricula is to convey information that helps caregivers of service member and the PBI understand, that sort of sounds like an informational goal.

If the goal of the curricula is to help the PBI service member and their family, it feels like there would be different activities involved. Well, there's a tool kit to know that you need this, that, and some other resource. If you live in a remote area, you have no transportation, and, by the way. your family cash flow is $35 per week, how is this going to help?

So I guess when it comes to evaluating the curricula, it seems very important to say what is the goal and evaluate to that. But I hope that in the end this will be something that brings a level of understanding, perhaps in a separate pilot, to caregivers, and I mean health care providers to community members, others around not just the family who lives with this every day and probably has quite a large and deep understanding of what it means PBI.

MS. HELMICK: I think it's important to note that the stakeholders are all over the country, so we do have to remember our guard reserve, everybody that are in rural- type areas,

underserved areas, and connect them via this curricula, be looking at the clinical services needed to facilitate recovery as well as those supportive services, the nontangible clinical services that look at supporting family, community resources, vet centers, those other types of things that can help with caregiver fatigue and compassion fatigue as well.

So making sure that we understand all the stakeholders in this endeavor is going to be extremely important.

DR. CLEMENTS: Just a short follow-up question, and then there would be some other evaluation, see if the care for the TBI patient and caregivers is, you know, are utilizing these various resources and this is being helpful.

MS. HELMICK: Yes. The evaluation piece can be twofold: one is to ensure that is there a difference in the care, the type of outcomes that we have from severe and penetrating TBI patients now in 2007 prior to any type of home curricula. So you can compare it that way and as well as to

make sure that it's effective for the care -- for the family members.

DR. POLAND: Wayne, I think, too, at least the first part of your question will actually be under the purview of the TBI External Advisory Committee and not so much this one.

Other comments? Dr. Parkinson?

DR. PARKINSON: Yeah, it -- first, I think it's a great effort, obviously. What concerns me a little bit, and I hope just in terms of our advisory capacity here, that the term TBI, as we know from a clinical, pathological, definitional challenge, there's a spectrum in there and that, as you go forward, clearly people who represent certain types of flavors of TBI versus other might need different type of services. So knowing which type of support to provide in one instance versus another is going to be important, and that'll, you know, spread it out with enough granularity that you're able to do that. And I'm sure you will.

My second thing gets really to Wayne. I

mean, as a veteran of building and funding many curriculum development in the federal government, as you know, it's rife to go nowhere fast unless you very clearly articulate it -- and it was great the way you said it -- is that what's the skill set I want out of the other end of this thing, and how do I initiate those skills, and how do I sustain those skills?

And what we're learning about behavior change, because this is really about initiation and sustaining new and fatiguing behaviors on the family caregiver, is you need support. You need coaches, you need peers, you need virtual, you need electronics, so I would urge the group to look very early on if not it defines the objective, the creation of meaningful peer-to-peer support so that you use it in advance of going back to wherever you people live with their loved one, so that you already have it in place: You know the people, you know how to log onto the web, you know community chat rooms, you know expert counsel.

I mean, it's all available. There are private sector vendors who are building these out today in such areas as prevention and wellness, disease management, stress, and look right now at what is best to be practices in the civilian sector similar to our first panel who talked about we're not doing enough in the civilian sector about creating communities of support because whatever you learn in the curriculum will not be sustained unless you build in that community support, and kind of said it, but I just wanted to put an exclamation point behind it, because that's going to be very important, and at least some of us will be looking for that coming forward when we meet in April. I think it will be important.

MS. HELMICK: Thank you.

DR. POLAND: Okay, thank you very much. We're going to take a 15- minute break, and we'll reconvene at 3 o'clock. Just so you have an accurate agenda here, we'll talk about emergency blood transfusions, and then Colonel Hachey will talk about pandemic influenza. So we're going to

take the last part of tomorrow and move it to the last part of today.

(Recess)

DR. POLAND: We're running about 20, 25 minutes behind, so I want to keep us moving.

Our next speaker is our own Dr. David Walker from the Department of Pathology, University of Texas, Medical Branch, Galveston. Dr. Walker is the Chair of the Board's subcommittee addressing the question regarding emergency blood transfusions in the combat environment. And Dr. Walker will lead discussions on the subcommittee's findings and recommendations. His slides are under tab 6.

David.

SPEAKER: Hold on just a second. Turn on his mike.

DR. WALKER: So one of the questions besides the use of whole blood was the impact of this practice on the policies now for HIV testing. And so the 5FOE of combat operations have resulted in instances of blood collection under emergency

protocol and transfusion without complete FDA-approved testing. That is, the aligning up donors taking the blood and using it without being able to test them for HIV, HCV, and hepatitis B.

And so we were asked to review the issues associated with the collection and transfusion of the blood products under emergency conditions in a combat environment and to provide comments and recommendations regarding optimal strategies to minimize risks to the recipients.

So most of the transfusions that are given in Iraq and Afghanistan and theater come through a single blood trans-shipment center, and the center is the control point providing the blood and blood products in the area of responsibility, and they really have a pretty good coverage of being able to get the blood there twice a week of over 1,000 units. And it only meets their routine needs, but there have been -- I'm going to give you some more information about the number of times that they were given the transfusions. There's more up-to-date data.

But under the emergency conditions, they are sometimes being given with HIV test, this rapid test, but it's not FDA-approved for blood donation. And some donors are prescreened, that is to say the blood samples of their blood is sent to the United States for testing before blood products are given, so the serum can tell them whether they've got hepatitis C or HIV in some instances but not most of the time.

So this is a picture of the order of magnitude. This is a number of whole bloods, that is blood collected fresh and transfused there in Iraq and Afghanistan. And you can see that it ramped up and peaked in 2006, although this year isn't over, and this year it could well go above last year.

And this is the number of patients, so what we're talking about, usually here is the setting of massive transfusion, which is defined as ten or more units over a period of 24 hours. And so you've got a lot of blood going into a few hundred patients. So when service members come in

because the public law and the Department of Defense requirement, they really -- they have their blood drawn, their serum drawn, and there was no testing required but most of them really are tested for HIV. And the sample is collected within any year of deployment by regulation. So they're routinely tested, and I think that's about Ira Howar recommendations every two years, but not -- routinely tested for HIV, but not tested for hepatitis C.

They are screened for hepatitis B virus, immune status, and immunized when they come in, so hepatitis B really should not be a problem.

So there are two scenarios where emergency whole blood transfusions occur. One of the mass casualty events where local blood and blood products supply is exhausted and the state of the art that most people practice is that if you've got a massive transfusion need, you use (off mike) red blood cells, fresh frozen plasma, and that's the ones in which the factored are still at high enough level that they're not below

the level that you need for coagulation. And you would like to also give platelets, but getting platelets is a problem in the field because of the distance of transport and from the time it's collected.

So the other setting -- so that one, you know, you can image there's not much you can do about that. There's no blood, and so you have to draw it and use it or the patient dies.

The others are situations of mass severe trauma in which people are getting large number of transfusions, and the surgeon believes kind of almost on a mystical basis that fresh whole blood is better, that the patients are going to do better. And there's really not strong evidence to support that this enhances survival.

So the dilemma is that the Department of Defense has got to provide a safe blood supply, and there are going to be situations in which safe, absolutely safe is not attainable, and so while we can reduce the risks and that's our charge, we may never be able to get to completely

safe.

And we've got to provide the best care to the soldiers for this often incredibly severe trauma. And, historically, the military and wartime has given ups opportunities to learn new things about how to take care of wounds and to make things that actually translates into civilian -- better care of civilians as well.

A problem that we wrestle with, and I don't have the knowledge to deal with this -- hopefully, as a group we can come up with the right answers -- is that it's hard to collect data under the situation in which you're doing something in an emergency setting, all you can as fast as you can, and trying to keep up. And, of course, that would be the way progress would really be made would be scientifically to have the data and be able to analyze it. And we believe that we really ought to have valid evidence of benefit before subjecting patients to untested blood products risks.

So there are our tentative

recommendations, and they're certainly open to discussion and change, strengthening or modification. We recommend that we should limit emergency blood transfusion protocols, instances such as mass casualty events where the available FDA-licensed blood and blood products are exhausted.

And we also recommend that predeployment hepatitis C virus testing should be done to reduce the risk of blood transfusion-related infections, so the persons will know whether their hepatitis C virus infected or not and pose a risk if they donate the blood. And this will reduce hepatitis C risk in emergency transfusion cases, but we have to think a about the further implications of this and that it can actually cause the loss of some soldiers who may not have been in the Service long enough to where they can be, actually, dismissed from the Service because they've only between in six months or less. And this is found to exist. And there are other second and third order implications which those of you who understand and

know these can bring them up, and we can discuss as we consider the recommendation of this hepatitis C virus testing.

We also recommend that we review the current area of responsibility there in Iraq and Afghanistan of the blood supply logistic system. We believe that a more agile system is required that's able to meet mass casualty event needs. And we have stated that we wish to further investigate establishing blood collection and processing capability forward in the theater.

As a person who practices medicine in a resource-limited location, limited by state amount of funding, we have to decide what we're going to do and not do all the time. And although it's going to cost $10 million to set up a blood processing center, I was quite willing to (off mike) we can't do it. But luckily, we had some people there who understand what we're really doing is giving advice to the Department of Defense, and I think that's probably not the best advice. Thankfully, John Clements pointed that

out to us in a teleconference, and we may want to further strengthen that recommendation.

We also should review the current HIV interval and predeployment testing policy. The AFED had recommended every two years based on the assumption that there would be rare use of a walking blood bank; but that assumption is really not valid now, and so we need to consider what to do. And I would recommend predeployment testing of all of the blood, testing of all these soldiers yearly.

We also recommend that we repeat the Department of Defense hepatitis C virus sero incidence study. This is a study that shows not only that there is a low prevalence of infection with hepatitis C virus in the military but the incidence, that is, the number of new cases that occur over each one-year period is very low. And, but it's been a while since that was performed, and -- I think it was 2001, so it's been about six years, seven years -- and so we recommend that that be repeated to find out exactly what's the

situation now.

We also believe that the Department of Defense should partner with industry to develop new FDA-licensed rapid testing. It's a lot of money put into research. This is something that we should really try to push to see that it happens. HIV rapid test with acceptable sensitivity and specificity exists for FDA -- for testing patients for diagnosis, but not approved for blood collection. So there is one that might be evaluated.

And then the development of rapid hepatitis C, hepatitis B testing is needed. And I think this is something that's going to really turn out to be needed, for example, in a domestic mass casualty event where you don't have time to collect a lot of blood, send it off, get it tested and 24/48 hours later get the answers back as to whether the blood is safe or not.

We also recommend that that comprehensive look-back program so that those patients who have received transfusions that turn

out after the blood is sent to -- the donor sero is sent to the United States and it's found to be infected to find out what happens to the recipient. Did they become infected or not?

So just to reiterate that we believe that the use of untested fresh whole blood and blood products outside the established human subjects protected trauma protocol should be discontinued. It would be good if this novel trauma treatment approach could be evaluated under human subjects approved protocol even in a combat environment and perhaps a joint theater trauma team could lead the effort to improve data collection and evidence for these methods, particularly relating to the use of fresh whole blood and platelets.

So that's the end of our tentative presentation. We've got a draft of recommendations, but they're stated pretty clearly here, and I think we'll take your advice before we come back to you with a final --

DR. POLAND: Thank you, David, that was

a very nice look at this issue. Dr. Shamoo, you had question, and then Dr. Parkinson.

DR. SHAMOO: I don't have a question, I have a clarification, David. When blood is exhausted, we inherently said it's okay, the blood supply is exhausted. But the recommendation is we have to abandon it completely, which I think is inconsistent with the consensus we reached, that is, you're right when the blood is exhausted -- I mean not exhausted, is available. However what we commended which was a little different, and that is we suggest that even when the blood supply is exhausted that they do these, if possible, if humanly possible, under an approved protocol, so we could collect the data, see if there is evidence.

So I think that this is slightly different than the way the slide shows, that's all.

DR. WALKER: You're right. I agree.

DR. POLAND: Dr. Parkinson?

DR. PARKINSON: Thank you, David. It

would help me clarify in my mind of -- and again not being in the theater and not being a surgeon, and those are both variables -- other physicians, because ultimately the surgeon is there and responsible -- of the 5,000 instances that we're roughly aware of, do we have even a qualitative estimate of what proportion fits into what I would define as three buckets. In other words, are we answering the right question?

The first is, what proportion of the 5,000 was due to the fact that it was a true shortage of blood products, to Dr. Shamoo's first point?

The second proportion is, what proportion of the 5,000 was due to the logistical administrative challenges? Even if I had the products, is there a value seen in the rapidity with which you can administer that vice whole blood. So, a) I don't have it at all; b) I've got the components or whatever the things I'd like to do, you know, so that's another instance that I could essentially see of the 5,000.

And the third is kind of the surgeon sense of when I just have a gut feeling that whole blood's going to be better. So if we could parse those three out, then I think we can get into whether it's the randomized controlled trial of whole blood right on the spot versus everything else, which is the third category versus the second, which is just -- it's just kind of clunky to having to do the components, and I've got somebody with multiple trauma, you know, multiple limb injuries where it's just not there.

So is there any, in your analysis as you looked at this, was there any way to break out those 5,000 instances into some typology like that?

DR. WALKER: There was a lot of them given in Baghdad. A lot of these transfusions were given in Baghdad, and so that doesn't mean for sure that they have run out of blood, but it's much less likely that they would have run out of blood than when it was done in a more remote location.

So I think a good proportion of these are the surgeon's belief that the blood is better.

DR. PARKINSON: And if I can follow-up on that, have we got any opportunity to get -- and this almost sounds like an oxymoron -- a focus group of surgeons together to discuss this issue in gathering data, which is somewhat qualitative but, in other words, say why do we feel this way, guys? I mean -- or gals or whatever. I don't know.

SPEAKER: We did that.

DR. WALKER: I got my E.R. director and sat him down and talked to him about it, and he had heard these presentations by these people, and he was not convinced. And he's one of those real cut-and-slash guys. I mean I think he could have gone either way. but he was -- he did not believe that the data supported -- it was just hand-waving.

What were your other questions? You were asking --

COL GIBSON: The focus group exists, a

joint theater trauma team. They're the ones who've been advocates for this approach. They have, taking their data which is spotty, as you could full attest, you know, try to do this in a combat environment, and, as Dr. Walker says, they've presented it in various forum. And they -- the trauma surgeon community is not yet convinced that this is the right way to do.

We're not saying, as you know, that combat casualties has led to major paradigm shifts in trauma care across the United States, historically, for years and years and years. What I'm saying, this isn't, you know, the right way to go; it's just that there's not enough evidence yet, and we need to collect the data correctly so they can validate it.

DR. POLAND: Dr. Oxman?

DR. OXMAN: Two questions. First of all, if you had predeployment data, are we convinced that it would be available when in a urgent situation volunteers were asked to give blood? In other words, would it be available,

would the data be available, reliably in the field if we knew somebody was HCV-positive before they were deployed?

COL GIBSON: I was the one who was supposed to talk about third -- second and third order of facts of these data collections. That's part of it.

If we do this very close to deployment, given the sensitivity specificity of the available tests and all the other information, it's very likely that we're going to be calling people back that are already in Iraq to find out -- to get them retested to find out what their test results were because there's still some question on those data, on the -- with respect to that test.

We have to have a system in place to notify that individual of his status so that he doesn't come forward to donate. We have to have some sort of logistics system to make that data available in theater in case they do come forward.

We have to consider the second order of facts of what happens according to the study that

we did on sero incidents and prevalence of HCV in the military community back in 2001. And, Bob, correct me if I'm wrong, if something like 80 percent of those folks who are positive are over 30 years of age, you've got a cohort issue here to deal with that would impact the reserve community in greater -- to a greater extent than the typical active-duty community. What does that do to their military retention? I'm not sure, but it's very -- it's possible that they may no be able to remain on reserve status with an HCV- positive test. I'm not sure.

Certainly, the young airmen -- or, excuse me -- young soldier who's in that EPTS window, who is identified as HCV-positive is disqualified for military service.

SPEAKER: He is.

DR. OXMAN: The other half of that, if it were decided to do it, the DoD already has superb, rapid turnaround PCR, which is the, you know, done right is more sensitive than the serologic tests for HCV, and certainly at least as

sensitive for done right for HIV. And that could be utilized routinely predeployment.

SPEAKER: Right.

COL McRAE: This is Colonel McRae, Internal Medicine consultant of the Army. Just to complete the thought about the study that was published in 2001, actually it was based on data on service members who were on active duty or in the Reserves in 1997. And that data suggested that of the cases 85 percent would actually be age 35 and older, and that's what led to the policy, DoD's policy not to do forthright screening but to offer screening to service members age 35 and older who were separating from the Service.

Just thinking about the implications, if those prevalences hold true today, it would -- and again you sense the age group skews a little bit older in the Reserve components, it would have a little bit more impact on the Reserves. But we were thinking you're talking age 35 and older, those are your senior NCOs and officers that would be predominantly affected, 85 percent of them.

Now, whether that's true 10 years later I don't know, but I don't have any reason to think it would be that much different, but who knows? I mean, the study does need to be repeated.

But thinking through the implications of this screening, it's interesting because I think this would be the only screening program that we would do if we were to do it. That would actually not be done to protect the individual but his potential implications to transmit it, and so there's some personal implications to the, you know, what do we do with that soldier? You would need a workup.

Right now, hepatitis C positivity, per se, is not -- it does not preclude you from staying on active duty, and we don't screen soldiers for hepatitis C upon accession. It's not an accession requirement. So one would think that one might, you know, think about starting a program of HCV screening that would mimic or parallel the HIV program. That would make -- that would have some appeal to that since we've trod

the ground. But again, I think that the philosophy would be a little but different than the HIV program in the sense that it's done to protect t he individual as much as it is to protect those who might come in contact with it.

COL GARDNER: A couple of questions. Is there any policy that, when urgent transfusion is done in the field that the blood is retro- -- samples retrospectively saved, or not ret -- saved for subsequent testing, and what have we found of that?

DR. WALKER: Yeah, the blood is -- the blood is sent back to the United States and tested.

COL GARDNER: And have they found --

DR. WALKER: They have found that they transfused HIV-positive blood on at least one occasion, and hepatitis C-infected blood on about six occasions. It doesn't have to be only transfusion, I mean it is actually transmissions.

COL GARDNER: If that were done rapidly -- if that were done rapidly, it seems to me you

could treat almost the HIV like a needle stick or hepatitis B with immunoglobulin. There's some things you would do acutely, therapeutically, for a recipient of blood that received either of those, so I think that -- that should become a policy part of the protocol that a rapidly -- a rapid assessment be done on all the blood that is given in the field.

I can't imagine, it seems to me we have to be sure, as sure as we can, that this blood is free of HIV, hep B, and hep C. And so it seems to me a policy needs to be established. I would hope that everybody who goes to the field would be willing to volunteer to be a donor under certain circumstances. And that, if they're going to be on the volunteer list, they would get a -- they would get their blood tested before they were allowed to actually transfuse acutely. That might be a way out, but I think that's the only policy I can look at that would really stand up under the glare of scrutiny.

COL GIBSON: Let me add to that. If all

of them are volunteers, then you've effectively put in a policy for HCV and HIV testing. We looked at one of the concepts of this whole thing was, can you establish a cohort, a smaller cohort of volunteers? The problem is small units, geographically separated, moving around, when you need it -- they may not need in location where you can use them.

SPEAKER: It's not so --

COL GARDNER: I thought maybe you could clarify for me, Roger, I thought you said that if an accession for someone to have the hep C positive in the first few months, they were not allowed to join the Service. But didn't I hear over here that -- I thought I heard something different over here.

COL GIBSON: But we do not test for hepatitis C or hepatitis in general as part of entrance into the military; however, if an individual has hepatitis within the six months of active duty, then that individual has to be -- it is conceived that he had hepatitis before -- it

existed prior to service, and then he's disqualified from serving.

The rub comes in, the Catch 22 comes in in the fact that we do blood collection. A lot of our blood is collected that we use in various locations at our basic training centers. They're encouraged to donate blood. They get about, oh, what, two or three hours off of downtime. They get cookies and orange juice, so they go over and they donate, and then they find out that they're hepatitis C positive, and --

COL GARDNER: You're screwed.

COL GIBSON: -- you know, two weeks later they're out of the military.

COL GARDNER: But they don't get the choice with HIV, right?

DR. McNEILL: No, that's right.

COL GIBSON: I'm sorry, say again?

COL GARDNER: For HIV it happens automatically.

COL GIBSON: HIV is a disqualifying --

COL GARDNER: And for hep B, I thought.

It's a --

COL GIBSON: Hepatitis B is not a disqualifying factor. We deal --

COL GARDNER: Even if --

COL GIBSON: -- screening and immunized for hepatitis B at training centers.

COL GARDNER: What if someone is actually antigen, E-antigen positive for hepatitis E?

DR. OXMAN: It would be H-bag positive. H-bag. Hepatitis B antigen- positive.

COL GARDNER: Yeah.

COL GIBSON: So if he's hepatitis B antigen-positive, I believe -- I'd have to doublecheck -- but I believe that he's then disqualified for Service.

COL GARDNER: No, I don't think so.

COL GIBSON: So what we're testing for, though, is antibodies. We don't test for antigen. And we immunize based on antibodies.

SPEAKER: Surface antibodies.

COL GIBSON: Surface antibodies.

DR. POLAND: Screening not for infection but for the presence of immunity to know whether to give vaccine.

Okay, Dr. Clements, and then there's some others after that.

DR. CLEMENTS: Dr. Clements. So we're really dealing with kind of multiple issues here, and you've got the blood supply that comes in twice a week from Qatar, that's safe. That's fully screened. That goes into the level 3 trauma units. It goes into Baghdad, it goes into Balad. You got the level 2 trauma units, the level 2 units out, and your battalion aid stations, they don't have -- they have some blood on hand that's been screened, but in a mass casualty they're going to go through that very, very quickly. And then, so they may have to turn around and start bleeding the troops in order to get that.

But the troops that are back at level 3 are the troops that give -- evacuated back to level 3 units, there's usually blood back there. And when there's not blood back there, then

sometimes they've actually set up their own little walking blood supply so they have volunteers. So in case of a mass casualty event, then they know who they can bleed, and they can process it.

The problem is that that blood is not screened for infectious diseases either. They take samples of that, and they send that back to CONVUS, and it may or may not be screened, or if it is, it's going to be screened after the fact, and that information may never catch up with the individual that got the transfusion.

So one of our recommendations was actually to establish a regular blood center in theater. You could put that in Balad, you could put that in Baghdad, and at least when you have a local blood supply, you'd have access to all of the FDA-approved processes and procedures that would ensure that.

And also, speaking as an old Marine supply officer, I'll tell you that the closer you are to the pointy end of the spear with your logistics, the better off you are, so that you

have a real possibility, then, because if you had pack cells and whole frozen, fresh material on hand in Balad or on hand in Baghdad, you're only 30 minutes to 45 minutes away from a level 2 station. So you can do something to effect that supply if those are a presence in theater.

So one of our recommendations is to establish a blood center in theater, and that was the comment that David made earlier. My recommendation was, though, that we change the language, because the languages we have at right analysis further investigate establishing a blood collection and processing capability forward. I would take out the further investigate and must make the recommendation that we establish a center forward.

And the question came up, well, won't that cost $10 million. and my response was, "I don't care."

DR. WALKER: I would agree with that. I'd like to point out one more reason why it's important. It's the platelets. It's the ability

to do platelet phoresis and process tests and have safe platelets.

I think the problem we have -- I can't imagine they have enough platelets there to do what they need to do now.

DR. POLAND: Dr. Oxman and then Dr. Shamoo.

DR. OXMAN: I think it's important in talking about a new principle that you would be screening for HCV to protect someone else. There has been rapid evolution in the treatment of HCV, and you have the same reasons for screening somebody for HCV as you do for HIV.

SPEAKER: Um-hmm.

DR. OXMAN: In other words, there are appropriate therapies that would improve survival, long-term survival of those individuals. So I don't think that's an issue.

DR. POLAND: Dr. Shamoo?

DR. SHAMOO: Just one more additional information. My understanding, David, of the data of what number of HIV and HCV they had was

haphazard. This is not the accurate numbers, one and six. This is -- some of them turn out to be one this way and six another way. So you don't have the data at true percentage, or the number of people with infection. Isn't that -- that was my understanding, Colonel Rogers.

COL GIBSON: The -- because we in some cases, is this blood has been given without identification of --

DR. SHAMOO: That's right.

COL GIBSON: So those numbers are incomplete.

DR. SHAMOO: That's correct.

COL GIBSON: Those are the ones we now about. Market -- or surprisingly, though, if you take the, particularly with HIV, you take the probability predictions based on what we know about HIV infections among, actually, deployed folks. It comes out to about the same number.

DR. SHAMOO: That's okay, yeah, but that's different. Wait, I have an additional comment, and that is trauma surgeons, not all of

them are unanimous. But the blood, whole blood, is the best approach. So there is even that kind of data we have to be aware of.

DR. POLAND: Pierce, did you have a comment?

COL GARDNER: I was just going to say we have to take into the possibility that the surgeon might be right and that -- and so the protocol should certainly involve a way to settle this issue as best we can. A lot of times surgeons have ideas that they don't subject to real science, but it turns out to be their hunch is better.

So we don't know. We don't know the answer, but this ought to allow us, if we organize it right, to settle it.

DR. POLAND: I realize the numbers are much different, but I wonder if either our Canadian or maybe -- did we lose our U.K. liaison? -- what their policies are.

CDR SLAVIN-WHITE: I'd have to check to be certain, but one, we don't have HIV testing or

HCV testing as a basic point. So for joining our military or on any basis in regular terms, we're not testing for HIV or HCV.

Now, in theater, we have worked with our Canadian blood service, and in Canada we don't have a military blood service, per se. It's all nation-led, and the problems of Quebec has its own blood service. And we have worked at establishing blood testing and blood collection in theater and I just -- I don't know all of those specifics, but we did work on having small pools, as you were mentioning, small pools of voluntary donors who would agree to testing before deployment, and then again the specifics of the testing in theater, I'd have to get back to you on.

But that was our approach, and just as a second aside, our trauma surgeons at a recent conference were speaking rather positively, but again anecdotally, on the fact that in several cases they thought that the fresh whole blood may have been lifesaving in one or two massively injured casualties. And they probably would not

want to be precluded from making a decision on use of whole blood even if it were not screened to regular Canadian standards, if they believed that it might be lifesaving.

And the presence -- very last point -- the presence of HIV positivity in a serving member is not a reason for exclusion or loss of time in the military. You may serve, but, of course, we'd apply some restrictions and limitations. But we tend to look at some of these conditions as chronic conditions, and if a trained person can continue to serve for five years, eight years what have you, and still serve the country well, it would not be automatically disqualifying.

So there's some cultural and specific --

DR. POLAND: Let's -- we have a surgeon that is waiting to speak, so --

DR. WADE: My name's Dave Wade, and I am a surgeon, at least I used to be. And just I gathered from hearing the comments, it sounded like pathologists in preventive medicine specialists are sort of heavily represented in

this crowd, and I would echo what the commander just said, that when you talk to the surgical community. they're not necessarily 100 percent unanimous, but they're pretty warm on the fact that this whole blood transfusion has something to it.

And so I would encourage you to try to, as party deliberations, to reach out. I know Roger and we are working on some things to try to get (off mike) subcommittee involved in that sort of activity. But there are folks that are involved in that. And when you read some of these papers in the surgical literature as to who's who of American surgery for trauma, that's the authors on these papers. So you need to take that a little bit, you know, in your calculus of how you make these decisions.

DR. POLAND: And yet still, I mean caution. It is a fruitless endeavor to assign particularly good predictive powers to anybody. And just look at last week's JAMA, and counter to everybody's intuition antibacterials are not

helpful in acute sinusitis, for example.

So you really have to do these things until you know -- I don't have a problem with somebody exam- -- you know, trying different things and examining the data, but it has to be done to the extent possible under conditions that allow you to make a reasoned decision.

We've still got a lot of hands up. The two Mikes, and then back over to David.

DR. OXMAN: Just a point. If the risk in massive trauma in the field of acquiring HIV is one in a thousand, there are many other corners that are cut that are necessary for survival which greatly increase bacterial infections. And I think if you're really looking at this, you've got to look at the cost benefit analysis as a whole, and it may be that the corner- cutting on transfusions, if it's that low an incidence of infection, that may be very unimportant relative to many other necessary corner-cuts that reduce long-term survival.

So before making the big issue of that,

I think you really have to look at it in a broader perspective.

DR. PARKINSON: I want to come back to Bob Dufrates. Whenever I think I know something, I listen -- I really do listen to Colonel Dufrates, and he generally puts thing in a way that I think it would be a landmark mistake for us to concurrently institute anything related to HCV screening which has -- violates as best I could tell -- some of the core principles of screening in that there's little or no benefit of persons screened, and a theoretical benefit at best.

I mean, if the person is actively in a case of hepatitis is one thing. And then you treat them with globulins and other types of things, and even then the course is like, yeah. But to find the average is HCV positive at any age on the theoretical notion that at some time they'll be in theater, even in predeployment because that person might come up and be one in the 6,000 that comes up and we're not really quite sure whether or not it's better given, you know,

one-on-one case studies that people feel it's better, the energy to this Board should be devoted to getting the study done and helping -- wrapping our warm arms around the surgeons and saying, What would it take to get this study done?

The good news is that -- the bad news/good news is that the level of trauma that we've seen allows -- let's hope it doesn't occur at the rate it has, but if it does, we've got a rapid accumulation of cases, and if we could really apply ourselves as systematically to the issue of collecting the data and designing a good enough study, let's help them.

So that the more I think this through is concurrently instituting HCVd screening before we've absolutely ut 95 percent of our efforts into doing the study in theater to randomize sites, to randomize cases, to go on with trauma scores and do it right, even to the point of putting in an infield blood bank for $10 million, let's take whatever resources we have and (off mike) the Board to help to find the issue.

This is the essence of where the military excels in the unique environment. But we've got to commit to that in a prioritized fashion, not a concurrent fashion. And the ethics of screening around this -- and again I don't want to use the "epic" word lightly, but I got to dig up my four principles of a good screening program and I'm not sure this meets it, globally, even if we say the military's a little different and wartime is different, particularly when we could devote our resources perhaps strategically to help the real issue, is what you mentioned earlier, Greg.

DR. POLAND: David and then Mark.

DR. WALKER: Yeah, I got three, three points. One, Dr. Oxman, I think the government defense has a policy of not using non-FDA-approved products, and transfusion of blood that was not properly tested would not be FDA-approved product.

In emergency situation in which there was no other blood available, of course, that would be waived.

And, Mike, I think that I agree with you, and I point out that if we establish a blood processing center point blank in theater, then you don't need to do the HCV screening on everybody. I mean, it's -- the idea of doing both of those is unnecessary. If we decide to recommend and have the ability to test the blood in theater, then we won't need to screen for HCV.

And I wanted to ask the question about the screening of some donors for hepatitis C prior to their NHIV prior to their being used as donors. Is that blood sent back to the United States and tested by an FDA-approved method, because I know there have been rapid testing using some kits that were bought from a European source that's not FDA-approved for testing for hepatitis C virum and hepatitis B virus, that were woefully insensitive. I think the positive predictive value was about 20 percent.

CDR SCHWARTZ: I will need to get back to you on that to be certain, but I do know that we developed our blood-testing in concert to meet

Canadian blood services standards. But I'll see if I can get that information before we close tomorrow. If not, I'll relay that back.

DR. POLAND: Neil?

MR. NATO: Yes, thanks. Neil Nato, Bureau of Medicine and Surgery. The issue is actually very, as we've all heard, very complicated. And so I've had a lot of -- actually the chip and pig (?) has had a lot of discussions with the Armed Forces blood program personnel. And so, you know, I think it would be good if we all talked with the subcommittee on this issue before these recommendations come out, because there are several issues.

In regards to -- I mean, from my perspective I think the HIV strategy right now is fine because our incidence is very low. And although it's not approved for screen of blood, the rapid HIV test is being used, and so that's at the point of transfusion for these whole blood transfusions, so that helps out a lot in that regards.

And then also, I mean just the population in the military is heavily screened because, you know, we do screen for drugs and other things, and people who misbehave who have those risk factors are also administratively separated from the military.

So I would agree that the HIV testing scheme is fine as it now, and then based on the data, I think maybe one HIV blood-tainted unit may be so. But I think the key thing is basically the look-back program. I mean, I think it should be treated as a like a meal stick.

And, unfortunately, that's where things break down, so if you're using this whole blood, you know, you should screen it, and then you should, you know, capture and send it back, and you could -- although again it's not FDA-approved test for this purpose but again the more quick is very good, and you could test then, and get the answer and then decide if you want to give HIV prophylaxis. And then the other ones, the incidence I think is low enough, based on a

current procedures that I wouldn't be for testing the HCD or H -- or hepatitis B before they go on deployment to SANCAL.

COL CLARK: Colonel Stan Clark, Army Surgeon General's Office. I just wanted to make a couple comments on reference to look-back. There has been an aggressive initiative to go back and identify and inform the individuals who may have received a non-FDA approved unit of blood which was collected in theater, and they've been very successful at finding those individuals. And then there is a set FDA protocol that testing at 036 12 months out, various tests that may be transmitted through an infected unit, whatever that disease agent may be.

But also, I just wanted to point out, and I'm going to point out, probably, what's obvious, but I just want to remind people that you will never drive this risk to zero with predeployment testing. The only way to really drive it as close to zero as you can is to test the unit of blood with some sort of

highly-effective test at the moment you're drawing the blood from the donor.

You could -- you know, you could test me today. I could have risky behavior tonight, I could deploy tomorrow and donate a unit of blood, and someone else would get infected. And that certainly can apply where we're sending thousands of soldiers back and forth every year, every month, and that same sort of situation would apply. And, oh, by the way, they do go over there, and then they come back for R&R halfway through, and who knows what happens during their R&R period, their rest and recuperation when they come back to visit.

So, you know, without totally controlling what they do, it's going to be impossible to make this risk zero. And then you have to ask yourself, what level of risk are we willing to accept? With the HIV having -- a HIV test drawn or predeployment serum drawn one year before deployment or having an HIV test done every two years, we've sort of gotten that ingrained

into our procedures. But I would urge everybody to be very cautious we start a whole other program with another disease that we wanted to screen for, especially when there's some question as to, you know, validity and how well we can do the screening and how prevalent it is.

To do the large screening program for disease that's low-prevalent in our population runs a lot of epidemiological situations that I don't need to get into with this group, obviously, because you know that.

So just a word of caution we run down a road that we didn't realize we didn't want to go to Abilene, but we're going to be there.

DR. POLAND: Okay. I think we'll move on. I think the consens- -- oh, Mark, did you have another comment?

DR. MILLER: I just wanted to try to get a point of clarification about the military policy in general in terms of the distinction of hepatitis B carriers state, and which is hepatitis B is about two orders of magnitude more

transmissible than at least HIV. Why is thee a distinction between HIV, hepatitis B carrier state, and hepatitis B? For historical purposes, is that still relevant?

COL GIBSON: The train of thought, if you will -- first of all, there's no vaccine for hepatitis -- or for HIV; there is one for hepatitis B, in fact, quite effective vaccine. The Department made a decision that a sessions would have -- would be either immunized for hepatitis B and/or tested. If they have antibodies to hepatitis B, it indicates that they're immune, therefore we would not give them vaccine.

So it was a cost-saving measure, but the whole issue was policy said we will immunize for hepatitis B, ensure immunity. That's why we went down this track. It goes to the possibility of a blood contamination during military service.

Your points are very well taken with respect to hep C versus hep B and with respect to transmission. We do have an effective vaccine.

The other things is we believe that because hepatitis B vaccine has been instituted in a pediatric setting in this country for some years now, the number of our population would soon reach a point where they're already immune, and we would not be able -- basically, we'd screen them and we wouldn't be immunizing very many at all.

We did some early work on that, and it looks like about 40 -- when we implemented the program in 2002, it was about 40 percent that were immune and we're a little higher than that now. So the issue was immunity to hepatitis B as part of a program.

DR. POLAND: Okay, it sounds like there's some controversy about the recommendations, and a recommendation made by one of the members that -- or, actually. Was it over here? -- that there's a working group that's looking at blood transfusions beyond our own? Is that right, or conversations that are occurring?

MR. NATO: The Armed Forces blood program?

DR. POLAND: Yes. Push the button.

MR. NATO: The Armed Forces blood program and then joint preventive medicine group had been discussing this back and forth a lot.

DR. POLAND: So I think I heard the recommendation that there be some -- perhaps it's a work group meeting or discussion with that group in order to further clarify your recommendations, and then we'll bring them back to the Board.

Okay, our final speaker for today is -- where is he? -- there he is -- Dr. Wayne Hachey, who will update us on pandemic influenza preparations.

While he's going up there, some of you may have seen that there's concern that there might have been a human-to-human transmission of H5N1 in China, which would be of great concern, but who knows? It's hard to verify those things, and it's an ongoing investigation.

DR. HACHEY: I'd like to thank the Board for allowing me to provide another update on our pandemic influenza preparation endeavors. So the

agenda for this afternoon will be giving you an update of the current status of H5N1 to include an update on antivirals, particularly with resistance. The current draft of the national plan, the draft that DoD antiviral plan, some modeling efforts both in regards to vaccines and antivirals.

DR. POLAND: Dr. Hachey's slides are under tab 12.

DR. HACHEY: This is one of a number of slides that I have blatantly stolen from the CDC, and this just describes where H5N1 has been around with a global perspective. And all the little green dots represent where we've seen disease in birds and, more importantly, the purple dots are where we've seen disease in people this year. Of note there's a lot of purple in Indonesia and in Egypt, and we will be talking about those two countries in particular and why they're a bit different.

This is the hit list for this year. These are all the countries, numbering 25, that

have had confirmed H5N1 activity in poultry and wild birds for this year alone. And the majority of the activity has been in poultry, as we'll see.

This next slide, series 6, gives you a little glimpse of the year in birds for H5N1 activity for 2007. So in January we saw a number of countries with disease primarily in poultry, and -- that's not supposed to happen, this may be a short slide. In February, we saw disease in the U.K. and Kuwait first reporting disease in poultry, previously reporting disease in wild birds. And then again a number of other countries with poultry outbreaks.

And the slide is not building the way it was sent, so to summarize the slide, lots of disease in poultry, now up to 60 countries all told, with a few cases of disease in wild birds. And one of the areas specifically with wild bird infections as opposed to poultry infections has been Germany where there's been three distinct H5 strains identified. Two out of the three have been linked with wild bird migration from Russia.

But the overwhelming majority of the cases have been primarily in poultry populations.

Each one of these is supposed to disappear as the new one presented. Well, more importantly, where is the disease in people? And there are two hot spots remain Indonesia and Egypt, and, as you can see between the number of cases and deaths, you'd much rather be in Egypt with a drastically lower mortality rate. And this may be due to the Clade may be doing -- may have more to do with what those countries are doing as far as mitigation efforts.

So in Indonesia, Indonesia remains the hot spot with the highest number of new cases for 2007, and it's essentially the sole source of cases of Clayd 2.1 disease. The government of Indonesia continues to refuse to share samples with the rest of the world, although they've recently engaged in the Southeast Asia influenza clinical research network, which may facilitate some sharing.

Their mitigation measures also continue

to be hampered for a number of reasons, but one of the big reasons is their decentralized government and decentralized public health system.

In contrast, Egypt has the second-highest case rate. Instead of Clayd 2.1 they are 2.2, and they have the lowest mortality rate of any of the regions. And, now, in contrast with Indonesia, they have a very effective control measures in place. They have impediment plan that really serves as a model for the area. They've begun to exercise their plan. They also have an extensive communications program that facilitates early recognition and treatment with subsequently improved survival.

They notice that most of their cases were kids, so what they did is they had their PR program geared towards parents saying, If your kids play with dead chickens, and they develop flu symptoms run, don't walk, to your nearest health care facility. And, in fact, referral patterns are being seen with referrals to medical treatment facilities well before 48 hours, in some cases

before 24 hours of the onset of symptoms.

They've also effectively addressed backyard poultry without changing cultural practices. If you take a look at the hieroglyphics in Egypt, you see backyard poultry, so this is something that's been going on for thousands and thousands of years and isn't going to change. So the way they've addressed it is they're vaccinating the chicks before they're sold into the backyard poultry market and have been somewhat effective as far as reducing the burden of disease in their poultry population.

So overall, in 2007 for human cases was not a bad year, particularly compared to 2006. We still have a substantial mortality rate. Today's total now for total number of cases is 337 with 207 fatalities, and actually, it turns out that the suspected case of human teaming transmission in China did turn out to be a communal meal between father and son with some diseased chicken. But there's a new possible person-to- person transmission now in the Northwest Frontier

Province in Pakistan. So there's still hope for the virus.

Moving on to antivirus, and with antivirus what I'd like to do is talk to you a little bit about current resistance -- and again, this data was again blatantly stolen from the CDC -- but this slide depicts Ademantane resistance among the H5N1 viruses, and it differs between Clade and sub-Clade. So for Clade 1, and for that matter Clade 2.1, pretty much you have total resistance to the Ademantanes, whereas Clade 2.2 and 2.3 resistance is minimal, at least at this time.

Moving to neurominidase resistance using the Japanese data with seasonal flu represents about eight percent of the samples tested, and now there are two primary mutations responsible for neurominidase resistance. The first, the H-274Y, confers almost complete resistance to oseltamivir. The good news is that you have decreasant activity with that particular mutation. So it's really unpleasant if you are the individual with that,

but it's nice to be standing next to him.

On the other hand, a second mutation, the N295S seen primarily from samples out of Egypt is consistent with reduced susceptibility, so you can still get by with just increasing the oseltamivir dose. One problem with monitoring for neurominidase resistance, particularly in vitro, is that we're really uncertain of the clinical significance of in reaching resistance against neurominidases as via molecular markers are not all that well defined yet.

But we do know that there are differences in neurominidase inhibition susceptibility among H5 isolates. So, for example, Clade 1 is sixfold more sensitive to neurominidases than seasonal flu as far as an H1N1, which is three to fivefolds more sensitive than a number of the Clade 2 viruses. So we'll just have to wait and see what the particular susceptibility will be when the pandemic actually starts.

There are also two new novel mutations,

one identified in human samples and another in andean (?) samples. And the bad news about these is potential resistance depending on the sub-Clade to oseltamivirs and amavir and paramavir. But then we really want to know, though, is will oseltamivir work if your god- awful sick?

And this one study I just published this month from Canada looked at hospitalized folks with laboratory-confirmed influenza. about 300 adults, median age of 77, about half were male, 75 percent had chronic underlying disease. Most, about 60 percent, presented to the E.R. within 48 hours of symptoms, and they were reasonably ill. Sixteen percent ended up in the ICU, eight percent died. Just about everybody received antibacterial therapy, and 32 percent received oseltamivir. And the reassuring finding was the treatment with oseltamivir was associated with a significant reduction in mortality with an odds ratio of 0.21, which reassure in confidence intervals.

Which leads us to the new draft national antiviral strategies, and the new strategy

proposes an increase in the national stockpile up to 200 million treatment courses. Now, currently, the target is 81 million, and against the 81 million the national stockpile now holds 37 million treatment courses. It also proposes outbreak prophylaxis for a certain high-risk health care settings and for first responders, and starts to initiate a strategy which includes household postexposure prophylaxis.

This is now in the public stakeholder engagement process, so it'll be a few months at least before we know whether this turn out to be the true national policy or not. Even if it is adopted, it's going to take a while. U.S. production capacity is about 80 million treatment courses a year, so, if adopted, it'll take a few years to meet this goal.

The draft DoD policy addendum for antivirals somewhat mimics the national policy. It increases the oseltamivir stockpile to -- actually, it's a little closer to five million treatment courses. It establishes local

stockpiles to equal 30 percent of the population at risk for each geographic CoCOM. So that gives combatant commanders an off-the-shelf robust supply of antivirals for more immediate use while waiting for the strategic stockpile that DoD holds to get to their locales.

It also initiates a postexposure prophylaxis mitigation strategy while maintaining treatment and selected outbreak or operational prophylaxis strategies.

Moving on to modeling efforts, we started modeling, asking the question, where should we be spending our excess money in the short term? We have funding for either antivirals vaccine or a combination of both, and the question is, where are we going to get that, essentially, the biggest bang for our buck, given the current state of science?

But first of all, just looking at NIH-sponsored modeling efforts, they indicate that being a household member containing in influenza cases the largest single risk factor for being

infected, which really shouldn't be an epiphany. But what was surprising is that antiviral postexposure prophylaxis of household of contacts may be effective in reducing attack rates by a third, and peak attack rates by 50 percent. But as we saw, it does require a rather robust supply.

Unless treatment can be initiated by Day One, there's really little impact on community infection rates if use the treatment-only strategy. Added onto that, you can get some logistic effect on nonpharmacologic interventions. Alone may reduce the attack rate by half to a third. So if you start out at that baseline, then your antivirals have a much better chance of being effective, and you have a lot more antivirus to go around in adapting a postexposure prophylaxis strategy.

Which leads us to some of the DoD modeling efforts, and the first question we had is, well, just how cost-effective will vaccines be? And we had a detro-model sum for us, and what they did is they addressed the impact by their

zero percent rate of vaccination versus 100 percent vaccination rate using a 30 percent attack rate in a vaccine with 30 percent effectiveness. And they found that if you happened to be in a rural installation, you get about 32 percent infected vaccinating no one, and 17 percent infected if you can vaccinate 100 percent.

Unfortunately, the reality is that it's unlikely we'll ever be able to vaccinate 100 percent with the current prepandemic vaccine.

Shifting to an urban installation, 28 percent were infected with antivaccine, and 15 percent with 100 percent immunization. And this can actually lock the gates and keep everybody inside and not allow anybody from the community inside a no-term installation, which is probably not reality-based unless you're on a submarine or an island. Then you can lower those rates even further.

The one thing that was not terribly reassuring is that there's no herd immunity. Essentially, the folks who are vaccinated are the

folks who have the -- the only folks who have the potential of being protected.

We then took some of DTRA more simple formulas and applied that to some modeling on our own, and what -- we didn't set up zero 100 percent vaccination rates. We had variable vaccination rates with variable attack rates and variable vaccine effectiveness. So we used attack rates of 30, 10, and 20 percent. Thirty percent, we felt, was a reasonable guesstimate of an unmitigated pandemic where no community mitigation efforts were implemented, 20 percent being consistent with effective but not wonderful results from your community mitigation measures, and then 10 percent more consistent with some of the projections with early implementation of those nonpharmacological measures.

Percent being a generous swag at an unmatched unadjuvented vaccine, 50 it's essentially Christmas in July, our current unadjuvented vaccine is a perfect match with the pandemic strain, and then 80 percent consistent

with some of the projections of what one might see with an adjuvented vaccine.

So this gives you an idea of what the slope of the reduction in attack rate might look like. Just for illustrative purposes we used a population of 4 million, a 20 percent attack rate, and 50 percent vaccine effectiveness. You can see that the percent infected does go down but not really a terribly dramatic decrease. Whereas if we change that to a vaccine that has an 80 percent effectiveness, for example like the current adjuvented vaccines are proposed to do, you can see that you get a much bigger bang for your buck, that the slope of that curve as far as the reduction and the percent infected is much more dramatic and really offers a much more viable for self-protection measure.

Overall, this one chart looks at the decrease in the percent infected for every 20 percent vaccinated, and if attack rates decrease, so does the number of cases prevented with vaccine. So the worse the pandemic is, the bigger

bang you get for your buck with your vaccine. Then of course, as vaccine effectiveness increases, you get a greater reduction in the percent infected.

Looking at some of the slopes of proportion infected with increasing the percentage in those who are vaccinated with variable attack rates you can see here in green that if you drive the attack rate down to 10 percent with very effective nonpharmacologic measures but have a vaccine that is probably consistent with what we have right now that the slopes are pretty flat and especially at 10 percent. And even at 30 percent, it is not really a dramatic decrease as far as the proportion infected decreasing.

Bumping up to 50 percent with the higher attack rates you get a little better return from your investment. Still at a 10 percent arrack rate if we're doing everything right, that slope is still kind of flat. Whereas if we have an effective vaccine, again a much more dramatic decrease as far as the projected yield you are

going to get from your vaccine even as you approach 100 percent.

Which leads us to antiviral modeling. From the vaccine modeling it looked like we might be better off waiting until there is a better vaccine available and then putting our resources toward vaccine procurement rather than continuing to purchase a vaccine with limited effectiveness. The question is then can we get a substantial response from our investment going antivirals. We did a couple of things. We did some very basic modeling using projected impacts on a variety of strategies on the DOD population. We then explored a number of existing models and then used one of those models, actually one developed for the Australian government, in plugging in some DOD data. The universal findings were treatment alone will not help the pandemic, and postexposure prophylaxis will probably blunt a pandemic and may actually stop it if you can combine that with effective nonpharmacologic measures.

This gives you an idea of what it will

cost in antivirals for the number of infected. We have treatment alone, nonpharmacologic interventions and treatment, postexposure prophylaxis, treatment without employing nonpharmacologic measures, and then clearly the best yield as far as reducing the number of infected would be combining nonpharmacologic interventions, treatment, and postexposure prophylaxis with just a modest increase in the amount of antivirals that would be required. Looking at exactly what those numbers would look like, these are estimates based on a presumed population of 4.7 million which is consistent with the number we have enrolled in Tricare Prime at the current time. You can see for a modest requirement that combined therapy gives you a substantial reduction in the number of infected while still having a number of antiviral courses available for outbreak prophylaxis.

This slide addresses some modeling we did again using the model developed for the Australian Department of Health. This defines the

population as either being susceptible, exposed, infectious, or removed, removed being either immune or dead. We then took out the Australian population demographics and stuck in ours, a population of 4.7 million. We examined variable infectivity with effective reproduction numbers of 1.2 to 2.4. We also looked at the variables of 30, 50, or 80 percent being provided postexposure prophylaxis. And then as a baseline, treated 80 percent of those who were infected. With an unmitigated pandemic with an effective reproduction number of 1.2, the pandemic peaks at about 10 months and this curve represents the number of infected at any one point in time. At 10 months you can expect about 50,000 people to be infected at that one point in time, so the total number is the area under the curve.

If you have a more severe pandemic, the curve is a little shaper, it peaks earlier, but it is peaking at about 80,000 cases. When we add postexposure prophylaxis, however, with again an effective reproduction number of 1.2, even with 30

percent of the contacts receiving postexposure prophylaxis, we can essentially stop the pandemic when combined with nonpharmacologic interventions. And instead of dealing with peak infection rates in the tens of thousands, here we are at about 600. With a more severe pandemic with effective reproduction numbers at 2.4, treating 30 percent of the contacts with postexposure prophylaxis does not stop the pandemic, but with 50 and 80 percent of the contacts receiving postexposure prophylaxis, the pandemic again is stopped. Of note is the peak number of cases, again well below the 50- to 80,000, actually down just a little bit under 100. When we first saw the data we didn't believe it. We went back to make sure that we did not skip a decimal point somewhere. But after running it three or four times, we kept on getting the same results. If you look at the Australian data, they show the same kind of significant reduction in the total number of cases. Do the other models tell the same story? The other models do show that postexposure prophylaxis may

stop a pandemic, that postexposure prophylaxis will have a substantial reduction in the number of hospitalizations, and postexposure prophylaxis has the synergistic effect with other measures.

This slide here demonstrates the effective reproduction number achieved by using antivirals for treatment versus postexposure prophylaxis. This is the treatment curve, this is the postexposure prophylaxis curve, this axis is the effective reproduction number, and this axis is the percent of the population who either receive antivirals for treatment or antivirals for postexposure prophylaxis. The thing to note is that using treatment alone, this is the effective reproduction number at 1, so you are never far below 1 using treatment alone. Whereas using postexposure prophylaxis whether combined or not with treatment, here is an arnot (?) of 1, so you quickly fall below an effective reproduction number of 1 at least with this one model. Again, using postexposure prophylaxis as opposed to treatment, that theoretically a pandemic could be

stopped.

The next issue is even with 50 percent compliance, can we significant reduce the number of hospitalizations using postexposure prophylaxis? The green curve and the blue curve represent no antivirals given versus treatment alone. This axis is the number of hospitalizations and this is time. You can see that the medical treatment facilities would easily be overwhelmed if we did not use antivirals or used a treatment alone strategy. Whereas this curve is what might expect as far as the number of hospitalizations if postexposure prophylaxis were used.

The last slide demonstrates just the additive effect with a load approach that we have been proposing now for months. Daily incidence of infection over time, with no interventions the pandemic comes early and stays late and overwhelms your system. Whereas as you start adding quarantine, quarantine with isolation, quarantine with antivirals and so on, that curve gets lower

and lower as you go on.

In summary, our modeling show that unadjuvented vaccines will have a modest impact on mitigation but really not a good investment at the current time. Whereas adjuvented or more effective vaccines will have a substantial effect on pandemic mitigation, and when they are available it may be better to put DOD funds in that area as opposed to again continuing to buy ineffective or less-effective vaccines. Antiviral use limited to treatment alone will not result in substantial reductions in the overall impact on the DOD community, but adding an antiviral postexposure prophylaxis strategy combined with infection control and social distancing may actually halt a pandemic.

DR. POLAND: Very nice. Thank you, Wayne. Comments? Roger?

COL GIBSON: A couple quick questions around the modeling that you presented. What were the fatality rates in the model?

LTC HACHEY: Which model?

COL GIBSON: The first one. The first one is quite effective.

LTC HACHEY: As far as the fatality rates, we did not model for deaths, we modeled for the percent infected.

COL GIBSON: So that you didn't model for deaths. Obviously dead folks leave the cohort.

LTC HACHEY: In the fuel modeling, deaths are built into that and I believe that -- the death rate varies whether you have an effective reproduction number of 1.2 versus 2.4.

COL GIBSON: That's the Australian model?

LTC HACHEY: Right.

COL GIBSON: Was there a coefficient for resistance that was included in those models?

LTC HACHEY: No. We did not model for antiviral resistance.

DR. POLAND: Mark?

DR. MILLER: I think first of all the general purpose of modeling is to highlight and

articulate a lot of the assumptions, many of the assumptions, and in the case of potential pandemic viruses and antiviral agents acting against it are really unknown so the best you can do is put in a range and then run a model and then try to highlight what are the most sensitive parameters and that helps to at least identify and focus areas or research and hopefully identify other policy-relevant issues.

I think the problem with a lot of the models is people take them too much to heart in terms of what they actually show as an outcome and really not use them for what they are really good for, to highlight those particular assumptions and help clarify any policies that are eventually going to be made.

There is a big problem specifically with antiviral modeling. The one that was originally done for Thailand I think tried to show when the MIDAS effort, this is the NIH effort, was tasked to look at a problem, if there was a point source of an outbreak somewhere in Asia could you rapidly

deploy antiviral agents and stop the pandemic from happening? There were about five independent variables each with their own probabilities that each would have to align up perfectly in order to effectively stop an outbreak. People took that paper to realize that actually it is possible, but when you multiply out the probabilities of each of those five independent variables, it is possible, but with a probability of extremely unlikely. Of course if you stop it one time as well, it is highly likely you are going to stop it the second time. So while I think models are useful, they are always wrong but some are helpful and this on in particular also is helpful to identify what are the issues.

I think part of the problem is that the transmission dynamics were not really looked at carefully with these particular models. I think you modeled 4.7 million people and I'm not exactly sure if that just represents the DOD beneficiaries or where you got that number from because part of a model is who is infecting who and if it is

related to DOD beneficiaries, they are scattered throughout the world so you cannot necessarily implement programs uniformly amongst those who you are trying to effectively model.

LTC HACHEY: The question to us as far as developing a model was how does this impact the DOD community. That is why we picked that 407 because that is the DOD community. However, the modeling that DTRA did did take into account for the local community and that is why the differences between a rural and an urban installation were different as far as the overall attack rates because of interaction with the community. But the fuel that we did, we just took the DOD community as a point of reference.

DR. POLAND: Other comments?

DR. MILLER: Sorry, I forgot to make one more comment. I am not sure of your eventual outcome. It looks like your outcome was mitigation of influenza, but there is more to just influenza, it is also the secondary bacterial events. You did look at antivirals, but did you

also look at modeling other prophylactic measures for severe morbidity/mortality such as pneumococcal vaccines or antibiotic distributions? Those would all be part of a particular strategy for mitigating the impact of a pandemic.

LTC HACHEY: Our modeling was limited to two specific questions. One is the impact of vaccines, and the other one was the impact of antiviral strategies. We did not include the potential impact of different pathogens and biotic therapy. But given more time and more money --

DR. POLAND: Kevin?

DR. PARKINSON: Just one quick comment. I think that most of the strategies and modeling that I've seen and read, the prediction is the pandemic is going to spread so quickly, any effective application of postexposure prophylaxis is going to quickly break down because your new cases are going to far outstrip your public health, we are talking military or civilian here, capability to track these new cases and get to them within the I presume still 48 hour window

after onset of symptoms during which the antivirals are felt to be most effective. And then when you look at the modeling that was done at the rapidity of the spread of the 1918 pandemic throughout the United States in about a month or so and considering the limitations on movement of people, transportation and so forth, that prevailed during that early era in time, it's hardly likely that we are going to be able to control a pandemic once it strikes using antivirals or anything else. It's just going to have to burn itself out.

LTC HACHEY: Actually, our plan as far as the antiviral distribution, if someone comes in with symptoms, when they are treated and so are their family members, so hopefully as we target each individual case, then we are also targeting their families, or in the case of a barracks, if one person has the disease then his -- are also treated.

DR. PARKINSON: I should say that's not to imply that we should not do all of these things

and I am not suggesting that you are implying or anyone is implying realistically we are going to be able to stop a pandemic, that if anyone suggests that, I would question it strongly.

DR. POLAND: Dr. Lednar?

DR. LEDNAR: Part of the DOD pandemic preparedness is around the uniformed force and the civilian workforce that spends days on military installations. My question, Wayne, is how comfortable is DOD that their critical suppliers, the civilian companies who support DOD so that operations in DOD can continue, are prepared?

LTC HACHEY: Corporate America does seem to be bellying up to the bar, at least some of the larger corporations from what we are told are starting to stockpile antivirals and developing an pandemic flu plan of their own to protect their workforce. The federal government has identified specific key areas in the national infrastructure that have to be preserved, down to folks who deliver baby formula are clearly more important than folks who deliver bread because there are

more bread deliveries than baby formula deliveries. So certain key areas in industry have already been identified as being critical and deserving of extra protection. In the national plan, both antivirals and vaccines at least in the draft form are preallocated to preserve those critical elements of society which impact on DOD.

Our current plan as far as how we would use our antivirals does extend to our civilian workforce to include GS personnel and contractors now with our new buy of antiviral agents. So those folks who actually work for us are under our protective umbrella also.

DR. CLEMENTS: It may be worth a modest effort for a couple of selected key suppliers to DOD for some insightful DOD people to go out and actually verify just how prepared they are.

DR. POLAND: Maybe in some critical areas.

COL GARDNER: Every time we hear a broad presentation we hear about the new country that's immunizing its poultry and I believe you said

Egypt has now started to immunize its chickens. We know what the vaccine is and whether it actually works. If we really were facing a bird-related disease, we don't give much discussion to that approach in the United States. Is it a live or is a kill vaccine? What is the evidence that it works, and how do they make it?

LTC HACHEY: I don't know how they make it. Folks smarter than I do, however. I do know that there are a number of different vaccines depending on which country with variable effectiveness, but we do have some data. It appears that, for example, the vaccine that is used in Vietnam does appear to be effective as far as preventing disease. The problem is that they gave it to a lot of chickens which kept the disease from chickens, but they did not give it to the ducks and then ducks continued to carry the disease.

It is a big depend. It depends on the particular vaccine. There are a couple sub-clades that appear to be resistant to previous vaccines,

so it's somewhat of a crap shoot as far as which vaccine, which sub-clade and which manufacturer.

DR. POLAND: If I can, I would like to ask Dr. Bill Halperin to tell the board briefly about a potentially important paper that has been published and an idea that he and I have just briefly talked about.

DR. HALPERIN: Some of you have probably seen a paper that was circulated by Peter Polisi from Mount Sinai who was addressing the question of why influenza propagated in the winter months. What he did, apparently the first part of it was to identify that he could tell from an animal model and he used guinea pigs. The next was to take groups of guinea pigs and put them into environmental exposure chambers where he could modify temperature and humidity. What he shows in the article is that the colder it is, the more propagation there is, and that is pretty clear. With humidity it is a little bit more of a complex relationship, but it looks like in the middle range there is lease transmission and when it is

very humid or very dry there is more transmission. And these are in ranges that are conceivably environmentally controlled in normal living situations through air conditioning, heating, and control of humidity.

What he concluded in the article and then probably has regretted is the question of whether this represents a potential nonpharmaceutical approach to control of influenza epidemics. I say conceivably regretted because the discussion has been to rush toward the idea of controlling epidemics this way and a lot of chatter about then why do we need vaccines, et cetera.

All that aside, the question is then if you are going to try to see whether control of environment actually worked in slowing the propagation of influenza, where and how could you test that hypothesis. This is what we were talking about comes out of the article. The issue is ethnically you would have to test this if you were going to do it in humans in a population that

would be highly immunized if there were a vaccine. If there were no vaccine, obviously they wouldn't be highly immunized. If they were highly immunized, you would look for truncation of propagation but that is after the effectiveness of the vaccine was in play. So if you assume that let's say vaccine is whatever, 60 to 70 percent effective, you would be looking for the truncation of the rest of the epidemic. So what population would be large enough that would be well enough controlled, that is, everybody would uniformly have immunization, where you would uniformly have data on propagation of influenza, and where there would not be a huge amount of mixing, that is, you would have cohorts of people that were highly immunized and in environments that were controllable, et cetera, and the only population I could think of like that would probably by the recruits in the services of the military with lots of training programs at various bases around the country where the folks are by and large cohorted, if there is a vaccine they are going to be

immunized uniformly.

There are several questions. One is what is the level of effectiveness of the vaccine because obviously if it's 100 percent effective then there is no more transmission to be controlled. The second is whether there is any capability of actually controlling temperature in the training barracks between let's say a range of 80 and 60 degrees Fahrenheit and within ranges of humidity. It is an interesting article. It is the first I think article on this issue and obviously there is no confirmation from other laboratories, but that is the nature of the discussion, although very early, that we have had via email.

DR. POLAND: The interesting thing here would be, one, this potentially could be a suggested study reminiscent of those requested by the Influenza Commission back during World War II. Two, it may be something fairly inexpensive to do in the context of nonpharmacologic interventions. And three, there may be a unique population here

on which it can be done and for which the side effects or risks would be really essentially nil. Dr. Shamoo?

DR. SHAMOO: I think doing human subject experiments on large populations to test this hypothesis for a disease where I have heard right here presentations saying may never happen in 100 years, you are going to have a hell of a time convincing the public that that is a necessary risk to take with any population. So I would caution really to even think of those kinds of experiments.

DR. POLAND: What do you mean risk?

DR. SHAMOO: The risk of having pandemic flu. You are doing it to prevent pandemic flu, but the risk of pandemic flu is so low.

DR. POLAND: We should maybe clarify that the value of a study like that would be of course during a pandemic, but also during seasonal epidemics where there may be a mismatch between the vaccine, for example, and that is circulating. So it would overlay both seasonal and pandemic

influenza. Bill?

DR. HALPERIN: Just to be perfectly clear, we are talking about perhaps changing the H-factor, humidity, air conditioning, et cetera, if there were evidence of influenza in the population. So there is absolutely no idea of introducing a virus into the population. It is an intervention.

DR. SHAMOO: That is much better.

DR. POLAND: I had trouble understanding what you meant by risk.

DR. HALPERIN: No, this is not experimental. This is more observational epidemiology, the intervention being the control of humidity and heat, if you will.

DR. POLAND: Mark and then Mike?

DR. MILLER: That study was interesting and it follows on actually a study by Ed Kilborn who had done a similar study in mice about 20 or 30 years earlier. It does lend to some interesting issues, but it still doesn't explain a lot of the other issues, why flu circulates year

round in the tropics, and those are some of the more interesting points about influenza which we really do not know.

DR. POLAND: Mike?

DR. OXMAN: If this occurs in the setting of an epidemic, you would immediately screw up your experiment by using antiviral therapy as well. I wonder if the place where it might be even more easily done be on shipboard. When there is influenza on shipboard it's very impressive the spread on shipboard, and I would think if there is any place where you could control relative humidity it would on shipboard.

DR. SHAMOO: What is your control? One ship?

DR. POLAND: Let's not get into experimental details. This is just an idea. I am going to keep you engaged this late in the day, but --

COL GARDNER: When the meningococcal work was first being done suggesting that college freshmen were at increased risk, one of the

interesting risk factors that never really saw the light of day was not only were first- year students living in dormitories, it was dormitories that had radiator heat rather than other kinds of heat. So it's a little bit concordant with something happens to the mucosa I think presumably that may affect attachment or proliferation.

DR. POLAND: One other comment?

DR. HALPERIN: I would urge reading Polisi's article because what he argues is that the animals were put in the exposure chamber so quickly that they did not have time to dry out the mucosa. So his argument which I probably should have mentioned before is that it all has to do with how long the aerosol particles are suspended and that they last in the environment for different lengths of time if it's hot or cold or dry or wet, and it really has to do with the mechanics of transmission.

DR. POLAND: Thank you, Wayne, and I think we are finished and will adjourn for this event. A couple of things. I am glad Roger is

walking in. I cannot remember what the preparatory session is for tomorrow.

COL GIBSON: Actually what we have done is moved forward tomorrow so that we can get done so that you can get on your airplanes and fly home and get home on time. We are going to start with registration at 7:30 and actually start work at 8 o'clock. That will give us time to move an administrative session to late afternoon, have our annual EPICS briefing, have lunch, and then head on out from there.

DR. POLAND: So we are not meeting at 7:30?

COL GIBSON: This changed very recently.

DR. POLAND: Then we anticipate the formal part of the meeting ending about 11:00?

COL GIBSON: Yes, probably 11:00. It will be in that range.

DR. POLAND: Because we will move this up.

COL GIBSON: Colonel Hachey presented today which will give us more time and we will get

the EPICS briefing in there and have a short administrative session that will allow us to go over our organizational charts and a few other minor things.

DR. POLAND: We are dismissed.

(Whereupon, at 4:50 p.m. the PROCEEDINGS were adjourned.)

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