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ARMED FORCES EPIDEMIOLOGICAL BOARD

DAY TWO

Doolittle Hall  
3116 Academy Boulevard  
United States Air Force Academy

Colorado Springs, Colorado

Wednesday September 21, 2005

ANDERSON COURT REPORTING  
706 Duke Street, Suite 100  
Alexandria, VA 22314  
Phone (703) 519-7180 Fax (703) 519-7190

1 PRESENT:

2 BOARD MEMBERS:

- 3 Cande V. Ananth, Ph.D, M.P.H.
- 4 Susan P. Baker, M.P.H.
- 5 Dan German Blazer, II, M.D., M.P.H., Ph.D.
- 6 Barnett L. Cline, M.D., M.P.H., Ph.D.
- 7 Francis A. Ennis, M.D.
- 8 Jean Lois Forster, Ph.D., M.P.H.
- 9 Gregory C. Gray, M.D., M.P.H.
- 10 William E. Halperin, M.D., M.P.H.
- 11 Tamara D. Lauder, M.D.
- 12 Wayne M. Lednar, M.D.
- 13 Grace K. LeMasters, Ph.D.
- 14 Leon S. Malmud, M.D.
- 15 John Glen Morris Jr., M.D., M.P.H.&T.M.
- 16 Michael N. Oxman, M.D.
- 17 Michael D. Parkinson, M.D., M.P.H.
- 18 Kevin Patrick, M.D., M.S.
- 19 Gregory A. Poland, M.D. [President]
- 20 Roger William Sherwin, M.D.

21 BOARD CONSULTANTS:

- 22 Jaqueline Ann Cattani, Ph.D.
- 23 Pierce Gardner, M.D.
- 24 Julian Haywood, M.D.

25 BOARD STAFF:

- 26 Roger L. Gibson, Colonel USAF, B.S.C., [AFEB  
Executive Secretary]
- 27 Jean Ward

28 DESIGNATED FEDERAL OFFICIAL:

- 29 Ellen Embrey

30 LOCKEED MARTIN CONTRACTOR:

- 31 Severine R Bennett

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1 C O N T E N T S

2 AGENDA ITEM PAGE

3 OPENING REMARKS/WELCOME 4  
 4 Ms. Embrey, Dr. Poland, Colonel Gibson

5 COMPULSORY INFLUENZA VACCINATION  
 6 FOR HEALTH CARE WORKERS  
 7 Dr. Gregory Poland

8 RESPONSE REVISITED  
 9 LCDR Tom Luke

10 CHLAMYDIA SCREENING UPDATE  
 11 LT COL. Bruce Ruscio

12 CHLAMYDIA SCREENING RATES  
 13 ARMY -- COL Paula Underwood  
 14 NAVY -- LCDR Tom Luke  
 15 AIR FORCE -- COL Michael Snedecor  
 16 and Ms. Jill Trei

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1 P R O C E E D I N G S

2 DR. POLAND: If we could take our seats  
3 and we'll get started here. We'll ask Ms. Embrey  
4 to call the meeting to order once she grabs her  
5 orange juice.

6 MS. EMBREY: As I said yesterday, as the  
7 Designated Federal Official for the Armed Forces  
8 Epidemiological Board, which is a Federal Advisory  
9 Committee to the Secretary of Defense, that serves  
10 as a continuing scientific advisory body to the  
11 Assistant Secretary of Defense for Health Affairs  
12 and the Surgeons General of the Military  
13 Departments, I hereby call this meeting to order,  
14 again.

15 DR. POLAND: Thank you. As we did  
16 yesterday, before we begin we'll go around the  
17 table and introduce ourselves, including people in  
18 the back. There are some new folks with us. Ms.  
19 Embrey, would you mind starting.

20 (Board Members and Guests introduce  
21 themselves.)

22 DR. POLAND: Okay, thank you. Before we

1 get into today's presentations, we have some  
2 individuals for whom this is their last meeting  
3 and in particular Dr. Barney Cline is with us  
4 today and we want to take a moment to recognize  
5 this longtime friend of the Board. It's  
6 interesting and I chide myself for why do we only  
7 do this when somebody leaves. I was thinking  
8 about what to say, Barney, with you leaving, and  
9 perhaps the most important thing I can say is  
10 whenever Barney speaks, we listen. And I want to  
11 thank you for that. The critical thinking that  
12 you bring to this Board and you have the most  
13 friendly demeanor I think of anybody in academia  
14 I've ever had the pleasure to work with. I really  
15 appreciate that. You're one of those few people  
16 that you go through life and I think I'll always  
17 remember and treasure the time that we've had  
18 together. Barney, thank you very much. We have a  
19 plaque, if we could. What we should have done is  
20 gotten, for those of you who don't know, is get a  
21 plaque with big longhorn prongs, because Barney  
22 has, how many longhorns?

1 DR. CLINE: Three.

2 DR. POLAND: Three. The Office of the  
3 Secretary of Defense presents this certificate of  
4 appreciation to Barney Cline, M.D., M.P.H, Ph.D.,  
5 for exceptionally meritorious service and  
6 outstanding contributions as a member of the AFEB.  
7 Barney, thank you so much. Then we have a plaque  
8 that reads, "Presented to Barney Cline, M.D.,  
9 M.P.H., Ph.D., with deepest appreciation for your  
10 outstanding contributions as a member of the AFEB  
11 and the subcommittee on infectious disease  
12 prevention and control." Barney's been with us  
13 from December of 2001 to 2005, so quite a tenure  
14 of service.

15 DR. CLINE: Thank you very much.

16 DR. POLAND: And our AFEB coin. Also  
17 want to note that Dr. Forester and Dr. Patrick,  
18 who are unable to attend with us, along with the  
19 British liaison officer, Colonel David White, who  
20 has already returned to the U.K. to pursue an  
21 M.P.H. degree; we want to thank them for their  
22 service to the Board and I'm sure our paths will

1 cross with these outstanding individuals in the  
2 future. Colonel Gibson will provide them with  
3 their plaques and certificates with the Board's  
4 gratitude on your behalf for their years of  
5 service with us.

6 COL GIBSON: Dr. Poland and I are going  
7 to draft an email to them thanking them for their  
8 contributions and do a reply all to all of the  
9 Board members. If you wish to send some sentiment  
10 to them for their contributions, it would be  
11 greatly appreciated, I'm sure. We have some  
12 administrative remarks that I'd like to go  
13 through. Bathrooms are still located outside,  
14 they haven't moved. Attendees, if you haven't  
15 signed in at the registration, please do that this  
16 morning as well. The CME forms, Karen is passing  
17 out the CME forms. Make sure you get those filled  
18 out so you can get the credits for this meeting.  
19 Last chance for the taxis and shuttles to the  
20 airport. See either Karen or Severine about that.  
21 Lunch, again, is upstairs today. It's 8.95 like  
22 it was yesterday. At the break we'll be

1 collecting money for that. For the tour this  
2 afternoon, how many are going to drive, follow the  
3 bus so that you can leave early, would you raise  
4 your hands? Parking is very limited down in the  
5 cadet area. Sergeant Taylor, what do you think?  
6 We'll know before that time. If she can't get  
7 enough parking space cleared out for us all, what  
8 we'll do is we'll use a shuttle and bring you back  
9 individually when you need to come back to get in  
10 your cars to leave. That's it as far as I can  
11 remember off of my list here. Our first speaker  
12 today, it's my privilege to introduce someone  
13 who's very well known to the Board. We ready to  
14 go? Very, very well known to the Board, Dr.  
15 Poland is going to be presenting on Compulsory  
16 Immunization Vaccinations for Health Care Workers.

17 (Video shown.)

18 DR. POLAND: The other thing I forgot to  
19 do is wear a blue suit today. What I want to do  
20 today is now embark on showing you some historical  
21 vignettes. Some of it is actual footage from 1918  
22 and then I'm going to follow that with a series of

1 slides and music. And I do this deliberately so.  
2 I want to involve you emotionally in the story  
3 that I want to tell you about influenza and I want  
4 to move it from an intellectual consideration --  
5 we'll get there -- but from an intellectual  
6 consideration to the reality that we're talking  
7 about real people who have families and service  
8 members who historically have been terribly  
9 affected by this disease and then it can follow  
10 that with a consideration of what we might do to  
11 better protect them.

12 (Killer Flu video shown, followed  
13 by slide presentation of Influenza,  
14 the Killer Among Us.)

15  
16 I didn't mean to depress anybody, but  
17 rather to make real this story that often, as I  
18 talk about it with colleagues it begins to be sort  
19 of an intellectual debate and consideration. That  
20 has its place, but so does considering what this  
21 disease, what this lethal disease has actually  
22 done to our country and of course, other

1 countries. What I'm going to talk about today is  
2 whether we should require this for health care  
3 workers. Just like one of the other speakers, our  
4 lawyers make me put this up. These are my  
5 opinions.

6 I also need to disclose that I serve as  
7 Chair of a DMSB for a Merck-sponsored influenza  
8 peptide vaccine research trial. I'm going to  
9 start with a case. This is a case that's  
10 fictionalized, but it has elements of truth that  
11 I'm aware of. This is Ms. Smithy. She's a  
12 38-year-old single mother of three children. She  
13 was recently discovered to have leukemia. Treated  
14 with aggressive chemotherapy, but her disease  
15 continued to progress. She underwent bone marrow  
16 ablation, followed by a transplant in October  
17 during the middle of an influenza epidemic. She  
18 survived the treatment and the transplant, but had  
19 sort of a rocky course. Having no family, her  
20 children were in foster care and by now she was  
21 bankrupt. While on the post-transplant ward, she  
22 was cared for by a health care worker who had

1 influenza-like symptoms. After two days of  
2 symptoms, the health care worker that was caring  
3 for her couldn't come to work because she was too  
4 ill to get out of bed. She had not received  
5 influenza vaccine. Two days later, Ms. Smithy,  
6 the patient, developed upper respiratory symptoms  
7 that were consistent with influenza. Of note is  
8 that she had not had any outside visitors during  
9 her hospitalization. She rapidly deteriorated,  
10 developed widespread influenza and pneumonia and  
11 expired five days later. The health care worker  
12 caring for Ms. Smithy was interviewed and she had  
13 declined flu vaccine because, quote, it doesn't  
14 work. She had acknowledged repeated exposure to  
15 influenza educational messages teaching just the  
16 opposite. The following year, the same health  
17 care worker, still working on the same  
18 post-transplant unit declined influenza  
19 vaccination. She, I might add, has no medical  
20 contraindications to receiving the vaccine. Now  
21 that I have your attention with the case of Ms.  
22 Smithy, let's start with the end in mind. If you

1 remember nothing else, you remember the end, and  
2 that is a health care worker influenza  
3 immunization requirement.

4 I believe it's the next step in the  
5 sorts of programs that we already have in place.  
6 It is a patient-safety and quality-of-care issue  
7 and I hope to show you and convince you that it is  
8 a moral and ethical imperative. I also will try  
9 to demonstrate to you the advantages of improved  
10 patient safety, employee safety, decreased health  
11 care expenditures and actually an improvement in  
12 community health. Should it be required? We  
13 probably have a range of opinions about this, but  
14 let us at least acknowledge one set of facts;  
15 influenza vaccines are safe, they are effective.  
16 Unvaccinated health care workers spread influenza  
17 to their patients and these hospitalized patients  
18 can have profound increased morbidity and  
19 mortality from influenza and die. I'm going to do  
20 this in the style of Ken Burns who does these  
21 documentaries. Some of you may have seen one, The  
22 Civil War, Baseball, Jazz, he's done a few other

1 ones. I'm going to start with chapter one or what  
2 I'm calling the first of seven truths. That first  
3 truth is that influenza infection is a serious  
4 illness which causes significant morbidity and  
5 mortality and adversely affects our health on an  
6 annual basis. It causes enormous and I would say  
7 unnecessary annual health care expenditure. These  
8 data are clear and unambiguous. We lose about  
9 36,000 Americans every year. It's the sixth  
10 leading cause of death. Over 200,000 excess  
11 hospitalizations. It kills three times as many  
12 Americans as HIV. It kills about the same number  
13 as breast cancer. In fact, if you do the  
14 calculations, one out of every 10,000 Americans  
15 who are alive and with us right now will be dead  
16 in the next several months of a disease that we  
17 can prevent. To make it perhaps a little more to  
18 what we consider and what our jobs are here, we've  
19 lost about 1,800 service members in the over two  
20 years that we've been in Iraq. We lose 1,800  
21 Americans every week during influenza season.  
22 It's perhaps why T.S. Eliot said, "Our ignorance

1 just brings us closer to death." If you look at  
2 it, we could debate the numbers, but if you look  
3 at the pyramid of morbidity and mortality that  
4 occurs, about 20 to 30 percent of people develop  
5 influenza infection each year. About 26 per 100  
6 will develop an acute respiratory illness. About  
7 half of those will require some level of medical  
8 care. About 12 per 10,000 will get hospitalized.  
9 As I said, 1 per 10,000 will actually die. All up  
10 and down this pyramid it's health care personnel  
11 who get exposed. If you look at what those  
12 numbers actually pan out to be, they're huge in  
13 terms of the cost of this innocuous virus, as  
14 people think of it. For that reason a couple of  
15 years ago, 2002 I guess it was, I published this  
16 editorial on clinical infectious diseases and I  
17 asked you, my colleagues, If you could cut the  
18 death rate in half, would you do it? You're a  
19 health care provider, if you could cut the death  
20 rate in half, would you elect to do that?  
21 Hopefully all of us would say yes, particularly if  
22 I told you it costs about \$15 per person to do so.

1           What I did is, I looked at all the  
2 influenza trials that calculated mortality  
3 prevented. I looked over two decades, 11  
4 different studies and three different areas.  
5 Right? The hallmark of science is repeatability  
6 and generalizability and showed that while there  
7 are confidence intervals around here, in general,  
8 you prevent about 50 percent of all cause, this is  
9 stunning, of all cause mortality if you deliver  
10 influenza vaccine. I might also note that over  
11 the past 20 years influenza-associated mortality  
12 in the U.S. has increased significantly and that  
13 the viruses that predominately circulated during  
14 the 1990s were more virulent and associated with a  
15 higher mortality rate than viruses circulating  
16 prior to 1990.

17           The second truth. Influenza-infected  
18 health care workers transmit this deadly disease  
19 to their patients. Influenza immunization of  
20 health care workers, therefore, protects these  
21 vulnerable patients, improves patient safety and  
22 decreases, this is a strong claim here I'm making,

1 decreases patient morbidity and mortality. Why  
2 can I say that? Well, we know that health care  
3 workers with both asymptomatic and symptomatic  
4 influenza spread virus to their patients. So the  
5 notion in most hospitals that if a health care  
6 worker develops respiratory symptoms, then we'll  
7 furlough them from work is faulty. They are  
8 capable of transmitting the disease about a day to  
9 two days before the development of symptoms. So,  
10 it's too late if we wait then. And multiple  
11 studies, in fact I cannot find one contradicting  
12 this, show that 70 percent or more of health care  
13 workers continue to work despite being ill,  
14 despite symptoms, increasing the exposure of  
15 patients and their co-workers. And if you look at  
16 the complications of nosocomial influenza, it is  
17 particularly burdensome on young children.  
18 Children under the age of two, this is really  
19 stunning, their mortality is as high as 15  
20 percent. The elderly, immunocompromised and  
21 critically ill patients. When you consider it,  
22 where are all of these people arrayed? Around

1 us. They are arrayed around health care workers  
2 and health care facilities. I was talking with  
3 Greg Gray about this and he used the word,  
4 "disease amplifier" and I think it's a great  
5 description for what health care workers can be in  
6 the absence of a structured program to ensure that  
7 they can't pass this disease on. Why can I make  
8 the claim that if you immunize health care  
9 workers, you decrease the mortality of patients?  
10 There have been two studies now and I'm going to  
11 show you one of them.

12           Pretty well-known study published in  
13 2000 in Lancet. These are 20 hospitals in the  
14 U.K., they call them hospitals, they're sort of  
15 geriatric hospitals, if you will, they're not  
16 nursing homes. They had 20 of these. In a  
17 proportion of those hospitals, the health care  
18 workers were given influenza vaccine and the other  
19 half of the hospitals, the health care workers  
20 were not particularly offered or encouraged to get  
21 vaccine. I'm not talking about the patients being  
22 immunized, I'm talking about the caregivers being

1 immunized. Look at the mortality difference. All  
2 cause mortality in the hospitals where the health  
3 care workers got the vaccine, the mortality rate  
4 was not quite half that of what it was in those  
5 the hospitals where the health care workers were  
6 not immunized. And that was statistically and I  
7 would say clinically significant. Well, you don't  
8 work in a geriatric hospital, you say. Let me  
9 show you the example of a NICU. This is a 1998  
10 epidemic of influenza A. It lasted 18 days. 54  
11 neonates on the unit. 35 percent of them, 19 of  
12 them, were positive for influenza A, though only 6  
13 were symptomatic. Look at what happened. I won't  
14 read it all, but eventually one infant died. This  
15 is really hard for me to sort of get my head  
16 around. You come to the hospital because you  
17 think it's the safest place to get health care for  
18 yourself and your soon to be born baby, and that  
19 baby dies as a result of a disease brought into it  
20 by a health care worker. They then surveyed the  
21 150 medical staff that crossed the threshold into  
22 that NICU. 57 percent responded, only 15 percent,

1 this is 1998, only 15 percent had gotten flu  
2 vaccine. And I would posit that if you have ears  
3 to hear and eyes to see, that you can't miss the  
4 message every year about the importance of flu  
5 vaccine, particularly if you're a health care  
6 worker. As every study shows, physicians have a  
7 relatively high rate of immunization and nurses  
8 have a relatively poor rate of immunization.  
9 Again, I have not been able to find any study that  
10 shows any opposite trend. More importantly, only  
11 29 percent of the staff who had influenza, who  
12 were symptomatic with influenza took time off  
13 work. So 70 percent of those health care workers  
14 with influenza knowingly walked into that NICU  
15 with symptomatic disease. Well you don't work in  
16 a NICU either.

17 What about a bone marrow transplant?  
18 Another outbreak. 30-bed ward. 25 confirmed flu  
19 cases, 40 percent of which occurred on the bone  
20 marrow transplant unit. Any of you, that have  
21 rotated on one of those and taken care of those  
22 very sick patients, know how traumatic it is for a

1 patient and the family to go through a bone marrow  
2 transplant. In this case they survived the bone  
3 marrow transplant only to develop pneumonia and  
4 two of them die of a disease preventable with a  
5 \$15 vaccine. Same story. 12 percent. Only 12  
6 percent of the health care workers had received  
7 flu vaccine. Symptomatic of my hypothesis to you  
8 today is that voluntary programs don't work  
9 despite the adverse publicity for this medical  
10 center and the following season and eight-pronged  
11 education program, nonetheless, 42 percent of  
12 those bone marrow transplant unit health care  
13 workers still failed to get flu vaccine. That's a  
14 recurring thing.

15 Voluntary programs for influenza vaccine  
16 do not work. In fact, if you look at nosocomial  
17 outbreaks, this is a review of 12 of them, you can  
18 see the patient attack rates, but look at these  
19 health care worker attack rates. 11 to 59 percent  
20 of them. More importantly, look at the mortality  
21 experience. Excess patient mortality overall, 16  
22 percent. On ICU and transplant units mortality

1 goes up by 30 to 60 percent. The third truth. We  
2 save money and we prevent workplace disruption  
3 when employees get flu vaccine. This is a  
4 colleague of mine, Kristin Nichol, up in the twin  
5 cities and she was looking at it sort of from the  
6 employer's side. These are healthy, working  
7 people, not frail, immunocompromised elderly  
8 people. This is you and me. She demonstrated  
9 that healthy working people who get flu vaccine at  
10 25 percent fewer URIs save an average of about 50  
11 bucks out-of-pocket expense each year and  
12 significantly fewer MD visits and sick days off.  
13 Remember that about every two to three years, at  
14 least in my neck of the woods, we have sufficient  
15 influenza illness that we have staffing problems  
16 in our clinic and hospital and we occasionally  
17 close our public schools. She then extended that  
18 study and looked, again, repeatability and  
19 generalizability, she looked at three different  
20 seasons because there are differences in the match  
21 between what's in the vaccine and what's  
22 circulating and you can get odd results if you

1 just look at one period in time. With over 25,000  
2 healthy working people and each cohort, so she  
3 studied 75,000 people. Among those who got  
4 immunized, again, keep in mind these are healthy  
5 working people, pneumonia and influenza  
6 hospitalization reduced by half in a healthy  
7 working population. That's stunning. I don't  
8 think we have anything in our medical  
9 armamentarium that's as effective. Respiratory  
10 conditions reduced by about a third. Look at  
11 this, reduction in all-cause mortality, again in a  
12 healthy working group, by about half. And direct  
13 savings of \$117 per person immunized. How about  
14 house staff? I picked one very representative  
15 study of this issue. This is University of  
16 Ontario, looked at a large number of house staff,  
17 670 people. Vaccination was associated with  
18 significant decreases in influenza-like illness,  
19 fever, cough and absenteeism. Same old story.  
20 House staff reported working during most days they  
21 were ill and infectious. Interestingly enough, 30  
22 percent of those who refused the vaccine, and not

1       surprisingly the majority of those who did get the  
2       vaccine, believed flu vaccination should be  
3       mandatory. Note this: depended upon the system to  
4       make it so. What about other health care workers?  
5       You'd be interested to know even though you, as  
6       health care workers might not recall being sick,  
7       that about 25 percent of health care workers have  
8       serologic evidence of influenza infection during  
9       the winter months. About 20 percent of  
10      unvaccinated of health care workers. 50 percent  
11      of health care workers who have influenza  
12      infections are asymptomatic or only have minor  
13      symptoms and yet can still spread the disease to  
14      their patients. As I said, they can transmit  
15      while asymptomatic. As I've shown you health care  
16      workers continue to work so they transmit it,  
17      again, not only to their patients but to their  
18      coworkers, amplifying the problem. In one study,  
19      66 percent of health care workers reported  
20      experiencing flu-like symptoms, yet only half of  
21      them missed work due to flu-like symptoms. "You  
22      want answers?" "I think I'm entitled." "You want

1       answers?" "I want the truth." "You can't handle  
2       the truth." What are influenza immunization rates  
3       like in your institution?

4                   This is a survey, a web-based survey,  
5       done in 2003/2004. Let me take you a little bit  
6       back in time. You remember that was a new  
7       influenza A virus circulating. There was a  
8       mismatch or a poor match between the circulating  
9       virus and the vaccine virus. There was a huge  
10      amount of disease. It triggered our understanding  
11      of excess deaths in children of influenza and  
12      there was immense publicity about it. So people  
13      were almost rioting to get the vaccine. I want to  
14      show you that these immunization rates and the  
15      outcomes are better than what they normally would  
16      be because the immunization rate was a little  
17      higher. 221 institutions from across the U.S.  
18      reported employee immunization rates about 50  
19      percent. National average 36 to 40 percent. The  
20      aliens want to know if we had any extra flu  
21      vaccine that year. Look at staffing shortages in  
22      the hospitals. Between 23 and 47 percent of

1 institutions reported they could not adequately  
2 staff their hospitals. That's a patient-safety  
3 and quality-of-care issue. It's also an economic  
4 issue. Between a fourth and a third of them  
5 reported that they had bed shortages because there  
6 were so many people ill. About a third to a half  
7 of them said they didn't have any open ICU beds  
8 because so many people were sick. Five percent to  
9 20 percent of them, I love showing this to the  
10 administrators, had to divert patients somewhere  
11 else because they didn't have beds and they didn't  
12 have the staff to care for ill patients for as  
13 long as 15 days. Dan Quayle said, "If we do not  
14 succeed, then we run the risk of failure."  
15 There's actually a kernel of truth. Some of you  
16 know I'm a good Republican, there's a kernel of  
17 truth in here. This is the fourth truth, that  
18 influenza immunization of health care workers is  
19 already the standard of care. It might surprise  
20 you to know that it's been officially recommended  
21 by CDC since 1981 and we all, in every hospital,  
22 have a health care worker influenza immunization

1 program. But the hallmark of those programs is  
2 that they are passive and voluntary. It fails to  
3 recognize the data I've just shared with you and  
4 on average in the U.S. reaches about 40 percent of  
5 health care workers. The issue is that voluntary  
6 health care worker influenza immunization has  
7 improved dramatically from 10 percent to 36  
8 percent and it's taken us 25 years to get there.  
9 It doesn't work. In fact, voluntary immunization  
10 programs have never resulted in high immunization  
11 rates in any setting, for any age, at any time for  
12 any reason in any location with any vaccine. I  
13 cannot find an example to the contrary. It does  
14 not work. You have all seen the CDC  
15 recommendations.

16 I've highlighted they're health care  
17 workers, which they define as those with direct  
18 patient care contact. A couple of years ago some  
19 colleagues of mine wrote an interesting editorial  
20 called, Transmission of Influenza: Implications  
21 for Control in Health Care Settings. I want you  
22 to see this article the way that I see this

1 article. They point out that influenza outbreaks  
2 in health care facilities have devastating  
3 consequences. I've shared the data with you on  
4 that. What did they recommend? First,  
5 vaccination of health care personnel and then  
6 patients. Opposite of what we actually do. The  
7 fifth truth. Requiring immunizations actually  
8 works. It actually raises immunization rates and  
9 those data are again clear and unambiguous. For  
10 those of you that can't read it, it says, Slowly  
11 he would cruise the neighborhood waiting for that  
12 occasional careless child who confused him with  
13 another vendor. In most counties, as an example,  
14 childhood immunization rates reached 90 to 95  
15 percent after mandatory school entry requirements  
16 were put into place. That's children, not health  
17 care workers. For health care workers, once  
18 mandatory requirements were put in place  
19 immunization rates exceed 95 to 98 percent for  
20 rubella, measles, mumps, Hep B and in our  
21 institution, varicella. It works. The sixth  
22 truth, there are only seven, don't worry, we're

1 getting near the end. Health care workers and  
2 health care systems, I believe, have an ethical  
3 and moral duty, that's a strong word in ethical  
4 circles, duty to protect the vulnerable patients  
5 we're privileged to care for from transmissible  
6 diseases. I believe they will have soon a legal  
7 duty. We are aware of six lawsuits against  
8 physicians in health care systems where there was  
9 no documentation in the record that they were  
10 offered a vaccine against a vaccine preventable  
11 disease that they later developed and had  
12 consequences from. "I'm trying to free your mind.  
13 I can only show you the door. You're the one who  
14 has to walk through it."

15 I don't know if Morpheus from the Matrix  
16 is actually our ethical guide here, but hey, you  
17 got to have a little fun. Some of you recall the  
18 story of Semmelweis. He was an 1800s-era  
19 obstetrician who discovered that it was us, health  
20 care workers, who failed to wash our hands between  
21 autopsies or deliveries of patients that caused  
22 diseases. He introduced rules forcing health care

1 workers to wash their hands, you draw the parallel  
2 yourself, who resented that they were accused of  
3 spreading disease. He was ridiculed and vilified  
4 by peers to such an extent that he went insane and  
5 committed suicide. I have no intent of going that  
6 far, but I'm going to push it pretty far.

7 Our Canadian colleagues, a nod to them,  
8 wrote a very interesting article called Semmelweis  
9 Revisited: The Ethics of Infection Prevention  
10 among Health Care Workers. And here's what they  
11 said, that influenza immunization was quote, a  
12 fundamental principal of medical practice.  
13 Physicians, again this strong word, have a duty  
14 not to place their patients at undue risk of  
15 infections and that they have an obligation to  
16 their patients to take all reasonable actions to  
17 prevent transmission in the context of patient  
18 care. Another group from Canada saying the  
19 vaccination of health care workers must be  
20 regarded, and I thought this was articulated very  
21 well, more as a matter of meeting professional and  
22 ethical standards than of personal preference,

1       which is the domain we leave it in now.  
2       Unvaccinated health care workers who are not  
3       antiviral prophylaxis should be excluded from  
4       direct patient care. How about the OcMed guys?  
5       Vaccinating staff reduces that risk of outbreaks  
6       by increasing herd immunity. Here's this word  
7       again, there's a duty of care to protect both  
8       patients and staff.

9                   How about the Dutch? It's incoherent  
10       for health care workers to persuade others to  
11       accept influenza vaccine and simultaneously not  
12       accept it for themselves. What message does that  
13       send? The Canadians, and I've underlined it, the  
14       bolding is theirs, say health care workers and  
15       their employers have a duty to actively promote,  
16       implement and comply with influenza  
17       recommendations. Why? To decrease the risk of  
18       infection and complications in the vulnerable  
19       patients and populations they care for. They  
20       recommended further educational efforts because of  
21       the beliefs of patients at risk, health care  
22       workers and other service providers, that they

1 don't get influenza, they have fear of side  
2 effects from the vaccine and they doubt the  
3 efficacy, despite 40 to 50 years of data  
4 disproving those concerns.

5           The American Nurses Association just  
6 came out a week ago with a statement, We find it  
7 important to stress to registered nurses they have  
8 an ethical responsibility to care for themselves  
9 and their patients by getting flu vaccine. The  
10 last truth. I believe that the health care system  
11 will be called to account. We will either lead or  
12 be lambasted. We have to take responsibility for  
13 curbing yearly epidemics that profoundly influence  
14 the health of our patients, our health care  
15 workers, our communities and in this context our  
16 readiness. Study finds most health care workers  
17 do not get flu vaccine. I know what I think and  
18 how I feel when I see that. It was relatively  
19 close to Halloween so I thought I'd try this.  
20 Only 36 percent of hospital workers are vaccinated  
21 each year, putting themselves, interestingly  
22 enough, their families and most of all their

1 vulnerable patients at risk. These are  
2 embarrassing headlines, I think, for us as health  
3 care workers. Ray Strikas from CDC saying,  
4 "Frankly, it's an embarrassment." On average 36  
5 percent in '03/'04. For '04/'05 it's about 40  
6 percent of American health care workers get flu  
7 vaccine. Yogi said we made too many wrong  
8 mistakes and I think he was right in the context  
9 on influenza vaccine. Let me just very quickly  
10 point out to you what's happening nationally with  
11 this. It's now mandatory in several U.S. states  
12 for all health care workers and Ontario. These  
13 are the states that require it. Some just in  
14 nursing home health care workers, others for all  
15 health care workers. Meaning no disrespect, if  
16 you look at that list of states, several of them  
17 are states that, in the usual rankings, SES  
18 education, health care, et cetera, rank at the  
19 bottom of the list. Yet they've seen fit to  
20 institute this sort of legislation. The  
21 Infectious Disease Society of America put forward  
22 a resolution that this become mandatory and they

1       adopted it and now consider it the standard of  
2       care. The expert panel on strengthening adult  
3       immunization, which is the partnership for  
4       prevention, just released a document called, Make  
5       Vaccination of Health Care Workers a Quality  
6       Indicator. They are working to get CMS to direct  
7       JCAHO to include immunization of health care  
8       workers as one of the standards that will have to  
9       be met for accreditation. They recommend that  
10      facilities be required to document that vaccine  
11      were offered and then inform declination if they  
12      refuse it. The National Quality forum is a  
13      voluntary consensus health care standard setting  
14      organization. Of all the things they could pick,  
15      I mean think of it, put a mark on the leg to be  
16      sure you don't cut the wrong leg off, labeling  
17      drugs, of the thousands of things they could pick,  
18      one of the 30 that they thought were important was  
19      immunization of health care workers to universally  
20      reduce the risk of harm to patients. As you know,  
21      it's already happened now. You can look up your  
22      health care organization, at least in the civilian

1 sector, and see your score card. Some of you may  
2 have heard of Leapfrog. This is a group, I think  
3 it's 100 -- Mike you might know more about this, I  
4 think it's 150 Fortune 500 CEOs or something that  
5 go together as payers and consumers are now  
6 demanding that the system do better. Again they  
7 chose 30 practices, out of all that they could  
8 have chosen, number 26 was vaccinate health care  
9 workers against influenza to protect them and  
10 their patients. Further, employees refusing  
11 vaccinations should have this refusal noted. The  
12 Society for Hospital Epidemiologists of America  
13 just published their position papers. All health  
14 care workers should get it unless they have a  
15 contraindication or actively decline it. They  
16 went further. There should be annual  
17 multi-faceted education programs. Facilities  
18 should track and record rates and eventually  
19 report them and a surveillance program, because  
20 believe it or not, most of our colleagues don't  
21 really believe the data that I've just shared with  
22 you. It's that old, I've forgotten who came up

1 with it, but that old thing, we look under the  
2 light because that's where we can see. And so  
3 they're sort of forcing them to look beyond just  
4 where the light falls. HCPC voted in favor of  
5 requiring active declination for health care  
6 workers not wishing to receive flu vaccine. Some  
7 of you may know that the Surgeon General is going  
8 through a mid-course healthy people 2010 review  
9 and added health care worker flu immunization as a  
10 goal to reach 60 percent by 2010. Now there are  
11 multiple hospitals and clinics throughout the U.S.  
12 requiring it of health care workers. CDC again  
13 making a strong statement. In summary, health  
14 care worker influenza immunization is a  
15 patient-safety issue and benefits the patient, the  
16 employer. I believe it benefits DoD and ensures  
17 our readiness. And I think, perhaps more  
18 importantly, it's a chance for the health  
19 profession to demonstrate that we can and will do  
20 the right thing for our patients. That it's not  
21 just personal preference, that the needs of the  
22 patient come first and that we assume a national

1 leadership role. I think it is an ethical thing  
2 to do, we're pledged to first do no harm. So what  
3 do we need to do? I think codify a policy that's  
4 feasible, accomplishable, protects personnel and  
5 patients and which is scientifically sound and  
6 endorsed by professional societies. The suggested  
7 policy and I'm going to ask John Grabenstein, who  
8 I've worked with on some of this, to make a  
9 comment, would be that all military, civilian and  
10 contract health care workers with direct patient  
11 care responsibilities, must receive an influenza  
12 vaccine annually as a condition of employment.  
13 Either trivalent inactivated or nasal spray  
14 vaccines could be used. They would be provided at  
15 no charge. Medical and religious exemptions would  
16 be honored. I will stop there. John, could I ask  
17 you to make a comment please?

18 COL GRABENSTEIN: The military vaccine  
19 agency has been working for the last few months  
20 with the service preventive medicine consultants  
21 to revise Army regulation 40-562, the joint  
22 immunization regulation, it's also a numbered Air

1 Force instruction and numbered Bureau of Medicine  
2 instruction and numbered Coast Guard instruction.  
3 That had long had in it a sentence that health  
4 care workers were required to have or show  
5 immunity to measles, mumps and rubella. We took  
6 that sentence and added a few more, essentially,  
7 all the contagious diseases to it, notably,  
8 influenza and pertussis, now that pertussis is an  
9 adult preventable disease. That regulation is  
10 finishing up its draft status. It's undergoing  
11 one more legal review to make sure we aren't  
12 getting ourselves in trouble and then we'll be  
13 published, I don't know how soon, but your call  
14 for -- Dr. Poland, your call for a requirement for  
15 influenza vaccination unless medically  
16 contraindicated will take effect as soon as that  
17 regulation does.

18 DR. POLAND: It may be that the Board  
19 could provide a letter of support, John?

20 COL GRABENSTEIN: I think that would be  
21 very helpful, because having the document as an  
22 authorizing instrument is one thing, but then

1       there is the retail, human-to-human interactions  
2       working with bargaining units and labor management  
3       relations and the like, where your counsel as to  
4       the value of vaccination would be well received by  
5       the folks, the employees and the folks who  
6       represent the employees.

7                     DR. POLAND:  Thanks, John.

8                     MS. EMBREY:  It has a larger implication  
9       though even than that, because of our purchased  
10       care providers.  That would impose our policy on  
11       those who we send downtown.  That would become an  
12       issue that we would have to work very hard.

13                    DR. POLAND:  Good point.

14                    DR. GARDNER:  Greg, that was  
15       spectacular.  It's the best thing I've ever seen  
16       on this topic.  It really brought it home.  I hope  
17       you'll share that.  I hope you don't patent that,  
18       but let it open for general use because that is  
19       quite spectacular.  Particularly the issues of how  
20       voluntary programs don't seem to work and that is  
21       an important thing.  It always surprises me, to be  
22       a medical student in the state of New York, you

1 have to show that you're polio immunized, you have  
2 to show that your tetanus and diphtheria, we have  
3 zero to three cases of tetanus, but you don't have  
4 to show the influenza. It's encouraged that you  
5 get Hepatitis B, but not required. Thank you for  
6 that. A couple of thoughts that you didn't cover.  
7 You're controlling the employees, but there are  
8 other certain patient contact people that  
9 obviously you want to get immunized, such as  
10 medical students. I think your volunteers who  
11 work in the hospital. I also think that ideally,  
12 the folks that work in the cafeteria are all  
13 equally, they are in the loop, in terms of  
14 transmission in a hospital geographic setting.  
15 It's a great start, but we shouldn't rest our oars  
16 at that point.

17 DR. POLAND: I agree. Just anecdotally,  
18 Virginia Mason Clinic in Seattle last year  
19 attempted to make it a condition of employment for  
20 all employees, regardless of their job  
21 classification. The contract nurses sued and  
22 people misunderstand this verdict, their position,

1 the nurse's union position was upheld on the  
2 narrow point that you could not force, unless you  
3 negotiate a new contract, already contracted  
4 employees to receive something as a new condition  
5 of employment.

6 DR. OXMAN: I think the legal aspect,  
7 we've pushed very hard for a number of years and  
8 are doing a little better than 40 percent. As  
9 long as people can decline, a large number will.  
10 It's interesting that with -- I just fought the  
11 battle and barely won the issue with tuberculin  
12 testing for all employees on the basis that they  
13 ride the elevators with staff who do have patient  
14 care activities and with patients and just managed  
15 to get that through. We do screen for varicella  
16 and people who are susceptible are offered  
17 vaccine. If they don't accept the vaccine, they  
18 are not assigned to high risk wards. Because it  
19 infects such a small group of people, most of whom  
20 understand it, we didn't run into legal problems  
21 there. But if you follow that path and that  
22 justification for requiring influenza vaccination,

1       you're going to basically have to not allow people  
2       to take care of any patients in the hospital. My  
3       question is, I need some legal advice because I've  
4       been told that we can't do that. I'm not  
5       impressed. Requiring a signed declination is  
6       better than not, but I don't think it's good  
7       enough and it doesn't solve the ethical problems  
8       and the ethical problems of the supervisors who  
9       still allow carriers, if you will, to expose  
10      patients. I wonder if you could follow up a  
11      little bit on the legal aspects of that.

12                 DR. POLAND: Couldn't agree more. What  
13      I can say is that, I think, is it Georgetown or  
14      George Washington, there's a legal group there  
15      that has now published a document, and I can send  
16      you the link for it, looking at the legality of  
17      requiring it in long-term care settings. It just  
18      happened to be where they first did it because the  
19      long-term care group is way ahead of the acute  
20      care group, and found no legal barriers to doing  
21      so. That needs to be extended into the acute care  
22      settings. It's interesting, as you and Pierce.

1           CAPT RUTSTEIN: Were pointing out, how  
2 many of you have seen a case of diphtheria in the  
3 last 20 years or tetanus or rubella. Maybe if you  
4 went outside of the U.S. and yet we require that.

5           CAPT RUTSTEIN: As this group knows very  
6 well, you can do things in a uniform service that  
7 you have a hard time doing in the general public.  
8 Just to let you know what the public health  
9 service has done in the last few years on this  
10 under this Surgeon General, all public health  
11 service employees, whether they are clinicians  
12 delivering care to patients or not, are required  
13 to be fully immunized, including annual influenza  
14 vaccine. If they're not, they're ineligible for  
15 promotion. This past year was the first year that  
16 that was actually instituted.

17           DR. POLAND: Impressive.

18           CAPT RUTSTEIN: Again, I would advise  
19 all uniformed services to consider this not only  
20 for their clinicians, but for everybody.

21           DR. POLAND: We just recently became  
22 aware, by the way, thank you for that comment,

1       there are 11 hospitals in New York City for which  
2       it's mandatory. Hospitals have found ways to deal  
3       with the legal issues. There tends be the fear of  
4       more push back than the reality once they actually  
5       do it.

6                   DR. PARKINSON: Great presentation,  
7       Greg, and very useful stuff all pulled together.  
8       Couple of questions. The whole area of  
9       occupational medicine programs in health care  
10      institutions is something that has always been a  
11      nuisance to most hospitals. It's not always been  
12      attractive to the best and brightest and as a  
13      matter of fact it's been a place where you parked  
14      people, a little bit. One of the goals here, I  
15      think, should be to elevate the role of  
16      occupational medicine in health care institutions  
17      and have a forum where this can discussed with the  
18      key stakeholders. I'm not sure where that is in  
19      the specialty societies -- know there's nosocomial  
20      infection epidemiologists in a lot of our  
21      institutions, which comes as much increasingly out  
22      of medical liability. But the proactive

1 occupational medicine side, I'm not sure where  
2 that lives. So for all of us in our societies, we  
3 can think about that.

4 DR. POLAND: Please do. This month, in  
5 response to my pushing this, the American College  
6 of Occupational Medicine Physicians published a  
7 position paper saying that they did not believe in  
8 the active declination program. No, that there  
9 was no evidence that active declination programs  
10 increased immunization rates, despite what I've  
11 just shared with you.

12 DR. PARKINSON: I've got to think about  
13 that. So there's work to do there clearly. The  
14 second piece is that I think about Don Berwick's  
15 campaign. For those of you who don't know, Don  
16 Berwick is very vocal and sometimes increasingly  
17 strident, probably justifiably, about the lack of  
18 the health care profession to take the lead in  
19 things that are clearly laid out over years, over  
20 years, that we just don't -- Semmelweis has it  
21 right. I think what we need to do, what I do is  
22 try to turn around to the patient and the

1 consumer. We actually put a checklist on our  
2 website, if you or a loved one is going in the  
3 hospital, make sure that whoever touches you  
4 washes their hands immediately before they touch  
5 you. And if they don't, ask them if they did.  
6 Maybe we should add to that checklist, Did you get  
7 your flu shot, because you can't rely on the  
8 hospital to make sure that the nurse got her flu  
9 shot. It sounds a little bit "in your face", but  
10 you know what? If it's my mom or if it's my wife,  
11 maybe that's what you need to do. There's a whole  
12 consumer approach here we might be able to do.  
13 Thirdly, I think it's great, getting back to Don  
14 Berwick, I'd want to ask him, Why isn't that one  
15 of the major steps for your 100,000 lives  
16 campaign. They've recently launched something to  
17 save 100,000 lives in the health care industry in  
18 the next, I think it's three years or five years.  
19 I think part of it is, I look at your data, this  
20 is all the data that's in there about the  
21 relationship between health care worker  
22 immunization and the actual mortality in patients,

1       it's hard for that body to probably make the case  
2       that's on the top 10, although I bet you anything  
3       it is. If it's 50 percent of all cause mortality  
4       not just respiratory, in immunocompromised people,  
5       it's probably huge. It might also be another  
6       angle to get back to Don and his team up there and  
7       push that.

8                 DR. HALPERIN: Just two short comments.  
9       One, I can't resist, but it's my observation is  
10       that very good occupational medicine people in  
11       hospitals run smack into chairs of medicine and  
12       surgery who don't support the programs. That's  
13       the short quip. You might want to think about  
14       another truth, which is that workers foul their  
15       nests.

16                DR. POLAND: Okay. Keep going. You're  
17       not wanting to use a certain word?

18                DR. HALPERIN: Workers who work in the  
19       lead industry take home lead and their kids get  
20       lead poisoned. That's why part of the regulations  
21       are for clean clothing and showering at the work  
22       site and so forth. You clearly demonstrated that

1 the workers, the health care workers die of  
2 influenza. They probably take it home as well.  
3 We've all been doing bio-defense talks and  
4 whatever and I've been stressing to the clinicians  
5 and health care workers that I talk with, that if  
6 they don't care about anything else, even  
7 themselves or their patients, they ought to get  
8 fit-tested and they ought to get immunized so they  
9 don't take it home and infect their families. I  
10 think it's another very powerful angle to connect  
11 with people who might otherwise not be motivated  
12 by any of those two prior reasons.

13 DR. POLAND: Going to have to change it  
14 to the eight truths.

15 DR. GARDNER: And to follow, I believe,  
16 I'd love to see some data on this, but I believe  
17 that health care workers, physicians and nurses  
18 who actually get immunized are more likely to turn  
19 around and immunize their patients. I think we're  
20 going to improve our general rate.

21 DR. POLAND: We have some survey data.

22 DR. GARDNER: Because the hypocrisy of

1 having to talk your patients into it when you  
2 didn't do it yourself has got to there.

3 DR. POLAND: We do have some new data  
4 from a survey of 500 nurses at Mayo.

5 DR. MALMUD: First of all, Greg, that  
6 was an extraordinary presentation. I think it's  
7 one of the most enlightening and profound ones  
8 that I've heard in many years of academic  
9 medicine. You mentioned Semmelweis. Semmelweis  
10 failed because he was an "in your face" kind of  
11 person. He insulted his audience, though he was  
12 correct, he fouled his own speech, literally and  
13 figuratively. Your presentation doesn't do that  
14 at all. The introduction, which is the history of  
15 influenza brings it forward in a way which I  
16 thought, having run a hospital at one time, ought  
17 to be seen by every shift, all three shifts in  
18 every JCAHO approved institution in the United  
19 States. Including inpatient facilities,  
20 outpatient facilities, clinics, long-term care  
21 facilities, so that the employees themselves could  
22 be educated as to the risks, the potential risks,

1 and what it might mean to them as health care  
2 providers since you provided statistics for the  
3 numbers of nurses, for example, who succumbed in  
4 the course of caring for the flu epidemic  
5 previously. The point that you made about workers  
6 fouling their own nests is a very important one,  
7 since nothing affects us so much as our own  
8 selfish interests. Family is a very profoundly  
9 important selfish interest. I have a question for  
10 you, which doesn't relate directly to your  
11 presentation. When I ran our hospital, I was in  
12 the embarrassing position of watching flu vaccine  
13 being distributed at shopping centers and  
14 supermarkets, when we couldn't access it. When I  
15 questioned purchasing, they said they had put the  
16 request in, in a timely fashion, but that the  
17 supermarkets were getting it first. How is  
18 vaccine distributed? I'm not challenging, I just  
19 don't understand it. How is it handled?

20 DR. POLAND: From when you're talking  
21 about to now, there have been changes. But,  
22 basically, companies tend to sell, and there's a

1        few reps here, so they can correct me, to  
2        middleman distributors, who then distribute  
3        vaccine because they're for profit now, to the  
4        largest buyers. Those pharmacies, it's not, it  
5        wasn't the little Econo-Foods pharmacy in  
6        Rochester that just happened to get vaccine before  
7        Mayo clinic did, it was their buying conglomerate  
8        that was much bigger than Mayo, to which vaccine  
9        supplies were firstly shunted because of the size  
10       of the business they brought to the middleman  
11       distributor. Lots of people have sort of cried  
12       foul about this and there have been changes in the  
13       way that that has happened. I don't know the  
14       details of those changes though.

15                    DR. MALMUD: Currently? What's the  
16        system currently?

17                    DR. POLAND: As far as I know, any  
18        entity that is licensed and wants to distribute  
19        flu vaccine orders it from the company or through  
20        a distributor. Does anybody have different  
21        information on that?

22                    COL GRABENSTEIN: I can give you a

1 little insight of the DoD situation. We received  
2 our first allotment of injectable vaccine at the  
3 end of August and sent the entire quantity  
4 received to central command, to Iraq, to  
5 Afghanistan. Our next portion that we receive  
6 will go to Korea and then we will begin  
7 distributing it around the United States to our  
8 installations. The flu mist, the nasal vaccine,  
9 has already been begun being distributed around  
10 the country, because that is available in greater  
11 quantity right now for us than the injectable is.  
12 For the balance of our injectable supply we are  
13 competing with all of the hospitals and nursing  
14 homes and private practices around the country and  
15 working collaboratively with the manufacturer to  
16 get our fair share so that we can vaccinate our  
17 retirees who are our over 65-year-olds as well as  
18 the nursing home folks in like situation.

19 DR. BROWN: I want to talk briefly about  
20 Department of Veterans Affairs experience with flu  
21 vaccine. We've just been going through a process  
22 of developing our own policy for purchase of

1 vaccine and the prioritization of both our  
2 patients and also our workers. And follow up on  
3 Pierce's point, we made a decision in prioritizing  
4 our health care providers to go through an  
5 exercise to figure out all workers who come in  
6 contact with patients and if you go through that  
7 exercise, at least in our experience, we put at  
8 the top priority people like our food providers,  
9 or people who work in the cafeteria, for example,  
10 who may come in contact with hundreds and hundreds  
11 of patients a day. We decided to put them at the  
12 top of the list. What I'm not clear about though  
13 is have we actually required as a condition of  
14 employment to get vaccination.

15 DR. POLAND: As far as I know, no. The  
16 VA system has not.

17 DR. BROWN: I haven't heard of that. I  
18 was wondering, you mentioned in the hypothetical  
19 case that you mentioned at the beginning where you  
20 had a patient that was immunocompromised and they  
21 died from exposure to a health care worker. I'm  
22 wondering if you can comment at all about how

1 lawsuits drive this process. It seems to me that  
2 that -- we can talk about the ethics of it and  
3 that's critical, but lawsuits can also be an  
4 important driver.

5 DR. POLAND: It's very unfortunate, but  
6 in my heart of hearts, I think that's what the  
7 tipping point will end up being. As soon as  
8 lawyers smart enough to understand molecular  
9 epidemiology get a hold of this sort of stuff,  
10 there's no question in my mind that will happen.

11 DR. MALMUD: I have a brief question,  
12 perhaps it's for Dr. Grabenstein and that is, we  
13 are here on behalf of the armed services and I  
14 don't want to leave this meeting without an  
15 understanding. Does the federal government have a  
16 sufficient supply of flu vaccine to first immunize  
17 our troops at a time of war, because we are at  
18 war? Is the answer yes or a no or conditional?

19 COL GRABENSTEIN: The answer is yes,  
20 eventually. All the vaccine doesn't come off the  
21 assembly line on the same day. It rolls out lot,  
22 by lot, by lot over the course of two or three

1 months as the FDA releases each individual lot  
2 from the manufacturer. Today we have enough for  
3 Iraq and Afghanistan. We don't yet have enough  
4 for Korea. In so long as the virus is circulating  
5 late in the season that's okay, but some year it's  
6 going to circulate in September/October instead of  
7 in January and then we will be hurting because we  
8 won't have enough.

9 DR. MALMUD: My question specifically  
10 is, will the armed services get it before healthy,  
11 young adults who are not at high risk get it at  
12 their local supermarket?

13 DR. POLAND: Potentially, no.

14 COL GRABENSTEIN: Potentially, no. We  
15 follow the -- the CDC has published in the  
16 morbidity/mortality weekly report in the last few  
17 weeks a tiered system that segments the people in  
18 need of vaccine in priority. We follow that same  
19 tiering system with the addition of a tier for  
20 troops in operational settings, that's the  
21 Iraq/Afghanistan criterion. We actually put them  
22 as our top tier, because they can't be taken away

1 from their job. In other words, the risk of that.  
2 Then we follow with the same tiering system. It  
3 is a voluntary system. There are too many outlets  
4 in the United States for there to be perfect  
5 application of these tiers. We found out last  
6 year with the vaccine shortage that if we  
7 well-intentionally reserved vaccine for some over  
8 65-year-olds who weren't going to come in because  
9 they elected not to get vaccinated, we were  
10 denying vaccine to the lower tiers. So, it's a  
11 very complex program to implement.

12 DR. MALMUD: Thank you.

13 DR. POLAND: I think we'll move on. The  
14 last speaker went a little bit over. Our next  
15 speaker will again be Lieutenant Commander Tom  
16 Luke of the Navy's Bureau of Medicine, presenting  
17 on response revisited. He's going to take us back  
18 to yesterday's discussion on DoD's response  
19 policy. Commander Luke.

20 LCDR LUKE: Thank you, sir. Good  
21 morning, ladies and gentlemen. I'm going to  
22 attempt to pronounce this: Ou est la masse de

1 manoeuvre?

2 CMDR CARPENTER: Ou est la masse de  
3 manoeuvre?

4 LCDR LUKE: Several months ago, Colonel  
5 Gibson and I had talked about the opportunity for  
6 me to give a presentation on what I perceived as a  
7 better way of providing disaster response in  
8 public health services during disasters. Recent  
9 events have kind of overtaken this and some of  
10 what I was going to say is no longer appropriate.  
11 I've changed this presentation significantly. I  
12 will not be talking about recent events. It may  
13 not be as smooth as my previous presentation, but  
14 I hope to convey to you a sense that I think that  
15 disaster response deserves full-time professionals  
16 who have the dedicated mission to be able to  
17 respond to these in a timely, appropriate and  
18 professional method without having this context of  
19 dual use and ad hoc nature that I think much of  
20 our disaster response relies on today. It's a  
21 very appropriate quote, "It is now clear that a  
22 challenge on this scale requires greater authority

1 and a broader role for the armed forces. The  
2 institution of our government most capable of  
3 massive logistical operations at a moments  
4 notice." Basically, when I read that, that is a  
5 strong central authority who understands basic  
6 epidemiological principals. Restated from  
7 Crosby's Epidemics and Peace. Next, please.

8           So the question I have today is what  
9 role should DoD have in immediate response to  
10 national disasters? We can categorize many of  
11 them, but we're really talking about bio-terror  
12 agents, natural epidemics, such as pandemic  
13 influenza, natural disasters and nuclear and  
14 radiological weapons. Stated another way, not  
15 general but specific, let us consider what is the  
16 most effective way to immediately deliver  
17 antibiotics from the strategic national stockpile  
18 to a large metropolitan area. The federal  
19 government has purchased them. They have them in  
20 stocks. The plan is to get these to the state.  
21 The state has a plan to get these to the local  
22 area. The local area has a plan to get these to

1 the public health official in charge who then must  
2 get those to the health care provider, who then  
3 must get those to the individual patient. There  
4 are a lot of challenges in that issue. The fact  
5 is the federal government has the asset, but there  
6 is confusion on the role of how they're actually  
7 going to get that to you and I. There's a long  
8 chain there. I think that we need to think about  
9 in just exactly that context. The person or the  
10 organization or the structure that has the ability  
11 to save your children and neighbors and so forth,  
12 really doesn't have the authority to get it  
13 directly to us. Next please.

14 The reason why I'm asking this question  
15 comes from your charter, the objectives and scope  
16 of your activities. It says the Board shall  
17 provide independent advice and recommendations on  
18 military matters pertaining to operation programs,  
19 policy development and research programs and  
20 requirements for the prevention of disease and  
21 injury and the promotion of health to the  
22 Secretary of Defense. This is in your lane. As

1 the nation's public health experts, the  
2 epidemiologists, scientists, you need to think  
3 about this issue. It is not going to be  
4 sufficient to say, Oh, well we should have thought  
5 about it or we should have had the plan or the  
6 local mayor, it was his responsibility. I think  
7 that we need to make some expectations known. I  
8 would hope that the Board would take some time to  
9 think about, what is the mechanism? The most  
10 efficient and effective mechanism to get  
11 life-saving pharmaceuticals and aid to our  
12 population in time of natural disaster. Next,  
13 please.

14 I'm going to use a military analogy here  
15 about when nations, very important powerful  
16 nations, perhaps the richest in the history or of  
17 that age, fail to do certain things. I call this  
18 a New War: 1940. As you know, there was what was  
19 called the Blitzkrieg attack, which was really  
20 just the first advent of the combined arms attack  
21 that was popularized in World War II and is a  
22 forefront of our national strategy and tactics in

1 our military. But they ruptured the right flank  
2 of the French defenses. We're talking about  
3 perhaps a couple thousand vehicles, a few tens of  
4 thousands of men. The French national strategy  
5 had no ability to respond to such a mobile unit  
6 and the result was piecemeal, uncoordinated.  
7 Delayed counterattacks were literally pulverized.  
8 They had no response to this and in the end a few  
9 tens of thousands of men severed lines of  
10 communication, the result was political, social  
11 and military paralysis, civilian despair and  
12 disorder. The result was a defeatist national  
13 psychology and the French lost outright. The fact  
14 of the matter was they had more troops, they had  
15 more money, they had more tanks, they had more  
16 machine guns. They had more of everything. More  
17 allies. In the end they did not have the strategy  
18 to deal with this new threat here. Next, please.

19 Where is this title, which means in  
20 French, where are the reserves? This is where it  
21 comes from. Winston Churchill, who was nobody's  
22 fool, ran across the English Channel to France, he

1 looked at the disposition of these forces and  
2 says, Where are the reserves? And the French  
3 government said there are none. We never made a  
4 provision for this. We never made a provision  
5 that would have anything beyond a Maginot Line and  
6 the Old Schlevin (phonetic) plan. They did not  
7 have a response and I think that we need to  
8 consider what response we need. Which brings on  
9 the next slide.

10 A new war is on us in 2006. In this  
11 potential situation, a virulent disease arises in  
12 a metropolitan area of millions or it could be an  
13 8.0 earthquake or a category 5 hurricane, a  
14 nuclear explosion. You can take a look at the 15  
15 Homeland Security planning scenarios that have  
16 been offered and I think that one aspect may be  
17 piecemeal, uncoordinated and delayed efforts by  
18 individuals, first responders, local, state and  
19 federal government agencies and what will occur is  
20 the immediate response will be or appears to be  
21 from our friends in the media, overwhelmed. The  
22 epidemic will probably progress and I will believe

1 that the end result will be political, social,  
2 military paralysis, civilian anger and disorder.  
3 The question is, what is the outcome? What is the  
4 outcome of an unrestrained epidemic in this  
5 country if we can't get ahead of it? Next,  
6 please.

7 Let us talk about one such scenario  
8 where we have a pulmonary anthrax outbreak or  
9 attack on a metropolitan area. Anthrax develops  
10 rapidly. The efficacy of prophylactic medications  
11 diminishes sharply after 48 hours. I believe that  
12 this is a reasonable scenario. There is at least  
13 one individual that has this skill set today. We  
14 don't know who that individual is. I think he's  
15 still out there and I think that this is a fact or  
16 a reasonable scenario and the facts drive the  
17 necessary response capabilities. That doesn't  
18 mean that we have a response in 48 hours. That  
19 means that we have effective within 48 hours.  
20 That means that we're going to have to have tens  
21 to hundreds to millions of individuals on a  
22 prophylactic medication within 48 hours or the

1 result is, is that we're going to have millions or  
2 hundreds of thousands of people are going to die.  
3 Next, please.

4 The question is, really let's simplify  
5 this, what is a national disaster? That means a  
6 national asset is severely disrupted or it is  
7 destroyed. We can talk about the political  
8 aspects, economic and societal, but from our  
9 perspective for this highly technological society  
10 we have, what we are talking about is major  
11 cities, where we have densities of people that are  
12 100 -- 200,000 individuals or more per square  
13 mile. This is our fulcrum. People love to say  
14 that the tipping point in other things, but we  
15 have to say that major cities are our most  
16 vulnerable asset and the most difficult if we are  
17 going to have effective intervention.

18 Talking about intervention, we have to  
19 recognize that there are phases of response.  
20 Things just don't materialize. You see that old  
21 joke, this is the plan, then a miracle occurs and  
22 then the desired outcome occurs. We cannot depend

1 upon a miracle. What we have to do is we have to  
2 get very busy with preparation. We have to get  
3 very busy with how we are going to actually  
4 deliver immediate response and then we're going to  
5 have to talk about recovery and ongoing  
6 operations. Next slide, please.

7 After the national response plan came  
8 out, this is 426 pages, I may be the only  
9 individual that's read this in the United States.  
10 Has anybody else read this whole document? We've  
11 got Ms. Embrey in the back. It's an interesting  
12 document. It is a document which has been signed  
13 by 32 signatories, various departments, agencies,  
14 Red Cross, Tennessee Valley Authority. As you go  
15 through this, you recognize that the Department of  
16 Defense is a key organization throughout. I've  
17 excerpted two paragraphs from the national  
18 response plan which I think are very descriptive.  
19 "The end result is a vastly improved coordination  
20 among federal, state, local and tribal  
21 organizations to help save lives and protect  
22 America's communities by increasing the speed,

1 effectiveness, and efficiency of incident  
2 management . . . and integrates them into a  
3 unified coordinating structure."

4 Next, "Various federal statutory  
5 authorities and policies provide the basis for  
6 federal actions and activities...nothing in the NRP  
7 alters the existing authorities of individual  
8 federal departments and agencies. The NRP does  
9 not convey new authorities," This is a  
10 coordinating document which basically means that  
11 we will agree to coordinate in the event that  
12 there is a national disaster. It does not say  
13 anything about the mechanisms by which this will  
14 be done. In the end, I am not of the opinion that  
15 the national response plan is the optimum document  
16 for immediate response. Next, please.

17 The DoD role has been discussed in the  
18 NRP and it says, Imminently serious conditions  
19 save lives, et cetera. When such conditions exist  
20 and time does not permit approval from higher  
21 headquarters and local military commanders and  
22 responsible officials from DoD components and

1 agencies authorized by directive 42 National  
2 Response Plan, 2004 and pre-approval by the  
3 Secretary of Defense conditional upon supplemental  
4 direction that may come from their individual DoD  
5 component as well as necessary actions that must  
6 come from civil authorities but are consistent  
7 with the Posse Comitatus Act, which essentially  
8 says, look, it's very difficult for a military  
9 commander to come out of his gate, in any  
10 circumstance. The reason for this, I think, goes  
11 back to the very real concern about the separation  
12 of police powers. The problem is that it seems  
13 that we have categorized public health measures as  
14 compromising police powers. Perhaps they do, but  
15 the Posse Comitatus Act was originally designed to  
16 prevent federal troops from influencing southern  
17 state elections in the 1870s. I'm suggesting that  
18 perhaps other mechanisms and new laws and theories  
19 may allow the DoD to take a more active role when  
20 immediate response is required in what are  
21 typically local and state community roles. Next,  
22 please.

1           My analysis is it assigns collective  
2           responsibility. There's unclear authority. There  
3           are accountability issues and they result from  
4           various laws, Posse Comitatus, Stafford Act,  
5           Tradition and Custom and Constitutional Separation  
6           of Powers. I've heard a lot of individuals  
7           throwing the blame on FEMA. I will just point out  
8           that they are the coordinating agency for this  
9           document. They do not own any trucks, they do not  
10          own any planes and they do not own any  
11          automobiles. All of their response capability  
12          belongs to somebody else. I think that the  
13          mechanisms that have been offered in the NRP for  
14          authorizing and obtaining immediate response from  
15          federal agencies is bureaucratic. I do believe  
16          that the NRP is an excellent comprehensive plan  
17          for the recovery phase of the operations, but  
18          immediate response can be improved by other  
19          mechanism, which is the point that I want to talk  
20          to you about today. Next, please.

21                    The bottom line, many homeland defense  
22                    scenarios require an immediate response that will

1       require numerous, highly trained and organized  
2       responders from all level of society. This is  
3       model, anthrax attack on metropolis. Next,  
4       please.

5                   I see a lot of effort being talked about  
6       communications and proved surveillance systems and  
7       so forth, I think that we should get back to the  
8       basics. It's my belief that populations become  
9       unstable in 48 hours when they lack any or all of  
10      the four essentials. This is just right out of  
11      the old civil defense planning guides that we had  
12      in the 50s and 60s. The basics are food, water,  
13      shelter and if you lack any of these you cannot  
14      have a stable population. The end result is  
15      security and in addition to security is enhanced  
16      or ensured by public health, by physical  
17      protection and the modern requirement of  
18      electricity and fuel. I think that this is the  
19      other nugget that I'm going to give you; no  
20      matter what anybody says about a response plan, if  
21      this is overlaid with a strong central authority  
22      and it actually addresses these four main issues,

1 we can reduce a lot of the clutter that I see in  
2 many of the proposals and plans that I've had a  
3 chance to review. Next, please.

4 I think a national immediate response  
5 model that I would like to see comprises the  
6 following: individual efforts, local efforts and  
7 capabilities, state efforts and capabilities and  
8 national preparedness. This is what we're looking  
9 for. We need to have an immediate response, which  
10 is done by professionals. I think it necessarily  
11 must be military-like and it consists of civil  
12 disaster response brigades at the local and state  
13 level. And federal disaster response brigades  
14 which are dedicated to this mission. Not dual  
15 use, but individuals who have the equipment, the  
16 training and the skill necessary to actually make  
17 a timely intervention in time of national crisis.  
18 Follow on aid and resources such as the NRP. The  
19 last issue is, I think that there needs to be a  
20 clarification of state, federal and local disaster  
21 response laws that will allow the full might and  
22 strength of the nation to respond to incidents of

1 great national significance. Next, please.

2 Any national response plan necessarily  
3 has to include individuals and the family.  
4 Immediate response always starts with the  
5 individual and family. Let's go back to anthrax.  
6 I've had a chance to talk to many medical  
7 providers and I asked them, are you prepared for  
8 anthrax and they tell me yes, my antibiotic's on  
9 hand. I've talked to some of you about that.  
10 Medical providers in the military, civilian  
11 sector, they've got their Cipro, they've got their  
12 Doxycycline and I say, "Why?" And they say,  
13 "Because I can't rely on someone to bring me or my  
14 family necessary prophylactic antibiotics." We  
15 don't have a mechanism which empowers  
16 individuals -- we're able to write a prescription  
17 and you have it. If you are just an average  
18 civilian, you're going to have to wait for someone  
19 to bring this to you. I don't think that we've  
20 actually discussed with people the individual  
21 roles, responsibilities and actions when they're  
22 executing one or two broad plans and that is they

1 shelter in place or they evacuate. We have not  
2 really talked about that. If we say that  
3 individuals are going to have to shelter in place  
4 for 24, 72, 96 hours, we have to address how every  
5 family must have an adequate supply of food, water  
6 and personal medications and prophylactic  
7 medicines. Former Secretary Riggs was derided  
8 when he came out and just said every family must  
9 have a three-day supply of food. I think that is  
10 key to the national strategy, because individuals  
11 without food and water cannot exist. They will  
12 access those supplies in one fashion or the other.  
13 I think we better buy off on the idea that we need  
14 to start talking about what is the optimum  
15 disaster preparation kit, just like we decide how  
16 much food and water should a soldier have or a  
17 marine. I think we have to determine what every  
18 family does and put this into some kind of context  
19 that the average American can access it now. You  
20 can go on the Internet and there's all kinds of ad  
21 hoc people selling dehydrated foods and  
22 ciprofloxacin in from Mexico and so forth and I

1 think that from a legislative requirement, I think  
2 that we could make a legal mechanism for  
3 individuals to buy waterproof, impact-resistant  
4 kits that have the basic requirements for them to  
5 be able to enact either of these two plans for a  
6 limited period of time. I think that because it  
7 necessarily has to have personal medications and  
8 prophylactic medicines, it seems to me like a  
9 medical device and I think that the FDA and others  
10 would have a role in that. I think if there needs  
11 to be minimum legal requirements and  
12 standardizations for these kits, just like we have  
13 requirements for cars and television sets,  
14 electrical appliances, drugs that you get out of  
15 stores over the counter and so forth, and I think  
16 that there are other mechanisms that we can  
17 prepare individuals to have these in the sense of  
18 other issues such as building codes. Does every  
19 condominium or apartment building have an adequate  
20 supply of water that people can draw on in the  
21 middle of Manhattan when they need an emergency  
22 supply of water? Just as there are requirements

1 to have smoke detectors and other safety devices  
2 in homes, there may be a requirement if we're  
3 actually going to have a national strategy that we  
4 talk about how individuals are going to have water  
5 in the event of an emergency. Next, please.

6 I think that we need to have state civil  
7 disaster response corps, probably modeled on the  
8 Civil Conservation Corps of the depression era and  
9 the defense brigades that they had during World  
10 War II. I think it's a state function that the  
11 governor controls. It's an adjunct to the  
12 National Guard. I think they are professional and  
13 I think that the state laws must have a degree of  
14 standardization so that the federal government has  
15 an ability to quickly move in and assist at the  
16 request of a governor. I think that we need to  
17 have local units in the cities and in our towns  
18 that are comprised of volunteers and others with  
19 specialized training. One potential way to get  
20 the necessary expertise is what I would call  
21 retired-retained. So if you're receiving a local,  
22 state or federal pension that you would have an

1 obligation to serve in these units for a period of  
2 time. I think that these would have drilling  
3 periods at local schools and other public  
4 facilities. I think that they would be able to be  
5 activated at local, state and federal levels and  
6 their primary mission is to keep everything simple  
7 and affordable. That means that their mission is  
8 to know the neighborhood and the people, they know  
9 the police, the firemen, the EMS personnel. They  
10 know the plans, provide the training and  
11 information and they're able to assist in actual  
12 disaster training and disaster response. I think  
13 that there's an over reliance on first responders,  
14 the professional first responders. I think in a  
15 disaster situation they will be overwhelmed and  
16 they're going to need the assistance of the  
17 population. We need something on the order of a  
18 home guard. I hesitate to say militia, because  
19 that has certain connotations, but this is  
20 absolutely essential. We have to have the buy-in  
21 from the local population if we are going to be  
22 able to meet that requirement to provide effective

1 intervention within 48 hours. Next, please.

2 I think the federal government does have  
3 a role. I think that we can't have dual-use  
4 individuals. We have to buy off on the idea of a  
5 federal disaster response corps. One potential  
6 mechanism for this is what I would call four  
7 dedicated brigades, each responsible for a  
8 specific geographical region with the personnel,  
9 the equipment and supplies that are able to move  
10 into a city or an affected area and provide, not  
11 only initial support, but would be the conduit to  
12 bring in all the fantastic resources that we have  
13 from other agencies of the federal government and  
14 state and local governments that have assets that  
15 can move in, in a coordinated fashion to assist in  
16 disaster response.

17 I think we need continuous training with  
18 the regions and the states. I think that the  
19 focus is public health, not police powers and its  
20 orientation. Obviously there is a security  
21 element there, but I'm not sure that we need to  
22 confuse police powers with the need to provide

1 rapid public health. Certainly I think that laws  
2 and authority need to be talked about on a  
3 national level and ultimately is going to require  
4 a standardized legislation to allow federal, state  
5 and local governments to determine a hierarchy of  
6 authority when we have national disasters. One  
7 such mechanism that I will talk about was that  
8 this was a problem during the cold war where the  
9 President may have been required or actually did  
10 put U.S. Armed Forces into a combat situation and  
11 that was addressed with the War Powers Act. There  
12 may be a role for Congress to talk about  
13 something, the National Disaster Powers Act which  
14 very well clarifies what the authority is going to  
15 be in the event of a natural disaster. Next,  
16 please.

17 The question I have for the AFEB is,  
18 since there is a new emphasis on national disaster  
19 response, who will be the disaster response  
20 reserve? Who do you think? I don't care, but I  
21 think they should have a lot of capability and a  
22 lot of training. The second question is, should

1 DoD have a role in disaster response? Is this a  
2 primary role or is this a secondary role? What  
3 are the issues of DoD participation? Cost issues,  
4 personnel issues, organizational issue and legal  
5 concerns. Finally, once that analysis has been  
6 done, should the AFEB make a recommendation?  
7 That's up for you to decide. I think that  
8 ultimately DoD will be called upon as the cavalry  
9 to respond to national disasters. That's just the  
10 fact. The question is, is whether they're going  
11 to have a formal role in that in national public  
12 health defense or whether they're going to remain  
13 in this role as providing a secondary response.  
14 Thank you.

15 DR. POLAND: Thank you very much. I  
16 think what I'd like to do with the consensus of  
17 the committee is direct this discussion a couple  
18 of ways. First, if I could ask General Kelley and  
19 Ms. Embrey to give any senior level DoD comments  
20 about this issue. And then, if I could, I don't  
21 see Mike here, but Mike and Greg Gray, if I could  
22 ask them for a perspective of people who spent a

1 significant amount of time in senior positions in  
2 DoD and now are on the civilian side, I'd like  
3 their perspective and then general committee  
4 discussions, that would be okay.

5 GEN KELLEY: I think that Commander Luke  
6 brings up some interesting challenges of how we  
7 should best be ready to respond. I think that  
8 there are many people who are involved in this  
9 process even before the Katrina events came out  
10 and there has been much discussion on some of the  
11 specific issues of how do you get the appropriate  
12 medication to the appropriate people in the  
13 appropriate times. Many interagency committees  
14 that are discussing those particular issues on how  
15 do we do that. I think that DoD does have a  
16 disaster response role. There are some dedicated  
17 forces to that. For example, the Chem-Bio  
18 Immediate Response Force of the Marines, the CBIRF  
19 is a dedicated force that is for responding. The  
20 standing joint force task forces are headquarters  
21 organizations that are to be trained to respond.  
22 Then much of the rest of the response is what we

1 call the dual-capable forces that they're  
2 primarily for an overseas response, but are  
3 capable of responding to a response here. If you  
4 use the Katrina example, the medical units that  
5 responded were not specifically trained to a  
6 hurricane disaster, but they are trained to  
7 respond to disaster and responded very well in  
8 those situations. I think that with the Katrina  
9 events there will be significant reviews of DoD's  
10 involvement and level of leadership in the  
11 response. I think that without a more formal  
12 lessons-learned review, I would be hesitant to say  
13 that we should jump in and make a recommendation  
14 from this committee at this time. I think it  
15 would be worthwhile, in the future, as the reviews  
16 occur that that be a topic of discussion to come  
17 back to and say what we should do.

18 MS. EMBREY: I think the questions that  
19 the Commander identified and the sense of  
20 frustrations he has is that we are not organized  
21 as a nation to effectively respond. We don't have  
22 clear lines of authority. It's very obvious, it's

1 well known, it's been documented for a number of  
2 years. I think you should not take away from that  
3 lack of central authority and the coordination  
4 that's required. You have inputs, you have  
5 processes and you have outputs. I value his  
6 out-of-the-box thinking and I value what he's  
7 talking about. But to address the issue of DoD's  
8 role in that context needs to be looked at, at  
9 multiple levels. DoD's mission heretofore has not  
10 been to do these kinds of things and that there is  
11 constitutional, legal authorities that limit our  
12 ability to do this and to assume a role without  
13 the legal authority to do that. As a result, I  
14 think we need to look at the end stay. This  
15 nation and its capacity, if you look at it from a  
16 leading economic indicator, has enormous  
17 logistical capabilities in order to make a profit  
18 in almost every sector. How do we leverage that  
19 to take care of our people? That's the question.  
20 Is DoD that player? Are we the best logistics  
21 capacity in this country to take care of our  
22 citizens? I would say we probably would have a

1 hard time competing with FedEx. We would have a  
2 hard time competing with some other folks when you  
3 talk about it in that sense. There are leaders in  
4 this country who know how to do things and perhaps  
5 when we talk about national response capacity, we  
6 don't look at it as a purely governmental  
7 responsibility. We are all citizens and we all  
8 have a duty to take care of our country. It's  
9 obvious in every national disaster that everyone  
10 wants to find out how to help. We need a  
11 framework for dealing with that. It isn't  
12 necessarily that DoD is the answer. Where we can  
13 do it best, we should. I agree with you and I  
14 applaud your thinking, but I don't know that DoD,  
15 because we can, we should. From that standpoint,  
16 the lessons learned from this and other  
17 investigations I think will be a C-change and we  
18 will learn and we should learn that it isn't just  
19 governmental authorities that should be  
20 contributing to this capability.

21 DR. POLAND: Let me next get Greg Gray  
22 and then Mike Parkinson's viewpoint on it and then

1 open it up for discussion. I know there are lots  
2 of comments.

3 DR. GRAY: I have to agree that the  
4 points are well taken, but realistically this  
5 advisory body and the advisees we advise would  
6 really have little authority to effect such a  
7 major national change. I'm sort of pessimistic  
8 that we could do much here as the AFEB to effect  
9 such a change.

10 DR. PARKINSON: Let me give you a  
11 perspective on the private sector. What I did  
12 like, Tom, about your presentation was the notion  
13 of using, some of us are old enough to remember  
14 the civil defense model, where even as kids we'd  
15 duck and cover. Whether or not that was realistic  
16 or not, there's a common awareness of a threat.  
17 There was a common response to that threat that  
18 was owned at the individual level, which was also  
19 in the school level, which was also in the  
20 business level, which was also in the community  
21 level. Perhaps that is the model that I took away  
22 from your talk as saying how do we instill that

1 civil defense ethic in the 21st century around  
2 nuclear, chemical, biologic, natural disasters in  
3 a way that's meaningful. The way that you're  
4 going to do that and perhaps there's just a way to  
5 take that forward, is to say that DoD, like every  
6 other signatory, whatever they call the national  
7 report, has got to begin to develop, and this is  
8 where I think there could be some very  
9 constructive work, around the way DoD does things.  
10 In other words, what's the goal, what's the  
11 strategy, what's the tactics? How do you  
12 organize, train and equip at the individual,  
13 family, employer and community level to do it and  
14 create a document and a road map which is exactly  
15 how we do military doctrine and translate into  
16 operational success. I can tell you, with the  
17 exception perhaps of Wal-Mart, Home Depot and HCA,  
18 which by the way, if you've got a Wal-Mart in your  
19 community and you've got an HCA hospital, God love  
20 you, you're ahead of the game to Ms. Embrey's  
21 point. We don't have a road map that's  
22 generically available that you can go into 100

1 employers that are clients of mine and say, "Are  
2 you doing this, are you basically insisting on  
3 individual kits that consist of this type and the  
4 other thing?" I think there's a lot of merit to  
5 what you're saying and I think there's toolkits  
6 that could be very generic, by the way, dusted off  
7 and made available in a way that would be very  
8 useful. I don't think that constituting a  
9 non-constitutional or outer-constitutional  
10 approach to this, which is really what it is,  
11 those of you who had the opportunity this morning  
12 to heais the General, the Louisiana Guard General,  
13 I forget his last name. Henrie, he was actually  
14 interviewed this morning on NPR and they pushed  
15 him very hard to say is there anything you could  
16 have done that you couldn't do under the existing  
17 authority that you had. He said, "Absolutely not,  
18 sir." He said, "It's quite clear. Elected  
19 civilian officials are in charge in this country  
20 and I work for them. Now, I've also got  
21 NORTHCOM." He articulated the chain of command.  
22 In the same day, I then went back to my room and

1 saw on television that Texas, apparently the  
2 governor, as far as I can tell, right. Louisiana,  
3 maybe had some lessons to learn. How do you build  
4 governmental capacity? How do you build private  
5 sector alliances where they currently don't exist?  
6 We really do have an employer, individual,  
7 community and federal presence in every community  
8 that says, here's what the assets are. We've  
9 never done that in a systematic way. I think  
10 that's what DoD can offer and I don't think we  
11 necessarily need to go and create new structures  
12 as much as, in the military we call it staff  
13 assistance, and the community should bring its  
14 expertise in terms of assistance and then build  
15 local capacity.

16 DR. CATTANI: The point that I'd like to  
17 make is that there's been a great outcry that we  
18 should be doing an investigation into what  
19 happened in Louisiana and why was it such a  
20 disaster, that the response to the disaster was  
21 such a disaster. What we don't tend to look at  
22 and I think we should look at equally carefully,

1 is the fact that last year, the state of Florida  
2 responded to four hurricanes in six months and you  
3 didn't hear any outcry of it being a disaster.  
4 Instead of just looking at what went wrong when  
5 things went wrong, why not look just as carefully  
6 into what Florida did. How did they respond to  
7 four hurricanes in six weeks? Major hurricanes,  
8 not minor hurricanes. When we tend to set up  
9 these investigative committees by just looking at  
10 the things that went wrong, we could probably  
11 learn a hell of a lot more from things that went  
12 right. I think your point about Texas and their  
13 preparation is going to be more similar to  
14 Florida's ability to respond.

15 DR. HALPERIN: I loved the way you  
16 introduced it with the discussion of what I think  
17 is the Maginot Line and the unpreparedness. I  
18 think that there's a direction to go that we  
19 haven't really much talked about. We've kind of  
20 talked about it, not really grappled with it,  
21 which is if you go to Admiral Nimitz' quote about  
22 fighting the second World War in the Pacific. I

1 believe what he said is that it had been fought so  
2 many times in the naval war college that lots of  
3 people had the experience if it goes this way, if  
4 it goes that way, if we use this doctrine, if we  
5 use that doctrine, this is how we would survive,  
6 et cetera. Yet we will probably engage in some  
7 post hoc analysis of what happened with Katrina.  
8 It's going to be highly political, there's going  
9 to be a lot of blaming and scapegoating, et  
10 cetera, et cetera and that's not the same thing as  
11 taking all the players around the table and  
12 putting them in the situation saying, if this were  
13 to happen, how would we act. I think that kind of  
14 familiarity that kind of working through problems  
15 will be hugely more valuable than I think what  
16 you're accurately reporting is that when it hits  
17 the fan, nobody can read that fast to go through  
18 200 pages and figure out what we're supposed to  
19 do. We've got to exercise. The Naval War  
20 College, which we rarely, I don't think ever have  
21 mentioned around the table, has the kind of  
22 experience, I believe, to model these kinds of

1 problems. Practice what our responses would be.  
2 Bringing the people together to figure out how  
3 they would work together. I don't think we're  
4 talking about that and I think it probably would  
5 have been another conclusion to your good  
6 introduction that we need to model these episodes  
7 and see really how we could work together.

8 CAPT RUTSTEIN: We're still in the  
9 recovery phase of Katrina, so it may be premature  
10 to make too many sweeping conclusions. I think  
11 that there are a few things that have fallen out  
12 already. Things that worked well and I'd like to  
13 mention a couple of them, because I agree, we tend  
14 to dwell on what's not working, but we really  
15 learn, I think, a lot from what works well.  
16 Having been intimately involved with the response  
17 to Katrina as well as to the hurricanes in Florida  
18 the year before, I can tell you, there's a couple  
19 things. One is, particularly germane to this  
20 group is the role of DoD. What I've seen in these  
21 responses is that when DoD collaborates with HHS,  
22 whether the public health service or the CDC or

1 others, it's truly a win/win proposition, because  
2 DoD brings to the table tremendous capacity with  
3 logistics, tremendous assets. And HHS has some  
4 expertise in personnel that do this kind of a  
5 thing, dealing with indigenous people on a  
6 day-to-day basis, so I think that is something  
7 that perhaps DoD may want to look into more  
8 formalizing. It already exists under the current  
9 ESF-8 authorities where HHS, Public Health  
10 Services is in the lead and DoD is in the  
11 supporting role. I don't want to under-emphasize  
12 how important the supporting role is. Everyone  
13 benefits by DoD continuing to step up to the plate  
14 and exercise the authority it already has in this  
15 setting. The other two wins, I think, are  
16 academia. If you look at the response that  
17 occurred to Katrina, you see that academic  
18 institutions came to the table with, not only  
19 their physical plants and facilities, campuses and  
20 the like, but also tremendous outpouring of  
21 personnel, both professional personnel, faculty as  
22 well as students. I think they provide, often, an

1 unheralded tremendous support in this setting.  
2 Finally, the other is professional organizations.  
3 Whether they're organizations of health  
4 professionals or organizations of hospitals or  
5 hospital administrators. These organizations  
6 mounted a huge response in federal volunteers,  
7 volunteers that could be federalized under  
8 existing authorities under ESF-8 that also  
9 provided tremendous supplementary personnel  
10 response to this effort as well as to the effort  
11 in Florida. These three areas are working well.  
12 I think there will be more introspection to  
13 Katrina and find others that are working well too.  
14 I don't want to leave this discussion with the  
15 thought that nothing worked, it's a tremendous  
16 disaster and there's nothing that's going to be  
17 salvaged out of this. I think it's quite to the  
18 contrary.

19 DR. OXMAN: I'd like to commend  
20 Commander Luke for using a very simple, actually,  
21 and concrete example that we've already grappled  
22 with and I think invested a lot of money in, and

1 that is the response to an anthrax attack in a  
2 metropolitan area like Boston. I don't know who  
3 owns the stockpile of ciprofloxacin and I don't  
4 know when it expires and I don't know how many  
5 plane loads it would take to land at Logan airport  
6 and get it to Boston, but I think, in many ways,  
7 that's the simplest example to use to test the  
8 system. I think that unless you can enunciate a  
9 coherent plan that involves pre-positioned people  
10 or people brought in and authority that would deal  
11 with that, I think it's silly to babble about  
12 unknowns and you're not going to have five days of  
13 weather reports predicting the onset of the  
14 attack. You're going to have to respond after the  
15 fact, but immediately after the fact and I think  
16 it's a wonderful example against which to test and  
17 work out an effective organization, which then  
18 could be translated more broadly.

19 DR. POLAND: Can I ask whether, either  
20 our Canadian or British liaison officers have any  
21 perspective? Both of you are from countries where  
22 natural and manmade disasters have occurred and

1       there have been some excellent responses to it.  
2       So just that perspective and then we're going to  
3       move on.

4                   CAPT JOHNSTON: My perspective from  
5       Britain is that resources aren't really a problem,  
6       there are plenty of resources to deal with these  
7       things. The tricky bit is actually coordinating  
8       them. There's the police, the ambulance services,  
9       there's the health services, they've all got very  
10      good organizations, but they've all got their own  
11      organizations. I think very much the emphasis in  
12      the U.K. has been on trying to develop systems to  
13      get these organizations to work together and to  
14      have the central, unified command that will make  
15      sure that they can respond quickly to a variety of  
16      different events that might be difficult to  
17      predict. I think that's where a lot of the effort  
18      has gone in the U.K., into developing central  
19      control systems, headquarters that combine civil  
20      and military organizations so there's a central  
21      coordinating point. Then practicing it. Making  
22      sure that the mayor or the chief executive of the

1 county council has actually been there, he knows  
2 what resources are available to him, he knows who  
3 to ask. They've actually practiced that  
4 coordination role. I don't think there's a lack  
5 of resources. We've got the police, we've got the  
6 ambulances, it's the coordination that perhaps was  
7 lacking in that first 72 hours in Katrina that may  
8 have made the difference.

9 CDR CARPENTER: Similar situation in  
10 Canada. I agree with Captain Johnston. Our  
11 problem is not so much resources, it's  
12 coordinating. Our federal government is stronger,  
13 we tend to have more emphasis on our federal  
14 government in Canada than perhaps you do in the  
15 United States. But, nonetheless, we still have a  
16 big problem with coordination between the federal  
17 government and the provincial governments and  
18 local governments. I don't think we're ready to  
19 handle a disaster such as Katrina if it were to  
20 happen now in Canada. I think we are working on  
21 developing plans to improve coordination between  
22 the various levels of government, but it is a big

1 problem for us as well.

2 DR. POLAND: Seems a universal one.

3 Commander Luke, thank you for your presentation.

4 Actually I want to say more than that. That is,

5 every organization and in sub-cultures within that

6 organization need people who think critically and

7 sort of prick us to think beyond that and I want

8 to encourage you in that. I think you've done a

9 valuable service for the Board. My sense is that

10 it's a bit premature for the Board to weigh in

11 yet. My own preference would be that what we do,

12 do is keep this on our agenda and particularly to

13 ask ASD Health Affairs to keep us informed about

14 the progress of reviews that are happening. Once

15 we sort of have that data and that overview,

16 unless we see something not happening, that that

17 would be an appropriate place for the Board to

18 weigh in. Is that the general sense of the

19 committee or are there differing opinions? Okay.

20 Thank you very much. What I'd like to do now is

21 let's have a ten minute or so bio break here and

22 then we'll reconvene.

1 COL GIBSON: Don't forget to pay your  
2 money for lunch today.

3 (Break taken.)

4 DR. POLAND: If the Board members could  
5 take their seats. Just a couple of things. One,  
6 if any of the Board members would like to have  
7 their notebooks mailed back to them rather than  
8 carry it, if you give it to Karen, she's willing  
9 to do that. Thank you, Karen. That saves me a  
10 lot of effort. I think Colonel Gibson has one  
11 announcement. Then what I'm going to do, is we're  
12 just going to show you, just to lighten the mood a  
13 little bit here, we're going to show you one  
14 little clip about cadet life. We're going to have  
15 a presentation and then we'll get on to other  
16 things.

17 COL GIBSON: Last chance for lunch. If  
18 you haven't signed up, please get back there and  
19 do that. The bus will leave for the tour at 1:00  
20 from here, from Doolittle Hall. Rather than  
21 driving your cars and following us, please get on  
22 the bus. We will have a shuttle bus ready for

1 you. When you're ready to go, you just say so,  
2 we'll take you back up here and drop you off at  
3 your car. That's the best we can do. I think  
4 Severine will also try to have her car available  
5 in case the bus is gone and you've got to go right  
6 away, we'll get you back there. Thank you.

7 (Video presentation).

8 DR. POLAND: You'll be meeting some  
9 cadets. You notice he put the little march  
10 sequence in there. Remember that, at least I'm  
11 acutely aware, having crossed the 50 threshold,  
12 that these guys have always grown up with the  
13 Internet, they've always had cell phones. Their  
14 lives are very different than the way we grew up.  
15 I thought you might enjoy that. Thank you, Karen,  
16 for finding that. Our next speaker is Lieutenant  
17 Colonel Bruce Ruscio, who will provide the lead-in  
18 for the Chlamydia Screening Updates from the  
19 services. Those should be at Tab 13.

20 LT COL RUSCIO: Good morning, Dr.  
21 Poland, Ms. Embrey, Colonel Gibson, Board members  
22 and guests. Thank you for the opportunity this

1 morning to lead off on the series of presentations  
2 on Chlamydia. I'd like, if I may, to make a  
3 comment on some discussion yesterday that the  
4 Board had on the scope and nature of the  
5 recommendations that the Board makes. You may  
6 have seen it in the news, it's on the back pages  
7 given the other news that occurring, but you may  
8 see that the ADS, remember the Active Denial  
9 System, is about to be deployed in support of  
10 operational commanders. It's the recommendation  
11 from this Board that went up through the chain of  
12 command to Dr. Chu and the others at that level  
13 insuring that that system is deployed with and  
14 occupational health and safety program for our  
15 members. That's the scope of the Board's  
16 recommendations are broad and very important.  
17 What I'd like to do this morning is just take a  
18 couple minutes, talk about Chlamydia and I'm going  
19 to get us back on time here. Next slide, please.  
20 Typical military briefing. Next slide,  
21 please. I think you're all aware of the  
22 background, but just to refresh some of the

1 members who may not be. The AFEB made some  
2 recommendations on Chlamydia screening within the  
3 Department of Defense. I have those up there.  
4 They're briefly summarized. The service members  
5 are going to talk a little bit more extensively on  
6 this, but I wanted to provide this as a background  
7 on the AFEB recommendations. Basically showing a  
8 screening program. Next slide.

9 We received the AFEB recommendations,  
10 Health Affairs, we sat down and had some  
11 discussions with the services and went back and  
12 reviewed the policies that are in place, the DoD  
13 level policies. This is DoD policy in place.  
14 That's DoD 1010.10, Health Promotion and Disease  
15 Injury Prevention. That policy outlines DoD's  
16 directive, DoD-wide to support the achievement of  
17 the Health and Human Services healthy people goals  
18 and objectives and recommendations from the  
19 preventive task force on Chlamydia screening and a  
20 variety of others, as you are all aware. A  
21 variety of other recommendations regarding  
22 preventive medicine and disease prevention. We

1 reviewed that, took a look at that and believe  
2 that the policy's in place, the policy's adequate,  
3 the key is a comprehensive reproductive health  
4 program DoD-wide that has monitoring and review of  
5 that program, an assessment of those programs.  
6 The 1010.10 directs the Services' military  
7 departments to implement and evaluate those  
8 efforts in achieving those individual goals.  
9 Essentially, that's the background on the  
10 Chlamydia from the DoD policy level. I'm going to  
11 then turn it over to the next presenter.

12 DR. POLAND: The next presenter will be  
13 Colonel Paula Underwood who will provide us with  
14 the Army's Chlamydia screening update. Those are  
15 also under Tab 13.

16 COL UNDERWOOD: Good morning. Next  
17 slide, please. Trying to follow the parameters of  
18 the presentation, I took that to heart. Here you  
19 see the agenda that I've developed for my talk  
20 today. Next slide.

21 I must say at the outset that I have  
22 shared this presentation with my counterparts in

1 the Navy and the Air Force, and also that all  
2 three services are actually in compliance with  
3 both USPSTF recommendations as well as the AFEB  
4 recommendations. In January of this year, Dr.  
5 Ostroff requested that Dr. Winkenwerder assist in  
6 instituting the following AFEB recommendations.  
7 As you can read there that all new female recruit  
8 accessions should undergo screening to detect  
9 Chlamydia infection, which was part of the AFEB  
10 recommendation. That all female military service  
11 members should be routinely screened for Chlamydia  
12 at the time of their routine Pap smear, up until  
13 the age of 25, also part of the recommendation.  
14 And that appropriate education programs should be  
15 developed and disseminated to all recruit  
16 accessions. There's one thing that isn't up here,  
17 in the letter from Dr. Ostroff, and that is also  
18 is acceptable for the services to simply screen  
19 women under the age of 25. All services are in  
20 compliance with this. Next slide.

21 Again, this just restates what the U.S.  
22 preventive services task force recommends and

1       which we all follow. Next slide, please. They  
2       also recommended that specific risk-based  
3       screening protocols need to be tested at the local  
4       level, as the prevalence of Chlamydia can vary  
5       widely, in the community and the population. Next  
6       slide.

7                 Again, AFEB's recommendation, unless  
8       there's evidence that is available that an equally  
9       effective program exists, they would like the  
10      services to concentrate on testing recruits. The  
11      Navy and the Marines took that to heart and  
12      started targeting, specifically, recruits. The  
13      Army and the Air Force did not adopt routine  
14      recruit screening, but are in compliance because  
15      they do test women under the age of 25. Next  
16      slide.

17                Here is our policy from the Army. We  
18      screen all female military service members up  
19      until the age of 25. That's done during their  
20      annual Pap smear, their screening pelvic exam. We  
21      also test males and females of any age, they're  
22      tested for Chlamydia infection during the

1 appropriate medical encounter as clinically  
2 indicated in medical practice. Next slide,  
3 please.

4 I had an opportunity then to look at  
5 since the Navy took this to heart, Navy and  
6 Marines, and started looking at their recruits and  
7 started testing them, it was an opportunity to  
8 look and see how the testing differed with the  
9 outcome and what did I use for the data source. I  
10 had assistance from Dr. Melissa Glynnner at the  
11 decision support directorate, in the office of the  
12 Army Surgeon General, and the source of the data  
13 is the management analysis and reporting tool out  
14 of the data for the military health services.  
15 What I looked at was all Chlamydia testing was on  
16 all female active duty, 25 and younger in all  
17 services, as a rate, per 1,000. Then I looked at  
18 rates of pelvic inflammatory disease and ectopic  
19 pregnancies in all female active duty in all  
20 services per 1,000, just to see how they related  
21 or if they related to each other. Next slide,  
22 please.

1           I looked at that over a period of four  
2 years, from 2000 to 2004 from this data. The  
3 green bars are the testing rate for Chlamydia.  
4 You can see here that of course the Navy tested  
5 far more as a rate than the Army and the Air  
6 Force. If you look at the outcome and the blue  
7 bars the pelvic inflammatory disease rate, they're  
8 pretty similar, as well as the ectopic pregnancy  
9 rate. I'll grant you not all women become  
10 pregnant, so perhaps we should look mostly at the  
11 pelvic inflammatory disease rate. But you're  
12 going to see a very boringly similar pattern here  
13 over the years. Next slide.

14           This is 2001. Next slide. 2002. Next.  
15 Next. Next. I thought it might be interesting to  
16 look at our mean testing rates and compare that to  
17 what were our mean rates of PID per service. And  
18 here you can see that. The mean rate of testing  
19 is the blue line and the mean rate of PID across  
20 services is the pink line. There's quite a  
21 disparity there between what the Navy did with  
22 their increased testing. Next slide.

1           I also looked at this for ectopic  
2 pregnancy. Looking at the mean rates of testing  
3 versus mean rates of ectopic pregnancy. Next  
4 slide. If you look at fitness of tests or  
5 relationship, you'd expect that if we did more  
6 testing, we might uncover more disease, we're  
7 supposed to. If we treated that, you might  
8 conclude that if we tested more and we uncovered  
9 more we should have a relationship, a linear  
10 relationship between testing and outcome. It  
11 would be depicted, hopefully, in an ideal  
12 situation that the more testing we did, the better  
13 our outcome would be, less PID. So you'd expect a  
14 downward sloping line for this testing, but I  
15 didn't find that. Next slide.

16           What I found was that it was all over  
17 the place. The Army is the blue dot over there,  
18 the ordinate and the axis are the numbers there  
19 between the testing mean. In this case, looking  
20 at the pelvic inflammatory disease mean, you can  
21 see that there really is not a linear relationship  
22 here. In spite of increased testing, it really

1 doesn't have a relationship to the outcome of  
2 pelvic inflammatory disease in this period of  
3 time. Next slide, please.

4           The same was true for ectopic pregnancy  
5 with the caveat that not all service women get  
6 pregnant. Next slide, please. If there were a  
7 linear relationship, you'd expect that correlation  
8 coefficient to be minus one because of a downward  
9 slope. What I found from these slides and looking  
10 at this was the mean rate of testing and mean rate  
11 of PID have a correlation of only.41. As far as  
12 ectopic pregnancy in testing, that correlation  
13 is.43. This is no better than tossing a coin, in  
14 fact, it's worse than that. In spite of testing  
15 differences, looking at recruit populations in  
16 particular, the prevalence patterns of PID and  
17 ectopic pregnancy are fairly consistent across the  
18 services. Next slide, please.

19           Again, the caveat for this, this is only  
20 a four-year period. Women who were tested under  
21 25, may have left the service so we don't really  
22 know what their outcome is. I didn't use the same

1 population as you've noted, I'll ask Colonel  
2 Gibson to comment on this in a minute, but he  
3 looked at the population under 25 and he found  
4 that PID rates were in fact even tenfold higher  
5 than what I found. Next slide, please.

6 What this demonstrates is that this  
7 particular analysis, brief though it is, does not  
8 support targeted testing at recruits. It really  
9 supports that what we're doing as services is  
10 perfectly acceptable, but really what we need to  
11 look at is not so much the testing, because we  
12 know that no one is immune to this infection.  
13 They can get tested, treated and they can be  
14 positive again two weeks later and treated and  
15 positive again. What we really need to  
16 concentrate -- next slide -- are on the outcomes  
17 actually.

18 We need to continue efforts to improve  
19 compliance for screening for Chlamydia at the time  
20 of the regular under-25 exams, because no one  
21 would argue that we need to screen and test, but  
22 this is acceptable. We need to get a better

1 compliance with this. We also need to provide sex  
2 education to all our recruit accessions, not just  
3 the women. This is an equal opportunity  
4 infection. It is a typical STD. It affects women  
5 as well as men and until we do something about the  
6 male aspect of this, as in any regular STD, we're  
7 only speaking to half the choir here. We need to  
8 continue to follow the adverse trends that we see.  
9 If we're still having the same prevalence of PID  
10 and we're looking at evidence-based outcomes, we  
11 need to decipher really what we should be doing  
12 about that, quite frankly. Subject to your  
13 questions, that ends my presentation.

14 DR. POLAND: I've got one question and  
15 then a couple of others. The testing that you  
16 showed each year, was that men and women or just  
17 women?

18 COL UNDERWOOD: That's just women.

19 DR. POLAND: Okay. That may be an  
20 issue, as you're pointing out.

21 COL UNDERWOOD: Yes.

22 DR. GRAY: Paula, interesting data. I

1 would think that for an intervention that only  
2 affects about 10 percent of the people, I'm not  
3 surprised that you don't see a big effect, if you  
4 will, to reduce PID. Additionally, we know that  
5 not all PID is due to Chlamydia.

6 COL UNDERWOOD: That's true. I think,  
7 yes, there is some confounding there, because  
8 certainly not all PID is due to Chlamydia. It  
9 could be due to gonorrhea, other STDs and maybe  
10 not STDs. I guess the take-home point that I want  
11 to make is that there's no controversy here among  
12 the services. We have, and my brethren will speak  
13 when it's their turn, they've seen this  
14 presentation, but if I may, there's no controversy  
15 here. We're all in compliance with what AFEB  
16 recommended. We are all in compliance with  
17 USPSTF. That is clear. What we probably need to  
18 look at is what are our outcomes and how can we  
19 make a difference in decreasing the prevalence of  
20 PID in our populations, because we all have  
21 problems with that. That, I think, is what we  
22 should concentrate on.

1 DR. GRAY: Let me just say that I don't  
2 know that you haven't truly decreased PID and one  
3 approach to investigate that a little more  
4 accurately would be to do something like a Cox  
5 regression modeling where you actually follow  
6 cohorts who have been screened, compare them with  
7 cohorts who have not. Over time measure the time  
8 to the outcome and see if you don't have an  
9 improvement. Before you say there's no  
10 improvement that would be one of the first things  
11 that I would recommend you do. Also, you should  
12 be able to do this with SIDR and SADR data and  
13 possibly even by linking the laboratory  
14 diagnostics at least for SIDR.

15 COL UNDERWOOD: Good point, Dr. Gray.  
16 This was a down-and-dirty analysis and I apologize  
17 for that because it was really quickly done. It  
18 is a jumping-off point for doing those types of  
19 analyses. Absolutely.

20 DR. LEDNAR: First, applauds to you for  
21 taking a look and evaluating the implementation of  
22 a program once it's in place. I think a lot time

1 we put a lot of our energy in coming up with a  
2 recommendation that starts a program and then we  
3 often run out of steam in terms of evaluating has  
4 this program delivered the goal that we had in  
5 mind. So, thank you for doing that. A question  
6 to just remind me, this data of 2000 to 2004, was  
7 the Chlamydia screening in place during the entire  
8 time period, 2000 to 2004?

9 COL UNDERWOOD: I'll have to ask the  
10 Navy when they started that. Perhaps Commander  
11 Luke can answer that. The Army has never  
12 instituted screening of recruits. We started  
13 screening women under 25. The policy, quite  
14 rightly, was put into place by General Peake in  
15 2002. So, it's true to say we didn't start our  
16 policy until 2002.

17 DR. LEDNAR: What that allows you is  
18 whatever is your starting point in each of the  
19 services is a sort of a before and after look in  
20 the data. Then I guess another question, it's  
21 just been a while since I've thought about  
22 Chlamydia and progression to PID, but in terms of

1 the usual clinical progression, what would be the  
2 reasonable length of time to first begin to think  
3 that you might, with the screening, have had a PID  
4 effect? It probably wouldn't be in the first six  
5 months.

6 COL UNDERWOOD: I believe we have some  
7 statistics on that. If you'll allow me to look at  
8 that, but certainly in some cases, I'm sure  
9 there's a range of that. In some cases, it's less  
10 than a year to develop full-blown PID after a  
11 Chlamydia infection.

12 DR. LEDNAR: It may be that in part  
13 because of the range of time from incidents of  
14 Chlamydia infection until onset of PID that could  
15 be variable and that the low rates of PID, just  
16 from a statistical power point of view, it may be  
17 premature to judge that the program is not having  
18 an impact on PID just yet.

19 COL UNDERWOOD: Those are all good  
20 points. I think our take-home message, if I may,  
21 is that we need to do these studies before jumping  
22 off to additional recommendations. If our

1 programs are adequate, and right now they  
2 certainly are in compliance.

3 DR. POLAND: Might also make the point  
4 that it's a little hard to judge effectiveness if  
5 half of the population infected gets screened and  
6 treated and the other half doesn't. Particularly,  
7 perhaps in some of the settings where you have  
8 large cohorts of young people. Also for the  
9 Board's reference, the white tab behind Tab 13 has  
10 the actual AFEB recommendations we signed off in  
11 '99.

12 DR. CLARK: This is Catherine Clark from  
13 AFMIC. I just wanted to reiterate, I guess, some  
14 of the concerns that other people did about taking  
15 this as a bottom line and saying everything is  
16 okay with the way that they're doing things in the  
17 Army. I think using PID in all women as opposed  
18 to cutting that off at a certain age may have  
19 diluted any effect that the program may have had.  
20 Also, I think that it would be very important, as  
21 some other people have mentioned, to actually look  
22 at the individual services to see whether the

1 recruit testing has actually decreased the  
2 incidents of PID. To look in the Navy, what's the  
3 pre-recruit testing incidents of PID and then look  
4 in the Navy in the same population and see what  
5 has the institution of recruit testing done. And  
6 then to look into the Army, I think to really tell  
7 that there obviously are some problems with every  
8 health care system, but are these women that are  
9 under 25, how long did they wait until they get  
10 their Pap smear once they come in and are they  
11 actually all getting yearly Pap smears. I know  
12 with clinical backup sometimes it can be sometimes  
13 often much longer than a year before people get  
14 their Pap smear. So I think what would be an  
15 interesting question, you couldn't do it without  
16 implementing it, but would recruit testing in the  
17 Army actually decrease the Army's incidents of  
18 PID? Which is still in some cases 20 or above 20  
19 per thousand. So, I think looking at what the  
20 Army's doing now and then comparing it to the  
21 incidence rate of PID in the other services isn't  
22 really a good indication of whether any of the

1 programs have impacted the actual PID incidents in  
2 that service if you don't look at the comparison  
3 between the PID incidents before that and then  
4 looking at is it worth it. How many did we  
5 prevent and what's the cost of the recruit testing  
6 for Chlamydia?

7 COL GIBSON: I've got a couple of pieces  
8 of information that will help with that. We did  
9 look at, or I looked at using DMED data, looked at  
10 the rates of PID in the 20- to 24-year-old, those  
11 under 20 and basically everybody active duty,  
12 females under 24 years of age. Basically the  
13 rates are equivocal across the services stratified  
14 by service Army is slightly higher. Marines, who  
15 by the way are testing both males and females, are  
16 the lowest, but they're all basically running at  
17 about a hundred per thousand as an incident rate  
18 out of DMED data. And we all know what the issues  
19 are with DMED data and the SADR misclassification  
20 bias and a few other things. The other thing, I  
21 think that our friends from the Air Force will  
22 talk about that, since they're just about to kick

1 off a Chlamydia screening at recruit training, we  
2 will have an opportunity to see that natural  
3 history study that you're talking about. Pre and  
4 post, what is the true -- do we see a true  
5 decrease in the two most severe adverse events for  
6 Chlamydia infection, PID and ectopic pregnancy?  
7 Infertility's a little bit harder for us to  
8 measure. But at least these two hard outcomes we  
9 can get a handle on.

10 I would also point out that in Paula's  
11 slides, she took Chlamydia screening rates for the  
12 services, included recruit screening, didn't shred  
13 out the Chlamydia screening rates per service  
14 after recruit training. Makes the Navy's rates  
15 look quite a bit higher. Our national quality  
16 assurance program within the services did look at  
17 that in 2003 and we're basically running about 40  
18 percent Chlamydia screening rates among our 20- to  
19 24-year-old females. The issue here, in my mind,  
20 the statement that I would like to make is that,  
21 recruit screening by itself outside of a well-run,  
22 comprehensive, reproductive health program as Dr.

1 Ruscio said, has some value, but surely is not the  
2 entire answer. We need to be looking at  
3 monitoring, measuring compliance with task force  
4 guidelines and get those rates up a bit higher  
5 across all the services.

6 DR. HALPERIN: Just an idea that may not  
7 hold water, but it's really hard to look at this  
8 data and make sense of it out of using rates.  
9 Essentially you have people who did develop PID or  
10 didn't. Did have ectopic pregnancies or didn't.  
11 Had one screening or many screenings. One  
12 screening a year ago or three or four years ago.  
13 It kind of suggests more like in a case control  
14 analysis, if you've got the data on each of these  
15 individuals in all of the services.

16 COL UNDERWOOD: That's a good point.  
17 Again, I apologize for the brevity of this and the  
18 errors in it, but it was a very down-and-dirty  
19 analysis. The operative point is here we do have  
20 the data, we have in SIDR and SADR, we have it for  
21 all services and we can do the types of  
22 comparative studies I believe that we need to look

1 at this. The whole point of this was to let you  
2 know what we're currently doing, because that was  
3 my job to let you know what the Army is currently  
4 doing. Instead of looking at testing, my point  
5 was we need to look at outcomes. We need to look  
6 at outcome-based evidence because everything is  
7 geared that way, including now public health. No  
8 matter how much testing we do the real point is,  
9 what are our outcomes? What are we achieving?  
10 The second thing is that males and females get  
11 this. It's not just focusing this program on  
12 active duty females. To me, and I'm sure to many  
13 of my colleagues this doesn't make sense. This is  
14 an STD. There are two people involved usually.  
15 We've got to reorganize, how are we doing this  
16 program. Only targeting females in not good  
17 public health sense.

18 DR. POLAND: Those are good points. I  
19 do want to point out though, that in '99 when we  
20 made these recommendations, we had that data. We  
21 had an evidence base with which to make the  
22 recommendation for female screening. That

1 database was not as robust or complete for males.  
2 In our recommendations, we suggested considering  
3 it and that studies be done to look at the  
4 effectiveness and feasibility and then those be  
5 reported back to the Board. To provide context,  
6 again, we made this recommendation in '99. By  
7 last year it was apparent that not all the  
8 services were compliant with it and Dr. Ostroff,  
9 as the then Board President and enlisting the aid  
10 of Health Affairs, issued another recommendation  
11 that it's been five-and-a-half years, folks, we  
12 need to do this. One of the purposes of you  
13 seeing this is for us to comment on the  
14 implementation of our recommendations from '99 and  
15 2005. I would absolutely agree with the idea that  
16 outcomes are going to be important, but those  
17 outcomes have to be done with appropriate  
18 analysis.

19 COL UNDERWOOD: Yes. Just one  
20 exception, Dr. Poland. The language, with due  
21 respect, sir, the language in the AFEB  
22 recommendations included the caveat or the phrase

1 that also equally acceptable. I beg to differ  
2 with you, sir, we are in compliance with the AFEB  
3 recommendation. We have policies supporting the  
4 AFEB recommendations. In terms of compliance, we  
5 all need to do better in getting our --

6 DR. POLAND: That, I think, is that  
7 issue.

8 COL UNDERWOOD: That's probably the  
9 issue. But I don't think, in my humble opinion  
10 this should resort to forcing the services to do  
11 something within the recruit populations, because  
12 we are in compliance with AFEB, the policies are  
13 in compliance with AFEB recommendations.

14 DR. POLAND: I agree. The policies are  
15 and we gave some latitude. We said ideally during  
16 recruit, but within that first year. So I think  
17 you are compliant with that.

18 COL UNDERWOOD: Yes, sir. And the Army  
19 does that, sir.

20 DR. POLAND: I think it's more an issue  
21 of compliance with the policy.

22 COL UNDERWOOD: Yes, sir.

1 DR. POLAND: Sorry if I misspoke about  
2 that.

3 COL UNDERWOOD: Any other questions for  
4 me? I'll be followed by Lieutenant Commander  
5 Luke.

6 DR. POLAND: Lieutenant Commander Luke,  
7 then, will present the Navy and Marine Corps  
8 update.

9 LCDR LUKE: Good morning, ladies and  
10 gentlemen. This is just an update on the  
11 Chlamydia screening and prevalence. Next slide,  
12 please. The brief description of the rationale  
13 for Chlamydia screening as well as the AFEB  
14 recommendations, in terms of the Navy, I think  
15 that we clearly have a high prevalence. In  
16 discussing some of the data with Colonel Gibson  
17 and Colonel Smoke, we may have an incidence within  
18 the Navy which is 10 times the rate, which is  
19 reported in the general population. Whether  
20 that's true or not we don't know, but we're  
21 certainly going to be looking at that further and  
22 hope to have some data before the next AFEB

1 meeting. PID and ectopic pregnancies pose a  
2 particular risk to the United States Navy, given  
3 the fact that we are a sea service. We have  
4 intervention challenges in the Navy vis-à-vis  
5 national and DoD policies in that we have a closed  
6 population which allows infected males to  
7 re-infect periodically screened and treated  
8 females. I think that if you have high-risk  
9 sexual behavior before you deploy, you will likely  
10 have high-risk sexual behavior during the  
11 deployment. The fact of the matter is, looking at  
12 the data, the average female, untreated, will be  
13 infected with Chlamydia for almost a year. Males  
14 about half a year and we will never solve this  
15 particular problem with only a screening and  
16 treatment protocol which is aimed at women. It  
17 can't be done. The analogy that I would like to  
18 use is if you were going to have a malaria control  
19 program, if you only treated the men, you are  
20 still going to have a tremendous malaria problem  
21 at the end of the day. I think that there's a lot  
22 of debate about providing women in the civilian

1 sector, STD clients and so forth, with antibiotics  
2 to treat their unseen male partners.

3 I'm not sure that we should adopt that  
4 policy in the DoD, given that we have a very  
5 robust medical capability and the fact that  
6 evidence, at least within the Navy, that about 80  
7 percent of sexual partners of active duty single  
8 females is within other active duty males, that we  
9 should probably do a study to test the outcome of  
10 adding a screening and treatment protocol or  
11 requirement in our high-risk males. Ultimately, I  
12 think that that's how we fundamentally address the  
13 PID, ectopic pregnancy and fertility problems in  
14 DoD as a whole and the United States Navy in  
15 particular. Can I answer any questions?

16 DR. GRAY: Where did you get that 70  
17 percent figure regarding male -- you said  
18 something about --

19 DR. POLAND: Eighty percent.

20 DR. GRAY: Eighty percent were --

21 LCDR LUKE: That comes from a survey  
22 that our women's health advocates at the Bureau of

1 Medicine and Surgery provided me about a year ago.  
2 They had done a survey in identifying where sexual  
3 activity was occurring within active-duty Navy.

4 DR. GRAY: That's a one-way survey. I  
5 may just call that to everybody's attention. That  
6 would be 80 percent of female active duty  
7 personnel suggesting that their consorts, if you  
8 will, are male active duty personnel.

9 LCDR LUKE: I will almost guarantee you  
10 that when you are in the Red Sea for six months  
11 that 100 percent of the sexual activity is between  
12 active duty personnel. There are limitations, but  
13 it is my experience that most of the sexual  
14 activity between the junior enlisted personnel is  
15 contained within that population. They are a  
16 relatively closed population. They live together,  
17 they work together, they deploy together and the  
18 problem that I think that we're having is, is that  
19 we have a rapid re-infection of our high-risk  
20 female groups from an untreated population.

21 DR. LEDNAR: You mentioned the  
22 importance about finding high-risk males. Is

1       there in fact an approach or a tool that has  
2       acceptable sensitivity and specificity to find the  
3       high-risk males?

4                   LCDR LUKE:  Sir, again, the answer is  
5       no.  I will tell you that some males are more high  
6       risk than others.  I think that ultimately we  
7       could probably address that issue by focus  
8       interventions in males beyond just the typical  
9       warnings that our males receive at the recruit  
10      training centers.  We give them some awful  
11      pictures, some warnings and so forth and off they  
12      go.  I know that the services in the Navy are  
13      looking at an annual health assessment, which will  
14      look at a variety of issues, to include those  
15      preventive interventions that have been found to  
16      be effective.  When that program is online it may  
17      give at least one ability to, if we can establish  
18      the data, to start actually screening our  
19      high-risk males to determine whether they have  
20      Chlamydia or gonorrhoea, at least on an annual  
21      basis.

22                   DR. POLAND:  Again, just contextually,

1 and Commander Luke is bringing up a good point,  
2 when we made these recommendations, our intent was  
3 to make them very evidence based, but we simply  
4 didn't have the level of evidence that we thought  
5 we needed for males pointing out sort of an  
6 epidemiologic situation that is somewhat unique  
7 for the services in terms of the close cohorting  
8 and in a sense closed population. It may be that  
9 we'll have to let biology and good sense prevail  
10 even though we don't have the data and that is a  
11 question for the Board to entertain.

12 DR. LeMASTERS: Within HIV, we ask  
13 infected people who their partners are in order to  
14 be able to identify and in this case treat. It  
15 seems like that would be an easy way to start. If  
16 we have an infected woman to ask who her partner  
17 is so that a person could be given an antibiotic  
18 also. Is that not possible?

19 LCDR LUKE: It is always possible, but  
20 the resources necessary to contact tracing on an  
21 annual basis, give me all of your sexual partners  
22 that you've had from the time that you were Korea,

1 passed through Japan, now you're back at Camp  
2 Pendleton and you're being seen down in San Diego,  
3 you are talking about a situation, which I think  
4 it's far and above whatever other local public  
5 health interventions for STDs. It is possible, but  
6 from a practical standpoint, tracking down every  
7 sexual partner over the course of the last year,  
8 across multiple time zones and continents and  
9 oceans, we don't have the capability to that right  
10 now.

11 DR. LeMASTERS: But as you said, it is a  
12 particularly closed system. The people live  
13 together, work together and so forth. So it seems  
14 like it would be the ideal situation, as a matter  
15 of fact, given, as you've mentioned, the closeness  
16 of living quarters, et cetera, to do.

17 LCDR LUKE: Yes, ma'am, it's closed in  
18 the sense that they live and work together, but  
19 the population, there's probably a 40 percent  
20 turnover every year in most units. So, I mean,  
21 it's transitory, people are coming and coming  
22 around almost like a washing machine type effect.

1 Yes, it is a closed system, but it's not  
2 absolutely closed. There's enough input and  
3 output out there. I think that as we develop  
4 better reporting systems and data transfer  
5 mechanisms within Navy medicine, I believe that we  
6 can probably do more of the type of contact  
7 tracing that's going to be necessary. If we're  
8 going to be successful in intervening on this  
9 problem in the end. I'm not arguing, right now we  
10 can't do it, but we need to if we're going to be  
11 successful. I will agree with that.

12 MS. EMBREY: Point of contacts, though,  
13 again, there are personnel policies and there are  
14 health policies. There is one policy in the  
15 personnel arena that has implications for UCMJ and  
16 that is fraternization rules. As soon as we  
17 identify a partner that violates that, we're  
18 reporting on ourselves and dis-incentivizing our  
19 individuals to come forward when they have a  
20 health problem. We need to evaluate the best way  
21 to assure that those who have a problem will come  
22 forward and get the care they need. Frankly, it's

1 an education issue, which is even more resources  
2 than doing contact tracing, in my opinion, and  
3 probably more effective in the long run.

4 DR. GRAY: You know we're doing the  
5 millennium cohort study, the 21-year,  
6 100,000-person study to follow things like this.  
7 It would seem to me with a miniscule investment  
8 compared to the millennium cohort study you could  
9 answer these questions. If you have from 10 to 21  
10 per thousand outcomes for PID, you should over a  
11 period of just several years be able to measure  
12 differences, if they are real and your  
13 intervention by following cohorts. You could  
14 follow three cohorts. No intervention, male or  
15 female. Intervention only among females and  
16 interventions for both genders at the same  
17 facility and answer this question with some  
18 objective data.

19 LCDR LUKE: Sir, you're absolutely  
20 correct. I would recommend that maybe the AFEB  
21 address that issue in a formal way so that DoD  
22 actually looks at that issue just in that format.

1 COL SNEDECOR: The Air Force does have a  
2 contact tracing policy and a fairly robust system  
3 for doing that. It's done with our public health  
4 infrastructure. It's done in such a way that they  
5 do follow these people from base to base or if  
6 they're non-military beneficiaries, they notify  
7 the local public health department. Unless it's a  
8 clearly illegal activity such as homosexual,  
9 generally, they're not reported even if it is  
10 fraternization. We think we have a pretty good  
11 system for contact tracing. Maybe that's why our  
12 rates are somewhat lower than the other services.  
13 However, we can see that's clearly not enough,  
14 it's not working.

15 DR. POLAND: Thank you. If we can move  
16 on then to the Air Force. Colonel Mike Snedecor  
17 and Ms. Jill Trei. Was there another comment?

18 CAPT RUTSTEIN: I just had a  
19 clarification. The AFEB has recommended from what  
20 I can gather here, that all new accessions, female  
21 accessions and all women under 25 are screened for  
22 Chlamydia; is that correct?

1 DR. POLAND: Yearly, yes.

2 CAPT RUTSTEIN: And the recommendation  
3 that I've heard so far is that all male active  
4 duty people who are somehow deemed high risk are  
5 to be screened. Is that what I'm hearing?

6 DR. POLAND: No, I don't think that's  
7 quite correct. I think Commander Luke was --

8 LCDR LUKE: Sir, I think it needs to be  
9 studied to be determined whether or not the  
10 solution, ultimately, to the problem is screening  
11 and treating high-risk males. We need the data to  
12 support that and we don't.

13 CAPT RUTSTEIN: Maybe I'm missing  
14 something, but why are we focusing on high-risk  
15 men and all women?

16 DR. POLAND: Again, what we had was an  
17 evidence database to suggest we could immediately  
18 do good with women. We did not have that with men  
19 and suggested that the studies be done so that we  
20 had that data. If it supported it, then moving to  
21 all women and all men.

22 CAPT RUTSTEIN: I would suggest that

1       instead of looking at studies that look at  
2       high-risk men, you look at studies that look at  
3       all men.

4                 DR. POLAND: Our recommendations don't  
5       use the term "high-risk men", it just says men.  
6       Maybe that was the point you were getting at.  
7       Okay. Let's move on.

8                 COL SNEDECOR: Good morning. Colonel  
9       Mike Snedecor from the Air Force. I'm going to  
10      briefly talk about our accession screening policy  
11      that's changed recently and then I'll talk about  
12      our surveillance program, because we know that you  
13      just can't screen accessions and hope that in the  
14      next intervening years, which could be six or  
15      seven or eight or more, that they would just  
16      magically remain uninfected. Next slide.

17                After much ado and browbeating on my  
18      part, I was successful in getting accessions  
19      screened, which I felt was an important part of  
20      our screening process, is catching them when they  
21      enter our system so that we know that when they  
22      leave training they probably are uninfected, at

1 least the females. I would say that our only  
2 exception to our contact tracing policy is going  
3 to be at Lackland, where we anticipate the numbers  
4 are such that we will not be able to do individual  
5 contact tracing with them, especially since they  
6 will all have come from somewhere else and we  
7 simply don't have the manpower to go back to every  
8 city where these people have come from and notify  
9 them. An accepted policy which we found under the  
10 CDC is that we put the onus back on the person and  
11 say, you're responsible for notifying your sexual  
12 contacts that they need to be screened and  
13 potentially treated. All of our bases, after they  
14 get to their subsequent bases and if they are  
15 screened positive they will undergo contact  
16 tracing for their partners. As of 1 December all  
17 of our accession sites should be screening their  
18 accessions and that includes officers and cadets.  
19 We also have about 2,000 a year who actually  
20 report to their first duty station. These are  
21 often ROTC people who have been sort of  
22 indoctrinated in college and so they don't need to

1 go to an indoctrination training course, they just  
2 show up at a base. The policy that we sent out  
3 reinforces that to catch these people in medical  
4 in-processing processes need to be in place to  
5 ensure that these are people who have been tested  
6 before. If they haven't been tested, they need to  
7 be tested upon arrival at their duty station. We  
8 think this is also a reinforcement to the annual  
9 screening process, because we know that that  
10 process is not working well. As I said, all of  
11 our sites should be up and running by 1 December  
12 of this year. Next.

13 I wanted to talk a little bit about what  
14 we're looking at as far as ongoing surveillance.  
15 We know that we're unable to mine the data from  
16 our existing CHCS systems just because they're so  
17 widespread. The Chlamydia testing itself is  
18 documented in such a wide variety of ways that  
19 there's really no technical means for us doing  
20 that. When CHCS II has stood up everywhere and  
21 all these data go to a central data repository,  
22 then we think we'll be able to stand up a very

1 good tracking system for that. However, in the  
2 Air Force we know that many bases send all their  
3 Chlamydia testing samples to the Air Force  
4 reference lab at Brooks and so we're now looking  
5 at that database to see if we can maybe identify,  
6 maybe even a large portion of the Air Force where  
7 we can look at which people are tested, how often  
8 they're tested and be able to either run a metric  
9 such as the HEDIS Chlamydia screening metric and  
10 grade those bases and say, here's how you're  
11 doing. You're doing well. You're not doing so  
12 well. Also to provide what we call an action  
13 list, which would be a list of women who haven't  
14 been screened in the last year, so that those  
15 bases can then do outreach and say you need to  
16 come in, we need to evaluate your risk and then  
17 screen you if we need to. Some of the other  
18 issues that we're moving forward on this is we've  
19 recently taken all the U.S. preventive service  
20 task force recommendations in clinical preventive  
21 services and sort of summarized them and DoD-ized  
22 them. For the Air Force we just recently went

1 through and identified a time period, because a  
2 lot of these recommendations say periodically.  
3 Generally, they're periodically. They don't say  
4 every year, every two years or they'll say every  
5 one to two years. We have a system in place in  
6 our PIMR program which we use for individual  
7 medical readiness and also for preventive health  
8 assessments where we identify these different  
9 clinical preventive services when we know from our  
10 data systems when they were done or when someone  
11 has put in there that these were done and then we  
12 have a time frame built in that when that time  
13 frame's exceeded, a little flag goes up and says,  
14 hey, this person needs something or you need to  
15 ask and see if they need this. We took all the  
16 recent recommendations and we built a time period  
17 which this program will now flag. We went through  
18 each one and for Chlamydia, we decided to flag for  
19 women under 25 yearly. We made the particular  
20 decision to separate this from the Pap smear,  
21 because we know that after three normal Paps, the  
22 recommendation is to go to every three years.

1 Well, someone may be low risk for HPV and have  
2 normal Pap smears, but they could still be at risk  
3 for sexually transmitted diseases. We felt it was  
4 important to de-link that so that even if they're  
5 doing three year Paps, if they're still sexually  
6 active, they're still at risk for sexually  
7 transmitted infections. We want them coming in  
8 yearly to get screened. That flag will turn  
9 yellow each year. If there's not a record of a  
10 test in the AFIOH database where someone hasn't  
11 gone in locally and said we tested them through  
12 our own systems and turn them green that way.  
13 Next slide.

14 I think that's it. Do you have any  
15 questions on my piece of the briefing? I want to  
16 now turn it over to Jill Trei. She's at our Air  
17 Force Institute of Occupational Health at the Epi  
18 Services Division. She's briefed you once before  
19 on some of the findings we had of looking at some  
20 of our bases that have done universal screening as  
21 part of the yearly preventive health assessment.  
22 This is a more in-depth look at that particular

1 set of data that they have. I would ask that the  
2 Board look at this and at the end consider making  
3 very specific recommendations on what we should do  
4 with this data in terms of analysis, because I  
5 think we have a unique opportunity here. We have  
6 some historical data and we have some bases that  
7 are continuing to screen everyone under 25 during  
8 their annual preventive health assessment at least  
9 until the powers that be decide that we don't need  
10 to do that or we shouldn't be doing that or maybe  
11 it's too expensive or for whatever reason they  
12 say, let's stop doing that. I think we have a  
13 unique window of opportunity here and I would ask  
14 the Board to give us the leverage to do the type  
15 of study that I think we need to do with this  
16 data.

17 MS. TREI: Good morning. Next slide,  
18 please. I'm going to focusing on screening in the  
19 general Air Force population as opposed to just  
20 accessions. So I'll kind of briefly describe how  
21 that works, especially with regard to a policy  
22 within ACC bases, Air Combat Command bases,

1 regarding screening of males. Then examine some  
2 of the affects that may have come from screening  
3 of males within these bases and identify some  
4 issues that may be preventing us from seeing  
5 what's really going on. Next slide.

6 In 2001 the ACC Surgeon General  
7 recommended that all activity duty Air Force under  
8 the age of 26 be tested during their PHA. This  
9 includes as opposed to females who the  
10 recommendations had addressed earlier. Screening  
11 was supposed to begin on the first of October in  
12 2001. As a side note, this affects GC as well,  
13 because specimens that come in are tested  
14 simultaneously for both. I have data that I'm not  
15 going to present today that shows similar trends  
16 in GC as well. This policy has given us a natural  
17 setting in which to study some potential benefits  
18 of screening males. Next.

19 Given this policy, all females and ACC  
20 males should be screened annually at their PHA.  
21 In contrast, non-ACC males are only generally  
22 tested when they present the symptoms or high-risk

1 behavior. As Colonel Snedecor mentioned, many of  
2 these specimens come through AFIOH and they're all  
3 entered into a database, so we have a record of  
4 all positives and negatives that come through our  
5 system. Next.

6 The data that I'm going to be presenting  
7 today is from the AFIOH lab database from October  
8 of 1998 to May of 2005. I'm going to be focusing  
9 just on the active duty Air Force under the age of  
10 26, since that's who the ACC policy is targeting.  
11 The data includes over 183,000 specimens from  
12 about 97,000 patients. A little over half of  
13 these come from females. Overall, the percent  
14 positive is around 11 percent in males and about  
15 seven percent in females. I'll go into this in a  
16 little further detail. By base type, in looking  
17 at the number of specimens that were submitted by  
18 ACC bases, before and after the policy took  
19 affect, it was apparent that not all of the ACC  
20 bases had really adopted the policy and started  
21 screening males. Eight of the 17 ACC bases really  
22 had adopted this and so for the remaining portion

1 of this talk, in looking at the data I removed the  
2 non-compliant bases from the ACC section and  
3 lumped them in with the non-ACC males. From this  
4 point forward, the ACC really depicts the policy  
5 compliant bases. In looking at the policy males,  
6 you can see a dramatic difference in the pre and  
7 post policy prevalence. Before it was about 24  
8 percent and now it's about five percent. I think  
9 it just reflects who they're testing, symptomatic  
10 versus the general asymptomatic population. Next,  
11 please.

12 This just shows, again, the increase in  
13 specimens submitted. Once the policy took effect,  
14 you can see a large increase in the percent of all  
15 male specimens that came from ACC bases from 2001  
16 to 2002. It's since leveled off. Next.

17 This shows the percent positive over  
18 time. In looking at the red line, the ACC males,  
19 before the policy took affect, the trends kind of  
20 mimicked what was happening in non-ACC males.  
21 Then as soon as the policy went into place you can  
22 see a dramatic decrease. Now they kind of follow

1 what's happening in females who have been screened  
2 all along. Next.

3           Based on the increased specimen  
4 submissions and decreased percent positive it does  
5 appear that at least these eight ACC bases are  
6 complying with the policy. A next, kind of  
7 logical question would be, what kind of effects is  
8 this having? First, in terms of Chlamydia  
9 prevalence. Since the testing populations are so  
10 different at ACC and non-ACC bases and even within  
11 the ACC pre and post policy, we can't really  
12 directly compare, just the percent positive.  
13 We've had to try and get around this. To do this,  
14 we merged the lab data with SADR data and tried to  
15 use the ICD-9 codes to pull out the people who  
16 seemed to be asymptomatic when they came in for  
17 testing and measure the prevalence among them.  
18 Next, please.

19           In doing this, the data that I used was  
20 smaller, the data set that I used was smaller  
21 because I only used those with available ICD-9  
22 codes within three days of the specimen collection

1 date. Next. Using ICD-9 codes, I pulled out  
2 people who had any mention of STD symptoms, not  
3 just related to Chlamydia, but any STD symptoms or  
4 mention of high-risk sexual behavior when they  
5 came in, then just focused on the people who  
6 seemed to be asymptomatic when they came in. For  
7 this I just used the very obvious STD codes and  
8 I'm meaning to go look closer at which codes I'm  
9 using and make sure I'm really pulling out all the  
10 symptomatic people to the best that I can. In  
11 comparing ACC and non-ACC males, we just use the  
12 presumed asymptomatic patient. Next.

13           This shows the percent positive in this  
14 asymptomatic population before and after the  
15 policy. You'll notice a dramatic decrease in the  
16 ACC males which may suggest that the policy is  
17 having some effect on Chlamydia prevalence,  
18 however, this also suggests that I'm probably not  
19 getting the ICD-9 codes quite right, because I  
20 have a hard time believing that in the truly  
21 asymptomatic population that prevalence would be  
22 almost 25 percent before the policy. That just

1       seems a little unrealistic. This will have to be  
2       looked at further. Also you'll notice that there  
3       was somewhat of a decrease among females in  
4       general. I'm not really sure what's going on  
5       there yet, if there's just a general increased  
6       focus on screening or something else is going on.  
7       Next.

8               So far, given the data that we have  
9       available, it seems there's not really a  
10       straightforward way to determine what's happening  
11       as a result of the screened males. As I  
12       mentioned, we can't really directly compare  
13       prevalence. We have to find some way around that,  
14       maybe ICD-9 codes might help. Given that coding  
15       seems to be somewhat subjective at times, we need  
16       a lot of validation to make sure that in using the  
17       ICD-9 codes we're measuring what we really want to  
18       measure. Next.

19               Another issue that has been talked about  
20       already today and that we haven't really addressed  
21       in using this data yet is the turnover in the Air  
22       Force and in the military in general, which is

1 about 30 percent per year. This could be a  
2 potential confounder if personnel moved from ACC  
3 to non-ACC bases. The effects of the screening  
4 may be diluted and also if we want to look at  
5 long-term health outcomes, if people separate  
6 before they developed Chlamydia-related outcomes  
7 we wouldn't be able to capture that. We really  
8 need a more straightforward way to examine what  
9 potential benefits of male screening could be  
10 occurring. In doing this, as has been mentioned  
11 already today, I think maybe a formalized study.

12 We already have the makings of a  
13 community intervention trial just based on the ACC  
14 policy. We already have two separate sets of  
15 bases that have different screening practices. We  
16 just need a better way to go in and actually see  
17 what's happening than just the laboratory data.  
18 And maybe bringing in some more, looking more  
19 closely at the SIDR and SADR data might help with  
20 that as well. So far we've been looking at the  
21 impact of prevalence. I think a more  
22 straightforward way to look at this might, or an

1 easier way, maybe not easier but a more conclusive  
2 way to look at it would be to actually go in and  
3 look at prevalence among random samples with the  
4 ACC and non-ACC populations as opposed to just  
5 trying to guess with our data. Other outcomes  
6 that we would want to look at and are starting to  
7 think about looking at AFIOH are health outcomes  
8 in males and also the impacts on females, which  
9 would really provide great evidence for screening.  
10 As Colonel Snedecor mentioned, it would be great  
11 to get the Board's input on what we should do as a  
12 next step with this data.

13 DR. POLAND: Thank you.

14 MS. TREI: I'll take any questions you  
15 may have.

16 DR. GRAY: A number of us are shaking  
17 our heads and saying, yeah, we could help you  
18 design this study. You already have the data, so  
19 it would be minimum costs. All you need is do the  
20 linkages and there'd be some discovery, if you  
21 will, regarding the best ICD-9 codes to use. Even  
22 if you have an imperfect collection of ICD-9

1 codes, you still might see a delta, a change with  
2 the intervention. I think you need to move away  
3 from these prevalence studies to move to incidence  
4 studies and not focus on the Chlamydia itself or  
5 the GC but look at the outcomes of interests that  
6 you're really concerned about, PID, ectopic  
7 pregnancy. I'm not sure what the counterpart is  
8 for the males, but it sounds like you have  
9 wonderful data.

10 PROF BAKER: If the AFEB recommends  
11 (indiscernible) up to 25 years of age, which is  
12 probably confusing to -- it's a little confusing  
13 to me as to whether it includes 25 and some of the  
14 presenters have mentioned under 25 and some have  
15 mentioned 25 and under or under 26, those being  
16 the same, of course. I think at some point it  
17 might be wise to clarify that and standardize it.

18 DR. POLAND: It said, up until the age  
19 of 25, so you might not think to include 25. Good  
20 point.

21 MS. EMBREY: This is a question of  
22 ignorance on my part, Bruce, can you help me

1 understand in our women's programs or our clinical  
2 programs dealing with sexually transmitted  
3 diseases, do we have an overall program and policy  
4 in place that addresses STDs in general and how  
5 the services ought to be structured to address  
6 them on a routine basis? I ask this purely out of  
7 ignorance.

8 LT COL RUSCIO: Ma'am, we referenced the  
9 1010.10 that identifies and it covers more than  
10 Chlamydia. It covers the other STDs from a DoD  
11 policy that they're all incorporated under that  
12 directive.

13 MS. EMBREY: But it's primarily women's  
14 issues, correct?

15 LT COL RUSCIO: No, I wouldn't interpret  
16 that directive as a women's issue directive, it's  
17 DoD.

18 MS. EMBREY: In general?

19 LT COL RUSCIO: Right.

20 MS. EMBREY: Is there sufficient  
21 guidance in the policy that would address the  
22 recommendations of the Board or do we need -- I

1       guess what I'm asking is, is the Board's  
2       recommendation to us an indictment of our guidance  
3       to the services or is it truly an interpretation  
4       of how that guidance is being implemented?

5               LT COL RUSCIO: I would suggest that  
6       it's the latter, an interpretation of how that's  
7       implemented. In fact when you asked, I was  
8       looking up, I think the preventive medicine  
9       guidelines task force actually does have the  
10      verbiage on 26 or under. It's in there. I was  
11      just trying to find out specifically what it is.  
12      I suggest that it's implementation and compliance  
13      and monitoring of the program.

14             COL GIBSON: I would agree with Bruce on  
15      this. It's an issue of, not policy, we have the  
16      proper policies in place. This is an issue of  
17      compliance with policy measuring compliance and  
18      taking appropriate action to improve compliance  
19      when it's there. Air Force has done a work  
20      around, and I'll call it that, of using the Brooks  
21      lab as a source of information on who's getting  
22      tested. Wonderful and great. We do have, and I'm

1 going to bring this up -- it's maybe an  
2 advertisement, the Population Health Support  
3 office at Brooks Air Force Base, currently at  
4 Brooks we don't know where it's going to end up,  
5 has a mandate to provide metrics on population  
6 health data like Pap smears, cholesterol tests, et  
7 cetera across the services. One of the issues  
8 that they've been wrestling with is exactly what  
9 the Air Force pointed out. Entering the data on  
10 Chlamydia testing is different at each base. If  
11 there's a way that we could potentially help them,  
12 help that populational support portal, get that  
13 information, it would provide a central location  
14 for the other services to be able to track  
15 compliance among their service members. I truly  
16 believe this is an issue of compliance. I think  
17 there's value added in doing this in recruit  
18 training, but I question how much value,  
19 particularly if we're not doing a real good job of  
20 complying with the rest of our policies on annual  
21 testing of at least our females.

22 DR. HALPERIN: I want to go gently into

1 this question, but it's really wonderful work  
2 we're hearing. Is there an office of  
3 doctoral-level epidemiology that's available to  
4 various services to assist and sort of design an  
5 analysis? Again, I really want to go gently here,  
6 because it is very nice work, but there's a level  
7 of where do you go for the doctoral-level epi  
8 consultation or bio-stat consultation?

9 COL UNDERWOOD: We do have that  
10 capability. We have that both at CHPPM, we also  
11 have that also in the office of the Surgeon  
12 General. I mentioned Dr. Melissa Glynnner, who is  
13 a bio-statistician, so we do have that. I think  
14 as a jumping-off point with all the comments that  
15 have been made, we'll certainly go back to her and  
16 use these ideas to go back and do the study for  
17 which I think we do have that data. We just need  
18 to get some more granularity on this and start  
19 looking at those outcomes.

20 COL GIBSON: Each of the services have  
21 doctoral-level Ph.D. folks. I can speak from the  
22 Air Force, that we've had three of ours leave in

1 the last year. This goes back to an issue that  
2 Ms. Embrey's been very much focused on and that's  
3 a career track for research level epidemiologist  
4 public health folks so that we continue to have  
5 these folks in a pipeline. From an Air Force  
6 standpoint, we're short now. We're very short.  
7 Then what happens is some of them become me. They  
8 end up in a different type of job where they're  
9 really not doing research and they're fully loaded  
10 with other things.

11 MS. EMBREY: Dr. Halperin, as a Board,  
12 don't be gentle. I could actually use the support  
13 of the Board to endorse my campaign to establish  
14 career path for epidemiologists in our force  
15 because they're not providing direct care, they  
16 often don't get the priority, the training seats,  
17 the attention that is absolutely needed for us to  
18 be successful in force health protection. I  
19 absolutely would welcome the Board's perspective  
20 on this and perhaps use this issue as a means by  
21 which to justify that recommendation.

22 DR. POLAND: Just one comment. We do

1 need to eat lunch to leave here at 1:00 because  
2 the tour is a formal tour. Go ahead.

3 DR. HALPERIN: Very briefly. That  
4 career development track ideally would be open to  
5 master's-level epidemiologists going on for  
6 doctoral, as well as people of doctorates in other  
7 areas, veterinary medicine, medicine, et cetera  
8 would go on for doctorates of epidemiology. That  
9 mix of people is really better than one or the  
10 other.

11 MS. EMBREY: I want a career path that  
12 allows anyone who wants to get into it a way in  
13 which to accomplish it and a set of hurdles in  
14 which to overcome in order to achieve that and  
15 places where we would employ them in our force.

16 DR. POLAND: I appreciate all the  
17 presenters and the work of the Board. We are  
18 going to dismiss ourselves for lunch. There is  
19 some work to do on the infectious disease  
20 committee and perhaps this latest request, really.  
21 I think we'll end up doing that by email and  
22 potentially by conference call for one of the

1 sub-committees. Any last comments? If not, we're  
2 dismissed.

3 (The proceedings concluded at 12:22  
4 p.m.)

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