locating additional reserve supplies of blood throughout the country, both in a liquid and frozen form.

In conclusion, this month marks the 20th anniversary of the first report of HIV. As with the debate over how to protect the blood supply from HIV in the absence of a screening test, deliberations concerning variant CJD have once again been framed as a trade-off between safety and availability.

Then, as now, some are arguing against aggressive donor screening measures because of the impact on availability. Until we have a test that can better assess risk, donor exclusion by designated behavior is the only way to protect the blood supply.

We believe this to be an interim solution and not a permanent solution, hopefully soon eclipsed by more scientific information and blood screening tests, and our commitment is repeatedly within the Red Cross to analyze our deferral criteria.

Moving beyond yesterday's paradine,it is incumbent upon the blood banking community to address the need for availability and establish a sustained and consistent blood supply based on patient needs.

Consistent with our mission to alleviate human suffering, the Red Cross is committed to

ensuring that the right blood product is available every time for every patient.

If we are wrong in our more cautious deferral criteria, the only consequences will be a more determined and effective way to collect blood in this country. If we are correct, the consequence of a less cautious deferral policy cannot be corrected. Thank you.

DR. FREAS: Thank you very much. Our next speaker is Dr. Bob Jones, President, New York Blood Center.

CHAIRMAN BOLTON: For the Committee, I would like to suggest that we are going to take four more public presentations, and then break for lunch, so that we all don't lapse into a coma here from lack of food.

And we will come back -- well, at a time to be determined, and finish the rest of the public hearing, and then go into our discussion and votes.

DR. JONES: Just a brief comment about who we are. "Euro-blood-R-Us." We have heard a lot about Euro-blood today, and we will hear a little more about it now.

The New York Blood Center has always supported and in fact created many blood safety

measures through our research efforts. However, we are now faced with a dilemma which pits blood safety against a scenario where patient safety is clearly in danger.

Our dilemma is as follows. Implementation of the proposed deferrals would reduce the NYBC supply, which is 80 percent of the New York area supply by one-third or more. There is current U.S. and NYBC unmet medical need for RBCs. We have heard that already this morning.

Now, obviously, the largest single impact was the loss of Euro-blood, which is a hundred-and-forty some odd thousand red cells. However, there is a magnifier effect because 55 percent of those are Type "O" blood.

So to replace that, we would have to collect 22 percent more of normal type mix. Euro-blood is a surplus supply from Holland, Switzerland, and Germany, full licensed, and an extension of our NYBC collection system, and as mentioned earlier, is 25 percent of our red cell distribution.

Under the current proposed deferrals, we would also lose over 10 percent of our New York area community blood donations due to the cosmopolitan nature of our donor base.

Again, there is currently no U.S. surplus to fill in this deficit. All attempts by us to obtain new commitments from U.S. sources have fallen far short of this need.

Only 35,000 new units have been identified for beginning next January, and this includes all the ABC centers, and the ARC commitments. Most interested at this point in time are just simply unwilling to make new commitments to increasing their exports because of uncertainty around the deferrals. What have we done?

We have been very, very aggressive over the last three years. We have known that Euro-blood was going away, and for other reasons, and we have increased our own collections in the New York area by 7 percent per year, and over 22 percent over the last three years is a remarkable achievement, particularly in an urban environment.

And we have initiated new donor programs and directions, including more intensive community based programs, a hemochromatosis program, a focus on minority recruitment, and increasing retention and frequency of donors.

We have restructured our whole organization to focus on donor recruitment, with several

reorganizations over the last three years. We have increased our focus on purchase of supply from other U.S. sources, and finally we have made operational improvements to reduce discards.

If you look at the next side, this is the New York Blood Center Supply plan, with no deferrals in place, and you can see that over the years we have already passed on this slide, we have in fact increased our collections on the pink line by significant amounts, seven percent per year.

The top line is the integrated results of those other three supplies, and as you can see, Euro-blood has been in decline, and will continue to decline, with a glide path to disappear almost completely in '04.

And our domestic purchases are seeing the bottom line. This is assuming no referrals. No slide, please.

This is what happens if the deferrals proposed by the American Red Cross would be implemented and affect the New York Blood Center, and you can see that our overall supply drops off dramatically on January '02, with the biggest impact obviously being the disappearance of Euro-blood.

Our own collections also fall off by about

10 percent, and we are assuming a rate or a recovery of 7 percent per year, which we have been doing.

This is also somewhat optimistic because we are also assuming these same domestic purchase line, which we had done before the deferrals. However, we do believe that would probably be lower. Next slide, please.

Here are some important factors, and many have already been addressed here. The U.S. blood supply is not elastic, and certainly not to the extent to make up this kind of need immediately.

The blood supply is also not fluid. It doesn't flow easily from one region to another. Short term gains from appeals or awareness campaigns are very helpful, but they are not sustainable without resource investments.

And the U.S. blood care system has no reserves for supply, nor financial reserves. This is an important point, and there is currently medical need.

A very important point that has not been brought up, but is important for recovery, is collections reductions translated in proportional reductions in blood center income, thus exacerbating the existing poor financial status of -- an already

poor financial status of non-for-profit centers.

And finally to this point, without financial resources, blood care organizations will not be able to react quickly to the needs to replace or create new supply. Next, please.

Here are some plausible outcomes for the New York area. The New York-New Jersey hospitals will be incapacitated due to dangerously low blood availability.

Over 7,000 transfusions per month, or maybe as many as 230 per day, will not take place. This is also a cumulative need, in that the transfusions that don't take place today are still going to be needed the next day.

Hospital rationing. Will some hospitals have to close while others are supplied with enough blood for safe care? Revenue losses and market forces will drive service fees to unprecedented levels, and the hospitals are simply not financially prepared for this.

Finally, new modes of donor recruitments will surely emerge over time. This will go to readdressing replacement programs, and higher incentives will come into play, and maybe even paid donors. Next slide, please.

Here are some of the ideas that we have presented, and would like to share with you as to possible remedies. We feel that the most important element in any solution to this dilemma is time.

That we need time to develop a new supply, as well as develop a better understanding of the medical impact of short supply, versus the danger of transmission of Variant CJD.

We do think that formalized medical rationing of blood supply to assure scarce resources is used optimally. You can look at this at the national level or local level, or even the hospital level.

Finally, Federally sponsored and funded national donation awareness campaigns, Federal aid to blood centers to allow for new collection and capacity, and these grants could be over $500 million.

And finally new blood supply sources as a I mentioned earlier. Day to day, we know that the medical practice is balancing risks, and all we are saying is that at this point in time, as you consider this, please consider the patient safety, as well as blood safety. Thank you very much.

DR. FREAS: Thank you. Our next speaker is Line Robillard. She is the executive director of the

World Federation of Hemophilia.

MS. ROBILLARD: Mr. Chairman, The World Federation of Hemophilia is an international, not-for-profit organization representing 95 member countries.

It is dedicated to improving hemophilia care for the estimated 400,000 people around the world with hemophilia. The World Federation of Hemophilia is very concerned about proposed expansion of screening policies to further exclude donors, ostensibly to reduce the theoretical risk of variant CJD transmission by plasma products without sound justification that the measures will increase the overall safety of people receiving these products.

Consider the following facts affecting the supply and safety of blood products today. The WSH's most recent global survey shows that the majority of people with hemophilia worldwide do not have access to recombinant products.

These are available mostly in countries with an average GNP greater than $10,000. Therefore, safe plasma derived concentrates remain the lifeline for the majority of people with hemophilia.

We estimate that this is likely to remain the case in the foreseeable future. A very large percentage of the plasma used for manufacturing these

concentrates comes from the United States and Europe.

Very few countries are able to collect plasma in sufficient quantity or of sufficient quality. The chief causes of death among 75 percent of people with hemophilia today are bleeding, HIV, and Hepatitis C.

This is a result of the lack of availability of plasma derived products, or the use of unsafe plasma products which have not been viral and activated.

There is currently a worldwide shortage of plasma products for treating people with Hemophilia. The shortage of recombinant products in Europe, North America, and Japan, threatens to have a serious impact on other parts of the world.

Plasma derived products that were once available in developing countries are now becoming scarce because developed countries have had to go back to using plasma products to make up for recombinant shortages.

Implementing policies that restrict donors from giving blood cause additional shortages in developing countries. Indeed, these restrictions, if adopted by all, may well cause shortages in developed countries as well if the recombinant product shortage

continues.

Fewer available products in the developing countries will lead to an increased number of deaths and disabilities because of the unavailability of products to treat life-threatening bleeding episodes, and the replacement of safe products with unsafe local fresh frozen plasma and cryoprecipitate, or by products manufactured by using lower quality plasma obtained from dubious sources.

Because of their tremendous world-wide impact, screening policies for donors that further reduce the global availability of plasma products, should be based on sound scientific knowledge, or judgment that the safety obtained by the new screening policies will outweigh the risk of more people dying from lack of treatment products.

In this instance, a theoretical risk of variant CJD is being weighed against a real risk of shortages, and this type of a risk assessment is extremely difficult.

The screening procedures currently in effect have tried to reasonably balance relative risk of shortage with theoretical risk of variant CJD. However, further attempts to try to reduce the risk to absolute zero amplifies the real risk of death and

blood-borne infections for 80 percent of people with hemophilia living outside Europe and North America.

Careful assessment of the expected gain in risk reduction in this situation is absolutely mandatory. Thank you for giving us this opportunity.

DR. FREAS: Thank you. Our next speaker is Dorothy Varlese, Associate General Counsel, of the Greater New York Hospital Association.

MS. WALTON: I am actually Susan Walton, Senior Vice President and General Counsel at the Greater New York Hospital Association, and I am responsible for the legal, regulatory, and professional affairs on behalf of our membership.

Our membership consists of 200 hospitals and long term care facilities in the Metropolitan New York Area. They are all not-for-profit, charitable organizations, or public sponsored, and our service area includes approximately 18 million people.

Geographically, we are every hospital that you can think of in New York City. We extend up into the Hudson Valley, out on Long Island, and into Northern New Jersey. And as you have probably already figured out, we are the service area for the New York City Blood Center.

We are there and reliant for 75 to 80

percent of our blood on the New York City Blood Center,and we are also there for, in-turn, very reliant on Euro-blood, and the extent to which they rely on that blood supply.

We are deeply concerned therefore about any decision about a deferral policy that will result in an immediate drop of what is anticipated to be one-third -- one-third of our blood supply.

We cannot obviously comment on the part of the standard that you must weigh and must implement that looks at the risk to science. I am not a scientist, a physician, or an infectious disease expert.

We are therefore unable to comment in that regard. But we are thankful that you are undertaking this task to ensure a safe blood supply. We are committed to safe care and a safe blood supply for our members.

What we can comment upon, however, is the other half of that balance, which has to do with the disadvantages, perhaps, of implementing a deferral policy.

We will be clearly disparately affected, our members, and the 18 million patients that we serve. We will be, we think, affected should this occur all

at one time in a devastating way.

And in order to get a handle on that, we have over the last several days spoken with a number of our members, the Blood Bank directors, the physicians, and the administrators. And as you might expect, they already have very strict guidelines on when transfusions can be provided.

They are very worried about what will happen over the summer. Forget this deferral policy. They are very concerned about what will occur during the course of this summer and are already trying to figure out what surgeries will be deferred, and what transfusions will be deferred from a medical standpoint.

And I echo what the Commissioner of Health from the State of New York has already indicated in terms of the impact on the procedures that will be involved.

When I go the next step and I say so what will happen if this policy with respect to deferral is implemented, and should be implemented all at one time, it is very interesting. They cannot -- they say that they cannot absorb such a shortfall in the blood supply.

Remember, it is one-third of the blood

supply, and as they talk through the procedures -- let's say cancer care -- they will have to defer certain surgeries with respect to cancer. In the medical arena, they will have to defer transfusions for people who need transfusions from a life-saving standpoint.

And they say that people will die. I have already been requested to pull together our members and start to talk about the difficult ethical, clinical, and legal issues that arise when you ration scarce resources.

The discussion that we are going to have to have is the blood supply drops in this fashion, and they also say that we don't look forward to playing god.

We ask that as you consider what you have to consider today, or in six months, that you take into account the impact on the blood supply. I recognize that it is one region, but it is a very big region of the United States.

And we ask that if you ultimately do adopt deferral policies that reduce the blood supply that you do take into account time frames, and that it goes hand-in-hand with clear, concrete, enforceable remedies for addressing the shortfall that will occur.

I welcome the voluntary efforts, and I know that the Commissioner of Health for the State of New York will stand behind the promises that she made. But it is a nationwide problem that New York can't backfill the shortage that will occur.

And it really needs a national governmental backing to fill that problem that will occur. Thank you.

DR. FREAS: Thank you. Our next speaker is Dr. Jeffrey Doughlin, Chairman, Emergency Medicine and the President of the Medical Staff at Jamaica Hospital, Queens, New York.

DR. DOUGHLIN: Good afternoon, Mr. Chairman, and Members of the Advisory Committee. As you said, my name is Jeffrey Doughlin, and I am a practicing physician in New York City.

And I am a surgeon, and Chairman of the Emergency Medicine, and President of the Medical Board and Staff, and I also sit on our transfusion committee.

Jamaica Hospital is a level one trauma center, and we have a very busy emergency room, treating approximately 100,000 patients annually, the number of patients seeking care in this emergency room has increased steadily over the past 10 years, and

continues to do so.

Blood usage in the hospital has of necessity increased significantly during this time frame because of our increased patient load. Now, we are actively involve in attempts to recruit more blood donors in the New York City area to try to meet the growing needs of the population that we serve.

And we have collaborated with the New York Blood Center in sponsoring blood collection drives in our own institution. We are pretty much dependent on the New York Blood Center in meeting our needs for blood and blood products.

On a daily basis, we have to deal with the harsh reality of our dwindling blood supply as more donors are deferred, but utilization as a whole in the City trends upwards.

A seriously injured patient coming into the hospital E/R bleeding to death needs blood right now, and not in 2 hours, not in 2 weeks, not when the supply becomes adequate, but right now if there is to be any hope of saving that person's life.

And that patient can be any one of us, any one of our loved ones. Now, the summer months are particularly difficult for us, even with strict guidelines for transfusion and close monitoring of all

transfusion episodes, is the usual situation for us.

The norm for us is to always be on the verge of running out of blood, and it just takes one or two high speed automobile collisions in a brief time frame to tip us over the edge.

Now, unfortunately, this is not just a theoretical consideration. Last summer, we experienced this nightmare scenario. For several hours, we were unable to accept any more trauma patients because we ran out of blood after treating a number of badly injured patients.

Ultimately, the New York Blood Center was able to replenish our stock. Now, if we are subject to a precipitous reduction of this blood supply in our region, it will be impossible to provide trauma care and care for those needing urgent or interoperative blood transfusions for all of the many reasons why people receive large amounts of blood, in any kind of structured, systematic, or organized fashion.

And that scenario is going to be repeated from hospital to hospital. I can assume you that countless lives will be lost. An elimination of Euro-blood and more extensive deferral of potential blood donors, with an exposure to the European environment, will undoubtedly have this kind of impact on the New

York/New Jersey region.

Now, we are totally committed to a safe blood supply. If there is compelling evidence at this time that our population was at risk for developing variant CJD by continuing to follow the present guidelines related to blood acquisition and blood donation, then we would have no option but to deal with the reality of a 25 to 30 percent reduction in our blood supply.

If the evidence is not compelling, and if there is no solid clinical or scientific evidence of an immediate and substantial threat to our citizens, then I would certainly urge this committee to leave the guidelines essentially and substantially unchanges as we continue to acquire knowledge and develop strategies for optimizing utilization of blood, and for expansion of our donor base.

To do otherwise at this time will place an insurmountable barrier in our way as we attempt to fulfill our charge to do no harm and to save lives. Mr. Chairman, I thank you for the opportunity to address the committee.

DR. FREAS: Thank you. Our next speaker is --

CHAIRMAN BOLTON: No, we are going to break.

At this point, we are going to break for lunch. I hate to do this, but I sense that we have already lost the battle, and I don't want to lose the war.

What I propose that we do is break 45 minutes for lunch, and return here at 1:45 or so, or 43 minutes for lunch by my watch, and we will continue with the remainder of the open public hearing and on to our discussions.

We are far behind schedule, and so those of you who are speaking in the open public hearing, I will hold you to four minutes. So you have 45 minutes to revise your talks to bring it down to four minutes. And so we will stand adjourned until 1:45.

(Whereupon, at 1:03 p.m. the Advisory Committee was recessed.)

AFTERNOON SESSION

(1:52 p.m.)

CHAIRMAN BOLTON: Can we reassemble. Members of the audience, please take your seats. Members of the Committee, please return.

DR. FREAS: While we are waiting for people to be seated, if you are going to make a presentation in the open public hearing, we would appreciate it if you would sit over here so that it is a short trip to the microphone and would speed things along.

We will continue with the open public hearing. Going again in the order in which I have received the request, starting with number 10, our next speaker is Mirian O'Day. Mirian is a Senior Direct of Public Policy, Alpha One Foundation.

MS. O'DAY: Good afternoon. Alpha One antitrypsin deficiency, Alpha One, is a genetic disorder that results in devastating and often fatal lung and liver disease.

Individuals with the pulmonary destruction of Alpha One demonstrate precocious onset of pulmonary emphysema, with symptoms including shortness of breath, particularly on exertion, cough, whiz, repeated lung infections, and speed up production.

Therapy consists of augmentation of the

Alpha One antitrypsin protein via weekly infusions of a plasma derivative. In the absence of therapy, the pulmonary emphysema of Alpha One tends to be relentlessly progressive, often leading to premature respiratory death in infected individuals.

It is estimated that untreated individuals can have their life expectancy reduced by 20 years or more. With onset between the third and fifth decades of life, the pulmonary impairment can cause disability leading to the loss of employment, frequent hospitalizations, family disorganization, and the suffering not only to those unable to catch their breath.

Lung transplantation, with all of its associated risks and costs, is the most common final option. The Alpha One foundation is a not-for-profit organization founded in 1995 to promote research towards a cure for Alpha One.

The majority of the Board of Directors is either diagnosed with Alpha One or is a family member of an individual with Alpha One. To date the foundation has funded over $9 million in a broad range of research grants and awards.

With recognition of the widening European incidents of BSE, and its anticipated risks for

variant CJD in humans, the Alpha One foundation is supportive of efforts to ensure the safety of the U.S. blood supply and plasma derivatives.

Currently, only a single therapeutic agent exists to treat Alpha One, and as a representative of those citizens suffering the consequences of Alpha One antitrypsin deficiency, the foundation expresses extreme concern that this life preserving medication continues to be in critically short supply.

As a consequence the foundation believes that efforts aimed at providing a theoretical increase in the safety of the U.S. blood supply must be combined with consideration of the risks of reducing the availability of blood and plasma products.

Clearly the evaluation of any plan to further increase donor deferrals must include consideration of the risks to the plasma user community, as well as mechanisms to expand blood and plasma donation in order to avoid further compromise to the availability of blood and its derivative medications.

The foundation regards the proposed expansion of the donor deferral policy by exclusion of donors at risk of variant CJD on the basis of foreign residency and travel as inefficient, and it makes the

weighing of issues related to risk benefit more difficult.

The foundation recommends that the focus be an increase in funding for research in the areas of testing methodologies for the various CJD infectious agent, studies of various CJD transmission and infectivity, and evaluations of methods for inactivation and/or segregation of the infectious agent during blood product fractionation.

The foundation also cautions that efforts to ensure safety may be misconstrued by the lay public and actually reduce the willingness of individuals to donate blood and plasma, as well as alarming donors who are deferred.

We have two more recommendations and that is that we evaluate a blood safety compensation system, and put an increase on health surveillance. Thank you very much.

DR. FREAS: Our next speaker is Dr. Hank Baron. Senior Director of Prion Research, of Aventis Behring.

DR. BARON: I would like to thank the committee chairman and the FDA for having this opportunity. Actually, I'm speaking and giving a more extensive presentation this afternoon. Thank you.

However, the presentation that I will be giving will be addressing this notion of geographic risk.

So I really wanted to get a word in before this committee votes on that, and that's why I have pulled the final slide of my presentation to give you a few bullet points with regard to this geographic risk.

And I think to give you a piece of information that is on everybody's back burner during the proceedings, but I think really should be pulled out to the forefront is the fact that the risk of variant CJD transmissions through blood or plasma products remains purely theoretical, and unsubstantiated by relative scientific evidence.

And this is a counter-distinction by the way to HIV and AIDS. We heard an illusion to the fact that we are in a similar situation with HIV and AIDS in 1980, and we know that HIV and AIDS -- that it became tragically and quickly evident that this was a blood-borne disease within a year or two of the emergence of AIDS.

And I think that to raise the spector of HIV and AIDS, and considering this theoretical risk of variant CJD and transmission through blood, I think that does a service to no one, and certainly not to

the population who really pays the tragic price.

Despite the fact that this risk is theoretical, and because variant CJD is different from the classical form of CJD, we in the plasma protein industry have taken numerous precautionary measures to implement and further minimize this theoretical risk, and this includes certain donor deferral programs which are in place regarding U.K. travel, regarding exclusion of U.K. plasma.

It also includes withdrawal of notification measures, and other measures that we are actively pursuing. Now, the lack of rise in variant CJD in France -- and this is something that you saw earlier today, and its absence virtually everywhere else in the world, I think is notable, and it reflects significantly reduced human exposure to BSE outside the U.K.

Perhaps one to two logs of magnitude less in France, and perhaps another order of magnitude less in all of the rest of Europe. Measures in Europe to implemented since 1996 to enhance food safety, and to reduce the potential for food borne transmissions of BSE prions to humans, these should add further reassurance, even while BSE is rising in certain countries due in large part to active surveillance

programs.

It is important to keep in mind also that multi-manufacturing process steps, and the production of purified plasma derivatives have been shown to have robust prion removal capacities.

So in conclusion I want to leave the message that in our opinion that a pan-European approach to further minimize this risk, this theoretical risk of transmission of VCJD through blood or plasma products does not seem warranted.

And I think to cast a shadow on the safety of European plasma sends the wrong message to the rest of the world, and I think a declaration that European plasma is unsuitable for the production of purified plasma products will undoubtedly have a considerable effect on the supply of life saving products to people who are in dire need of them worldwide. Thank you.

DR. FREAS: Thank you. I am going to change the order slightly. The next presentation is going to be Craig and Jennifer Sperry. Their son wants them to speak right now, and so we have given them the go ahead.

MRS. SPERRY: Sorry about that. He didn't have a lunch and he is quite antsy right now. Back in October of 1999, Kirkland became a half-pint. He had

received blood when he was 2 months old, and he was part of the "Pints for Half-Pints" campaign sponsored by America's Blood Centers, and because of him we are here today to share our story.

And to put a little human side to all that is going on. I am definitely not a scientist, but I am definitely a mother, and because of someone's donation, that's the reason I am. Otherwise, I would not be.

At two months old, Kirkland contracted RSV, and at that time he also ended up coding on us and going to the intensive care unit, and at that time the doctor came in and said there is another problem that has developed.

Of course, I said that coding was problem enough to get past that point, but we found out that the blood or the RSV was attacking his bone marrow and that he needed a blood transfusion immediately.

Well, I didn't think of any problem with it, and I offered my blood because he and I are of the same type. But of course I was soon educated on the fact that I couldn't just hand over my vein and take my blood.

And they said that you don't understand. We don't have time for you to give blood to your son, and

as a mother that was hard for me to take. So their hospital searched another hospital, and his blood type was not to be found in either hospital.

Luckily, our local blood center actually tracked down his type of blood that was on its way out of town, and if it wasn't for that one pint of blood, we would not have Kirkland today.

Of course, right now you probably wouldn't be having to watch him roam around, but that is another thing that I would never trade for the world. But in listening to some of this, I would just hate for Kirkland and any other parent to have to take that chance that that blood may not be there.

And that is the scare that myself as a mother, and thinking that even back then that the regulations are great to have, but if it wasn't for that one pint of blood, I wouldn't be able to have to put up with him right now.

MR. SPERRY: My son's life was saved by one pint of blood, the very last pint that was left of his blood type in our community. A blood shortage to me is very scary.

Our community has already or typically has a very large blood supply. We come from the Texas Panhandle, and we have actually had shortages three

times now in the last year, which is something unheard of from where we are at.

I can't imagine any parent going to a hospital and not having the blood there when they need it in an emergency situation. I do lots of blood recruiting on donors, and I use Kirkland a lot, and what I like to tell them is to look in Kirkland's eyes and to tell him why they cannot give blood.

What I don't want to do is to look into my own son's eyes one day and to tell him that nothing can be done because there is no blood. Thank you.

DR. FREAS: Thank you. We are going to return back to our original order of speakers, and so the next speaker is Ms. Roslyne Schulman, Senior Associate Director, Policy Development, American Hospital Association.

MS. SCHULMAN: Well, that is a hard act to follow. Good afternoon. On behalf of the nearly 5,000 hospital health network and other provider members of the American Hospital Association, we appreciate the opportunity to testify before the TSE advisory committee regarding variant CJD related blood donor deferral policies.

The medical and scientific communities continue to debate appropriate blood donor deferral

criteria to address the theoretical risk of transfusion transmitted variant CJD.

While recognizing that this is a difficult issue to address, we believe that your committee, in collaboration with the many infected parties concerned, has the best expertise to make recommendations to the Food and Drug Administration about the appropriateness of expanding current donor deferral policies.

We are concerned, however, about the impact of such expanded deferrals will have on the availability of blood in our nation's hospitals. There is already a serious and increasing shortage of blood in the Unite States.

In some areas the shortages have been so severe that elective surgeries have had to be canceled. U.S. News and World Report recently reported that a patient who desperately needed a liver transplant had his surgery canceled due to a lack of blood.

If these shortages worsen as a result of the increased donor deferrals, blood intensive hospital services such as cardiac surgery and organ transplantation may be severely impacted in some communities.

As you have heard, hospitals in New York will experience a particularly severe impact. The number one concern for the American Hospital Association and its members is patient safety.

We believe that blood shortages pose a real and serious threat to public safety, including the possible loss of life for patients who desperately need medical and surgical procedures involving blood or blood products.

That's why we strongly suggest that the Federal Government forge a partnership with the private sector to step up efforts to increase blood donations.

In this capacity, we support the recommendation made by America's Blood Centers, that HHS Secretary Thompson collaborate with stakeholder organizations to develop and fund a major national blood donor campaign to ensure that a safe and adequate volunteer blood donor supply is available to all who need it.

The AHA looks forward to being involved in such an effort. Finally, the AHA believes that it is critical that the blood provider organizations work together to develop common standards for safe blood and blood products in order to meet our nation's

needs.

Blood is a precious life giving resource that care givers need to carry out their mission of providing high quality health care services to our nation's ill and injured.

When blood provider organizations work together in a consensus fashion, rather than making unilateral decisions with no input from other affected groups, patients will benefit.

DR. FREAS: Thank you. Our next speaker is Ms. Lauren Larsen, a private citizen, and major blood recipient.

MS. LARSEN: And tall blood recipient. Thank you for having a tall mike. Hello. I am Lauren Wood Larsen, and I stand before you today with absolutely no medical expertise, but I stand before you as a very, very grateful blood recipient

There have been a lot of facts that are flying around today, and I would like to add just a few of my own facts to just muddy the waters a bit. There is some important deferral discussions going on, and I believe that the people who stand to lose the most from these are people like myself who were unexpected blood recipients.

Prior to a near fatal illness that I

suffered about a year ago, I had never even experienced a medical emergency. No surgeries, no broken bones, and I had not even been in a hospital except to visit patients with my dog, Spike, through an SPCA program.

By the time that I became pregnant at the age of 37, I had completed six marathons, and I was in pretty good shape for my age, but after eight months of a very uneventful pregnancy, I was rushed to the hospital for an emergency C-Section with what was originally diagnosed as pre-eclampsia.

It turned out to be much worse, and is still undiagnosed today. Just hours after the emergency C-Section, my body just shut down, and an emergency team began to pump blood and blood products into my system as fast as it could tolerate it.

I stabilized temporarily and then shut down three more times during that evening. I spent six weeks in the ICU, and I suffered from complete liver and kidney failure. My weight ballooned to 270 pounds as my body could not eliminate the fluids and toxins that were collecting inside of me.

I was a status one on the liver transplant for the northwest region of the U.S., and I flipped out of consciousness, and when I regained

consciousness about a week later, I had a grand mal seizure. You can imagine how thrilled all my family members were.

As if that weren't enough, I then suffered from severe encephalopathy from all the toxins that had gone to my brain. During this week long period, I battled communist plots against me. I struggled to free babies trapped in bags, and I had lengthy conversations with my I.V. pole, and I lashed out at the brains that were marching across my bed.

Also during this time, I told my husband to just let me die, and that our newborn baby girl wasn't reason enough to continue with the pain that I was feeling. Thankfully, he did not take me up on that request.

It took two more surgeries, four weeks of kidney dialysis, and an incredible team of medical professionals, a bit of divine intervention, and a heck of a lot of blood products before my body began to improve.

All told, I was the fortunate recipient of more than 250 units of blood products. Some of these blood products were imported because there was a local shortage where I lived.

After my release from the hospital, there

were still many challenges to face. I had to learn how to walk again, and how to breathe deeply, and even how to ignore the odd looks that I got when I went completely bald. This is all real.

I also had to meet and get to know my daughter who had been living hundreds of miles away for the first two months of her life. It was months before I understood the significance of the medical trauma that I had endured.

And once I did, I began to understand the generosity, commitment, and humanity of blood donors, more than 200 of whom helped to keep me here on earth. I was so touched by their assistance that I vowed to help.

And three months ago on my one year anniversary of my "play date with God" as I affectionately call it, I launched a personal campaign to repay the blood banks.

My plan is to run the New York City Marathon in November and raise $50,000 for the blood banks and 500 units of blood. To date, I am up to $24,000 and 315 units of blood.

But here are a few of the less inspiring facts about my campaign. Of the 220 responses that I received to date, only 84 people committed to donating

blood, either themselves or through recruiting friends to donate.

About half the people that did not commit to blood donations stated that they were ineligible to give primarily due to travel abroad. On the bright side, several friends committed to hosting their own blood drives.

Sandra, a friend from graduate school, managed to get more than 50 people to turn out to her personal blood drive. And of those more than 50 people, only eight were accepted as eligible donors primarily due to travel abroad.

This fact, anecdotal as it is, troubles me. It troubles me for the future Lauren Larsens who have no idea that their currently pristine health is going to someday go wildly off-track, and their only hope will be the availability of blood products.

Let me close by recognizing that the job of determining blood donor restrictions is not an easy one. Safety precautions are a must, but I also recognize that the U.S. does not currently have an abundance of blood inventory that we take for granted.

In my experience, recruiting new donors is not an easy task. So keeping the donors we have is imperative, at least until we can prove -- and not

theorize, but prove, prove that we are able to increase eligible donor activity enough to cover the inevitable blood shortage created by proposed deferral programs.

The Red Cross earlier outlined some plans to do such a thing. I can tell you that with 18 plus years in marketing that it takes an awful big budget to do what was proposed earlier this morning.

And I know that stand for half of the American Blood Supply, and it is just my guess -- and I have no facts, but it is my firm belief that the other half of that blood supply made up by independent blood banks doesn't even come close to having the type of budget that the Red Cross has to work with.

So I am very concerned about making the deferrals before we have the inventory in place to then look closely at the safety issue.

CHAIRMAN BOLTON: Could you please summarize now.

MS. LARSEN: The last sentence; sorry about that. The last sentence is that I am really just asking for a careful consideration of weighing the theoretical precaution, with the very practical need for blood by thousands of real people, with real medical emergencies, and real families who would be

absolutely torn apart if that blood was not available to help their loved ones. Thank you very much.

DR. FREAS: Thank you for sharing your experiences. Our next speaker is Dr. Mike Busch, Professor of Laboratory Medicine at the University of California, San Francisco.

DR. BUSCH: Thank you. I am from Blood Centers of the Pacific, and Blood Centers of the Pacific was previously Irwin Memorial Blood Bank, the epi-center of the transfusion AIDS epidemic 20 years ago.

Blood Systems is the nation's second largest non-profit blood collection organization, collecting 900,000 units of blood, and testing 1.5 million donations annually.

I was at USF in the critical years when the transfusion AIDS cases were first reported, and donor risk factor exclusion policies debated and enacted.

The first point that I would like to make is that variant CJD is not transfusion AIDS. It has been over four years since the first cases of variant CJD were reported in Great Britain.

Despite intensive surveillance, no cases of transfusion variant CJD have been reported in humans. By April of 1985, four years following the first AIDS

case reports, 225 cases of clinical AIDS have been diagnosed in hemophiliacs and transfusion recipients.

The incubation period for transfusion AIDS is estimated at over 10 years, similar to recent projects for variant CJD. So the lack of reported cases from transfusion is unlikely to be attributed to a long incubation period, but is rather more reflective of a low penetrance of variant CJD into humans, and inefficient transmission by human blood components or derivatives.

My second point relates to the effectiveness and ethics of donor exclusion policies. Measures to exclude donors at risk for AIDS due to sexual behavior prevented thousands of HIV infections that would have occurred in their absence prior to the availability of HIV testing.

Donor behavioral exclusion measures were and remain the first line of blood safety. However, exclusions based on demographic characteristics of donors, as opposed to behavioral risk factors, are socially and ethically problematic.

Although recipient safety must always be our number one priority in policy development, we must carefully weigh the real and theoretical safety benefits of demographic exclusions with their adverse

impacts.

These latter include the extensively discussed impact on the supply of the proposed expanded European deferral, with the very real possibility that patients may die due to lack of blood.

In addition, this policy will have a major impact on the availability of plasma derivatives. The loss of 10 percent of currently active repeat donors will necessitate recruitment of new donors.

The recent analysis by the NHLBI REDS group documented that first-time donors have approximately 100-fold higher prevalence, and 2-to-4 fold higher incidents rates of blood-borne infectious diseases, compared to repeat donors, which translates into increased risks to recipients of established infections, including HIV, HBV, and HCV.

Other adverse consequences of donor deferral policies have received less attention, but may be even more erosive. Altruistic donors who were deferred to unequivocally false positive test results have been documented to experience significant anxiety and distress, despite our best efforts to reassure them and their families that their personal health is not at risk.

Unfortunately, no one has conducted psycho-social impact studies of donors deferred due to geographic origin or travel history. I suspect that a subset of these persons is seriously impacted by the mixed message we give when we tell them that it is not safe to transfuse their blood into patients in need, including their family members.

The broader social consequences of marginally justified demographic deferral policies must also be considered. The backlash from deferral policies targeting racial groups during World War II and persons born in or who have traveled to Haiti and South Africa in the '80s have been well documented.

Deferral policies based on race ethnicity in Israel and Southern Africa have generated international criticism. I fear that an exaggerated expansion of geographic deferral policies regarding variant CJD may lead not only to the loss and disfranchisement of millions of currently active donors with European exposure, but to a broader erosion of commitment and trust among active potential donors in the U.S. and abroad.

Finally, I ask the committee to step back and consider where the slippery slope of deferral policies on CJD will end. Several countries,

including France, Great Britain, The Netherlands, and Japan, have implemented or are considering a deferral policy of all persons previously transfused.

In my opinion this policy is based on either a misunderstanding of the association between history of transfusion and prevalent infections among first-time donors, or more recently by the theoretical concern that if transfusions could transmit CSEs, this process could some or how accelerate variant CJD.

Based on REDS data, this deferral of previously transfused donors would result in a loss of 7 percent of blood donors, and 9 percent of current donations.

If TSEs are transfusion transmissible, perhaps we should also consider deferring persons who have ingested mammalian brains. A recent REDS survey of over 52,000 donors identified 6.4 percent of active donors as having a history of consumption of mammalian brains, with a range of 4 to 14 percent.

CHAIRMAN BOLTON: Could you please summarize.

DR. BUSCH: Yes. The Medical and Scientific Advisory Committee of Blood Systems strongly endorses the FDA's evidence based deferral analysis.

We, however, feel that the concerns must be

based in the reality that there have been no cases of transfusion CJD despite extensive surveillance in the United Kingdom, the hot zone of the BSE epidemic, where over one million units of British blood are transfused annually.

We hope that the committee will deliberately consider the impact on availability and the other issues that I have raised with respect to impact on the safety and availability of the blood supply. Thank you.

DR. FREAS: Thank you. Our next speaker is Mr. Donald Arthur, private citizen.

MR. ARTHUR: Good afternoon. I am a resident of New York City, and in April of 1996, I was told that I had less than 6 months to live. I was going to die.

I was going to die unless I received a heart transplant. But for 3-1/2 years, I waited for someone else to die, and it was a very uncomfortable feeling knowing that someone was going to have to die in order to save my life.

When I went into survey, there was one thing which I never considered that I was going to have to have, and that was blood. I was so grateful to my potential donor, but I never thought about those

individuals who had also given blood.

I remember after surgery when I looked when I was in my bed, and I looked up and there was a bag, and I asked what was that, and I was told it was blood products.

And it really hit me that there were some other people which I may never ever get to thank, and to say thank you. This afternoon and this morning, I have heard a lot of information, and people talking about graphs, pie charts, percentages and figures.

I am not one of them. I am a person that has a name, a face, and a personality, and there are thousands of us out there who are in need of this precious blood.

We are not numbers. We are people. Each of you here who will be making those decisions today, we are talking about risks. I knew what my risk was going to be when I was going for that transplant, and I accepted that risk because without it I would die.

To now be told about a risk without me even being given the opportunity to say, yes, I will accept the risk, but to have that denied me? There are lives that are at stake.

Each of you in this room may at one time or another need those products, whether it is a loved

one, a next door neighbor. Each of you will be hoping that blood supplies will be there, your decision again today.

Put a name, a face, and a personality with that decision, and just don't look at figures and pie charts. We are human beings, and without that precious blood, lives may be lost. Thank you.

DR. FREAS: Thank you for sharing your experiences. Our next speaker is Chuck Heldebrank, from the Alpha Therapeutics Corporation.

MR. HELDEBRANK: Thank you, Mr. Chairman. We conducted a study on two consecutive days this month among our entire donor population to determine the effects on applicant qualified donors who are otherwise eligible to donate, and who have not spent six or more months in the U.K. from 1980 to the present.

We asked them all to fill out a survey with a very simple question. Have you traveled to Europe since 1980, yes or no, and if so, please give us the duration. On the next slide, we have the tabular results of over 8,000 responses from our donors on these two days.

And we have segregated our population into three categories based on the location of the centers;

either a college population, a military population, or a general population, and them have total numbers.

For those donors who are currently acceptable and reporting a European stay of greater than 3 months, we would then defer 6.7 percent of our college donations, and 14 percent of military, 3.2 of the general population.

And in our system, weighted the way it is, it is a 5.3 percent donor exclusion. If a 6 month pan of European ban is put in place, the numbers are 5.5 percent, 12.6, 2.7, with an overall impact of 4.6.

These are shown geographically on the next slide, and these represent the effect in a plasma fluorosis donor population, providing source plasma of these effects taken with the current populations. Thank you.

DR. FREAS: Thank you. Our next speaker is Colonel Fitzpatrick from the Armed Services Blood Program.

COLONEL FITZPATRICK: Good afternoon. Dr. Williams asked me to respond to Dr. Nelson's questions, and I would like to clear up one slide that Dr. Williams presented, and to briefly say what the impact of the deferrals will be on the military.

We collect over a hundred-thousand units of

blood annually, and we are almost self-sufficient in supply, in not only our needs for our facilities in the United States, but we shift throughout the world on a regular basis in support exercises in deploying troops.

If we were to implement the American Red Cross proposal, 25 percent of our active duty population would be ineligible to donate. If we were to enact the FDA proposal, 18 percent of our active duty population will be ineligible to donate. Either one is a large impact.

We have gone on record with Under Secretary Arthur Lawrence of Human and Health Services that having two standards within this nation is divisive. We consider blood availability an operational constraint for military operations.

In other words, blood must be available in the support of military operations. Should the need for blood go beyond our ability to collect blood, we are required and we must rely on the civilian sector to supply that product.

Neither the Red Cross nor Red Cross centers alone can supply all our needs. If there are two deferral criteria in this nation, we are faced with choosing between two blood supplies, and whether there

is a safety labeling or not because there will be a perception that we have to deal with.

We are currently evaluating the policy that we will follow. We received the FDA policy proposal last week, and have not made a decision as to which policy that DoD will follow in our way to the discussion and recommendations of this committee in making our final decision.

Given the risk reduction model of 91 percent versus 92 percent if we accept that model, there is no longer a great difference between the two proposals.

The advantages of the FDA proposal to DoD would be that it limits the donor loss to the period of 1980 to 1996. So that 18 percent donor loss is a maximum and will decrease over time as those individuals resign and retire from the service.

It allows us to continue collections in Europe as we operate a donor center in Germany. This was the first facility to respond to the embassy bombings in Africa, and deliver blood to South Africa in response to the embassy bombings.

The second facility was Chesapeake-Baltimore Red Cross, and the third facility was the DoD blood program, procuring and having available 400 units within less than 24 hours for delivery.

That is a necessity for this nation to be able to have that capability. If we accept the Red Cross standard, it provides us the capability of having a single standard that we can follow.

But it reduces the European collections, and would require us to ship blood to Europe in support of our U.S. facilities over there, and deployments over there, meaning that we will have to increase donations and collections in the United States.

In essence, competing with civilian collection agencies at some facilities that we share while we operate our own program and allow civilians to collect.

It is not our position to recommend a conclusion to the committee, or to interpret the science for the committee. But I wanted to make you aware of the situation that faces us awaiting your decision. Thank you.

DR. FREAS: Thank you. Our next speaker is Rich Vogel, Hemophilia Federation of America.

MR. VOGEL: I would like to thank the committee for giving me a chance to speak at the last minute. I will be brief. My name is Rich Vogel, and I am president of the Hemophilia Federation of America.

We are very sensitive to the potential risks of a blood shortage. In fact, the hemophilia community is in a crisis product shortage as we speak. We have had to postpone new replacements and other elective surgeries, and have had to cut back and do away with prophylaxis.

Many have had to go back to ice and rest instead of treating themselves with a blood product. We will get through it, but what we won't be able to withstand is what is described as the worst medical disaster in the history of medicine.

The same attitude of theoretical and more data is the same exact talk we heard 20 years ago. A few dozen hemophilia cases was not convincing enough, and 242 started to seem like a good number, and today there are over 5,000 in the United States alone.

We support the recommendations by the American Red Cross and hope for a system of resource sharing as suggested by GNYHA. We also support a full-scale blood donor campaign.

I am not a scientist, doctor, researcher, or a statistician. What I am is a 45 year old severe hemophiliac. I don't know the answers, but what I do know is that I am HIV positive and have been since 1982 when a few dozen hemophiliacs wasn't convincing

enough. Thank you.

DR. FREAS: Thank you. At this time, we are at the end of the list of people who have requested to speak in the open public hearing. Is there anyone in the audience who would like to briefly address the committee at this time?

(No audible response.)

DR. FREAS: Seeing none, Dr. Bolton, I turn the microphone over to you.

CHAIRMAN BOLTON: Thank you, Bill. Now we begin our committee discussions, and I have been in discussions with Dr. Asher from the FDA, and has informed me that we must vote on questions of the proposals of 1, 2, and 3 in order, as that is the way that the meeting was set up.

So what I would like to do is that before we open this up to general discussion and questions within the committee, to just go back to Peter Lurie's suggestion that we might want to consider deconstructing the proposals, and discussing the individual components, and assembling our own, or voting on them individually to assemble our own.

In order to do that, we need first to vote on the first three proposals. So if as a committee member you feel that you would prefer to deconstruct

the proposals and vote on them individually, then when we come to these votes, you should vote no on each proposal.

If you find that there is a proposal that you like, then you should vote yes. But before we get to the votes, I think we should have significant discussion of each of the proposals, or parts of them individually, so that we have a sense of what people are thinking. Yes, Stan.

DR. PRUSINER: David, is there a mechanism by which we can say -- let's say we like 80 percent of one proposal as an example, and now we think that a shortcut to Peter's proposal is that we adopt a modified version of that proposal. How will you accommodate that shortcut?

CHAIRMAN BOLTON: What I would suggest is that in the general discussion before we get to the vote that we might entertain various parts and discuss parts that we like.

And we can get a consensus, and even construct a Proposal Number 4 that could be voted on before we vote on 1 through 3, and at that point, we will have a better sense of what it is that we are looking at.

DR. PRUSINER: Fine.

CHAIRMAN BOLTON: Now, the way that I look at this -- and I will just start this to get the discussion going, is that what we really have is a question of whether or not to subdivide the European Union into individual countries or groups of countries, and there are a number of possibilities there.

There is also the question of whether or not we should entertain a 6 month or 3 month U.K. deferral policy; and then there is the time frame on whether the deferrals would end in 1996 or continue to the present.

There is the Department of Defense 6 month deferral, and the North/South split issue, and there is a U.K., and/or French transfusion risk. So I will put that out there, and open it up to discussion and questions from anybody.

DR. NELSON: It seems to me that it doesn't make a lot of sense to vote no on everything if it is an 80 percent yes; and it would seem to me that one thing we could do is vote on these individual items and then vote on proposals 1, 2, or 3.

Because otherwise the FDA is not going to know why somebody voted yes on a proposal that they had 90 percent agreement with, because somehow that --

well, our votes, unless each of us makes a speech about what we like and what we don't like.

But why don't we just deal with the components. Don't you think that would work, and we can still vote on what the FDA wants us to vote on after.

CHAIRMAN BOLTON: I think the disadvantage of that approach is that one might vote, for example, for the revised FDA proposal in absence of the knowledge that a more suitable proposal was actually available to be constructed, and it had not been constructed yet.

DR. NELSON: Yes, but if you had the elements, you can put the new thing together. It seems to me that if we just vote on this whole package that is heterogenous between the various ones -- I mean, they all have exclusion criteria. They are just a little different.

CHAIRMAN BOLTON: But the way the actual meeting is set up, and the way that the FDA has requested that we do this is that if we vote yes on Option Number One, we stop there.

If we vote no on one, and yes on two, we stop there. It is not a matter of voting on all three. So it doesn't quiet give us that flexibility.

DR. NELSON: But it is our meeting. I mean, we can establish the rule that makes sense to us, and then let the FDA sort of figure out what we meant.

DR. PRUSINER: There is one more option and that is for someone, and not me, to make a motion that we vote no on all three proposals.

DR. NELSON: Well, I'll make that motion.

DR. LURIE: The other way of doing this, I suppose, is to do it, Ken, are the same. We construct our proposal, and that is in effect number four, and we vote on number four first.

DR. NELSON: Exactly. We construct number four, and then we can vote yes or no on it.

DR. LURIE: It might turn out. I mean, obviously we have gone through this, and I think we have gotten an understanding of the conversations still to come.

My number four would turn out to be number three, and once I start reconstructing it, it actually to me looks like the FDA's proposal is pretty reasonable. But that is my belief, and I can't say that is true for everybody. I think the exercise is useful.

CHAIRMAN BOLTON: Yes. Let me go back to what I said before. I think that the most effective

way to do this is to in fact discuss and construct proposal number four before we vote.

That way if we don't come up with something we like, then we can always go back and vote for proposals 1, 2, or 3. But to vote first and then have to go back and reconstruct what might in fact end up being one of the proposals that we just voted down would not make much sense.

So I would like to open it up to general discussion on any of these points. Yes?

DR. BAILAR: I am not sure that we can construct an improved proposal on the spot here. This will take a fair amount of analysis. The one thing that has been missing that I would like to see in the analysis is the marginal improvements of going from no restriction, to three months, to six months, to three years or whatever.

How much do you gain from each step in that I think would be a big help to help, but that would take a little time to develop. Could we return to this issue at our next meeting?

DR. NELSON: Well, weren't those data presented? I mean, you may not like the outcome, but that is what I heard.

CHAIRMAN BOLTON: Yes, I think they were

presented, at least in part at this meeting, and then in the previous meeting that we had. But I think whether we return to this issue, and I am sure that we will return to this issue in future meetings, we still need to deal with it at this meeting, and particularly voting on the options 1, 2, and 3.

So whether we vote no on all of them, or yes on one, we will still need to vote, and unfortunately as always happens with this committee, we are dealing with a very limited amount of information. And a subject that is both emotional and important. So, who is first?

DR. MCCURDY: I wonder if it wouldn't be reasonable to split plasma from the whole blood segments. I think that the data that we have been provided for later discussion would suggest that there may be some partitioning of the agent, of CJD, during the fractionation process, and that is good.

These products come from fairly large pools, and I am not quite sure what that means, and whether the delusion is more important for CJD than it was for, say, HIV or one of the others, one of the other agents or not.

But it seems to me that it might be wise to split the two, and I think I look at them differently.

DR. DAVEY: Mr. Chairman, maybe at the risk of moving this along or more quickly than some committee members wish, I would like to make a couple of comments, and maybe propose one option that we can consider as Option Number 4.

In looking back at this, I think the committee has been very judicious in the way that it has looked at this issue in the past; a focus with good use of the precautionary principle on the country where the problem is by far the greatest, and that is the U.K.

And 98 percent of the BSE cases are there, and 98 percent of the variant CJD cases are there. And we have an opportunity as you know to continue to study that unfortunate unfolding of the epidemic in that country.

We can learn from it, and we already have, and we can learn more. But the FDA has observed that there is really not much reason to extend this to other countries and one of their misses, and I think that is correct, with the possible exception of France.

I also think that what we have heard is that there is really not a substantial amount of new data from what we have heard in other meetings that we need

to extend this ban to all European countries.

So it is really the U.K. and there is everybody else. Now, if we look at some of the specific proposals, and let's look at the Red Cross proposal. We would lose 600,000 to 800,000 donors -- businessmen, students, international workers, travelers.

It is a problem, and even if the rules are changed later, those people will not come back. I am a hematologist, and I have spent my life in blood banking, and we are going to lose donors and we don't get them back.

And we have also heard that there are deferrals under that proposal and the FDA proposal would be catastrophic, and I use that word advisably to New York City and to the military blood programs.

And I think we have to ask ourselves very carefully do we as a committee want to do that to our military blood program, and to the most populous and most prominent city in America. I think perhaps no.

Now, again, regarding the FDA proposal, I don't think there is any reasonable rationale for extending a ban on all European countries, whether it is six hours, six days, six months, or six years.

Those deferral periods are really arbitrary

and they are based on models that are really unsubstantiated, and the FDA proposal does not address the New York City problem or the military problem.

So I would suggest that we really step back here and look at this issue. We are on a slippery slope, and I don't think we need to compromise from what the committee has done in the past, which has been reasonable. It is balance precaution against supply.

So I think again to maybe use another phrase that the FDA has used, we can draw a bright line here, a reasonably bright line between the United Kingdom, and perhaps France, and the rest of the world on this issue.

I think that we should continue the deferral policies that this committee has recommended in the past, and they have been well thought out, and make sense, and they don't damage the American blood supply sufficiently.

Our job really is to be cautious, but we cannot jeopardize the health of the American patients and recipients, and I think we have heard eloquent testimony throughout the day from patients, from hospital associations, that this is a real problem, a real problem that we have facing us right now.

The committee -- it may take a little bit of courage in a way to say, look, we have done enough. Let's wait and see, but perhaps it is the best course, and the one that shows our responsibility to the American public in the highest order.

So I would propose an option number four. That we look at the United Kingdom very carefully, and maybe tighten up the ban for three months. I think that makes sense. We gain a lot in risk reduction without a great loss in donors.

That we extend that ban from 1982 to present, and I think the reasons for ending it in 1996, while reasonable, are not very substantial. And along with that, we really need to have an aggressive system for monitoring the United States blood supply, its utilization, and its supply.

We really don't have that, and I don't think that the government has really stepped forward to give us the data, or to supply reasonable monies through others to give us the data that we need to monitor the impact.

So, Ladies and Gentlemen, I think we have a responsibility here, and I think it is clear. We should focus on the U.K., and draw the bright line around the U.K. and perhaps France, and in that way

modify the damage that we may have to American patients. So that would be my suggested option. Thank you.

DR. KATZ: It has never been quite clear to me what a guest does, but thanks for the invite. I have had the pleasure over the last year to be in this room and to sit at this table, and listen to these discussions, and I will say that the sound and fury have been impressive, if the data upon which we base decisions has not.

My review of the available information suggests that the risk of transfusion transmission does not justify measurable contraction in the face of volunteer donors in the United States.

The controversy is obvious, and I think that is why we are running over honorable people looking at the same data disagree. I felt that the recommendations in January, and still feel that the recommendations in January were appropriate, and I support them.

In the interval since that meeting the impetus to broader deferrals, primarily from the American Red Cross, has taken on a political and scientific life of its own, and which was made abundantly clear to me in a recent meeting earlier

this month with Secretary Thompson and Dr. Zoon.

While I think that the Red Cross circumvented a well designed, established, and public process for decision making, the right to do so is not questioned, and I think that everybody should be clear on that.

If the volunteer donor base was a spigot to be turned on and off at will, there would be no more bickering. We would have stringent deferrals, and there would be consensus.

That is not the nature of the U.S. blood supply, and I guess as a blood banker, maybe that's why I am sitting at this table. Despite the best efforts of my compatriots in transfusion medicine, emergency appeals in many regions of the Red Cross and independent blood centers represented by ABC are more common and sustainable than ever.

And I think you guys got a summary of this spring's media releases describing those appeals. At my own center in Iowa, we draw from more than 10 percent of the eligible donor base. Nationwide, that number is somewhere around 5 percent.

We are more than twice as efficient as the rest of the country, and maybe that is an accident of being in Iowa. Maybe we use a little less blood.

Having said that, we were unable to ship components to Houston during their recent weather related disaster because of iron-clad commitments that we have made to other urban centers around the country that have chronically inadequate blood supply.

We could not ship Houston 10 units. In this system, a 5 to 10 percent additional donor deferral for marginal indications is a luxury with a steep price, particularly if blood availability is seen, and as I think it must be, as a blood safety issue.

Where is the effective new donor recruitment strategy. The Red Cross in public has told us that they can handle it. I will take them at their word, but one of the strategies is to draw the donors that I am trying to draw in my community.

The Red Cross comes to my community, and mines my donor base. Well, it is not my donor base. It is the community's donor base. I am not sure that the supplies are as elastic as you have heard from the Red Cross.

Where is the realistic strategy to replace an immediate 30 percent New York City blood supply loss. I don't know where that is coming from. Understand that whatever we do isn't the business as usual the way we have always done business in blood

banking.

Emergency appeals don't work. What they do is that they bring in this month the donors that were committed to donate next month, and delay the ultimate accounting.

So whatever solution, whatever comes from the committee, and whatever the solutions are, it is not an emergency appeal. If this committee in its wisdom sets a precedent by advising stringent deferrals for an unquantifiable, theoretical variant CJD risk, despite ample evidence of the incapacity of the national blood supply at this point in time, the committee must also provide other advice to FDA, and I will tell you what I think that should be.

Number One, implementation of stringent deferrals should be tied to funding by HHS for a nationwide blood donor initiative developed in partnership with the transfusion medicine community.

That initiative needs to be aggressively supported at the highest levels of the administration and Congress, and sustained over an extended interval that will be required to replace the donors that we are going to lose with committed new blood donors.

And when I am talking about extended, I think I am talking about 5 and 10 years in order to

replace what we are talking about in a worst case scenario losing.

Support must be found for the recruitment phlebotomy, processing, and distribution infrastructure needed to expand the donor base, to include these individuals who are not effectively recruited by current and historic methods.

If you tell me today that I need another 15,000 units in my 70,000 unit center by the end of next year, I need money to do it. I need to buy equipment for mobile blood drives. I need to expand the floor space in my fixed donor sites. It is not a faucet.

Finally, the FDA needs to continue as it has to convene this committee regularly to review the new evidence about the continuing need for any of these deferrals.

I hope the time comes when the evidence demonstrates to all interested parties that VCJD is not transfusion transmitted. I am a transfusion clinician first, and a transfusion recipient second, and a blood banker last.

In all three roles, I implore this committee to provide defensible advice to FDA based on a review of the available science, ignoring the politics of

blood banking that will protect those of us whose lives have been, and I hope will be, saved by the availability of blood products in the future.

CHAIRMAN BOLTON: Dr. Lurie, you are up next.

DR. LURIE: Would you mind if I presented a transparency.

CHAIRMAN BOLTON: Oh, yes. Absolutely.

DR. LURIE: There is nothing like a good transparency to clear things up.

CHAIRMAN BOLTON: Well, on the other hand. Is it backwards, or --

DR. LURIE: It's in Hebrew. Well, I will try and -- I guess this is the laser point, and so I will read for you. What I tried to do here is take Alan Williams' very useful data and to try and turn them into the form that Dr. Bailar asked for, or at least allow you to do that.

And what I have tried to do here is to divide our question up into its two component parts, and the first part being the amount of risk that we can remove; and the second part being the percentage of people who have this amount to travel.

So this is a current risk. Remember that Dr. Williams had two parts, the current risk and the

total risk. This is strictly for current risk. I think it is probably worth remembering that we probably have already eliminated most of the risk simply by what we have done in Britain already to date. I think that is important contextual information.

But speaking to current risk, what I have done is that I have made the assumption that the transfusion part is straightforward, and that the committee will agree that the transfusion restriction is worth doing, and that impact upon, in terms of -- well, that it will be very small because that will be a very large number of people, and that will be the efficient thing to do. And so transfusion does not appear on the slide.

CHAIRMAN BOLTON: Let me clarify. What you mean by that is that anyone who has received a transfusion in the U.K. would be deferred?

DR. LURIE: Right. That was a proposal that was put forth, and that I am going to just for the sake of simplicity assume we are going to go for that, because you lose a certain amount of risk, but not very large.

But there is basically no impact upon the donor supply, and so it is just out of the picture for

the sake of this presentation. And then I have divided it up into the four essential elements, and not the '96 to 2000 extension, but the other elements.

And those are what we would do in Europe, and what we would do with the DoD, and what we would do with Britain, and what would happen to E-blood, and I have got that again first for the risk, and then for the travel.

And then for each I have got the impact of the remaining risk for each of the three recommendations; the TSEAC, the Red Cross, and the FDA. Now, this is the remaining risk at this moment in time. As I said, there is a hundred, because it is about the current risk.

And of that, 13 percent is in Europe, and 44 is in the DoD, and 32 is with Britain, and 11 is in the E-blood system. Now, the TSEAC proposal removes 5 of those 13 percent, and the ARC removes 11 of those 13 percent, and the FDA removes 7 of those 13 percent.

All three of them would have the same restriction on the DoD, and so all of them removed, 39 out of 44 percent, almost all of that risk.

The TSEAC proposal has no incremental effect upon the risk from Britain, because we are not proposing to change that under the TSEAC. But the ARC

and the FDA, which have similar restrictions, would take out 14 of those remaining 32 percent, and the TSEAC would take out none of the E-blood risk, but both the ARC and the FDA would.

And then you have these totals; 44 percent of total risk removed by the TSEAC proposals; and 76 and 72 by the Red Cross and the FDA. That is the risk side.

Now, the travel side. According to the travel survey, less than one percent, or I think it is close to one percent, but less than one percent, are people who have had European travel that would "violate" what TSEAC is currently proposing.

Whereas, the ARC proposal is that 6.3 percent would violate it, and only one percent would violate it for the FDA. For DoD, it is 2 percent that would violate it all together.

And for Britain, for TSEAC there is no change, and so there is no incremental number of people affected by the travel ban, and 1-1/2 percent for each of these other two proposals; and it is really not applicable for the E-blood situation since it is essentially incorporated in Europe.

Now, if you go back and you start dissecting it, it seems to me relatively straightforward to say

that we can get risk of most of this 39 out of 44 parts of what is the largest fraction, the DoD, 44 out of a hundred.

And all three agree that 39 out of 44 can be eliminated, and they have all got the same proposal. So it seems to me straightforward that we should be doing what is being recommended for the DoD, and moreover, the increments in travel is obviously not only the same, but is relatively modest.

The E-blood is not -- you can't really consider it on an efficiency level because the travel is folded into Europe. So really the two remaining questions are whether it is worth making a change in Britain and a change in Europe.

Now, if you make the change in Europe as proposed by the TSEAC, you get five additional percentage points and lose less than one percent of the donors because of their travel.

The FDA is actually quite similar -- seven percent, a little bit more of the donors -- but the big difference is that the Red Cross then has -- it only removes 4 percent more risk altogether, and it is this huge increment from 1 to 6.3, in terms of the fraction of people who will be banned because of their travel.

That strikes me as not a good idea. The more difficult question is what to do about the situation in Britain, where whether or not these two are in effect the same, and whether this additional 14 percent that you could remove is worth this 1.5 percent of donors that you would lose. That is a more difficult question.

But if you answer that in the affirmative, then you essentially have the FDA proposal, which would be 72 percent of the residual risk would be removed, and this amount of additional donors would be lost. That is my presentation.

CHAIRMAN BOLTON: So is that a vote for the FDA's revised proposal?

DR. LURIE: That is a very long way of saying that, I suppose, but what I am really hoping more than anything is if my presentation off the top of my head, and without any practice, made any sense at all, that these numbers will allow us to look and make the incremental calculation that Dr. Bailar is saying is necessary by just comparing the different numbers across, and comparing the increments in people who are lost.

CHAIRMAN BOLTON: Go ahead.

DR. BELAY: Peter, so looking at this,

wouldn't it make sense that Option 4 would be tightening the deferrals in the U.K. from 6 months to 3 months, and leaving the TSEAC recommendation for the rest of the population intact?

In a sense, I am saying isn't Option 4 what you reflect and presenting in the table, and that is, is additional risk by tightening the deferral of donors who travel to the U.K. from six months to three months, and leaving the other part of the TSEAC recommendation intact?

DR. LURIE: I'm sorry, but I sort of lost you in all of that.

CHAIRMAN BOLTON: What he is saying is that under the TSEAC proposal under Great Britain line, take out the zero and add another 14 percent there. In other words --

DR. BELAY: Well, it would make sense to have our Option 4 as tightening the U.K. further, and leaving the other population alone.

CHAIRMAN BOLTON: Tighten the U.K. restrictions of the TSEAC proposal from 6 months to 3 months.

DR. LURIE: Yes. Well, it is relative clear that if you are choosing between -- I mean, this is where the benefit is to be, the easiest benefit; the

14 percent decrease for a 1.5 percent loss in donors, right?

DR. BELAY: Right.

DR. LURIE: So, from 14 to 1.5. The other question is whether either of these, the 5 or the 7, are worth doing for the about one percent.

DR. BELAY: That's correct. But it makes sense to me to have that proposal as an option.

CHAIRMAN BOLTON: Well, in that regard, Peter, while you are still there, one of the concerns that I have is that on that first line, the question about addressing the EU or various parts, remember that under the TSEAC proposal that we have a 10 year restriction on the Republic of Ireland, Portugal, and France.

DR. LURIE: Right.

CHAIRMAN BOLTON: It has been communicated to me from the FDA, and I think I have the same feeling, is that that question of the bright line, is that really warranted.

And I think that Dr. Davies pointed out that if we simply go to a 6 month prohibition on France alone, 3 months on the U.K., you gather almost all of that benefit, and you don't have the problem of losing the German blood, for example, in the Euro-blood

question, because that blood is not coming from France.

I think that is a compromise that might work as well. So, in other words, you have a proposal like yours, where you would eliminate anyone who has had a U.K. transfusion.

You would have the 6 month Department of Defense restriction, and whether it had north-south splits, we could debate; a 3 month U.K. deferral; and a French 6 month deferral. And that would capture, I think, everything that is available.

DR. LURIE: No, there is no question that it is more efficient to -- among the European countries, the most efficient thing to do is to restrict France alone. There is no question about that.

But that is not the only thing that we have to consider. It is not simply efficiency. It is also what fraction of the risk that we remove.

CHAIRMAN BOLTON: Right. But let me suggest this.

DR. LURIE: Let me finish the thought. The disadvantage to the France thing, I am not per se arguing against it. But the disadvantage is that we have seen a certain amount of information suggesting that the data are difficult to interpret, et cetera,

et cetera, across Europe, and there are the difficulties of drawing lines.

But moreover, it evades the problem of anybody ever coming back to this committee again if we go for Europe and get it over with once and for all. I mean, there is a certain neatness to that, which I think is worth considering.

CHAIRMAN BOLTON: There is, but then you end up with a five year European, as opposed to a six month French restriction, and I think there is a real difference in those.

Let me also say this, that one of my motivations is that we have two countries now in which we know that there are new variant cases, the U.K. and France.

And it is also possible that we could entertain a proposal where the countries are classified according to documented cases of variant CJD, and then as a case appeared, then that country would automatically become or come under a six month deferral.

Now, it has the unfortunate effect of changing the questionnaire for blood donors periodically, and hopefully it will never change. Maybe we won't see any more new variant cases outside

of the U.K. and France.

But that at least captures the fact that the real risk to the blood supply are individuals actually infected with variant CJD. And granted that there is some time period between infection and clinical disease.

But there is much evidence that suggests that the agent in the blood, the prions in the blood, probably only occurs late in the disease, in terms of at or around the onset of clinical science. So the real risk to the blood supply might be minimal during the silent incubation period.

DR. NELSON: The other side of that, of the supply question, I think of avoiding the European deferral at this point. Remember that the committee was asked to review this periodically, and I think it was 6 months or something like that.

And we know two things. First of all, we know that the New York area is heavily dependent on Euro-blood at the moment. We know also that the Euro-blood does not come from France or the U.K.

And we know that the New York Blood Center is planning to gradually over time discontinue the importation of Euro-blood. And it is likely that the current risk, given that there have not been new

variant cases elsewhere, and that the number of bovine cases is lower, although present in Germany and The Netherlands, that it seems like that this could be phased in or considered to be phased in, at which time we might have more data as to whether or not there were cases appearing, and what is happening to the bovine, and with better surveillance.

But I think we could avoid a crisis of a shortage of blood supply in New York. I don't want to kill people with our recommendations, and it is conceivable that we could do that.

CHAIRMAN BOLTON: Dr. Cliver first, and then Dr. McCullough, and then Dr. Prusiner, and I am not sure who else after him.

DR. CLIVER: Everybody. I was here two years ago when we came up with the 6 month deferral number, and was bothered by it. I came away with the feeling that although this was a panel of experts that that particular decision could have as well have been derived at with a Ouija board.

And we are experts, but our problem is that we are expected to make these kinds of decisions on the basis of conflicting opinions, and very few hard data, and we are in the position of the blind man and the elephant.

So we make a decision, and two years later we are told that six months isn't enough. But I have not heard anything regarding the U.K. other than what we looked at two years ago that led us to that six month conclusion.

Now it sounds like a better than 50-50 chance that we are going to 3 months, and I don't see why. Now, I understand why the FDA keeps inviting us back. They are in a very difficult position.

We heard from some survivors today, but we will not hear from people who died because there wasn't blood. Have not and will not. So we have to look at the way that decisions are viewed in the United States.

If one VCJD case occurs in the United States that is perceived to have come from blood, Congress and the press will lynch the Food and Drug Administration. And all the expert input that they have supposedly gotten from us will not preserve them from that kind of treatment.

So my feeling is that we are in a situation where we are being consulted, but in effect what we are looking at is the FDA being put in the position of needing or appearing to be in charge, and so they are playing chicken with the American Red Cross.

And we are in the prospect of having two classes of blood in the United States; the ARC standard, and everything else comes in second, and I guess we could live with that, except that when we look at the plasma situation, all that stuff that is being made that is saving lives as derivatives from blood, every time you change a criterion, everything that was collected under the old criteria is no longer useful, whether it came from Europe, or whether it came from here, or whether it came from here.

Under our standards versus ARCs, or whether it came from our new standards, or say or old standards when we had a 6 month deferral, versus when we have a 3 month deferral.

We may need to throw out all the old product, and start over again. It is not just about questionnaires. So the perception of the validity of whatever this is that we are doing here depends to some extent on needing solid new data to revisit any decision that we made previously.

Otherwise, we might as well have not been here two years ago, because it is a whole new game every time we walk in the door.

CHAIRMAN BOLTON: Dr. McCullough.

DR. MCCULLOUGH: Yes. I would like to stay

on the issue of whether or not distinguish grants from Europe as Dr. Nelson was pointing out. I think this nice chart that Dr. Lurie put together though doesn't bring out or focuses on the somewhat reduction in risk by taking action against Europe en bloc.

But the one percent donor loss I think does not really bring out the magnitude of the impact of the loss of Euro-blood, the loss of those travelers, plus the impact on the plasma availability, the availability of plasma.

And so I think the impact of all of Europe versus France is much greater than it would appear from the graph up here, and it is an important point to continue to consider. And I sort of agree with Dr. Nelson's way of thinking about it.

CHAIRMAN BOLTON: Right. And I would just like to emphasize and add to that, that we have to remember that the French risk is 5 percent of the U.K. primarily because of the importation of U.K. beef, and not so much for the BSE incidents themselves.

So when you compare the incidents of BSE in France versus Germany, and versus other European countries, that is only part of the equation. The French imported a substantial amount of U.K. beef during the peak of the epidemic, and that I think is

a substantial part of the risk that comes in from that. Stan.

DR. PRUSINER: Well, I think that issue of how much beef was imported, and how much meat-and-bone meal was imported, that these are very, very complicated issues to assign weighting factors to.

I think that it is important that we all realize that there are real differences between now and two years ago, and I thought I would summarize these very briefly, because I think on the committee there is not a uniform appreciation of this.

The number of VCJD cases is now in triple digits. That was not true two years ago, and two years ago, we thought -- and I think that if you will look at that handout that I think Dr. Baron will show in his talk, but in there you see the number of cases per year.

And I think we all thought in 1999 that the number was going down, because it went from 17 in '98, to 12 in '99. Then in the year 2000, it went to 27. So things are much different now in terms of the total number of VCJD cases.

If you just talk about new variant CJD in France, there are a total of three cases. Two of them are from 1999, and one of them is much earlier. So

that is about 5 percent of the total.

Now, what about BSEs? BSE is being detected everywhere people look by very insensitive techniques. These techniques at best are seeing animals that would be sick within probably six months, and that is a very large number.

My guess is that it is closer to three months, but I don't have the numbers because the kinetics are not known.

So what is happening is that everywhere these immunobloting tests are being used, whether they are ELISAs or Western blots, there are cases coming up. And I think Christl Donnelly in her presentation showed this very nicely.

So we saw, and we know this to be a fact now. I mean, the latest one is the Czech Republic, and it is really pan-European. It is different numbers in different places, and it in-part depends on how good the looking is.

The reason that Switzerland is probably so high is that Bruno Ursh and his company, Prionics, has a relatively small geographical area, and they work very hard to look at all of the fallen cattle.

And the more they look, the more they found, and he is the first to tell you this in quite dramatic

presentations. Then the third thing that people need to understand is that there has been over the last two years a very concerted effort to look at a large number of tissues that contain lymphoid cells, cells that are traveling between these tissues and the blood in VCJD cases.

And the tonsils are positive, and the lymph nodes are positive, and the appendix is positive, and the spleen is positive by very insensitive techniques.

These same techniques would probably find positives in sporadic CJD if the same technique were a hundred times more sensitive, or a thousand times more sensitive.

I don't know for sure, but that is just a hypothesis. But the facts are that these tissues are positive. So there are a series of new facts that I think are important, and I think it is driving this discussion that the FDA wants us to consider.

So this is by way of facts, and I am going to come back later to what I think about the proposal.

CHAIRMAN BOLTON: Lisa.

DR. FERGUSON: I would like to just add something in here, primarily from an animal health point of view, but I think it has applications here to the public health aspect.

And this is just on the general subject of can we subdivide Europe. From an animal health point of view, we have found that next to impossible to do in regards to BSE, primarily for the reason that the import data is misleading if you look at it and say, okay, well, this was beef from the U.K. that went to France and stopped there.

I think there has been so much transhipment and products change, and that there is a part of the product that goes to the continent, and it is then manufactured into another product, and goes through the rest of the continent.

It is extremely difficult to say, yes, this simply went here and stopped there. So I don't know that you can say primarily that exposure is limited to France, or limited to anywhere else.

And I think that we need to keep that in mind. I think as the different countries are looking more for BSE, I think they are demonstrating this fact that there were products that moved throughout Europe fairly freely, and exposed a wide range of animals to a fairly large extent.

And it is just now coming out. You know, I have no idea if the human exposure is probably similar. I guess I probably would have to say could

be. But that is one factor that I think that we need to keep in mind.

I also would like to address the comments that have been made about the Euro-blood. This does not come from France. Can we actually say that? I know that it is actually being shipped in and it is collected in Germany, and I forget where the other two countries are.

But if we are going to say for purposes of this committee let's make the assumption that we will say we are going to defer a donor if they have spent six months or greater in France.

How do we know that the Germans that they collected that blood from didn't have that same risk factor. Can we make that distinction.

CHAIRMAN BOLTON: That's a good point. Pedro. A point of clarification though. Euro-blood Centers are FDA licensed and those donors are screened according to FDA criteria.

DR. PICCARDO: To understand the situation of the different countries in Europe, or for that matter for any country in the world, we have to look at how hard they look at surveillance for BSE, but for multiple, we have to look at the surveillance in humans.

So what do we know about the surveillance of VCJD in the different European countries, because the bottom line is who is infected with VCJD. So the human part, I think we are underestimating the surveillance on the human side.

CHAIRMAN BOLTON: Is there anyone on the committee, or anyone in the audience, that can address that question of the surveillance for VCJD throughout the EU?

DR. KREYSA: Maybe I can just clarify this point from the EU point of view. You are just to know that in Europe now there have been heads of the Euro-surveillance system for the VCJD with notifiable VCJD throughout Europe.

And any VCJD case has to be reported first nationally, and if there is any cases of VCJD, then this is a European evaluation which is carried out thanks to the teams from the blood banks in the U.K.

So we have a European surveillance system, and one point that could demonstrate that European surveillance system is that it is efficient at the moment is that the number of reports in front of this surveillance system has increased in the 15 member States.

That does not mean that we are having VCJD

reports in the member States, but at least we have more reports in the 15 member States.

CHAIRMAN BOLTON: And how long has that been in effect?

DR. KREYSA: The system has been put in place as of 1997, and the last figures that we had for were from 2000, and apparently the system is efficient towards surveillance of VCJD. But I can tell you that there is a Euro-surveillance system in place.

DR. PICCARDO: I don't want to single out any country, but Christl Donnelly said today that there are some inconsistencies in data that is coming from Portugal.

And so I wonder -- I mean, it is not only which country reports VCJD, but what about the total numbers of cCJD that are being seen in the different countries, because that, I think, will reflect the active proper surveillance in humans.

But we want to know what happens with regular VCJD and then from there how to extrapolate how well the surveillance is being done.

CHAIRMAN BOLTON: I believe that is how the surveillance system works. CJD itself is notifiable since 1997, and those cases are screened to see whether they are variant CJD.

DR. PICCARDO: Right. But my point is, for example, because I just don't know, is Portugal reporting the number of cases that they should have according to the population it is -- I don't want to single out any country. I am just saying how active that surveillance is, and how real those numbers are.

CHAIRMAN BOLTON: Dr. Bailar.

DR. BAILAR: I suppose that somebody should put on the record that absence of proof is not proof of absence. We talk, and talk, and talk about how the risk is theoretical, but there may be a real risk behind that theory, a risk that would not only have its direct effects, perhaps quite serious, but would also be immensely destructive and disruptive to the whole blood supply system and beyond.

CHAIRMAN BOLTON: Dr. Lurie.

DR. LURIE: Back to the question of whether France should be singled out as it were. I guess I disagree with Dr. Piccardo that it is really the CJD or really VCJD cases and the surveillance that really matters.

I mean, I would like to know the data as much as you would, but in the early phase of that epidemic, when you only have about a hundred or so cases, particularly an evolving one, you can get all

kinds of anomalous findings on the basis of really only a hundred cases.

If you had made an AIDS policy based on the picture in 1985, you might have concluded that there was next to no epidemic in Africa. And over here I think that for me the more important data are really the cow data.

They are not the human data, because the numbers are still much too small. There happen to be three in France, but I don't find that particularly indicative or necessarily a much bigger problem in France than elsewhere in Europe.

Now, the last time that we discussed this, I raised the question of the cow data. And at that time all we had were the number of positive cows per population of cows in the country, and it was pointed out accurately that there might be differences in the surveillance systems for those countries, and some countries might have looked harder than others.

That was all that we had to go on at the time, and those kinds of data implicated Portugal in particular rather strongly. But things are different now.

Dr. Donnelly has presented what I think are very important data, which are the data on the healthy

cattle which seem to be as far as I can tell, and correct me if I am wrong on this, but randomly selected health cattle, with no particular reason for bias, in a similar way across a number of countries.

And what we see is that France is not even the first of those. France is the fourth of those. There is a 3 per 10,000 rate of positive cattle in Spain. In France, it looks like about .3 per 10,000.

And these are the data, and I will just hold them up to show you. There is no bright line here, and suddenly it is not France, which is down in the fourth position.

CHAIRMAN BOLTON: Additional discussion? Everybody is suddenly quiet.

DR. EWENSTEIN: Well, let me just suggest a way to proceed administratively, and I guess we need the FDA's okay on this.

But perhaps since we are going to consider the FDA option first, we could take what we would call a friendly amendment and therefore create a modified FDA proposal and vote on that first.

And that might be easier than trying to construct or to vote no on everything, and then construct an Option 4. So I guess we need their okay for that.

Let me just make a couple of other comments. I think I appreciate very much the FDA's point of view, and for that matter the philosophy expressed by the ARC in trying to create the safest possible plan.

That said, I think I am personally very moved, and maybe just as a practicing hematologist, by the fact that we don't seem to have in place today any sort of assurance that we can deal with any sizeable further loss in donors on the ground today, especially in certain geographical areas.

And so I think that one of the positives in the FDA approach that I would like to see amended even further is some flexibility in the implementation.

Now, besides the fact that that sort of flexibility in the time line in the implementation would avoid a potential disaster on the use of blood products, I think it also has some scientific basis.

And that is that I do think that we may be looking at temporally different situations in different places. I think in the U.K. it is not as if the risk existed simultaneously in my mind throughout Europe, including the U.K. now, just at different levels.

I think that there is a kinetics to this, and I think that in my mind the U.K., and France to

some degree, can be separated out as having been in the first wave.

And there may be a second wave, and that may eventually get through the food chain, and that may eventually get into human donors. But that will allow for a little bit of a delay in the risk in the donor population.

And that I think becomes a rationale, in addition to the fact that we can't absorb the tone or loss for having a bit of a delay in the implementation, and that is just my perspective.

And the final point is that I think it is okay to have a standard that some fractionators, for example, or suppliers of individual blood fractions might want to provide, that is set and can be exceeded by others.

We have that today. I mean, not every provider of plasma products, for example, has the same questionnaire for donors. Not every provider of products has the same BSE testing or methodologies, or even the viruses that are being looked for.

But certain standards have been recommended by the FDA and their advisory committees, and in some cases those are being exceeded, and that is okay as long as the minimum standards are being met.

And so if some organizations decide to exceed what we advise today, I don't think that is without precedent or would necessarily create havoc in the blood product industry.

CHAIRMAN BOLTON: Bruce, did you have a specific recommendation, in terms of how implementation might be delayed, or how long it might be delayed?

DR. EWENSTEIN: Well, I think the FDA was mentioning that, and if I understand the fifth bullet point, it was 6 months. But I think it sounds to me, and maybe some feasibility data would have to be provided by the folks most affected, but it sounds like that is going to be a little bit too short of a time line for some folks.

It may take a year, and it might take two years, but I would like to build in that concept into the final proposal, but I think that six months may be a little too short there.

CHAIRMAN BOLTON: Well, let me ask Dr. Asher to comment on that. Would it be all right if we add friendly amendments to Option Number 3, or any other option as we vote on them?

DR. WILLIAMS: You are free to add anything as long as the basic questions are addressed.

CHAIRMAN BOLTON: Yes, Dr. McCurdy.

DR. MCCURDY: Along the line of trying to move things forward, as I mentioned earlier, it would simplify things for me if the whole blood segment and the plasma segments were separated.

And if it is all right with the Chair, I would like to make a motion that we do that.

CHAIRMAN BOLTON: All right. If you would like to make a motion, that's fine, I guess. I am not sure personally, but I not sure that it makes it easier for me.

DR. KATZ: Well, there is another aspect, and that is that recovered plasma is part of what we do, and will necessarily since it is a bi-product of the whole blood donation, is necessarily impacted and impossible to separate.

And that would be that if -- is it about 3 million liters a year in this country, or 2 million? Well, about 2 million liters of the plasma supply, is a recovered product that comes out of whole blood donations.

CHAIRMAN BOLTON: And so what I would suspect would happen is that whichever was the most restrictive is what would be used, and so I am not sure that it makes any sense.

DR. KATZ: I think that the fractionators would demand that, and I won't speak for them.

CHAIRMAN BOLTON: Right. Yes?

DR. PRIOLA: I would just like to make one comment. In listening to all the discussion that has gone on here today, that it strikes me that we are dealing with as we all know a set of data that concerns theoretical and estimated risk, and are being asked to make a decision on that based on an estimation of how we can replace the lost donor supply in the future.

So we lose the 6 percent if you extend the deferral across Europe, and we are being told that that can be made up. But that in and of itself is still theoretical. They are making projections.

And so for myself, I feel uncomfortable making a decision to increase the deferral European-wide based upon estimated theoretical risk to start with, and based upon estimated theoretical projections to end with.

And that for me, before making a decision like that, there should be a system in place, where the donor population is increased and is steadily increasing.

So that we can take or we have that sort of

legal room that you would need in order to increase broad based deferral. It is a little bit like putting the cart before the horse. We will make the deferrals and catch up later.

I think you have to have the system in place where you know that you can catch up, and the data is there to catch up before you make such broad ranged deferrals.

CHAIRMAN BOLTON: Dr. Klein, I'm sorry I neglected you.

DR. KLEIN: Not at all. You almost took the words out of my mouth. I would like to make three points here. The first is that before you do any extension of the deferral recommendation, realize that this idea has now been floating around since January.

And yet I have seen no data to tell me that the blood supply is better now. I don't see any strategic depots and I still when I call up my regional supplier in this area, I am told that there is no "O" available except on an emergency basis. I am not alone.

And so I would like to see some evidence that in fact we are moving data, and that we can get those data, and that we are moving toward increasing supply before we have increasing deferrals.

The second point that I would like to make is that of a risk model. I mean, I see the models for deferral of donors, but what I don't see is something like the Canadian model that we saw earlier telling us based on some model what the potential number of deaths or disability would be in hospitals if something went into effect.

We need those data. Now, unlike the data with BSE, where we don't know so much, and we can't get it, we could get these data. You could have gotten them if someone had put a system into place two years ago, and I am hoping that perhaps someone will put that part of the risk model into play soon.

And the final point is related to that, and that is -- and I have said this in any fora before, that it is really tragic that we don't have a system in the United States for looking at monitoring the blood supply, and not only collections, but utilization.

And not a quick and dirty system, but a system that is based on surveys, science, and a system that is based on epidemiologic principles. And I hope that you will be asking the FDA to see if there is a source of funds to get such a system ongoing, and not a one time only survey, for monitoring the blood

supply. Thanks.

CHAIRMAN BOLTON: Stan.

DR. PRUSINER: Jay, will you -- do you mind if I ask you to comment on what you told me earlier?

DR. EPSTEIN: On the question, and looking to see if Steve Nightingale wants to respond, but it was recognized in 1999 that if we were to put into place the geographic deferral for exposure in the U.K., we would need to closely monitor the impact of the blood supply.

And an ad hoc mechanism was indeed put in place and it consisted of contract funding for the national blood donor resource center, which is an independent subsidiary of the AABB.

And the commitment was for monthly monitoring of supply. Now, when I say supply, at that level we were talking about blood collections. There was releases from collection centers.

And it was recognized at the start that that didn't tell us the whole story, because in order to really look at what we were worried about, which is risk of shortage, you have to look at supply and the demand, and you have to look at the dynamics.

And you have to look at the reserve and what is happening to the reserve, and at the ratio of the