

MEETING MINUTES
of the
NATIONAL BIODEFENSE SCIENCE BOARD
A FEDERAL ADVISORY COMMITTEE FOR THE
OFFICE OF THE SECRETARY OF THE
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Teleconference
August 11, 2008
Washington, DC 20201
2:00 PM to 3:00 PM EST

NBSB VOTING MEMBERS PRESENT

Patricia Quinlisk, M.D., M.P.H., *Chair*
Ruth L. Berkelman, M.D.
Stephen V. Cantrill, M.D.
Roberta Carlin, M.S., J.D.
Albert J. Di Rienzo
Kenneth L. Dretchen, Ph.D.
James J. James, Brigadier General (Retired), M.D., Dr.P.H., M.H.A.
Thomas J. MacVittie, Ph.D.
John S. Parker, Major General (Retired), M.D.
Andrew T. Pavia, M.D.
Eric A. Rose, M.D.

NBSB VOTING MEMBERS NOT PRESENT

John D. Grabenstein, R.Ph., Ph.D.
Patrick J. Scannon, M.D., Ph.D.

EX OFFICIO MEMBERS PRESENT

(or designee)

Joseph Anelli, D.V.M., Animal and Plant Health Inspection Service, U.S. Department of Agriculture
Diane Berry, Ph.D., Office of Health Affairs, U.S. Department of Homeland Security
Richard E. Besser, M.D., Coordinating Office for Terrorism Preparedness and Emergency Response, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services
Lawrence Deyton, M.D., M.S.P.H., Chief Public Health and Environmental Hazards, U.S. Department of Veterans Affairs (Shawn Fultz, designee)
Peter Jutro, Ph.D., National Homeland Security Research Center, U.S. Environmental Protection Agency
Lawrence (Larry) D. Kerr, Ph.D., National Counterproliferation Center, Office of the Director of National Intelligence
Carol D. Linden, Ph.D., Biomedical Advanced Research and Development Authority,

Office of the Assistant Secretary for Preparedness and Response, U.S. Department of Health and Human Services (William Raub, designee)
Boris D. Lushniak, M.D., M.P.H., Rear Admiral/Assistant Surgeon General, Office of the Commissioner, Food and Drug Administration, U.S. Department of Health and Human Services
Willie May, Ph.D., National Institute of Standards and Technology, U.S. Department of Commerce (Diane Poster, designee)
Claudia A McMurray, Ph.D., Environmental and Scientific Affairs, U.S. Department of State (Jeff Miotke, designee)
Frank Scioli, Division of Social and Economic Sciences, National Science Foundation

EX OFFICIO MEMBERS NOT PRESENT

Hugh Auchincloss, M.D., National Institute of Allergy and Infectious Diseases, National Institutes of Health, U.S. Department of Health and Human Services
Michelle M. Colby, D.V.M., M.S., Office of Science and Technology Policy, Executive Office of the President
Bruce Gellin, M.D., M.P.H., National Vaccine Program Office, Office of the Secretary, Office of Public Health and Science, U.S. Department of Health and Human Services
Rosemary Hart, Office of Legal Counsel, U.S. Department of Justice
Carter Mecher, M.D., Homeland Security Council
Patricia A. Milligan, R.Ph. C.H.P., U.S. Nuclear Regulatory Commission
Timothy R. Petty, Deputy Assistant Secretary for Water and Science, U.S. Department of the Interior
John P. Skvorak, Colonel, D.V.M., Ph.D., U.S. Army Medical Research Institute for Infectious Diseases, U.S. Department of Defense
Richard S. Williams, M.D., Office of the Chief Health and Medical Officer, National Aeronautics and Space Administration
Patricia R. Worthington, Ph.D., Office of Health and Safety, U.S. Department of Energy

STAFF OF THE NATIONAL BIODEFENSE SCIENCE BOARD

Leigh Sawyer, D.V.M., M.P.H., CAPT, U.S.P.H.S., Executive Director
Carolyn Stevens, Senior Executive Assistant

Background

Availability of Materials: The agenda and other materials were posted on the NBSB Web site prior to the meeting.

Dr. Sawyer stated that the purpose of this public meeting is to describe recent activities of the Board and to ensure that the public is given an opportunity to be involved in the deliberative process of the Board on personal preparedness issues that could affect the Nation. Specifically, the U.S. Department of Health and Human Services (HHS) is preparing to release information involving the home-stockpiling of antibiotics prescribed by a physician for use following an exposure to anthrax. Therefore, a special meeting of the Board was convened on August 11, 2008 to ensure that the public is given the opportunity to provide comments to the Department (via the NBSB) prior to release of this information. When the Board learned of the impending release of information

concerning personal preparedness, it represented exceptional circumstances that prevented the normal 15 calendar days notice for a Board meeting. Thus, the August 11 meeting is a special meeting of the Board. The next scheduled meeting of the Board (anticipated in mid-September 2008) will be announced in the Federal Register within the required time-frame established by the Federal Advisory Committee Act.

Dr. Sawyer reviewed the meeting agenda format. She stated that following completion of the roll call and welcome, Dr. Patricia Quinlisk, Chair, NBSB, will lead a discussion of the NBSB members' opinions on the proposed letter to Secretary Michael O. Leavitt and RADM Vanderwagen, M.D. She also mentioned that the public comment period would begin at 2:40 and would remain open for ten minutes. The public teleconference center would moderate this session. Public participants with prepared comments would be introduced in order of joining the call. Participants with a question directed to the Board would notify the moderator who would then place them in the queue. Those making public comments needed to identify themselves by stating their name and affiliation prior to making their statement or asking their question. The time for comments and questions would be limited to three minutes per speaker. Following the public comments, the NBSB would vote on the Working Group recommendations. There would be concluding remarks by Dr. Quinlisk following which Dr. Sawyer would adjourn the meeting.

Roll Call and Welcome

The teleconference was called to order at 2:10 PM by CAPT Leigh A. Sawyer, D.V.M., M.P.H., Executive Director, National Biodefense Science Board (NBSB), Office of the Assistant Secretary for Preparedness and Response (ASPR), U.S. Department of Health and Human Services (HHS) who serves as the Designated Federal Official for this Federal Advisory Committee. The NBSB was chartered under the 2006 Pandemic and All-Hazards Preparedness Act and was established to provide expert advice and guidance to the Secretary of the U.S. Department of Health and Human Services (HHS) on scientific, technical, and other matters of special interest to HHS regarding activities to prevent, prepare for, and respond to adverse health effects of public-health emergencies resulting from chemical, biological, nuclear, and radiological (CBRN) events, whether naturally occurring, accidental, or deliberate. Notice of the meeting was posted in the Federal Register, Volume 73, No. 157, Friday, August 8, 2008 (p. 47192). Dr. Sawyer welcomed all of the participants to the fourth Public Meeting of the National Biodefense Science Board (NBSB).

Roll call of the NBSB members and Ex-Officio members was taken by Dr. Sawyer.

NBSB Discussion of Letter to Secretary Leavitt

Dr. Sawyer turned the meeting over to Dr. Patricia Quinlisk, Chair, NBSB. Dr. Quinlisk began by saying that she would read the proposed letter to Secretary Leavitt and RADM Vanderwagen that was sent to members of the Board for a vote this afternoon. After reading the letter in its entirety, Dr. Quinlisk opened up a brief discussion for voting and ex-officio members to determine whether there were any major concerns regarding the letter. She suggested that because the letter was already drafted, it

would be best for everyone to keep to the major issues and not concern themselves with any grammatical points.

Stephen Cantrill, M.D., began the discussion by saying that he was unclear about what caused this precipitous reaction on the part of the Department. Dr. Quinlisk answered Dr. Cantrill's question by explaining that the Patient and Physician guidance documents on home-stockpiling of antibiotics provided to the Board at the meeting on June 18 had raised concerns. Specifically, there was discussion by the federal government about making public, a Q&A document developed from the guidance documents on home-stockpiling of antibiotics, by posting it on a website. In response to this concern, Drs. Pavia, Berkelman, and Quinlisk, as part of the Personal Preparedness Working Group, of the NBSB, believed that a response needed to be drafted and brought to the Board's attention for approval.

Dr. Quinlisk then asked whether there were any other issues or comments for discussion. None were noted at this time.

NBSB Voting on Letter to Secretary Leavitt

Dr. Quinlisk said that it might be best to wait for all voting members to join the call so that an appropriate vote could be taken. Dr. Sawyer then offered that as long as there is a quorum, the group can proceed with the vote. Also, Dr. Sawyer said that Dr. Raub did want to make comments as an alternate ex-officio member; however, he was not currently on the line. In addition, Dr. Kenneth Dretchen noted that he would need to leave the call due to other responsibilities and would let everyone know before he left. Dr. Quinlisk stated that it might be preferable for the group to wait for Dr. Raub before voting.

Dr. Sawyer then suggested that the group proceed with any comments and/or questions from both voting and non-voting members. She added that Dr. Raub would be able to provide additional comments when he joined the call.

Dr. Quinlisk asked the group whether there were any other comments regarding the letter. She then deferred to Dr. Sawyer to take the vote from Board members as to whether the group should go forward with sending the proposed letter to Secretary Leavitt and RADM Vanderwagen. All of the Board members who were present unanimously voted in favor of approving the letter. Because the majority of the Board members were present (11 out of 13), it was determined that the letter could be finalized and sent. At this time, Dr. Ken Dretchen excused himself from the call.

Personal Preparedness Working Group Issues for the Group to Consider

Ruth Berkelman, M.D., Co-Chair
Andrew Pavia, M.D., Co-Chair

The next item on the Agenda was the Personal Preparedness Working Group and issues

to consider. Dr. Quinlisk turned the floor over to Dr. Ruth Berkelman.

Dr. Berkelman noted that she was pleased to be part of this working group. She stated that as a nation, we have made an investment in public health preparedness and have made great strides; however, she went on to say that the public health communities cannot do it all. Dr. Berkelman emphasized that the public health community needs to be looking for ways for individual citizens to be better prepared. Although personal preparedness is receiving much greater and well-deserved attention, Dr. Berkelman said that many groups have raised a number of concerns with the issue of home-stockpiling of antibiotics. She stated that the Personal Preparedness Working Group (PP-WG) will work together and with other groups in public health and health care communities so that all groups are working in a synergistic way. In addition, Dr. Berkelman wants to ensure that other professional communities may also have input to help shape these efforts. After her statement, Dr. Berkelman turned the floor over to Dr. Andrew Pavia to moderate the discussion.

Dr. Pavia began by saying that one way to frame this discussion is to consider that everyone has made it clear that personal preparedness is an important issue, in particular, rapid distribution of counter-measures. And yet, so far, according to Dr. Pavia, we have only identified actions that we thought were premature and for which scientific benefits have not been shown to outweigh the risks. Dr. Pavia went on to say that now it is incumbent upon us to make positive contributions. Dr. Pavia believed that the most important thing that could be accomplished during this call would be to identify some of the first questions that we want to try to answer as a group.

Dr. Pavia pointed out that, along with Dr. Berkelman and Dr. Quinlisk, he would be formulating an agenda for the working group's first face-to-face meeting in September following the public meeting of the NBSB September 23 (immediately preceding the HHS Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) Stakeholder Workshop). For now, Dr. Pavia said that it is extremely important to determine the key questions that the PP-WG wants to try to address in its first major meeting. For instance, the issue of MedKits as "a" way of putting counter-measures in the hands of either the general public or of subgroups of peoples' hands has been proposed. Dr. Pavia concluded by posing these questions: What are the scientific issues that need to be resolved and what are the data that we need to consider? What are the questions we need to ask?

John Parker thanked the group for giving him a chance to speak and said that the concern he has is that, even though the group has all agreed with a letter that says "Please wait, we need to consider some things before this is launched," he opines that just as in preparing for international negotiations in the past, where the U.S. has taken a position on delaying an action, we have always laid out the fact that it is not simply an open-ended delay; i.e., that we are delaying something because we need certain criteria to be developed before we agree that it is ready to launch. Dr. Parker went on to say that because September is right around the corner, we need to be thinking about the criteria that we would like to check off before we could say that we're ready to go with a

personal preparedness program. In thinking of those criteria, Dr. Parker said that he'd like to pose the following questions: What was in the back of our minds when we said that we needed to send this letter? What were we really worried about? What do we need to do to decrease that worry? Dr. Parker admitted that what he's proposing is difficult to do, because it has to be very concrete. However, he does not want it to look like the Board simply put together a letter to the Secretary without organizing the information in such a way that we can be ready to go if necessary. Dr. Parker concluded by saying that he wants to see a short list of criteria that, when all are met, for example, we would be ready to launch personal preparedness of the type envisioned by HHS home-stockpile draft proposal.

Dr. Jim James agreed with Dr. Parker; however, he believes that something needs to precede the establishment of criteria. He posed these questions: Are we setting up criteria for home-stockpiling for anthrax countermeasures? Having a certain antibiotic that we assume will likely be the right one for the right bug in a certain period of time? In Dr. James' opinion, this whole issue has not been given to the group in an objective enough way in order to make it possible to accomplish what Dr. Parker is proposing.

Dr. Albert Di Rienzo agreed with Dr. James. He said that the whole issue has been framed nebulously; furthermore, he does not know what the group would need to identify. He believes that the issues are still way too vague and that as a group we do not know exactly what we are trying to address. He concluded that there are still too many unanswered questions.

Dr. Sawyer reminded the group of speakers that the call would open up to public comments at 2:40 PM.

Dr. Pavia suggested posing one set of questions. If the group is going to consider any form of home-stockpiling, be it MedKits or personal prescriptions, Dr. Pavia wants to know how it would fit into other methods of rapid distribution. He posed the question: Who are we targeting and why? Dr. Pavia concluded that there needs to be a lot more specificity in terms of what the role is in this kind of personal preparedness in the context of other methods for counter measure distribution.

Dr. Parker then responded that it would be very helpful if the group could receive some guidance from the standpoint that the first piece of personal preparedness that HHS would want the group to consider is for anthrax; then perhaps there would be a second; then a third, then a fourth. He emphasized that as a group we need to look at personal preparedness for a specific threat for the population.

Dr. Stephen Cantrill added that he does not feel that he has the knowledge base to make an intelligent decision about this issue. He reiterated that there are many aspects of this issue that are still unknown. Dr. Cantrill is concerned that, as a group, we are tipping our hand by discussing specific agents and specific antibiotics. Therefore, he suggested that it would be reasonable for the group to obtain data that is out there, even if it is not overwhelming, and then to share it with the group. Dr. Cantrill concluded that only then

can we have a reasonable discussion.

Dr. Quinlisk said that she also would like to know the specific issues on which Secretary Leavitt or RADM Vanderwagen thinks that our group would have the most impact.

Dr. Pavia added that part of the reason for posing it this way is so that we can be better able to request information and briefings that we need. He then went on to ask whether there were any other comments.

Dr. Parker then noted that if we want the public to engage in personal preparedness, it should consist of a five-paragraph operation [a military-style format for organizing an effort]. For example, “here is the background, here’s why we want you to do this, here’s what we want you to do, here’s what it is, and here’s the signal for when to use it.” According to Dr. Parker, if we can frame it in this light, not only would we as a committee be happier, but it would also be good risk-communication to the public.

When Dr. Parker finished, Dr. Berkelman said that Dr. Parker raised a good issue and wondered whether this Q&A is part of a permissive or a promotive strategy. She added that she wondered what HHS is aiming for by having developed this Q&A document.

Dr. Pavia then mentioned that the other argument he has heard is that preparedness is a much larger issue. He explained that even though we want to deal with anthrax first, because it has been thrust into the limelight, other issues need to be considered as part of an overall strategy to increase people’s preparedness and community resilience.

Dr. Parker noted that he agrees with Dr. Pavia.

Subsequently, Dr. Pavia said that if there were no other comments, we would be turning to the public for comments and/or questions. This would be the opportunity for Board members to raise issues that need to be formed as questions.

Dr. Quinlisk urged that if people think of other issues after this call, to please send them to either, Dr. Berkelman, Dr. Pavia, Dr. Sawyer, or Dr. Quinlisk. She also stressed the importance of getting this issue on the agenda for the September meeting. Dr. Quinlisk explained that Dr. Pavia and Dr. Berkelman will be putting together a briefing and an agenda. She emphasized the importance of getting the working group as educated as possible and distributing briefing materials to everyone beforehand rather than getting long presentations so that in our September meeting we have people there as resources and have lots of time to discuss relevant issues.

Dr. Parker then said that we ought to look at those things in which exposure to a chemical, a nucleotide, radioactivity, or a biological threat mandates that immediate therapy be in the hands of individuals. There is a huge argument for chemicals to have antidotes in the possession of people, even better than biological, according to Dr. Parker.

Dr. Raub said that he had a quick comment regarding Dr. Berkelman’s question of whether personal preparedness is promotional or permissive. He clarified that it is

neither. He stated that it is definitely not promotional due to the lack of regulatory authority, and that HHS has no control over whether people have permission. The issue, according to Dr. Raub, is information.

Dr. Berkelman then asked whether there were any other comments from the Board. Because there were none, she turned the floor back over to Dr. Sawyer. The operator then opened the line up to the public to be able to ask questions or to provide comments.

Because there were no questions at first, Dr. Quinlisk suggested going back to Dr. Pavia while waiting for any questions or comments from the public. Dr. Pavia asked if there were any further discussion of agenda items or issues for the preparedness group to discuss.

Public Comment #1: At this time, there was a question from Dr. John Bradley from the American Academy of Pediatrics (AAP). He said that he didn't have any additional suggestions or comments other than to say that he agrees entirely with the idea of a very measured, thorough, well thought-out approach. He thanked the group for everything that it is doing.

Dr. Quinlisk thanked Dr. Bradley for his comment. Given the discussion regarding developing criteria, Dr. Quinlisk was curious as to what professional groups, such as Dr. Bradley's, would have to say. She mentioned that the Board would welcome any suggestions or ideas from the American Academy of Pediatrics or any other professional groups.

At this point, Dr. Peter Jutro, Ex-Officio Member of the Board, said that he is personally sympathetic to all of this, but that it seems inappropriate for EPA to weigh in on this issue because of lack of jurisdiction in this area.

Public Comment #2: Following Dr. Jutro's comments, Dr. Ed Thompson, State Health Commissioner, Mississippi State Department of Health, stated that he had a suggestion (not a question). He asked the committee to please consider risks, such as adverse reactions [to medication]. He also said that because this requires expenditure of funds by those who will be availing themselves of this, it is an equity issue for those who cannot afford it. Therefore, there should be consideration of equity. For those who can't afford this, how much value will we get from that governmental expenditure versus other levels of expenditures? Will these dollars be well spent? Furthermore, what kinds of dollars are we talking about?

Dr. Quinlisk thanked Dr. Jutro and Dr. Thompson and then suggested that as we wait for other public comments, this would be a good time for the Board to make any comments or to discuss any other issues.

Dr. Pavia began by thanking Dr. Parker and Dr. Thompson for raising these very important issues. Then, he went on to say that he urges people, such as Dr. Bradley, and perhaps others who are concerned about groups that have special needs, such as children,

pregnant women, or people with other medical issues, as well as those who do not have equal access, to help us in framing the issues about what it would take to establish personal preparedness that would be inclusive of those vulnerable groups.

Dr. Tom MacVittie then joined the call. First, he wanted to make sure that his vote in favor of forwarding the letter was counted. Then, he said that this is certainly an all-hazards problem and that civilian subsets are another key issue. He added that he believes we are managing people's expectations and these can come from many different places. In conclusion, Dr. MacVittie stated that he agrees with what everyone has said thus far.

Dr. Quinlisk said that a personal concern of hers is that when we make recommendations to the public, this needs to come along with an assessment of risk, along with good risk communication. She believes that whenever some of these types of recommendations or comments go out, the government ends up with lots of questions from the public about risk. The questions are: How do we inform the public about the risk, and how much information needs to go along with these types of information or recommendations?

Dr. Bradley (AAP) then shared information that the FDA is very concerned about safety issues and is setting up an advisory committee to discuss the safety and appropriateness of home-stockpiling of MedKits. Dr. Cantrill then asked whether the FDA would be willing to share thoughts with the NBSB. Dr. Bradley responded that this is a great question and that all we need to do is ask them. Dr. Bradley believes that because these are both administrative arms of the government, then they could probably share information.

Dr. Lushniak stated that the FDA and CDC had both opined regarding anthrax. He mentioned that there will be a FDA advisory committee meeting in late October 2008, and those committee members will be reviewing the antiviral MedKit idea that may be unfolding in the near future. Dr. Lushniak went on to say that the FDA will be looking at necessary studies to evaluate safety and efficacy issues regarding people using these kits in the home setting. There is currently a Federal Notice for a tentative date of late October 2008 during which time the advisory committee will be looking at antivirals and home-stockpiling.

Dr. Quinlisk said that all of this is good information and that we need to stay informed and aware of what each group is doing.

Dr. Pavia reiterated that he wants involvement from the ex-officio members in the PP-WG. He added that it is incumbent on ex-officio members to help keep us abreast of everything that is happening in your Agency or Department that is relevant to these issues. Dr. Quinlisk added that she would also like to invite Dr. Raub or other members of that group to work with the Board's PP-WG, as well.

Dr. Raub said that he would be pleased to help. He added that a number of group participants have appropriately expressed interest in learning more about the status of

current capabilities for countermeasure distribution, especially high-speed emergency distribution. To that end, Dr. Raub mentioned that his colleagues in the Department have developed good summary materials that will give citizens some promising information on what has been done, as well as the hurdles that remain. He said that Dr. Vanderwagen's office is currently arranging to distribute these documents to the NBSB members.

Public Comment #3: Dr. Gail Cassel asked whether thought has been given to have MedKits given to pharmacies for distribution as opposed to having the MedKits given directly to homes in order to get around the safety issue. She said that this would be safer than personal stockpiling approach. Also, Dr. Cassel asked how much we know today about antibiotic manufacturers' surge capacity in the U.S. in the event of an attack.

Dr. Quinlisk said that this is a good point and that the Working Group will be looking at this question.

Dr. Cantrill then opined that this is more than surge capacity. He said that it is also an issue of pipeline speed, efficiency and effectiveness. Dr. Pavia then assured folks on the call that he and others are noting these kinds of questions that need to be answered.

Dr. Berkelman added to Dr. Pavia's statement by noting that the issue of antibiotic surge capacity needs to be addressed. She said that there was a brief look at this issue after 2001; however, she is not aware of anything that has been done more recently.

Dr. Patricia Quinlisk added that as this session comes to a close, we will be asking ex-officio members who are interested in being on the PP-WG to please let her know of their interest.

Dr. Pavia suggested that, because it is a working group, if anyone has colleagues who would be more directly appropriate that any ex-officio members think should be involved, it would be acceptable to include them. For example, there might be team leaders or others who have specific expertise that might be needed.

Dr. Sawyer concurred that ex-officio members are welcome to have subject matter experts as part of the workgroup meetings.

Dr. Parker said that in developing the agenda for the next NBSB September meeting, he would like to suggest to the co-chairs that there are two issues on the table:

1. Letter to physicians about giving them guidance about how to interact with patients or their clients when the clients ask specific questions about what they can/cannot have at home in preparation for an unknown event. The working group might want to look at validity of that kind of letter coming out with really good guidance to professionals about how to approach and handle this.
2. The more structured federal MedKit-type programs.

Then, Dr. Parker added that we might want to get some guidance out to physicians who provide broader guidance and risk-communication about how to handle clients who are asking for this type of service.

At this point, Dr. Pavia surmised that this might be the “horse” that needs to be put in front of the “cart.”

Dr. Sawyer clarified that at this point, the guidance to patients and physicians considered by the Board at their June meeting had been reconfigured as a “Q&A” document. In other words, she stated that it is her understanding that the Department is suggesting that the Q&A document be posted rather than providing guidance documents.

Dr. Raub then noted that Dr. Sawyer was correct. He said that as far as Department is concerned, there is no specific letter on the table to physicians. But, after the June NBSB meeting, Department lawyers evaluated the idea of guidance, but were worried that any guidance to physicians by the Department would cross regulatory lines. He said that this is why the content was crafted as a Q&A document. Dr. Raub then added that what he expects is that the medical community will definitely need guidance. However, the Department will look to the Board, public health officials, and professional societies to provide such guidance to physicians.

Dr. Quinlisk agreed and said that this would be another good task that can be set aside for the working group to review.

Concluding Remarks

Dr. Sawyer apologized for the fact that there was less time than had originally been planned for this very important topic. She went on to say that she hopes everyone can continue this as a working group activity and then as a Board discussion in the future.

Dr. Quinlisk thanked everyone for participating in the call and reminded participants that if anyone has questions or issues to let the working group members know about them. She also reminded participants that if any ex-officio members or their designees would like to be part of the PP-WG, they should simply let the Board know.

Because there were no final comments, Dr. Sawyer wanted to alert the public that there is information about the Board and these discussions on the NBSB website.

Adjournment

Dr. Sawyer then adjourned the teleconference at 3:00 PM EST.