

PUBLIC MEETING TRANSCRIPT

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THOMAS P. O'NEILL, JR FEDERAL BUILDING

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Coordinator: Welcome and thank you for standing by. At this time, all participants are in a listen only mode until the duration of today's call. Today's conference is being recorded. If you have any objections, please disconnect at this time.

I would now like to turn the meeting over to your host, Maxine Kellman. You may begin.

Maxine Kellman: Thank you. I will turn over the meeting to Charlotte Spires for introduction of Federal Advisory Committee rules.

Charlotte Spires: Greetings everyone. This is Captain Charlotte Spires and I would like to call this meeting to order. Welcome everyone to our NPRSB Public meeting and I would like to welcome our members, ex officios, federal officials and also members of the public.

I am Captain Charlotte Spires as I mentioned and I am the Executive Director of the National Preparedness and Response Science Board. I also serve as the designated federal official for the Federal Advisory Committee.

The purpose of today's public meeting is for the Board to discuss and vote on the ASPR future strategies working group draft report. Before we move to the introductions, I would like to read the Federal Advisory Committee Act overviews and conflict of interest rule.

The National Preparedness and Response Science Board is an advisory board that is governed by the Federal Advisory Committee Act. The Act is a statute

that controls the circumstances by which agencies or officers of the federal government can establish or control committees.

To obtain advice or recommendations while one or more members of the group are not federal employees. The majority of the work of the NPRSB, including information gathering, the drafting of reports and the development of recommendations is being performed not only by the full Board.

But by the working group or subcommittees who in turn then report directly to the Board. Now regarding the conflict of interest rules, the Standards for Ethical Conduct for all employees of the Federal branch is a document.

Which has been received by all Board members who as special government employees, are subject to conflict of interest rules and regulations that are within this document.

Board members provide information about their personal, professional and financial interests. This information is used to assess real, potential or apparent conflicts of interest that would compromise members' ability to be objective in giving advice during Board meetings.

Board members must be attentive during meetings to the possibility that an issue may arise that could affect or appear to affect their interest in a specific way.

Should this happen, it will be asked that the affected member recuse himself or herself from the discussion by refraining from making comments and leaving the meeting. Please note that this meeting is conducted via teleconference and Webinar.

Please visit our website at www.phe.gov/nprsb for instructions on how to call in and log in to access this meeting. The public has been notified to send in, and then any comments using the NPRSB forms available on our Website at www.phe.gov/nprsbcomments.

Public comment will only be received via forms. Please refer to the agenda at the NPRSB website for details of today's meeting. Written comments can be sent in after the public meeting by submitting an inquiry using our NPRSB form available at our website, which is again www.phe.gov/nprsbcomments.

To date, we have no public comments sent via e-mail. Justin, I would like to double check with you, have we received any public comments?

Justin Willard: No ma'am, we have not received any public comments.

Charlotte Spires: Okay. Just as a reminder the meeting summary and transcript will be made available on our website after this meeting. Before we begin today's meeting, I will turn the meeting now over to Mr. Justin Willard on our staff to take roll call.

Justin Willard: Thank you CAPT Charlotte Spires. First, we'll start with the NPRSB voting members followed by the ex officio members and if there's any alternates on the line, please state your name and who you are calling in for. Thank you. Steven Krug.

Steven Krug: I am present.

Justin Willard: John Bradley.

John Bradley: Here.

Justin Willard: Thank you. Virginia Caine.

Justin Willard: David Ecker.

David Ecker: Here.

Justin Willard: Thank you. Christina Egan.

Christina Egan: Here.

Justin Willard: Gray Heppner.

Gray Heppner: Present.

Justin Willard: Thank you. Noreen Hynes.

Noreen Hynes: Here.

Justin Willard: Thank you. Ross LeClaire.

Ross LeClaire: Here.

Justin Willard: Eva Lee.

Eva Lee: Present.

Justin Willard: Thank you. Catherine Slemp.

Catherine Slemp: Present.

Justin Willard: Tammy Spain.

Tammy Spain: Present.

Justin Willard: Sharon Stanley.

Sharon Stanley: Here.

Justin Willard: Thank you. David Weinstock.

David Weinstock: Here.

Justin Willard: Thank you. Now for the ex-officios.

Justin Willard: Andrew Hebbeler.

Justin Willard: Anne Dufresne.

Justin Willard: Richard Williams.

Justin Willard: Amber Story.

Justin Willard: Randall Levings.

Randall Levings: Present on the phone.

Justin Willard: Thank you. Dianne Poster.

Justin Willard: Erin Edgar.

Justin Willard: Patricia Worthington.

Bonnie Richter: Bonnie Richter for Pat Worthington.

Justin Willard: Stephen Redd.

Justin Willard: Hugh Auchincloss.

Justin Willard: George Korch.

George Korch: I'm here.

Justin Willard: Thank you. Richard Hatchett.

Justin Willard: Bruce Gellin.

Bruce Gellin: I'm here.

Justin Willard: Thank you. Luciana Borio.

Justin Willard: Sally Phillips.

Justin Willard: Lori Caramanian.

Justin Willard: Rosemary Hart.

Rosemary Hart: I'm here.

Justin Willard: Thank you. Judith Garber.

Justin Willard: Victoria Davey.

Justin Willard: Brendan Doyle.

Justin Willard: Patricia Milligan. I will now turn it back over to Captain Spires.

Virginia Caine: This is Virginia Caine do you need to announce me to? Virginia Caine?

Justin Willard: No ma'am. We have you down. Thank you.

Charlotte Spires: Justin, thank you so much. I'm going to ask you to do a roll call of the Voting members just prior to the vote to ensure we still have a quorum, okay?

Justin Willard: Okay.

Charlotte Spires: Okay and thank you all very much. Thank you for your patience and now I would like to turn this meeting over to Dr. Steven Krug our NPRSB Chair. Dr. Krug.

Steven Krug: Hey, good afternoon or morning to everybody, depending upon where you are. I just need a check from somebody. Can you guys hear me okay?

Woman: Yes.

Steven Krug: Okay. So thank you all for joining us today. You all received an agenda from Justin last week, which describes what we endeavor to achieve in this call, which is primarily for the purpose of presenting the report that you all have had the opportunity to review in various versions, in the hope that we might find an opportunity to approve this report and send it off to Dr. Lurie and Secretary Burwell. This has been a tremendous amount of work and I think an excellent work effort because I think it in many ways kind of sets an

interesting foundation for some future thinking, and future work on behalf of our Board and others. Before going any further, I again want to thank the working group members and also a major shout out first to the ASPR team.

We couldn't have done this without you guys. And secondly my stalwart co-chair who really was the heavy lifter on this project throughout, Cathy Slemm. I can't thank you enough.

So hopefully you all have read this. Because we are getting a late start I'm going to sort of cut back on what I was going to say. But we are going to go through that slide presentation that you all received, though I can't see the slides anymore. I do have my back up plan here in front of me. I do see them again, wonderful. Okay so I presume somebody will advance the slides. How about next slide. Terrific, how about the next slide after that?

Okay. So as you all will remember we received a letter from Dr. Lurie, dated April 29, asking us to engage in a future strategies assessment and the ASPR charged us to address four tasks.

First, highlight ASPR's accomplishments to date and its impact on national health preparedness and resilience. Two, assess relevant spheres for potential near and far conditions that might affect the ASPR's mission space going forward. Next slide please.

Three, develop an analysis which compares ASPR's current mission requirements, strategic objectives, resources and capabilities against the near- and far-term conditions to identify potential future resource and capability gaps nationally; suggest adjustments in strategic alignment; and changes to legislative authority and/or policy position. Next slide.

Actually, task number 3 became number 4 in our report and task number 4, became number 3 in our report. The 4th task was to develop a report, which provides a prioritized list of suggestions and/or recommendations based upon the comparative analysis for the ASPR to support its continued success going forward. Next slide.

So, the NPRSB accepted this task at a public meeting session and we formed a Future Strategies Working Group, co-chaired by Cathy Slemm and myself.

We formed a terrific working group of board members, ex-officio members, ex-officio alternates and we also invited participation by federal and external subject matter experts.

I am very grateful for the excellent participation we had throughout the process. Next slide. We were blessed with both board members and ex officios who brought with them some vital areas of subject matter expertise. But as part of the process, we also actively sought ideas, perceptions, and information from a variety of entities from both within and outside of the Federal government. We had presentations from key staff and leaders within the office of the ASPR, including those who were operationalizing ASPR's mission, and in doing so, we gathered a tremendous amount of information. I believe our presenters were very straight with us in terms of pointing out what they thought was working well, and what they thought could work better. Our presenters also shared their perceived gaps and/or concerns going forward.

Perhaps one of our most interesting presentations, as we were tasked to think about the future as opposed to just the current state, was delivered by a 'futures expert', who guided us in adopting a framework that would help us consider potential future states. This approach proved to be a fascinating process, and is reflected in an appendix to the report, where we describe three potential future states.

Of course we also delved into the published literature as we examined present conditions and gaps, and those anticipated in the future gaps, and likewise, potential strategies. As we all know, there is not a sufficient literature base in emergency and disaster preparedness, and as you will see, that observation also aligns with one of our recommended strategies. Next slide.

So, for Task Number 1 we were asked to highlight ASPR's accomplishments to date and their impact on national health security, preparedness and resilience. It made great sense for us to do this, as in doing so we might identify effective and/or creative solutions that might prove to be useful going forward. Indeed, both in terms of what the working group members brought to the table, and what we learned from the experts who joined us, there has

been meaningful progress made over the past decade in terms of disaster preparedness and response and also in terms of resiliency.

In our report we highlight several ASPR accomplishments. It's fair to say that we spent a good amount of our response to this 1st Task focusing on the PHEMCE and BARDA as successful models towards based upon advances in medical countermeasure development and maintenance. Of course, the development, availability and appropriate deployment of medical countermeasures are a key component of disaster response.

In addition to progress achieved in this arena, we also observed that PHEMCE has been able to somehow leverage and/or make the most of the otherwise complex relationships within the matrix of the federal authorities involved, as well as state and local authorities partners, and industry, involved with this aspect of disaster readiness.

A couple of key features that we thought made the PHEMCE stand out, and possibly applicable in other sectors are listed on the slide. There's a fairly clear structure, and despite the complexity, this structure seems to incorporate strategic and operational components with a clear mission, which is also reasonably comprehensive in its scope. This is a structure that works through the development of effective partnerships and collaboration. A key component of the PHEMCE focuses not only on policy, but as well, which entity would be best to operationalize it.

PHEMCE through BARDA not only seeks innovation, it explores it and supports it and even provides facilitative systems and resources. Like everywhere else, the resources are limited in relation to needs.

PHEMCE/BARDA appears to have a mechanism by which decisions relating to resources are prioritized.

Another key attribute, one recommended in a prior report by the NBSB, is the ability of BARDA to encourage participation by the private sector because it can offer more than year-to-year funding, which is very important. Next slide.

There are several other key ASPR accomplishments that we didn't go into much detail in this report, though they did merit mentioning. It's fair to observe that we've made nice progress in advancing health care system

preparedness and promotion of health care coalition development, in part through the Hospital Preparedness Program. The development and use of regional emergency coordinators who are now actively engaged in both regions and states partnering with their federal partners from other agencies such as FEMA, is another step forward. There's great opportunity to further improve here but some nice progress to date.

An example is how we as a nation were able to respond somewhat nimbly to the H1N1 pandemic, including the presence of Emergency Use Authorizations that were considered and developed prior to the actual event. This process leveraged the great talent both within and external to the federal government.

There's clearly been recognition that global health security is a key component of our national health security and evidence that both the ASPR and other entities are really working together to coordinate efforts. Next slide.

As our board members and working group members repeatedly pointed out in our deliberations, we need more science behind planning for disaster response, and recovery, and resiliency. There appear to be evolving mechanisms in place, led by ASPR, to study what happens during an event.

We also deliberated at great length about how to engage partners with data and how we can better harvest the vast amount of data that's already out there. As a final comment, we observed strong efforts to better coordinate and align the efforts of the CDC, our nation's public health authority and the ASPR. Next slide. All right, so I'm now going to pass the baton to my co-chair Cathy Slemp.

Catherine Slemp: Thanks and is it coming through okay on the phone here? Can you hear me?

Steve Krug: I can hear you.

((Crosstalk))

Catherine Slemp: Great. That's great. Well thank you. Steve and I are going tag team this. So the second task we were given was to really look forward and kind of think through what are the trends and the conditions that really need to be considered as we were mapping that ASPR's future or giving them guidance in where they might want to head.

So we thought through this both as a work group, and then also, of course, what was shared by our presenters, and then synthesized those trends and those conditions and those realities that we were seeing as well as the things that we were projecting occur in the next five to ten years into about six trends or concepts that we thought were critical to keep in mind there.

The first trend listed is the fact that ASPR's work, and its mission are clearly going to remain relevant. Disasters and emergencies, from what we heard from FEMA and others, are obviously continuing. According to some sources, they are actually increasing in frequency and severity. Many factors that lead to this condition will need to be taken into consideration as we move forward. So clearly the work of ASPR is critical to our nation's future health security.

The second condition/trend that we spent a lot of time around had to do with economic challenges and the impact those have had in key sectors.

Whether the issues have been fiscal or philosophical, there have clearly been economic challenges that pose threats to at least three core concept areas that we felt were critical for health security and that ASPR would have to think through and work to bolster.

The first of those really has to do with the economic impact on development and our ability to produce new medical countermeasures and new technologies. The changes in that economic environment are creating serious challenges for scientific research and for innovation, which can then make it more challenging to develop those countermeasures.

The second area that we really spent a lot of time talking about and wrestling with had to do with the stability of the nation's public health system. They are clearly on the frontline with many of our emergency responses as well as within our preparedness efforts and in building partnerships. Many state and local public health agencies are struggling. This impacts routine public health delivery as well public health emergency response.

But there is such an integral tie between their everyday work of public health and their work in preparedness health security and that challenge to the public health system also challenges to our future preparedness as a nation.

The third area, and these all of course all integrate and connect, had to do with the stability of the nation's health care system. We are clearly in a time of rapid change in our health care system. Changes to operating structures and changes to payment models and an evolving focus on disease prevention and health maintenance has posed a great challenge, one that effectively challenges the engagement of many of our health care delivery systems in our preparedness efforts and to work in that arena.

So that's the second trend. Forecasting the ongoing impact of economic factors on key health care security sectors, the third trend we identified was disaster risk reduction as a critical component of advancing health security in the US and globally.

Understanding the great burden of disease and rising costs of health care and the enormous fiscal losses sustained as a result of disasters, there is, I think, a compelling need for an increased emphasis on disaster risk mitigation.

A more intentional focus in many arenas on what can be done in advance of disasters to prevent known threats from becoming disasters is logical and is already occurring. The World Bank and others are looking at this globally.

In listing risk reduction as a key trend for considerations of future strategies, we wanted assure that as we move forward, that we integrate this into our work intentionally throughout.

The fourth trend has to do with social entrepreneurial models and recognizing that we are dealing with complex societal issues in preparedness and in response as well as in many other areas.

The patterns and the models that people are using to address these complex issues are often changing now to those that are much more focused on collaboration and coordination, and aligning initiatives, sometimes with less structure hierarchically. In these newer models, government may be shifting its role from one of providing program services to one in which they more facilitate the process and generate public engagement to advance progress.

This applies to preparedness as well and to our broader health security. The fifth trend has to do with demographic and environmental changes. This is

obviously an important factor to consider when looking forward and projecting future.

We reviewed recent trends and population demographic projections for the US in our deliberations and highlighted a few, including population growth, geographic and age distribution, at-risk subgroups, racial diversities, and cultural changes. The report considers how these changes might influence the work of ASPR and its partners moving forward.

The last trend area that we spent time deliberating and learning about was the growing availability of data and opportunities for data monitoring and computation to inform preparedness. The amount of data is just mushrooming.

The ability to rapidly access and analyze the already enormous volume of available data, and the meaningful use of this information in real time will certainly be critical in moving forward, so there is an need to develop greater capacity and competency in this arena. The working group agreed that data management represented a vital area to really focus on. In addition, as we were discussing the growing value of data, the need for enhanced cyber security was also recognized.

Then from that, had a lot of good, rich, meaningful discussion to really say, what does that tell us about where we should be heading and the strategies we recommend for ASPR moving forward? I'll turn it back to Steve for Task 3.

Steven Krug: Thanks Cathy. So, as you can see we're now to Task 3, which actually is Task 4 in the ASPR's letter. We made this change as we thought the report flowed a little better this way.

One of the most important questions that was discussed, which informed one of our foundational recommendations, was whether the ASPR has sufficient authority, and whether there needs to be legislative change, policy change, etc to support further progress going forward.

Our first recommended strategy reflects this discussion and our collective belief that we found the ASPR's legislated authority and responsibility appropriate for the stated mission. That said, in part due to the complexity of

the governmental organization, and in part due to a lack of broad awareness of the role of the ASPR, even within government, we believe there are opportunities to build a stronger role.

So our first recommendation says exactly that, specifically, it would be very important to further strengthen the ASPR's ability to fulfill the full intent of the authorizing legislation as most recently stated in the Pandemic All Hazard and Preparedness Reauthorization Act.

In doing so we believe that the ASPR and its partners within and outside the federal government, should work closely with HHS leadership towards that goal. Policy makers both in the White House and on Capitol Hill should collectively assure that the ASPR has the necessary visibility, support, skill if needed and delegated authorities and resources to carry out this vital leadership role which was provided by its authorizing legislation.

Related observations have come up in a variety of documents, most recently in the Presidential Commission Study on Bioethical Issues which was just released a few weeks ago. That report commented on the need for definitive clarity in terms of leadership. Achieving this recommendation is going to require greater support within the federal sector as well as increased visibility of the ASPR among all stakeholders – and with the public.

To Recommendation Number 2, being that the PHEMCE has achieved meaningful progress, really important progress despite all of the factors that make things difficult to achieve from time to time in the federal sector.

These same strategies that have been actively deployed to allow the PHEMCE and BARDA to be effective within and outside of government might also prove to be effective for other sectors within emergency preparedness. Collective impact initiatives and other structured collaborative approaches should be used to address what appear to be very complex social and system issues.

One of the desired outcomes here is to more meaningfully engage stakeholders, better coordinate efforts within and outside of government and fully integrate the consortium of involved parties. It's not just the federal, state and local government that should pursue this, this must also include the

private sector and the public. One example of this strategy outside of the PHEMCE has been the Hospital Preparedness Program, which has clearly engaged greater support within the nation's health care delivery systems.

The HPP is evolving towards the development of coalitions and is starting to look at some fundamental issues such as resiliency, and for evidence that collaboratives can make progress. Next slide.

Recommendation Number 3 encourages further work to assure, through operational and policy related initiatives, that a significant domestic capacity to conceive, develop and produce and replenish medical countermeasures is maintained and enhanced. This strategy originates from several observations made by the working group.

First, you will recall from Cathy's presentation of the future trends, her discussion of trend Number 2. One of the many things that have withered a bit due to funding is the US-based industry and academic enterprises that have previously powered in-country development and production of countermeasures and technologies. As a result, many companies and production facilities have been outsourced or off-shored.

While that's probably a reasonable model for day-to-day 'routine' operations and may bring value and perhaps even cost maintenance, it's pretty clear that if we were to outsource or send all or a meaningful component of our medical countermeasure enterprise offshore, that, this would represent a national security issue.

Because it's pretty clear that the world around us is exposed to strife and political unrest, and at risk for natural disasters or terrorism, during a major event we might not be able to rely upon that particular supply chain. So as a core strategy we need to make sure that we have sufficient domestic expertise as well as the development capabilities. Next slide, excuse me.

Recommendation Number 4 encourages the ASPR to continue to prioritize strategies that address multiple hazards and synergistically meet health, security and other high priority societal needs. I'd offer the comment that we've seen similar recommendations made in the past, and evidence of activities that have adopted that approach, such as within the medical

countermeasure enterprise. This, of course, includes working with partners to mobilize efforts to stabilize and strengthen foundational systems. Other foundational systems that are core to our national health security include emergency and trauma services and public health systems. So as discussed earlier by Cathy, within Trend Number 2, this recommendation reflects a shared concern that our readiness will suffer in the absence of a strong foundation. In other words, it would not be wise to expect weak foundational systems to ramp up effectively in response to a crisis. On the plus side, in building a stronger foundation, our provision of essential services would be enhanced on a day-to-day basis.

This gets us to Recommended Number 5, which is on the next slide, the need for a broader dialog amongst all the involved entities regarding the importance of national health security and emergency readiness. While the visibility of emergency preparedness does flare up during certain events, it then typically and quietly disappears. If we are to remain prepared, it will be important for there to be ongoing public visibility and engagement on emergency preparedness and response.

This includes not just engaging the private sector (academia, healthcare systems, industry) but frankly the public and elected/appointed officials. Everybody needs to understand how vital our national health security is, and why emergency preparedness is key. While there is reluctance to promote awareness of gaps due to security concerns, we might be better prepared if there was awareness regarding the risks we face, and the things that we can all do together to promote preparedness and resiliency.

Several times during our deliberations, presenters and working group members voiced concern for a perceived decay in our 'national culture' regarding preparedness – and particularly personal preparedness - and suboptimal public engagement on these issues, with public dialogue and awareness occurring mostly during or shortly following events. If individuals and aspects of the private sector were more individually prepared, perhaps federal, state and local government might not have to do as much.

That brings us to Recommendation Number 6, which encourages further emphasis on disaster risk reduction strategies as part of the portfolio emanating from the work that the ASPR and its partners. Since Katrina and 9/11, there's been a large effort towards advancing national health security, with an understandable focus on building emergency response capabilities. In our review of available data, it was pretty clear to the working group that disasters will continue to occur, and perhaps due to various environmental factors, at increasing frequency and severity. While there indeed may be interventions that may serve to prevent disaster events, anything that we can do to mitigate the severity of events and to improve resiliency of communities will be a wise investment.

The next slide contains Recommendation Number 7. This recommends linking with and incorporating preparedness policy and incentives into other initiatives shaping the health of individuals, communities, the economy and national defense. This is a reflection of, and actually a reiteration of a similar recommendation within the 2013 NPRSB as report on community health resiliency. This strategy, which would help to better align public and private sectors, should be pursued by ASPR and other governmental agencies, such as CMS. As an example, linking community health resilience policy to other health initiatives, such as public health policy, or the Affordable Care Act, might serve to better align efforts with healthier and more resilient communities as a shared desired outcome.

The next slide contains the final Recommendation Number 8. This strategy reflects the enormous amount of data that's available today - both from traditional and nontraditional sources - and the opportunity this rapidly expanding and evolving dataset offers in terms of understanding how certain events happen, such as disasters. This offers an extraordinary opportunity for monitoring and timely identification of event occurrence, risk reduction, strengthening resilience and improving preparedness, as well as guiding response. In the report, we offer suggestions for working with partners both within government and within the private sector. Social media and other newer data sectors offer a resource that could be effectively leveraged towards helping us to be better informed and putting us in a stronger position to

understand the nature of events. I will now pass the baton back to my colleague Dr. Cathy Slemp.

Catherine Slemp: Thanks Steve and Charlotte, I'm looking time wise and I'm wondering, I know folks have read this report and I think many of the next sections in Task 4 really kind of begin, and what I think the ASPR was asking us to do, give us the first steps to consider in these arenas.

So that's what the next section really does. But I think they map back really closely and nicely to the recommended strategies that Steve went over. So I'm wondering can I shorten this area slightly and then we can move into discussion and the vote. Is that okay, process wise Charlotte?

Charlotte Spires: Yes. Yes. That would be absolutely fine, Cathy. Thank you.

Catherine Slemp: Great. So let me just briefly kind of say that in the report, and I think everyone's familiar with it, in each of these are actually six areas that we highlight as sort of focus areas that pull these together.

They don't map back one to one but they pull together the strategies and say, here are some first steps to take along those lines. So it really talks about how the ASPR might begin to make that step into living out that leadership role more boldly, more visibly and more fully.

As they mature into the full intent of that legislation. Then there's a listed items here on our slide, this next slide and the following slide, you can briefly kind of go through, let's slip to the next slide and let folks take a look and reminding yourself what those are. So there was the leadership piece.

There really focus on the policy and authority roles. Leadership authority roles. Looking *unintelligible* culture and how the culture might really support that collaborative approach to things.

Looking at the foundational systems that we've got to make sure we build upon since you can't to just in time public health or health care systems and then let's move to the next slide.

Really looking at how does the ASPR listen carefully and consult with and work alongside earlier and more often with their partners so that we really

have processes that we're not just taking feedback from folks but we actually engage.

Communities engage partners and have a shared responsibility for our health security and that gets into that public engagement and dialog piece that is so critical that Steve mentioned in terms of how do we do that risk tolerance together and understand where we are as a nation and where we need to go.

And have a shared ownership of it. As we go to the final slide, on the near term priorities that focuses, it really emphasizes that area of, imagine the science behind preparedness and response and more fully engaging the public health community and academia and others in where we are on the current research agendas and where the gaps are that we need to fill. Then finally in doing any of this work ASPR has to be able to flexibly and rapidly respond and to be innovative and be really out there and thinking and being adaptable.

That is a challenge in the large governmental agency and how can that be progressed further down the road to accomplish these other arenas. So under each of those there are more specific details in the report.

I know the ASPR staff has ability to make it real and bring it forward as to what would be the most effective approach to that. Moving to the next slide I think both Steve and I and all of us would really like to just acknowledge and say how appreciative we are of the work of many.

But especially Dr. Parker and our former NPRSB members who were part of this working group. Emilio Emini and Nelson Chao, lots of feedback they both had given others and really took part and made an enormous difference here.

I had the same time have to really thank the workgroup overall. People really brought their passion and their excitement about the work and had meaningful discussions that I hope will be a report that will be grounding for many projects moving forward as well.

Moving to the next slide we also need to thank our presenters. They came with wisdom and insight and experience. They were candid with us. They

shared ideas and then the workgroup was really able sit down and synthesize those into the process we have today.

Then finally with the last slide the staff. Thank you to Charlotte and her leadership. To Maxine and Justin who really kept us on task and moved us forward. To Jyl, Cynthia and Belinda who really have helped to kind of keep the process moving and supported us through it.

Evelyn for some creative writing and good synthesis of material as she looked at those futures and then it was a joy to work with Daniel as well who really brought a fresh prospective and as an intern was looking at how do the recommendations aboard move into practices.

So thank you to all of them and to the middle countermeasure strategy folks that also helped support some of that work and the good copy editing. So thanks so much and I think we should open the floor for discussion and then I think we have a vote.

Steven Krug: Thank you Cathy. Do we need to check to see if there's anybody who is posing a public comment?

Charlotte Spires: Yes. Justin do we have any public comments?

Justin Willard: No. We don't have any public comments.

Charlotte Spires: Okay. Thank you. All right. If there are no public comments, Steve I suppose you open the floor now to discussion, if there is any. If not, then Justin will do a roll call of the voting members to ensure that we still have a quorum.

Steven Krug: Yes, exactly. So the floor is open and again I apologize, we have a brief amount of time for discussion by the members. Although we've had some robust discussion in prior get together. But if anybody has a comment to make please do so.

Charlotte Spires: Okay. I think I'm hearing none. If it's okay with your Dr. Krug, Justin will do the roll call.

Steven Krug: Yes. Let's then take a roll call. Thank you.

Noreen Hynes: Hi, this is Noreen Hynes. I was on mute. I'm sorry. I thought I was talking. I do have...

Charlotte Spires: Sorry Noreen.

Steven Krug: That's okay Noreen. Go ahead.

Noreen Hynes: I was on mute. This is a very comprehensive look and response to the Assistant Secretary's tasking. Of course I'm a member of the Board but was not a member of the working group.

So for some of the demographic issues did the working group discuss the issue of whether or not we will have the necessary trained individuals in science and technology, both within government and outside of government to respond to the needs?

Steven Krug: This is Steve. Yes, we did. That issue was brought up by both working group members and by some of the experts who came to talk with us. The two sectors with the greatest concern were within the science and technology and also in the public health arena. There were also meaningful workforce concerns in health care as well.

To what's been observed in the report and then in recommendations I think that there's an opportunity as part of a bigger picture for the ASPR and others involved in national health security to advocate for and or to prioritize our limited resources towards assuring that those trends are addressed.

Catherine Slemp: Noreen I think too and I hope people will read some of the details and therefore I realize it's long. But and I have to take my hat off to David Weinstock who really said, we need to be documenting some of the things and citing our references.

So we tried to incorporate some statistics and some findings from others that really tried to bring home the importance of that piece and why it is so critical that we address it. Because without it we really don't have a base upon which to build the development of future technologies.

Noreen Hynes: I think having read even the final draft if there's some way through this question and answer or addendum to really highlight the number of retirees in government.

Elsewhere, the fact that the U.S. is now 52nd in the world in terms of its standing in science, technology, engineering and mathematics education, and that over two-thirds of our mathematics graduates with PhDs are not U.S. citizens. All of these actually do present threats to our ability to be prepared and to respond.

Catherine Slemp: I'm thinking that we could put some things in the task, in the transmittal letter that may highlight some of those too.

Steven Krug: Yes, and then to Noreen and to everyone else, we do hope to stand up a Future of the NPRSB Working Group, which will allow us to offer some suggestions to the ASPR regarding some specific areas that we might want to prioritize and work on either alone and/or with others.

So what you just mentioned could indeed be one of those things.

Noreen Hynes: Okay. Good and then my second question is certainly that you do highlight that the working group focused a lot on PHEMCE and what BARDA has done because it is in a way the large 50 pound gorilla or 500 or 5000 pound gorilla in the room.

In terms of the overall efforts of ASPR in terms of probably personnel as well as fiscal resources and did the working group feel that the sheer size of BARDA.

The operational entities within the ASPR might in fact decrease the very important focus that ASPR plays in herding cats across the interagency but also in terms of being able to focus a really a laser light on the policy related issues surrounding preparedness and response?

Steven Krug: Again, this is Steve. I think you're making a very good point. PHEMCE has been successful for a number of reasons. I would be fearful of the ASPR sort of, I know you weren't suggesting this but sort of passing that on to some other entity so it could focus more on something else or other things.

I think the point that needs to be made and I think the point that you're making is that there are other very important things that the ASPR is responsible for to some degree from a leadership perspective and maybe from an operations perspective.

In reality there's only so much that the Office of the ASPR can do even if resources were unlimited. This is where those other relationships and other ways of making things happen come to play.

Again, using the health care system as an example, this is the way that's going to probably occur. In order to get the health care system to come forward and to do something they're going to need resources and/or some perceived incentives and alignment of existing incentives to achieve that.

I think it's pretty cool that there's way too much going on and not enough humans and/or dollars to make this happen. Again I think as we digest this and think about next steps, you know, I'm hopeful that we'll think beyond the PHEMCE and think about those other areas where we think further attention might be beneficial.

John Bradley: Yes, this is John Bradley. I just want to make a 20 second comment to Noreen. Your observation about herding cats and indeed there's certainly a policy function of ASPR that appears in certain circumstances not to be able to be moved forward.

Because of perceived perhaps lack of authority to implement policy. I think once the authority is there and I think one of the things that many, many discussions centered around is how to be more effective at herding cats by having more authority to make the cats do what you believe they should do.

So not that it's ever going to be easy but yes, we discussed the difference between policy and implementation and acknowledged the need for greater authority. Thanks.

Catherine Slemp: I think the other piece that we had discussion around, was the importance of showing value and that leadership occurs when you are clearly of value to those that you were trying to coordinate.

I think everyone that we heard from talked about how little they knew about what ASPR did and how they need to have a better understanding of that and then are relatively surprised when they learned more.

So I think it's that combination of authority and demonstrating value and how to really best do that to build trust. Which lets them herd cats. Because those are really critical.

Steven Krug: Other comments? Because if we're past the hour and I know I think one of our board members had to drop off due to a conflict so. This won't be the last time we'll have a chance to talk about this particularly in the framework of thinking about next steps.

Charlotte Spires: Okay. Thank you Dr. Krug and members of the Board. Justin, if you could do a quick roll call of voting members please.

Justin Willard: Okay. Steven Krug.

Steven Krug: I'm present and I vote to approve.

Justin Willard: John Bradley.

John Bradley: I approve.

Justin Willard: Thank you. Virginia Caine.

Justin Willard: David Ecker.

David Ecker: I approve.

Virginia Caine: Virginia's here. I had myself on mute. Virginia Caine. I had myself on mute. Sorry.

Justin Willard: Do you approve the report?

Virginia Caine: Yes.

Justin Willard: Thank you. Christina Egan.

Christina Egan: Yes, I vote to approve.

Justin Willard: Thank you. Gray Heppner.

Gray Heppner: Here. I approve.

Justin Willard: Thank you. Noreen Hynes.

Noreen Hynes: Here. I approve.

Justin Willard: Thank you. Ross LeClaire.

Ross LeClaire: Here and I approve.

Justin Willard: Thank you. Eva Lee.

Eva Lee: I approve.

Justin Willard: Thank you. Catherine Slempp.

Catherine Slempp: Here and I approve.

Justin Willard: Tammy Spain.

Tammy Spain: Here and I approve.

Justin Willard: Thank you. Sharon Stanley.

Sharon Stanley: Here and I approve. Thank you.

Justin Willard: Thank you. David Weinstock.

David Weinstock: Here and its unanimous. I approve.

Justin Willard: Thank you. Captain Spires, we have a quorum for the vote.

Charlotte Spires: Thank you. Wonderful. Congratulations Board. Dr. Krug, could you give us a closing wrap up remarks please.

Steven Krug: Well my first observation is I'm again very grateful for the participation of many, and the candid comments offered during our deliberations. While I'm sure this isn't perfect, I think it's a pretty good piece of work.

To Noreen's questions there are a lot of key issues here that certainly need our attention and further work. I think there's an opportunity for us to consider whether to do so on our own and/or collaborating with other FACs to work on these things.

Again, I'm very grateful for everybody's support and for your willingness to join us today and we will talk more about the Future of the NPRSB Working Group probably on our next administrative call.

Charlotte Spires: All right. Sounds good. We adjourn. Thank you very much everyone.

Steven Krug: Thanks everybody.

END