

Center for Preparedness and Response (CPR)
Board of Scientific Counselors (BSC) Meeting
Wednesday, April 24, 2019

Roybal Campus, GCC, Building 19, Auditorium B3
Atlanta, Georgia

Table of Contents	
Roll Call and Introductions	3
Review of Federal Advisory Committee Rules, Duties, and Conflict of Interest	3
Welcome, Call to Order, and Opening Remarks	3
CPR Update	4
Ebola Outbreak in the Democratic Republic of Congo Update	4
Comments from the BSC:	6
Framework for Graduated Responses	6
Framework for Graduated Responses- continued	8
Comments from the BSC:	9
CPR Division Directors Interval Updates-Samuel Edwin (DSAT)	9
Comments to DSAT:	11
CPR Division Directors Interval Updates-Christine Kosmos (DSLRL)	12
CPR Division Directors Interval Updates-Christine Kosmos (DSLRL)-continued	14
Comments to DSLRL:	15
CPR Division Directors Interval Updates-Ed Rouse (DEO)	16
Comments to DEO:	17
Biological Agent Containment Working Group (BACWG): Report	17
Comments to the BACWG	19
Preparedness Updates and CPR Discussion: Liaison Representatives	19
Liaison Representatives Updates-continued	20
Liaison Representatives Updates-continued	22
Liaison Representatives Updates-continued	23
Liaison Representatives Updates-continued	25
Meeting Recap, Action Items & Future Agenda Topics	26
Meeting Adjourn	26
CERTIFICATION	27
APPENDIX A: BSC Meeting Attendance Roster	28
APPENDIX C: ACRONYMS	32

Roll Call and Introductions

Kimberly Lochner, ScD; Deputy Associate Director for Science, CPR and Designated Federal Official, CPR BSC

The Center for Preparedness and Response Board of Scientific Counselors Spring Meeting was called to order at 8:43 AM. Dr. Lochner conducted roll call. Quorum was present.

Dr. Lochner mentioned recent changes to the BSC membership. Dr. Jennifer Horney, Director of Epidemiology Program, University of Delaware and Faculty Member of the Disaster Research Center joined the BSC as a new board member. Dr. Daniel Dodgen represented the Office of the Assistant Secretary for Preparedness and Response (ASPR). Lastly, Mr. James Blumenstock served as the Liaison Representative for Association of State and Territorial Health Officials (ASTHO). Drs. Sandro Galea and Ericka James, unfortunately, resigned from the board due to conflicts with work and travel schedules. These positions will remain vacant until replacements are approved. Attendees then introduced themselves.

The meeting was led by Dr. Inglesby, the Chair. Discussions and deliberations were among BSC Members, Ex Officio Members, and Liaison Representatives. Any voting items were to be conducted only among the BSC and Ex Officio Members. The public was allowed to comment during the Public Comment portion of the agenda only. All speakers were asked to identify themselves and all participants agreed to have their comments monitored and recorded.

Review of Federal Advisory Committee Rules, Duties, and Conflict of Interest

Kimberly Lochner, ScD; Deputy Associate Director for Science, CPR and Designated Federal Official, CPR BSC

Dr. Lochner reviewed the BSC responsibilities as per its charter, as well as conflict of interest waivers. Prior to the meeting all Confidential Financial Disclosure Report Update Forms were asked to be completed and returned to Dr. Lochner, if there were any changes made since last submitted. Members were asked to identify any conflicts of interest. Dr. Thomas Inglesby is working on a project that is funded by CDC for resilience and risk communication but does not believe it causes a conflict of interest. Dr. Slemple is no longer a part of the resilience and risk communication project but does receive standard Hospital Preparedness Program (HPP) and Public Health Emergency Preparedness (PHEP) grants in her role as the Health Officer for West Virginia.

The meeting was then turned over to Dr. Inglesby for opening remarks.

Welcome, Call to Order, and Opening Remarks

Thomas Inglesby, MD; Chair, OPHPR BSC

Dr. Inglesby briefly welcomed all the attendees to the meeting. He emphasized the meeting is an opportunity to understand the activities CDC is conducting on issues of great importance. It is also an opportunity to provide meaningful feedback. CDC would like the members to be very candid in their advice, comments, and recommendations. Dr. Inglesby next introduced the Center for Preparedness and Response's new Acting Director, Dr. Nancy Messonnier.

CPR Update

Nancy Messonnier, MD; Acting Director, CPR

Dr. Messonnier serves as the Director of the National Center for Immunization and Respiratory Diseases. She began Acting as the CPR Director on April 1, 2019 and is currently on a four-month detail. Dr. Redd, the former CPR Director, is now Deputy Director for Public Health Service and Implementation Science, which oversees four Centers/Offices.

Dr. Messonnier mentioned that Dr. Daniel Sosin, Deputy Director of CPR, is in the process of retiring. This is a huge loss to CDC and CPR. He has provided a great amount of support and extensive knowledge to Agency and the BSC.

Dr. Messonnier introduced the first session that is providing an update on the response to the Ebola outbreak in the Democratic Republic of Congo (DRC). She asked the BSC to contemplate on the intersection between the Ebola response and CPR. The entire Agency has improved its ability to respond to everyday emergencies and imperative emergencies, like Ebola. The Agency has not been fully activated for this current Ebola response, which is an uncommon custom for this type of response. The agency would like the board to think about this new transition from an operational standpoint. For example, what can and should CPR be providing to outbreak responses, when CPR is not fully activated? How do we ensure that the Agency's response should not be viewed as less of a response because the Agency is not fully activated.

Ebola Outbreak in the Democratic Republic of Congo Update

Ray R. Arthur, PhD, Director, Global Disease Detection Operations Center, Center for Global Health

Dr. Arthur began by giving the board some background on the Democratic Republic of Congo (DRC), where the Ebola response is occurring. The outbreak began a year ago, but was not learned by the government until August 1, 2018, when a cluster of deaths among healthcare workers was recognized. The Nord Kivu and Ituri Provinces, where the outbreak is occurring, are two of the most densely populated provinces in DRC. These areas have significant population movement within the communities. The provinces also possess a substantial amount of healthcare centers, roughly 50% private and 50% public.

In addition, there are over 100 insurgent groups operating in the provinces. This is not a new situation. In 1999, the United Nations (UN) installed a peacekeeping force because the government was unable to assure the safety of the population.

Uganda, Rwanda, and the South Sudan border the provinces. Daily, mass populations of citizens from the border cities move back and forth across the border, tens of thousands of people. Fortunately, the mountains provide natural barriers, so there are only a few places where crossing can occur. To date, there have been no cases of Ebola in the neighboring areas.

The cumulative cases and deaths in the past 21 days indicate a 21% increase in Ebola incidence. This is the second Ebola outbreak and the largest affecting a single country. It is also the second longest outbreak, only second to the outbreak in West Africa. As of April 23, 2019, there have been 1,369 cases with 880 deaths. Twenty-one health zones have been affected and 13 still have what is considered active transmission (confirmed case within the past three weeks).

The World Health Organization (WHO) has provided the majority of the response work to the DRC Government and the Ministry of Health. At any one time, over 700 of their staff have worked in the field as well as on this effort along with the UN, other organizations, and non-government organizations (NGO). CDC has 15 staff members in DRC. For security reasons, the U.S. Government staff are not permitted to work in the “hot zones”. It has deployed, since August 6, 2018, 235 responders (30% to DRC and 30% to WHO headquarters). The remaining staff support preparedness activities in Uganda, Rwanda, and South Sudan.

CDC support to the DRC include activities and support such as:

- Ebola expertise
- Surveillance and data management
- Infection prevention and control
- Vaccine expertise
- Risk communications
- Media communications
- Border health advice
- Screening at border countries
- Emergency management
- Laboratory support to border countries

The challenges the CDC faces is what has made this the second largest and longest Ebola outbreak. The prevailing security issues and community mistrust impede response activities along with poor infection control practices. In addition, violence in the affected communities has hampered case identification, contact tracing, and vaccination efforts. Obtaining community cooperation is critical in order to have a successful response.

In order to make progress in the response, several factors have to change. Case or contact identification and follow-up must improve. For example, in the past week, roughly 50% of confirmed cases were community deaths (occurred outside an Ebola treatment Center), which means there was likely contact with others. In order to interrupt transmission, individuals must be isolated in the earliest stages of the disease. About 70% the cases in the last week were either not known to be contacts of someone with Ebola or were known to be contacts but were not followed. CDC’s disease modelling estimates that about 33% of cases are being effectively isolated. This percentage has to rise to 65-70 percent in order to have a significant impact on transmission. If nothing changes, this outbreak could last well into 2020.

The vaccine for Ebola is very effective. More than 105,000 have been administered in a “ring strategy”, where once an Ebola case is identified, any contacts are immunized as well as the contacts of the contacts. However, for this strategy to be successful good contact tracing is needed. Thus, CDC is now exploring strategies that allow broader vaccination, such as vaccinating entire communities around a contact. A challenge to this method is the vaccine supply is limited.

For the current Ebola outbreak in the DRC, CDC is using the Ebola Coordination team. This group was formed by the Center for Global Health (CGH) and the National Center for Emerging Zoonotic and Infectious Diseases (NCEZID). The Ebola Coordination team has an Incident Management System (IMS)-like structure. CPR supports the Ebola Coordination Team with:

- Meeting scheduling, room coordination and report distribution
- Preparing and deploying staff for DRC and adjacent countries
- Facilitating development of Inter-agency USG response plans
- Collaborating with Global Disease Detection (GDD) Operations Center and Geospatial Research, Analysis, and Services Program (GRASP) on information visualization
- Rostering for CDC emergency response teams (CERT) and rapid response teams for adjacent countries
- Capacity development and preparedness activities in DRC and adjacent countries
- Communications and information flowing to states via State Coordination Taskforce

There are benefits to having the response led by the CGH-NCEZID Ebola Coordination Team, such as efficient management of financial resources and increased support to the teams as needed. . Also, when there is a need to fully activate, which requires the recommendation and approval of CDC leadership, this process will make the activation trouble-free and effortless.

Comments from the BSC:

- Design a communication strategy for the public on the difference between the terms “experimental” and “licensed” when discussing vaccines.
- Ensure public health jurisdictions are being routinely updated about the conditions in DRC, screening procedures, and monitoring travelers coming to the U.S.
- There seems to be confusion around the term “activation” in the CDC structure because the activities described are those of activation. This an issue of messaging. Conversely, when full activation does occur, how will that be reflected to the public? They may speculate that something more detrimental has occurred. Consider the way the different types of activation models are messaged and the adaptations of those to ensure the perception is correct.
- The EOC has provided significant operational support, on-ramping, off-ramping, travel logistics, etc. It was created to centralize those functions to be more efficient for programs across CDC. It would helpful to contrast what the EOC meant back then as compared to now, since programs can now manage many if not all of those functions outside of the EOC.
- Language makes a difference, so it’s important to communicate to anyone who has budget authority or political oversight of these programs, that CDC is very concerned and are doing the maximum that can be done in light of the current situation in DRC. They need to understand that CDC is concerned about this outbreak. Be sure this message is reaches the highest levels of decision-makers.

Framework for Graduated Responses

Joe Gregg, National Center for Immunization and Respiratory Diseases

CDC responds to diverse intensities of public health emergencies every day. Those emergencies require varying levels of assistance; however, the majority do not result in full activation. The Framework for Graduated Response was developed to streamline activities within programs prior to escalating to a full CDC activation.

Often, only the larger responses gain attention by the media or in the public, but they only account for a small number of crises that CDC supports. In fact, the majority of responses never result in a full activation. They can be handled at the branch or division level. In some cases, surge events may need

additional support and resources, but they do not necessitate a move to the Emergency Operations Center (EOC).

Events are categorized as daily operations, surge events, and EOC activation. Daily operation includes events like foodborne outbreaks, smallpox vaccine adverse events, or seasonal influenza. Surge events are incidents like the Ohio botulism outbreak, the 2017-2018 influenza season, or the 2018 acute flaccid myelitis. The majority of responses are what's considered every day or surge level. The EOC activations, which happened less frequently, are used for events such as the 2009 H1N1 influenza, the 2014-2015 Ebola, and the 2016-2017 Zika responses.

The CDC All-Hazards plan provides guidance for the agency to respond to public health emergencies and provides guidance on how CDC will establish and operate single or concurrent IMS activations. CDC relies on EOC activation to accomplish several activities. They help to increase coordination and information flow, both internally and externally. It is a means to augment staffing and support for the response, as well as manage evolving or complex response needs of the response. Other requirements may also cause the EOC to activate, like public pressure.

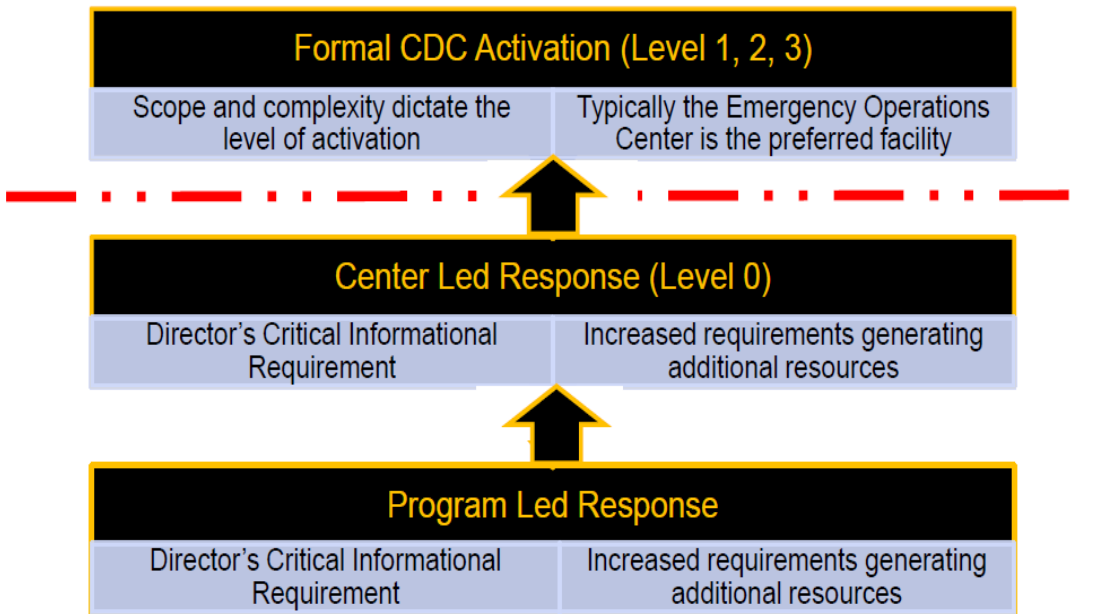
Three factors will trigger an EOC activation. One is science. These are factors such as transmission rate, severity, or disease risk. Another is operations. Coordination requirements, volume, and speed in which they need to occur can be triggers. Reporting will also drive CDC into a consolidated posture so that it can rapidly return reports or information requests. The last is public perception or the political triggers. The public's demand for information or the leaderships' requirements lead to an activation. These types of activation may not necessarily be in line with the science, but there are requirements that leadership has to fulfill.

The CDC/IMS All Hazards Base Model has expanded and is known as the All Hazards IMS Structure. The model now includes more detailing of the various functions that could be required in a response. While the model describes the levels of agency or CDC activations, it does not adequately address response efforts that fall outside of those parameters or do not meet the thresholds. Since all responses do not warrant EOC activation, a protocol needed to be adopted that could better posture CDC for non-EOC responses and better support the increased demands for scientific, operational, communication, and coordinated response actions.

The Graduated Response Framework is a tool that can be utilized at the CDC CIO level for receiving additional needed resources in specialized services. The Framework was developed as a result of lessons learned during the 2014 MERS response. It provides a reference point for determining the type of external support needed, reporting requirements, and expectations for CPR and Department of Emergency Operations (DEO) services, which may be warranted. The framework also ensures the responses are effective; sets a common methodology for responses at the center level or lower; provides a process for operations; and offers a mechanism for additional resources.

Below is a graphic that illustrates the flow of the framework structure. At the program level, information is given to CDC. As resources and requirements expand, the response is moved to the center level. As the Director's critical information requirements are met and increased resources are needed, the progression continues to move up. The red line signifies the deliberate move from center-led, to formal activation. Roughly 75% or more responses never move above the red line.

Graduated Response Efforts



Resources are defined primarily as personnel, facilities, partner interactions, and funding.

Figure 1. The Flow of the Graduated Response Efforts.

Framework for Graduated Responses- continued

A program led response had limited augmentation from the center or CDC. It typically uses program resources including funding. There are recurring meetings scheduled that include partner calls. As requirements increase, the response becomes a center led response (Level 0). These type of responses often necessitate work across centers. In a formal CDC activation (Levels 1, 2, 3), the scope and complexity dictate the level of activation. Typically, the EOC is the preferred utilized facility for these responses. The Framework affords a streamline process that allows for easy transitioning as requirements increase.

CDC has developed a Graduated Response Operational Handbook for this new format. Operations people can use this document instead of having to reinvent the wheel for every response. The handbook includes examples of:

- Incident Action Plan (IAP)
- Director Update slide decks
- Staffing and Task Tracker spreadsheet
- Social Media protocols
- "Welcome Packet" for new response members
- Budget spend plans
- Response certificates

The Graduated Response Framework has been tested and used in the recent and ongoing acute flaccid myelitis (AFM) and measles responses. One of the challenges to using the framework comes from the structure of each of the programs. They are not the same. Finding a model that will work with different sized organizations, experience levels, etc. is taking some time to sort out. CDC is therefore trying to identify the triggers, resource packages needed to support the different levels of activation, etc. This is a work in progress but there has been great advancement with the work completed thus far.

In summary, not all responses meet the EOC activation criteria. Yes, some responses being led by CDC CIOs still need additional structure and support to optimize their efficiency and effectiveness. The Graduated Response Framework was developed to improve the CDC response posture within the CIOs. The framework has been tested and used in both AFM and now with the ongoing measles response. So we are pretty confident that this protocol works

Comments from the BSC:

- As the implementation process proceeds, it would be helpful to provide the specifics of the rationale for the framework structure to the state and local partners. Operations are agency- or jurisdiction-specific, but science and politics are universal. If the activations are driven by science, state and local partners would probably benefit from knowing the rationale. If they wanted to model the same practices, they have an advantage based on CDC's prior lessons learned with the framework.
- Avoid tying activities to a physical structure. When that happens, it misrepresents everything that is occurring. Getting away from the terms "EOC activation" would be helpful.
- If the Center-led activations are really where the CDC is standing up incident management teams (IMTs), then the level 0 term is not beneficial. The term zero suggests that nothing is occurring, which is not the case. The current Ebola response is a Center-led response, but to label it as level 0 looks as if nothing is being done for the response.
- Order the triggers that cause the move from one level to another level in a more systematic format so that guidelines exist for moving from one level to another. It may also help identify overarching principles.
- Where does attending to the needs of vulnerable or at-risk populations fit in the model presented?
- The graduated response framework is very consistent with what is occurring at the local level. Having the incident command structure in place helps those at the state and local level determine their role in a response.
- Would like to hear more about the cost of activating and then deactivating. What are the pros and cons of activation? Leadership needs to know the cost as well because they can make changes, if possible. They also need to know what was found to be burdensome.

CPR Division Directors Interval Updates-Samuel Edwin (DSAT)

Samuel S. Edwin, PhD; Director, Division of Select Agents and Toxins (DSAT)

DSAT is a regulatory division engaged with all the entities that are registered to work with select agents and toxins. The division oversees two key programs. The Federal Select Agent Program (FSAP) regulates all entities that possess, use, or transfer biological agents or toxins that have the potential to pose a severe threat to public health and safety, animal or plant health, or animal or plant products. The Import Permit Program (IPP) regulates the importation of infectious biological agents, infectious substances, and vectors that can cause disease in humans. The division also promotes laboratory biosafety and security.

As far as recent activities, DSAT continues its emphasis on improving entity oversight through routine and unannounced facility inspections and inspection reports. The inspection format is shared with entities so that they can do their own periodic inspections.

The division is always improving customer service. All the tools that are developed internally to assist in oversight are shared with the entities so that they do not have to develop them on their own. The new system DSAT created allows it to monitor and receive information regarding incidents that may occur in the laboratories. This information is used for finding ways to mitigate occurrences. In all its work, it continues to be transparent and to keep active engagement with the entities in every possible manner.

Entities that are registered with the FSAP are connected to the public health service providers. Within the last couple of years, DSAT provided those connections because they are critically important for the entities when they engage in exercises and drills. They are able to include the public health officials and familiarize them with the process of the laboratories.

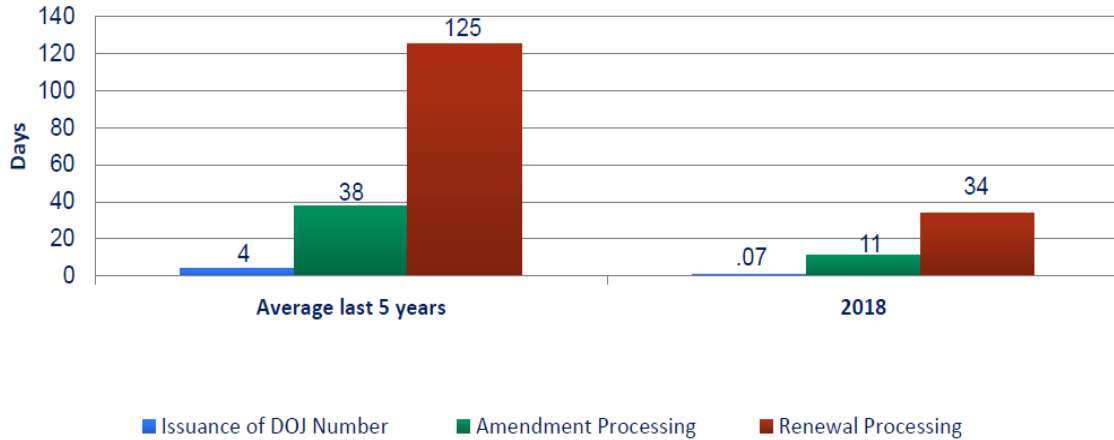
DSAT publishes an annual report. It does not include identifiers. The 2017 FSAP Annual Report is the third annual report of aggregate program data. It was published in December 2018. The fourth report is in progress. The reports provide a look at both the regulatory functions of the program, as well as compliance with the select agent regulations at laboratories across the nation. These are part of the ongoing commitment to increasing transparency. The report can be viewed online at [Select Agent 2017 Annual Report](#).

The 2017 report reflects the 263 registered entities of the FSAP. There is a huge expanse of the types of laboratories under the program. Last year, 169 inspections were conducted, and roughly 50% of those were unannounced. There are close to 10,000 individuals with active security risk assessments. DSAT works very closely with the Federal Bureau of Investigation (FBI) to conduct background checks. This security clearance process is continuous. If anything changes, the FBI updates DSAT so that access can be removed. There have been no potential exposures that resulted in illness, death, or transmission in laboratories or the community thus far.

The division has completely transitioned from being paper-based to paperless. The process of transitioning was developed with the stakeholder. DSAT continues to make changes based on input from the entities. The: eFSAP Information System is transparent on both sides and is a highly secure portal where data is in real time. Registration of the entities and the associated information from biosafety plans, incident response plans, etc. are contained in the system as well. The system has saved tens of thousands of dollars for the registered entities because they no longer have to maintain records. One-on-one and group trainings for eFSAP were given internally and externally. These trainings continue.

The graph below contrasts the change in processing time due to the implementation of eFSAP. Since some transitioning was still occurring in 2018, it is expected that the process time will decrease even further.

eFSAP Information System: Accelerated Processing Times



Processing times for adding individuals, amendment & renewal processing

Figure

2. eFSAP Information System Processing Time Graph

Dr. Edwin solicited the BSC’s advice regarding an issue that is actually outside of their regulatory authority. With the growth of do-it-yourself (DIY) Synbio communities, DSAT is concerned about the possible creation, extraction, or isolation of a select agent unknowingly, as well as the ability to purposely create a select agent. What is the risk and how can DSAT adequately monitor these groups?

Comments to DSAT:

- The risk of DIY Synbio currently or in the near future is quite low. From listening to multiple presentations from leaders of community groups, there is no interest in working on select agents or elements that would make people sick. Individuals who pose a safety risk are not welcomed in the DIY Synbio community. This is not a universal rule and they are not regulated in the same way, but just as a first pass risk assessment, this seems to be the case. The FBI has become a welcome member in those communities. DSAT would probably be welcomed as well in terms of making presentations, having interactions, and providing a representative from the laboratories who can keep the DIY community abreast of any safety concerns or risk. They also have national gatherings with community laboratories to network. The younger individuals are very interested in safety and security more so than some of the established leaders in the life science community.
- There are education workshops that the FBI is planning. They are trying to engage closely with the DIY Synbio community. The division should interact with the FBI training groups to provide an information workshop or training.
- DSAT being viewed more as a resource than a regulatory entity will only strengthen engagement with the Synbio community. Make sure they understand that the division is also interested in learning about their community and their activities.

Dr. Inglesby commented that he is impressed with the steady progress that DSAT has made in efficiencies and engagement with laboratory entities.

CPR Division Directors Interval Updates-Christine Kosmos (DSLRL)

Christine Kosmos, RN, BSN, MS, Director, Division of State and Local Readiness

Ms. Kosmos' presentation to the Board addressed the next phase of assuring state and local operational readiness. Two of the 15 capabilities that are related to medical countermeasures are areas where the division is currently seeking guidance.

To inform the BSC's thinking, she gave a review of work completed for Medical Countermeasure Operational Readiness. She also provided some brief interval updates on matters discussed in a previous BSC meeting. This is the time to contemplate, assess, understand, and clearly articulate what the investment has developed for state and local operational capabilities for any event or emergency. This assessment process will help to further drive improvement. It is an important next step in not only describing the value of the program but also moving other programs forward.

Ms. Kosmos reviewed some of the work that was inspired by the feedback given during previous BSC meetings. She also described the five-year vision of assuring operational readiness. It outlines what a fully-capable public health emergency preparedness program should be able to perform at the state and local level. Below are the capabilities of such a program.

- | | |
|--|--|
| <ol style="list-style-type: none">1. Community Preparedness2. Community Recovery3. Emergency Operations Coordination4. Emergency Public Health Information and Warning5. Fatality Management6. Information Sharing7. Mass Care8. Medical Countermeasure (MCM) Dispensing and Administration | <ol style="list-style-type: none">9. Medical Materiel Management and Distribution10. Medical Surge11. Nonpharmaceutical Interventions12. Public Health Laboratory Testing13. Public Health Surveillance and Epidemiological Investigation14. Responder Safety and Health15. Volunteer Management |
|--|--|

The capabilities were used to design the Operational Readiness tool. This is a logical systems approach that evaluates readiness against the standards. Capabilities 8 and 9 have already been evaluated. DSLR is now launching into an initiative that will look across all 15 capabilities to assess where programs are in terms of progress. They will also develop program matrices and determine future direction. Implementation of this phase will begin in July 2020. In addition to the BSC, DSLR is also consulting its other stakeholders for feedback and recommendations.

The implementation started small with a single-threat scenario, which was readiness for anthrax. Valuable feedback collected from state and local partners and CDC subject matter experts (SME) suggested a need to broaden the approach to medical countermeasures that include two scenarios: anthrax and emerging infectious disease (using pandemic influenza as the exemplar). DSLR has expanded

this into what is called the Operational Readiness Review (ORR) Expansion Initiative, which now includes all capabilities.

She highlighted the types of information being gleaned from the review. In terms of medical countermeasures, seven specific domains were examined at the state and local level for a large-scale event assessment. The assessment was conducted for 35 jurisdictions. The domains are:

- Receipt, Stage, Store (RSS) Warehousing
- Distribution Planning
- Transportation
- Security
- MCM Acquisition
- Dispensing Planning
- Point of Dispensing (POD) Staffing for Anthrax Scenario

Although the data showed significant improvement in readiness, gaps were identified, particularly around cold chain management. Forty percent of the jurisdiction in the assessment did not have in place a fully capable distribution plan that assures cold chain management. Transportation plans were also not fully in place in order assure appropriate procedures for maintaining cold chain management during the transportation process. Below is a summary of the strengths and challenges identified.

<h2>Summary of Preliminary National MCM ORR Data: 2017-2019</h2>	
Strengths	Challenges
<i>Majority of states had plans for</i>	<i>States had challenges planning for</i>
Staff authorized to activate Emergency Operations Center	<i>Procedures to maintain cold chain management in transportation agreements</i>
Secure transportation of MCMs to receive, stage, store (RSS) sites	Distribution delivery schedule
Secure transportation of MCM from RSS to receiving site	<i>Maintaining cold chain during distribution</i>
Process for requesting MCMs	Jurisdiction's response time for initial transportation requirements
Assessment of local MCM inventory	Number of operators available for transportation of MCMs
RSS security lead during emergency response	Adverse event reporting for dispensed drugs
Distribution planning notification procedures	Number of vehicles available for transportation
Distribution planning chain of custody	Points of dispensing (PODs) security breach procedures

Figure 3. Summary of Preliminary National Medical Countermeasure ORR Data

To counteract this problem, DSLR developed cold chain training for state, local, territorial, and tribal jurisdictions, which included a monthly webinar devoted to cold chain management; an in-person training

CPR Division Directors Interval Updates-Christine Kosmos (DSLRL)-continued

course; and collected and posted cold chain management resources for planners on CDC's Online Technical Resource and Assistance Center (On-TRAC). In addition, a series of regional meetings with MCM planners was also held, which covered cold chain management, inventory management, and the Strategic National Stockpile (SNS) request process.

DSLRL has also completed work on threat-specific planning. The illustration below demonstrates how CPR is working with state and local public health, as well as CDC SMEs across a variety of threats in a two-way communication format. This will inform future planning.

CDC Public Health Response Framework - Draft

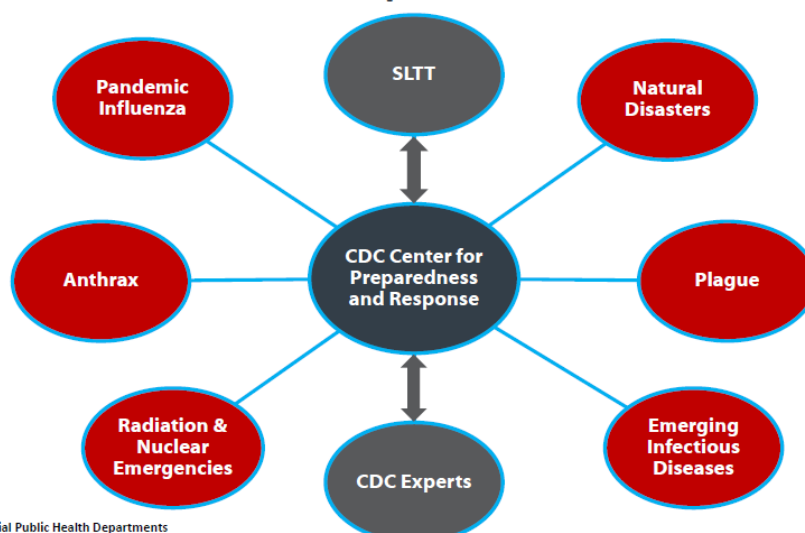


Figure 4. CDC Public Health Response Framework - Draft

Experts in flu, vaccine, as well as SMEs across NCIRD help consolidate a resource guide for state and local partners that describes in detail operational readiness for pandemic influenza. The guidance document explains in four pages or less the capabilities that state and local public health need to possess across several elements like laboratories, epidemiology, surveillance, cold chain management, and prioritization. The elements in the guide point to a CDC document for more detailed information. This was also created for anthrax. In addition, a similar tool was created in collaboration with NCEH for hurricane and flood guidance.

DSLRL is considering four options for evaluating, but there may be others. Ms. Kosmos asked the BSC for their feedback regarding the following options:

1. Apply "status quo"/Cities Readiness Initiative (CRI) method currently used to conduct MCM ORRs in 72 large metropolitan statistical areas (MSAs) [status quo option]

2. Limit local assessments to 18 higher risk jurisdictions as defined in 2019-2024 PHEP notice of funding opportunity (NOFO)
3. Require states to conduct expanded assessments of all local jurisdictions as condition of achieving “advanced” operational readiness status
4. Let states determine how to conduct expanded local ORR assessments

DSLRL has already reviewed these options with the Directors of Public Health Preparedness (DPHP) Committee. They like a combination of Options 1 and 4. This will also be reviewed with some of the rural states, who tend to have a lower level of capability potential. They also spoke with The Association of State and Territorial Health Officials (ASTHO), who suggested bringing together a coalition of jurisdictions that represent a wide variety of states to discuss the options.

Comments to DSLRL:

- There is a challenge with Options 3 and 4. When others outside of CDC are doing assessments, they have a different idea of operational readiness. Yet, it would be an overwhelming burden on CDC to establish teams to conduct assessments. It would be very difficult to have confidence in saying these states have achieved operational readiness when the people who have established that standard did not conduct the assessments.
- How much is measuring an outcome related to funding? How is that different as the funding parameters have changed to be related to a specific threat versus general preparedness? How much relies on self-reported data linked to funding? How much has been subsumed by high level health departments into their essential services and is no longer a separate function and is a now part of the epi capacity?
- Two and four are ideal because they link to the funding and the threats.
- Respect large city issues and complexities in any decision made around state assessments because of the different nature of response needed in those cases.
- Consider creating the parameters that jurisdictions are allowed to use that include strength indicators as an enhancement and where the objective could be achieved. However, still provide flexibility for localities and their uniqueness.
- Option #1 could be extremely burdensome for the individuals who are already a part of this work and have systems in place to expand, and there are significant challenges with #2 due to codifying. A mixture of the numbers 3 and 4 may work. There is a methodical approach to #3, and there are some pros and cons with # 4 around being consistent across the country.
- Think of ways to measure the amount of flexibility in a response, particularly when it comes to models of vaccination.
- Decide what the program is trying to achieve. It seems the goal is a formative evaluation. Congress wants to see scorecards, but CDC ultimately wants to see improvements along the spectrum. If that is the case, then the division should stay away from ideals of certifying and classifying. Those words are somewhat charged and to a certain degree draw the finger back at the CDC. Think of moving states and jurisdictions towards a goal.
- DSLRL has done some interesting work with partner associations. Could it be a role for them to stand as a liaison between CDC and states to help support and guide some of the technical assistance or evaluations done at the local level? It allows for consistency across areas and the collection of lessons learned. This may create a way of achieve a more formative evaluation.

CPR Division Directors Interval Updates-Ed Rouse (DEO)

Ed Rouse, MS, MPA; Acting Director, Division of Emergency Operations (DEO)

The BSC received an earlier presentation on the current Ebola response in the DRC. The only other response the DEO is engaged in is polio eradication, which is a centralized incident management system at a low level. The Ebola response is at the program level. The moderation in response activities has allowed the DEO to put more focus on preparedness. The pace of response activities in the last few years did not afford much time for this activity.

CDC's emergency management program earned Emergency Management Accreditation Program (EMAP) reaccreditation late 2018. Because this is an agency accreditation, it involved over 250 CDC staff across several program. This is a rigorous internal assessment and is very beneficial to the DEO.

For Global Health Security, there has been some reorganization at the macro level. At CDC, the Global Emergency Management Capacity Development (GEMCD) Branch within DEO focused on working internationally to build capacity. Several countries have still expressed the desire to have an EOC. DEO has partnered with WHO, Regional Offices, USAFRICOM, DTRA, and USAID to build the capacity internationally. The focus has been on Phase 1 countries. There are 17 of them; 15 of the 17 have a functional EOC for their public health activity. In the last 16 months, they have activated for over 20 different responses like hemorrhagic fever, measles, and mass gatherings. Mali and Pakistan are still trying to acquire an EOC.

The DEO is also using the Public Health Emergency Management Fellowship (PHEMF) to build capacity. So far, 112 fellows from 35 countries and one regional entity (African Union) have been trained. The 10th cohort is now receiving training at CDC. This cohort includes 16 participants from 12 countries (Cameroon, Cote d'Ivoire, Ethiopia, India, Indonesia, Liberia, Myanmar, Nigeria, Pakistan, Sierra Leone, Tanzania, Uganda). The DEO cannot respond to all events, and this program allows it to duplicate its capabilities in other countries. The DEO is also creating an advanced-level PHEMF. This form of the fellowship will equip graduates with skills to train public health professionals in their countries on PHEM principles and practice and is a system to build skills in leadership and exercise design. Roughly 60 to 75 percent of graduates are still in positions in their program where they are able to exercise the knowledge and skills that they have developed for managing a public health emergency response.

The Incident Manager Training and Development Program (IMTDP) was created in 2017. Since its inception, it's graduated 39 staff members; 22 have served as leaders in 10 major events. This is a way of building internal incident management capacity in the programs. In concert with the work to develop program level responses, CDC now has trained staff to lead responses. If there is a need to transition to a center led response, these individuals are already familiar with the processes. This program will now be expanded to the team and taskforce level. It will utilize a training process similar to IMTDP, which consists of 10 modules. Currently, the training is based in Atlanta. The trainees' ability to network is a plus, but DEO is exploring the option of conducting the training in remote locations to overcome travel burdens.

On a collective level, the division has created the Training and Exercise Program (TEP), which works on the principles of crawl, walk, and run. The training addresses CDC readiness to respond to a core set of scenario-specific threats. It also validates response plans, as well as allow for training of personnel who

will serve in CDC's IMS. It includes the Nuclear and Radiation TEP and as of recent the Infectious Disease TEP.

To strengthen CDC's response operations, CIOs are proactively developing an internal IMS structure that will improve the efficiency of program-led responses and facilitate transition to centralized agency-level responses. Three working groups are creating the components. One of the groups is meeting with representatives from the centers to gain their input on how the model should be developed. Another working group is examining the reasons staff would not want or could not report to the EOC. The third working group is internal to DEO and is focused on how to prioritize support for program-led responses when there are such responses happening concurrently.

Comments to DEO:

- If the fellowship program was funded and continued as it is, it should move along the EIS/FETP standard. That is a marker of CDC around the world and a way to connect with ministries of health and their rising generation of public health leaders.
- A theme heard in all three presentations is building capacity. It is the right direction to follow because CDC cannot be everywhere.
- One objective would be to gain consistency in the different CDC Center-led responses. There may be an opportunity for an operational readiness evaluation internal to CDC.
- Articulate to budgetary decision makers what will go away or be diminished by a constricted budget. This also needs to be articulated for global training capacity development.

Biological Agent Containment Working Group (BACWG): Report

Cathy Slemm, MD, MPH; OPHPR BACWG and BSC

Suzet McKinney, DrPH, MPH; BACWG Co-Chair, OPHPR BSC

Drs. Slemm and McKinney gave a joint presentation on the BACWG. The Working Group provides advice and guidance to the BSC regarding biological select agents; importation of infectious materials; and containment of polioviruses. CPR's Directors of DSAT, Dr. Edwin, and the National Authority for Containment for Poliovirus (NAC), Dr. Lia Haynes Smith serve as CDC co-leads. Dr. Sosin also works closely with the Working Group.

Poliovirus 2 (PV2) was declared eradicated in 2015, but the virus is still contained in laboratories. The Working Group deliberates on ways to ensure PV2 is contained safely in laboratories. There are no near terms plans to eliminate polio vaccination but there are pockets that remain susceptible. In addition, vaccination is changing and will continue to do so until Poliovirus 1 and 3 (PV1, PV3) are eradicated.

It's important to contain the virus because the polio vaccination [both inactivated polio vaccine (IPV) and oral polio vaccine (OPV)] protects the public from the disease, not from infection, re-infection, or enteric transmission.

There have been some changes to vaccination strategies. In April 2016, more than 120 countries switched from trivalent to bivalent oral polio to avoid the secondary vaccine-derived polio virus disease for PV2. There have also been supply chain interruptions to IPV. Furthermore, down the road, thinking needs to occur around how will this expand to include PV1 and PV3?

This is a global issue. The global containment approach is laid out in the WHO Global Action Plan (GAP III). This is the framework and guidance for poliovirus at the global level. Each country designates a NAC. The CDC is the U.S. NAC. The NACs develop country-specific guidance and oversee certification of Polio Essential Facilities (PEFs). PEFs are facilities that will continue to work actively with PV infectious material, which is PV2 at the moment. The NAC has no true regulatory authority. This is developed based on partnerships, collaboration with facilities, and best practices. Currently, the focus is on poliovirus infectious materials, but going forward there will be implications for poliovirus potentially infectious materials.

The BACWG has also been focusing on the policy development process. To date, seven policies have been reviewed and presented to the BSC for approval to continue through policy development process: NAC has submitted these policies to CDC for clearance. They are as follows:

- Storage outside of containment (BSC endorsed May 2018)
- Physical security (BSC endorsed May 2018)
- Record of access (BSC endorsed May 2018)
- Inventory (BSC endorsed May 2018)
- Transfers (BSC endorsed October 2018)
- Personnel reliability (BSC endorsed October 2018)
- PPE and hand hygiene practices (BSC endorsed October 2018)

The Biorisk Management System Based on Risk Assessment Policy continues to be worked on by the BACWG. It outlines biorisk management system and risk assessment requirements and recommendations. It is a core piece of the GAP III (a third of the requirements). Not all laboratories have these components in place. The policy includes:

- Top management engagement in risk management and approvals
- Establishment of an independent biorisk management committee
- Implementation of quality management system principles/practices
- Objective, structured process for risk assessment that includes:
 - Hazard identification, risk assessment, risk control, trial run, and review steps
 - All hazards approach using HAZOP and FMEA methods
 - Examples of a risk matrix adapted for poliovirus (standardizes terminology)
 - Performance monitoring of incidents and adherence to safety and training requirements

Over the last six months, the BACWG has been deliberating on a new study. The new project stems from the rapid advancement in science and technology that has occurred over the past several years, particularly in areas of synthetic biology, rapid sequence techniques, genome editing, and other biotechnological fields. Another component is the heightened awareness of the risks that are associated with such rapid advancements in biotechnology, as well as the governance of those risks.

The BSC was given a handout that described the study. The study will assess U.S. governmental approach to oversight and governance of biological entities with potential to spread beyond human control and that also have the capacity to do direct or indirect harm to large segments of the human population, animals, plants, or the environment, whether that harm is intentional, accidental, or the result of unintended consequences. The BACWG held a meeting on the previous day (Tuesday, April 23, 2019), where it heard from a number of experts that provided their thoughts and opinions around several areas,

such as feasibility, current policies and governmental oversight standards, and other considerations. The Working Group will review existing policies and guidance to gain better insight on what the government already has in place. They will also have a series of interviews with leaders in various fields that are relevant to the study.

The need for the study is in response to the mandate for the Working Group to provide guidance for oversight for emerging risks such as gain of function and genome editing. The format of the final report will be simple and similar to those created by DSAT around the CDC internal review of the DSAT program (roughly 5 pages long). The study will not propose specific regulatory language, rather it will identify existing gap and potential solutions. The audience of the report will be CDC in addition to other entities in the U.S. government who are involved in this kind of work. The BSC will be briefed further in October and afforded the opportunity to deliberate on the report.

Comments to the BACWG

- A report of this kind could possibly be misconstrued or misinterpreted. Therefore, communication around it is paramount so that it is received with the right spirit.
- Enlist partners from outside of the community who may be affected by these decisions. Professional societies is one example.

Dr. Slemple suggested the BACWG provide the BSC with a list of its experts that they are interviewing and using as consultants for the reports.

Preparedness Updates and CPR Discussion: Liaison Representatives

Tribal Epidemiology Centers (TEC)

Dr. Ritchey gave a programmatic update. There has been some funding received to address the opioid epidemic. TEC has been working with its communities to perform data collection and training similar to those of the Community Assessment for Public Health Emergency Response (CASPER) as it relates to the epidemic. Some communities have also requested information on ways to collect unknown samples for fentanyl and substances of that nature.

Dr. Ritchey recently received information about the Epi Laboratory Capacity Grants. The communities are interested in having similar funding that they can apply for to build laboratory capacity, particularly with laboratories outside of the state network. There is some willingness between the Translational Genomics Research Institute (TGEN) and some of the tribal communities to partner. TEC is seeking mechanism that would be appropriate for communities to apply for and be a part of those activities. She also asked the BSC to let her know if there are any other opportunities that they may be aware of.

Association of Public Health Laboratories (APHL)

Back in December APHL received a revised notice of award to support crisis response activities in Puerto Rico, U.S. Virgin Islands and Houston. The public health laboratories in those areas were devastated after the hurricanes and returning to their regular function is still ongoing. APHL is aiding in building capacity in this effort. They are assisting, recruiting, and hiring staff. In three months, it hired 35 staff in Puerto Rico to work in the laboratory. APHL member laboratories have also participated by providing training. In addition, APHL is aiding with travel for training. APHL is also helping with procurement through its

relationships. Corporate partners, who provide PCR instruments, reagents, and kits, were able to assist in obtaining instrumentation, rabies vaccines, and other supplies.

Several months ago, the Department of Homeland Security replaced the BioWatch System with the new BioDetection 21 System. Sensors were placed in several locations. This was troubling to APHL because no notification was given prior to the implementation. There was also no notification to the public health laboratories, information provided, validation data, or response to the instrumentation. This is information APHL should not have to learn through the media. The agency sent a letter to Mr. James McDonald, the Assistant Secretary for Countering Weapons of Mass Destruction in DHS, expressing the concerns and the lack of communication with the public health laboratories. A meeting has been scheduled for early May 2019. The Acting Director for CPR has been invited and is going to attend, as well as APHL and some public health laboratory members, who are currently involved in the BioWatch Program.

The LRN Network is celebrating 20 years of existence and during that time LRN laboratories have contributed to various investigations and outbreaks, such as biothreat investigations to H1N1, influenza, and Zika. APHL wishes to provide education and support for continuing the functions of the LRN.

The APHL member laboratories are excited about the implementation of the eFSAP electronic system. It has improved the process of notifying the select agent program on detection and transferring of a select agent. It has decreased the turnaround time and is a much more efficient process for the laboratories. The only concern in this process is determining who makes the decision of whether a select agent or toxin is contained in a specimen. Confirmation was normally conducted by the LRN laboratories. The select agent program has expanded that function to any laboratory that has a recognized capability for confirmation of select agents. The agency feels the definition should be modified because there are laboratories that are performing sequencing. Some of the laboratories are new to the clinical world and do not have a full understanding of the Communicable Disease Reporting Guidelines. The identification and notification of select agents could be hindered. In addition, some of the laboratories have developed tests but they are not appropriately validated; therefore, they generate a number of false positives.

In mid-May, APHL activities that have been funded through a cooperative agreement concerning biosafety will end. It has been a great program for the public health laboratories as well as clinical laboratories. It has provided a biosafety infrastructure for the laboratories. In addition, numerous biosafety officers and public health laboratorians have been trained through the program. Moreover, the funding afforded states to hire biosafety officers. With the ending of the grant, the agency is afraid that some of these activities may be lost due to lack of funding in the states and local jurisdictions.

Liaison Representatives Updates-continued

Association of State & Territorial Health Officials (ASTHO)

Mr. Blumenstock prepared a summary report prior to the meeting, which was shared with the members. Below is a copy of that report.

Health Security Resources and Policy Advocacy

On April 9, 2019, ASTHO President-Elect Nathaniel Smith (SHO-AR) testified before the House Appropriations Committee about the importance of sustained public health funding. Specific top federal priorities and recommendations were also conveyed to members of Congress during ASTHO and NACCHO Hill Day on March 13 and in various correspondence to House and Senate Appropriations Committee Staff including:

- Public Health Emergency Preparedness (PHEP) Cooperative Agreement (\$824 Million)
- Hospital Preparedness Program (HPP) Cooperative Agreement (\$474 Million)
- Ebola and Special Pathogens Treatment Network and the National Ebola Training and Education Center (\$49.5 Million)
- The Infectious Disease Rapid Response Reserve Fund (\$50 Million)
- The Preventive Health and Health Services Block Grant (\$170 Million)
- The “22 by 22” Campaign urging Congress to increase funding for the CDC 22 percent by fiscal year 2022 (\$7.8 Billion for FY20).

ASTHO also continues to urge Congress to pass key reauthorizing legislation, the Pandemic and All Hazards and Advancing Innovation Act, with emphasis on now-expired provisions such as the temporary reassignment of state and local personnel and the National Advisory Committee on Children and Disasters, and support for clarifying and codifying CDC’s roles in directing the PHEP Cooperative Agreement and ASPR-CDC collaboration in managing the SNS, bolstering the provisions of the Public Health Emergency Fund, formalizing state and local public health involvement in the Public Health

Emergency Medical Countermeasures Enterprise initiative, and giving consideration to adding express language permitting jurisdictions receiving federal categorical cooperative agreements and grants to allocate up to 5 percent of those assets to participate in pre-incident preparedness-oriented training and exercises, and response activities, when necessary.

Infectious Disease Outbreak Response

In recent months, many ASTHO members have been laser focused on dealing with two infectious and vaccine-preventable disease outbreaks: measles and hepatitis A. Public Health Emergency Preparedness and Response assets were mobilized to support efforts of communicable disease and immunization program staff through activation of an incident command structure with EOC activation, situational awareness and information sharing, mutual aid provided through the Emergency Management Assistance Compact (EMAC), medical countermeasures points of dispensing planning, administrative and legal preparedness, and leveraging partnerships for community outreach, among others. Additionally,

- On October 25, ASTHO issued a press statement featuring comments from ASTHO President Nicole Alexander-Scott (SHO-RI) on the alarming decline in U.S. vaccination rates.
- On December 5, ASTHO President Nicole Alexander-Scott (SHO-RI) published an op-ed in The Hill explaining why communities are integral to the dialogue surrounding vaccine safety.
- On January 30, ASTHO held a media desk side briefing with Immediate Past President John Wiesman (SHO-WA), board member Howard Zucker (SHO-NY), and board member Karen Smith (SHO-CA) to share specific examples of the measles response in their respective states.

- On March 5, ASTHO Immediate Past President John Wiesman (SHO-WA) testified before the Senate HELP Committee on vaccine-preventable diseases impacting the nation. Wiesman spoke about Washington State's measles outbreak, vaccine effectiveness, and the importance of federal funding for public health programs.
- On March 20, Paul Petersen, Director of Public Health Preparedness for the Tennessee Department of Health, participated and shared his agency's approach in the CDC-hosted National Webinar to Discuss Multistate Hepatitis A Outbreaks.
- On March 25, Nathaniel Smith, ASTHO President-Elect (SHO-AR), addressed the National Vaccine Advisory Committee (NVAC) and shared his state's experiences and lessons learned in responding to the Hepatitis A outbreak including resource demands and rural health challenges.
- ASTHO members and association leadership held multiple press interviews and wrote Op-Ed pieces on the importance and benefits of immunizations which was covered in such national media outlets as *NBC, Fox, CNN, US News and World Report, USA Today, The Hill, WIRED, Stat, Governing, and the Washington Post.*

Liaison Representatives Updates-continued

Hurricane Restoration and Recovery in the Caribbean

As a designated CDC partner through the "Technical Assistance for Response to Public Health or Healthcare Crises" Cooperative Agreement and through its newly created Office of Caribbean Operations, ASTHO is utilizing \$15.7 Million in emergency supplemental funding awarded to assist our members, PR and USVI, in response and recovery efforts to rebuild acute but sustainable capacity and resilience as a result of the destruction and devastation caused by Hurricanes Irma and Maria. This includes supplementing the public health workforce in the key program areas of environmental Health (including vector control), nursing, and epidemiology (105 FTEs); purchasing and placing mission critical equipment

and supplies such as laboratory instrumentation; and executing contracts for such professional services as health risk planning, an electronic vital records system, GIS services, and professional development and training. This work, in part, is being informed by three CDC Foundation-supported In-Progress Reviews conducted by ASTHO last year for the PR Department of Health (1) and the USVI Department of Health (2).

Radiation Readiness

As the administrator of the CDC/NCEH funded National Alliance for Radiation Readiness (NARR) ([NARR Website](#)), ASTHO will be hosting the NARR annual business meeting on May 21 in Arlington, VA. This in-person convening will allow NARR members and federal partners to discuss radiation-related gaps in practice, challenges presented in planning and response, and offer an opportunity for cross-collaboration as a cohort. Attendees will also be engaged in a walkthrough of the coalition's Standard Operating Procedure (SOP) for activation. Following the meeting, the NARR and the National Marrow Donor Program - Radiation Injury Treatment Network (NMDP-RITN) will hold a two-day Cytokine Distribution and Administration Workshop to review the distillation of existing guidance on the movement, distribution and administration of cytokines immediately following the detonation of an improvised nuclear device in the United States. The NARR was charged by the CDC to document how to distribute cytokines over the "last mile". The NARR and RITN anticipate publishing complementary clinical and operational guidance informed from these and subsequent examination and discussions. In a related matter, ASTHO served as the co-planner for the National Academies of Sciences, Engineering, and

Medicine’s “Exploring Medical and Public Health Preparedness for a Nuclear Incident” Workshop held in August. The workshop proceedings released on March 26, 2019 concurrent with a session at the 2019 Preparedness Summit.

Water Preparedness

ASTHO released a new report, “State of Water Preparedness: A 2018 Scan of Water Preparedness and Response Infrastructure in State and Territorial Health Agencies”, which summarizes the findings of a survey of state and territorial directors of public health preparedness and environmental health to learn more about the protocols, tools, resources, infrastructure, and gaps related to drinking water emergency preparedness and response infrastructure. The data provided in this report will be useful in helping identify strengths and understanding the complexities of water preparedness, but also to examine opportunities for improvement in the future. As a next step, ASTHO convened a water preparedness panel/focus group of public health practitioners from various states and agencies to dig deeper into what the report findings indicate and to better understand the unmet needs and gaps related to state water preparedness.

Public Notification of Outbreaks

In response to recent events in several states associated with criticism and potential litigation over the timeliness and nature of public health agency release of suspect outbreak information to the public, ASTHO, in collaboration with NACCHO, CSTE, National Public Health Information Coalition (NPHIC), and the Association of Health Care Journalists (AHCJ); and in consultation with CDC, are undertaking a project to “refresh” existing voluntary guidelines (<https://healthjournalism.org/releaseguidance>) prepared in 2011 following similar concerns raised during the response to, and report of the H1N1 influenza

Liaison Representatives Updates-continued

pandemic. Areas to be expanded or added include privacy and confidentiality factors, influence of social media, decision-support and decision-making considerations, and effective risk communications. It is the project team’s goal to have the revised guidelines available by summer 2019.

On November 8, 2018 ASTHO also issued a statement regarding the role of public health officials in notifying the public about complex infectious disease outbreaks, particularly as states continue to deal with *Legionella* outbreaks. Because there is no national standard concerning the timing of public notification to prevent the spread of *Legionella*, this statement reinforces the fact that these decisions must be thoughtfully made by qualified, experienced public health professionals and informed by a solid understanding of the epidemiology of the disease and the particular characteristics of each individual outbreak setting.

Other Noteworthy Projects and Activities

In addition to the above, ASTHO continues to provide a broad spectrum of health security-related capacity building and technical assistance services to our members and the practice community such as:

- Working to help integrate preparedness concepts and tools into opioid responses by developing guide books, job action sheets, and conducting exercises (initially in TN, UT, and GA) which will be made available to other states.

- Assisting DHS and HHS to improve communications and coordination of the federal/state/local response to the southwest border migrant crossing surge issue and providing technical assistance, as necessary.
- Continued engagement and support of the PHEP Impacts project and the PHEP Operational Readiness Review (ORR) initiative.
- Actively participate in, and support partner activities to improve cross-discipline collaboration such as the ASTHO/NEMA/NGA-GHSAC Joint Policy Work Group, the National Homeland Security Consortium, and the NAS MedPrep Forum.
- In partnership with NEMA, supporting ongoing improvement and utilization of EMAC by public health.
- Providing input into the implementation of the National Biodefense Strategy.
- Ongoing support of the ASTHO Directors of Public Health Preparedness peer group including the launch of a new tool on the *my.astho* portal (the “ASTHO DPHP Community”) as a means to enhance real time information exchange within this community of practice.

Council of State & Territorial Epidemiologists (CSTE)

CSTE appreciates being involved in the Operational Readiness Review workgroups. It was very productive. CSTE would like to continue to be a part of the process and suggests that at the end of the process a more comprehensive review is conducted to ensure that none of the valuable input was missed.

Some of the infectious diseases and vaccine-preventable diseases that many states are witnessing like measles, hepatitis A, etc. highlight the importance and need for ongoing work around preparedness, specifically vaccine preparedness and response. Work should continue to develop not only for

partnerships but also new strategies of vaccinations for large populations and the delivery of vaccines to targeted populations with flexibility built into the strategy.

The ongoing situation in DRC highlights the need for ongoing preparedness around high threat or high consequence infectious diseases. There could be more routine communication to state and other public health jurisdictions. The last Ebola update that Dr. Chan received was on a CSTE All-state Epidemiology call a few months ago. With the increasing number of cases in the DRC, more frequent guidance and situational reports should be given, particularly for those on the ground.

With traveler notification, DGMQ is relying on NGOs to notify states if they have workers that were in the DRC and have come back to the United States. Dr. Chan is not sure that that is occurring. If this is ramping up, consider methods for systematic notifications to state health departments or other public health jurisdictions that come directly from CDC.

The ongoing Ebola outbreak also highlights the importance for continued work around regional collaboration. The work is important for other diseases that are also encountered across state boundaries and public health jurisdictions. The funding for the National Ebola Training and Education Center and the regional network of the ten Regional Ebola and Special Pathogens Treatment Center is coming to an end in about a year; however, it’s important to continue the collaboration and work. Gaps still remain around coordination, communication, and transfer of patients between states and jurisdictions. Region 1 in Massachusetts is building out a state region wide network of technical advisors

Liaison Representatives Updates-continued

and partners, as well as incorporating telemedicine, which is critically important for rural areas. They are also looking at ways to develop and support rapidly deployable medical response teams to support an all hazard response. It would be unfortunate if the funding for this work were taken away.

CSTE and number of other partners have joined together to launch the Data Elemental to Health Initiative. The goal is to further develop the public health data and surveillance systems over the next 10 years. The group is looking to secure \$1 billion over the next decade and \$100 million in the next fiscal year to modernize the public health surveillance systems and to ensure best practices across the jurisdictions. Dr. Chan is asking all of the CSTE partners to be supportive of the new initiative.

National Association of County & City Health Officials (NACCHO)

NACCHO hosted the 2019 Preparedness Summit in Saint Louis in March 2019. There were over 1900 attendees and more than 100 learning sessions, demonstrations, and workshops. This summer it will prepare for the 2020 Summit, which will be held in Dallas, TX.

The results of the 2018 Preparedness Profile Assessment have been finalized and are available on the website. Data indicated that local public health agencies are making progress on key issue such as improving non-traditional partnerships and developing more robust administrative preparedness plans. However, there were some problems noted. Some preparedness coordinators indicated they did not feel prepared to respond to areas such as opioid abuse and overdose, active shooter incidents, and the role of those in preparedness as it relates to the opioid crisis. A number of respondents also indicated that more information was needed regarding their role in responding to hurricanes, droughts and wildfires in their jurisdictions.

Twelve local and regional health agencies were newly recognized for achieving Project Public Health Ready (PPHR). This is a standards-based training and recognition program that's based on a continuous quality improvement model that recognizes local and state public health agencies for their demonstration of readiness to response to all hazards events. Recipients were from Florida, Arizona, Connecticut, Michigan, Tennessee, and Utah. This project has received an increased interest from state and local health departments. The agency works closely with CDC to ensure the program remains aligned and contributes to the mission and vision of an integrated and prepared public health system.

NACCHO and local public agencies appreciate being a part of the ORR Expansion workgroups. CDC indicated that local health departments who have current, non-expired PPHR recognition may be exempt for some of the ORR planning elements in the expanded assessment process. The agency continues to receive inquiries from its member regarding the process and how implementation may be carried out in practice. NACCHO is gathering member feedback on the proposed options discussed earlier today. They will be collated and returned shortly.

NACCHO's Government Affairs Team hosted a Hill Day in coordination with ASTHO members in early March 2019. NACCHO's board visited congressional representatives to discuss key public health policy issues in their jurisdiction. The agency is working hard to leverage the voice of public health.

The agency continues to monitor ongoing outbreaks and other emerging issues across the United States. It determines ways to best support local public health agencies with ongoing measles, mumps, varicella, and hepatitis A outbreaks that are impacting jurisdictions across the country.

Public Comment Period

No comments from the public.

Meeting Recap, Action Items & Future Agenda Topics

- In past responses some of the liaison organizations were embedded at CDC for large responses. It appears that CDC and liaison organizations need to have a clear mechanism for communicating throughout responses. Are there additional channels that should be made available? Dr. Inglesby asked the liaison members to provide additional feedback to DSLR regarding improving communication.
- Provide more routine updates on CDC responses like Ebola to the liaison organizations.
- Regarding the assessment options posed during the DSLR update, assess if there are any specific jurisdictions that DSLR believes does the assessment particularly well and closely aligned to the way CDC personnel would conduct it. Those jurisdictions could be a resource to DSLR.
- Expanding ORR beyond the medical countermeasure piece can be laborious. It is a significant time commitment of staff to provide the technical assistance. It is important to consider the amount of infrastructure needed at the state level to do that.
- Find a way to sustain the emergency management fellows program and its successes given the geographic breadth the program has covered, and the amount of colleagues CDC has garnered from around the world. It is valuable to CDC and the countries. If it is at risk of being discontinued, it should be called out as a program that is succeeding in the way that other global health programs funded through CGH and other agencies are succeeding.
- With the transitions that are occurring with ASPR doing its work and some of the shifts that have happened around CPR, it is important to continue to explain the good work that is occurring to the external community, particularly to Congress/budgetary decision makers/policymakers. Those outside of CDC should not be complacent about the agency's contributions and successes.

Meeting Adjourn

Drs. Inglesby and Messonnier thanked all the members and attendees for taking part in the meeting. They expressed appreciation to the BSC for its valuable feedback and comments. Dr. Dan Sosin, in light of his upcoming retirement, was highlighted and shown appreciation for his extensive and esteemed work with the BSC and CDC over the years. With no further comments, Dr. Inglesby adjourned the meeting at 3:24 PM

CERTIFICATION

I hereby certify that to the best of my knowledge, the foregoing minutes of the April 24, 2019 meeting of the Center for Preparedness and Response (CPR) BSC are accurate and complete.

Date

_____/s/_____

Thomas V. Inglesby, MD
Chair, Board of Scientific Counselors, CPR

APPENDIX A: BSC Meeting Attendance Roster

Atlanta, GA – April 24, 2019

NAME	AFFILIATION	April 24, 2019
Thomas Inglesby	Chair and SGE	In person
Alonzo Plough	SGE	In person
Brent Pawlecki	SGE	Via phone
Catherine Slemph	SGE	In person
Dawn Wooley	SGE	Via phone
Jennifer Horney	SGE	In person
Margaret Bandeau	SGE	In person
Suzet McKinney	SGE	In person
Vish Viswanath	SGE	In person
Anthony Macintyre (DHS)	Ex Officio	In person
Dan Dodgen (ASPR)	Ex Officio	In person
Jody Wireman (DoD)	Ex Officio	In person
Benjamin Chan (CSTE)	Liaison	In person
Christina Egan (APHL)	Liaison	Via phone
James Blumenstock (ASTHO)	Liaison	In person
Jamie Ritchey (TEC)	Liaison	In person
Laura Magana (ASPPH)	Liaison	Not Present
Michele Askenazi (NACCHO)	Liaison	In person

APPENDIX B: OPHPR BSC MEMBERSHIP ROSTER

DESIGNATED FEDERAL OFFICIAL

Kimberly Lochner, ScD
Deputy Associate Director for Science, OPHPR
Centers for Disease Control and Prevention
Atlanta, Georgia
Kdl4@cdc.gov

CHAIR

Thomas Inglesby, MD
Director, Johns Hopkins Center for Health Security
Johns Hopkins Bloomberg School of Public Health
Baltimore, Maryland
tinglesby@upmc.edu

MEMBERS

Margaret L. Brandeau, PhD
Coleman F. Fung Professor
School of Engineering Department of Management, Science and Engineering
Stanford University
Stanford, California
brandeau@stanford.edu

Jennifer A. Horney, MPH, PhD
Professor, College of Health Sciences
STAR Health Sciences Complex,
Newark, Delaware
horney@udel.edu

Suzet McKinney, Dr.P.H., M.P.H.
CEO/Executive Director
Illinois Medical District Commission
Chicago, Illinois
smckinney@medicaldistrict.org

Brent Pawlecki, MD
Chief Health Officer
The Goodyear Tire & Rubber Company
Akron, Ohio
brent_pawlecki@goodyear.com

Alonzo L. Plough, PhD, MPH
Vice President for Research and Evaluation and Chief Science Officer
Robert Wood Johnson Foundation
Princeton, New Jersey
aplough@rwjf.org

Catherine C. Slemple, MD, MPH
Consultant, Public Health Policy and Practice
Milton, West Virginia
cathy.slemple@att.net

Kasisomayajula Viswanath, PhD, MA, MCJ
Lee Kum Kee Professor, Health Communication
Department of Social and Behavioral Sciences
Harvard School of Public Health
Boston, Massachusetts
Vish_viswanath@dfci.harvard.edu

Dawn Patricia Wooley, Ph.D.
Associate Professor, Department of Neuroscience, Cell Biology, and Physiology
Wright State University
Dayton, Ohio
dawn.wooley@wright.edu

EX OFFICIO MEMBERS

Jody R. Wireman, PhD, MSPH, MPA
CIH, DABT HQ NORAD-USNORTHCOM
Director, SG Force Health Protection
Peterson AFB, Colorado
jody.r.wireman.civ@mail.mil

Sally Phillips, RN, PhD
Deputy Assistant Secretary for Policy
Office of the Assistant Secretary for
Preparedness and Response
Washington, District of Columbia
sally.phillips@hhs.gov

Anthony Macintyre, MD
Senior Medical Advisor, FEMA
Countering Weapons of Mass Destruction (CWMD)
Department of Homeland Security (DHS)
Washington, District of Columbia
anthony.macintyre@hq.dhs.gov

LIAISON REPRESENTATIVES

Christina Egan, PhD, CBSP
Association of Public Health Laboratories (APHL)
Chief, Biodefense Laboratory, Wadsworth Center
New York State Department of Health
Albany, New York
christina.egan@health.ny.gov

Laura Magana, PhD
Association of Schools and Programs of Public Health (ASPPH)
President and CEO
Washington, District of Columbia
lmagana@aspvh.org

Benjamin P. Chan, MD, MPH
State Epidemiologist
New Hampshire Department of Health and Human Services
Division of Public Health Services
Concord, New Hampshire
Benjamin.Chan@dhhs.nh.gov

Michele Askenazi, MPH, CHES
National Association of County and City Health Officials (NACCHO)
Director, Emergency Preparedness and Response, Tri-County Health Department
Greenwood Village, Colorado
maskenazi@tchd.org

Jamie Ritchey MPH, PhD
Director, Tribal Epidemiology Center (TEC)
Inter Tribal Council of Arizona (ITCA)
Phoenix, Arizona
Jamie.Ritchey@itcaonline.com

Association of State and Territorial Health Officials
VACANT

APPENDIX C: ACRONYMS

AAR After Action Report
AMT Anthrax Management Team
APHL Association of Public Health Laboratories
ARRA/HITECH American Recovery and Reinvestment Act/Health Information Technology for Economic and Clinical Health Act
ASPPH Association of Schools and Programs of Public Health
ASPR Assistant Secretary for Preparedness and Response (HHS)
ASTHO Association of State and Territorial Health Officers
BSAT Biological Select Agents and Toxins
BSC Board of Scientific Counselors
CDC Centers for Disease Control and Prevention
CEFO Career Epidemiology Field Officer
CSTE Council of State and Territorial Epidemiologists
DEO Division of Emergency Operations (CDC)
DHS US Department of Homeland Security
DoD Department of Defense
DOT Department of Transportation
DPHP Directors of Public Health Preparedness
DRMU Deployment Risk Mitigation Unit
DSAT Division of Select Agents and Toxins (CDC)
DSLRL Division of State and Local Readiness (CDC)
DSNS Division of Strategic National Stockpile (CDC)
EHR Electronic Health Record
ERPO Extramural Research Program Office (CDC)
ExO Ex Officio
FACA Federal Advisory Committee Act
FDCH Federal Document Clearing House
FOA Funding Opportunity Announcement
GAO Government Accountability Office
FRO Financial Resources Office (CDC)
HCW Healthcare Worker
HPA Healthcare Preparedness Activity (CDC)
HPP Hospital Preparedness Program
HHS US Department of Health and Human Services
IHR International Health Regulations
IOM Institute of Medicine
IT Information Technology
LO Learning Office (CDC)
LRN Laboratory Response Network
LRN-B Laboratory Response Network Biological
LRN-C Laboratory Response Network Chemical
SBI Strategic Business Initiative Unit (CDC)