District of Columbia

Homeland Security Commission

2015 Annual Report:

A Look at the District's Preparedness Level in Addressing a Potential Pandemic Incident

Letter from the Homeland Security Commission

We are pleased to present the second District of Columbia Homeland Security Commission Annual Report.

The Homeland Security Risk, Reduction, and Preparedness Amendment Act of 2006 tasks the Homeland Security Commission (Commission) with gathering and evaluating information on the status of homeland security in the District of Columbia, measuring progress and gaps in homeland security preparedness, and recommending security improvement priorities in consultation with major public and private entities. Each year the Commission focuses on a single homeland security issue that it analyzes to prepare for its Annual Report to the Mayor and the District of Columbia Council.

Over the past two years, the Commission has examined the District's preparedness level in addressing a potential pandemic incident. This study included identifying any unresolved issues, policies, and authorities needed to respond to a simulated pandemic scenario in the District. This analysis focused on the processes that will facilitate decision-making and execution within the various agencies and organizations as well as the integration, coordination, and capacity between all the applicable District agencies and outside partners involved to address a pandemic incident.

This report outlines our general findings on the state of pandemic planning and response in the District, and recommendations for improving upon the coordinated efforts already underway to address a pandemic incident.

The Commission would like to thank former Commission member Glenn Gerstell for his significant contribution to this report prior to his resignation in August 2015. The Commission also thanks Chris Geldart, Director of the District of Columbia Homeland Security and Emergency Management Agency, and his staff, for the administrative and logistical support provided to Commission members. The Commission would like to also thank Chelsea Lenhart, Presidential Administrative Fellow, George Washington University Office of Safety and Security, for her extensive research on this issue. Finally, the Commission thanks Mayor Muriel Bowser for the opportunity to serve in this trusted capacity.

The District of Columbia Homeland Security Commission

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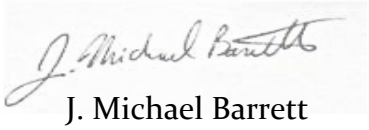
Chairman



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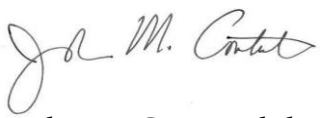

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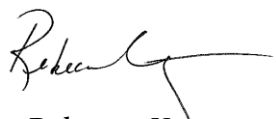

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Executive Summary

The District of Columbia Homeland Security Commission (Commission) was established by the Homeland Security, Risk Reduction, and Preparedness Amendment Act of 2006.[1] The primary functions of the Commission are to make recommendations for improvements in homeland security and preparedness in the District of Columbia and report its findings to the Mayor and the District of Columbia Council. Because the statutory agenda confronting it is so broad, the Commission chooses a single topic on which to focus each year, rather than undertaking a cursory overview of the many homeland security subjects within its purview.

The Commission selects its topic based on a number of factors including but not limited to the importance of the topic to the District's overall security, the extent of attention and resources already devoted to the topic relative to the perceived homeland security threat, the likelihood of generating recommendations that could genuinely improve security, the ability of the District Government and the local community to implement any such recommendations (as opposed to, for example, regional or federal matters or matters wholly within the private sector), and the expertise available to the Commission both within its members and the staff of the District Government.

In 2014, the Commission decided to examine the District's preparedness level in addressing a potential pandemic incident. Dr. Rebecca Katz, an Associate Professor at the George Washington University Milken Institute School of Public Health, was confirmed as a new Commission member in February 2014, replacing Andrew Cutts. An expert on the intersection of public health preparedness and national security, Dr. Katz brought a wealth of subject matter expertise relevant to the topic of pandemic preparedness to the Commission.

After completing its initial study, the Commission felt it needed additional time to gather more information on this important issue; coincidentally, the Ebola virus disease outbreak in West Africa in 2014-2015 raised concerns about how the District might respond to infected travelers. The focus on Ebola by various District agencies led the Commission to conclude that this afforded a good opportunity to explore some of these public health issues in greater depth. Therefore, the Commission's analysis of pandemic planning and response in the District extended through 2015.

[1] The Homeland Security Risk, Reduction, and Preparedness Amendment of 2006, District of Columbia Code §7-2201.02 and §7-2201.03.

In 2014 and 2015, the Commission met quarterly to discuss the Commission's work and to consider information received from various District agencies and non-governmental partners.[2] The Commission received information on its study on pandemic planning and response from the following entities:

- Department of Health (DOH)
- Department of Human Services (DHS)
- District Department of Transportation (DDOT)
- District of Columbia Emergency Healthcare Coalition (DC EHC)
- Homeland Security and Emergency Management Agency (HSEMA)
- Metropolitan Police Department (MPD)
- Office of the Attorney General (OAG)
- Office of the Chief Medical Examiner (OCME)

The Ebola virus disease outbreak was an indicator of just how difficult it is to maintain public health preparedness efforts for high consequence/low frequency events (e.g., pandemics), particularly given the finite amount of resources available to major cities facing similar public health hazards nationwide. Despite these limiting factors beyond the District's control, the Commission found that current available resources could be more efficiently used to improve pandemic planning and preparedness efforts within the District.

These entities were selected due to their critical role in planning for and responding to a pandemic including regularly conducting biosurveillance and epidemiological investigation, activating emergency public information and warning systems, treating patients, managing and distributing medical materiel, ensuring responder health and safety, providing mass care, and managing medical surge and fatalities.[3]

Based on the information gathered through written agency responses and in-person interviews, the Commission found that (1) the system for distributing federal public health emergency preparedness funds should be reevaluated to ensure transparency, unity, and continuity in pandemic preparedness and response among all District response partners; (2) there is currently no policy or mechanism in place for partners to share their response plans and to regularly participate in one another's planning processes, training, or exercises; (3) the integration of several key pandemic preparedness and response partners into the District-wide pandemic preparedness and response scheme should be improved; and (4) there is a need for stronger crisis and emergency risk communication and coordination among partners involved in pandemic planning and response.

[2] See Appendix A for a full list of Commission and stakeholder meetings held throughout this process.
[3] See Appendix B for a detailed description of how the District's pandemic preparedness aligns with the Centers for Disease Control and Prevention's (CDC) Public Health Preparedness Capabilities.

General Findings and Recommendations

Based on the following findings from our review of the District agencies, the Commission has developed recommendations outlined below that we believe will help to bolster the District preparedness and response capabilities in the event of a pandemic.

Finding #1

Federal public health emergency preparedness funding has been declining over the past eight years.[4] The way that these limited funds are currently distributed in the District may not promote unity and continuity in pandemic preparedness and response among all response partners in the District.

Currently, the DC Department of Health (DOH) distributes federal emergency preparedness grant funds directly to healthcare facilities as necessary. In the past, the Washington Hospital Center received a portion of these funds as a lump sum to administer on behalf of the DC Emergency Healthcare Coalition (Coalition), which was established in 2006 to improve the state of emergency preparedness in healthcare facilities in the District. The Coalition's goal is to provide a comprehensive, uniform, and consistent framework and infrastructure for emergency preparedness across the full continuum of patient care. When federal funds were pooled and administered by a common fiduciary agent, the Coalition members worked together to develop District-wide response capabilities (*e.g.*, through shared training and exercises).

Now, DOH distributes these federal funds on an individual basis. The current method may silo individual healthcare facilities. Individual facilities also may not have the capacity to properly perform the administrative tasks required to track, monitor, and report the use of funds. Individual facilities may be able to build their own provider capabilities but the shared District-wide response capabilities may stagnate or decline if providers must also engage in administrative duties in which they have little experience or capability.

[4] Public Health Emergency Preparedness Cooperative Agreement, Hospital Preparedness Program, FY2016 Labor HHS Appropriations Bill, in *Trust for America's Health*, available at http://healthyamericans.org/health-issues/wp-content/uploads/2015/03/FY16-PHEP-HPP.pdf, (accessed December 2015).

Recommendations:

1.1 Increase visibility of all preparedness funds that could be brought to bear in the event of a pandemic.

In general, there is uncertainty among response partners as to the funding sources for pandemic planning and response. DOH should clarify the availability and accessibility to these funding streams for all response partners.

1.2 Establish a funding distribution system that ensures unity and continuity in pandemic preparedness and response among all response partners in the District.

There is concern that the current decentralized distribution of funds will result in individual centers being parceled out and that there will ultimately be a lack of unity and continuity in public health emergency preparedness that Coalition partners previously enjoyed.

The Coalition and DOH should reassess how federal public health emergency preparedness funds are distributed and administered to provide for District-wide pandemic planning and response that is unified and inclusive of all Coalition members. The reassessment should give due consideration to making sure individual healthcare facilities have the capacity to properly manage and administer funds according to DOH and federal guidelines.

Finding #2

Public health emergency response partners do not consistently share plans or participate in each other's planning processes, training, or exercises.

Public health emergencies in the District require multiple stakeholders to respond. These stakeholders include, but are not limited to: hospitals, nursing homes, community health centers, veteran health centers, DOH, the Coalition, the DC Health Care Association (DCHCA), the DC Hospital Association (DCHA), the DC Fire and EMS Department (FEMS), and private entities. Currently, emergency operations plans are siloed within each stakeholder's domain rather than shared across organizations. There is no policy or mechanism in place for these partners to share their response plans and to regularly participate in one another's planning processes, training, or exercises. Instead, public health partners do so upon request on a case-by-case basis. In the past, this lack of information sharing and exclusion from planning efforts has resulted in confusion among

response partners about public health emergency response operations and their specific roles and responsibilities within the operations structure.

Recommendation:

2.1 Establish protocols to share emergency health operations plans, training, and exercises with all pertinent stakeholders.

In order to ensure an efficient and effective response to a public health emergency, emergency operations plans need to be disseminated to all pertinent stakeholders. Protocols should be established to allow stakeholders to understand planning assumptions and offer input on each other's operational plans, increasing the possibility that all potential gaps in operations are covered. Sharing operational plans will strengthen the relationship between stakeholders and will enable a more fluid and effective response.

It is understandable that government agencies or private healthcare facilities may be hesitant to share response plans that contain potentially sensitive or confidential information including information about specific data systems or personal contact information. However, a trusted agent information sharing process should be considered that will protect sensitive agency information, but also facilitate an integrated planning process.

Organizations should also include each other in relevant exercises to clarify expectations and roles of each organization during a public health emergency. The increased involvement of multiple organizations in public health emergency exercises may lead to more effective practices, as well as potential policy changes that can increase response effectiveness. For example, first responders can coordinate with public health centers during an emergency to reduce patient traffic in hospital emergency rooms.

Finding #3

Some key pandemic preparedness and response partners are not well integrated into District-wide pandemic preparedness and response efforts.

Community health centers, for instance, play an important role in the District healthcare system by enhancing access to prevention, medical care, and support services and through the implementation of programs for women, infants, children, and other vulnerable populations. These centers are pivotal in ensuring that all District residents

have the ability and opportunity to lead healthier lives. However, these community-based centers do not enjoy the same resources that larger medical institutions do.

While major hospitals have the staff to serve as emergency planners and the resources to conduct emergency preparedness training and exercises regularly, some smaller community health centers lack the manpower to properly plan for and respond to public health emergencies in the District. Without a designated emergency planner, these centers cannot engage with District response partners to fully integrate themselves into the larger District response scheme.

Moreover, DOH does not regularly track the surge capacities of these small community health centers as it does for the area hospitals. In the event of a regional pandemic, hospitals may become overwhelmed with patients. Community health centers have the potential to serve as a significant resource to alleviate the burden on hospitals. However, without inclusion in District emergency preparedness efforts, small community health centers may fall behind in emergency preparedness. Without established, ongoing relationships with DOH and other emergency response partners to build their capabilities, these centers remain less effectual and potentially unprepared in an emergency.

Recommendation:

3.1 Integrate community health centers and other key response partners into public health emergency planning and response.

The District should provide emergency planning assistance through DOH staff support or provide funding for an emergency planner staff position(s) to coordinate the emergency planning of community health centers.

Incorporating community health centers into the emergency planning and response system is critical to alleviate the burden of response in hospitals, especially emergency rooms, and of other response partners. The increased involvement of community health centers would lead to policy changes that would reduce patient traffic in hospital emergency rooms. For instance, first responders could include the location of the nearest dialysis centers, skilled nursing facilities, and other community health centers in the computer-aided design (CAD) systems of ambulances, which would enable them to take patients to the nearest relevant center rather than the emergency room. Such policies allow for a more efficient emergency response overall.

Finding #4

There is a need for stronger coordination among partners involved in pandemic planning and response, including the area of crisis and emergency risk communications.

This need exists for several reasons, including but not limited to (a) weak or strained relationships among health response partners; (b) disparate levels of understanding among partners of the District's crisis communications strategy; and (c) the novelty of social media messaging.

Recommendations:

4.1 Strengthen the relationships between health response partners to enhance collaboration, communication, and integration of emergency healthcare policies, practices, and programs.

Various agencies reported inadequate or strained relationships with other critical health response partners. For instance, both DOH and the Coalition play a critical role in pandemic response. DOH is the lead District government agency for ensuring the provision of emergency health and medical services to District residents, workers, and visitors and for coordinating the health and medical response from appropriate government and private agencies.[5] The Coalition is a partnership of acute care hospitals, skilled nursing facilities, community health centers, and several District agencies including DOH, the DC Homeland Security and Emergency Management Agency (HSEMA), the Office of the Chief Medical Examiner (OCME), the Department of Behavioral Health (DBH), and the Fire and Emergency Medical Services Department (FEMS). It represents the very entities that will admit and treat patients affected by the pandemic. Ineffective communication and cooperation between DOH and the Coalition hampers the advancement of public health emergency preparedness and response in the District.

Although the leadership at DOH and the Coalition has already begun to improve communication and collaboration, their partnership should be bolstered to ensure an effective coordinated response in the event of a pandemic. DOH and the Coalition should:

[5] See District of Columbia Response Plan, September 2014, p. 77.

- Conduct regular meetings between their senior leaders;
- Regularly attend relevant committee and work group meetings held by each organization;
- Participate together in exercises involving public health emergencies;
- Share information with each other in a timely manner to maintain situational awareness and create a common operating picture;
- Develop policies and procedures that align with each other and/or that address gaps identified by both organizations; and
- Continue to use the Hospital Information System (HIS) as the main information sharing platform.

Other agencies and organizations should take similar steps to improve relationships with fellow response partners at the local, regional, and federal levels.

4.2 Ensure that all pandemic planning and response partners have access to and continue to train and exercise the District's crisis communications strategy.

In 2015, District agencies developed a *Crisis Communications Guide* (August 2015) that is intended for all local, regional, and federal emergency response partners. Any partners that have a role in pandemic planning and response in the District should continue to train and exercise crisis communications in pandemic scenarios according to this guide and participate in any future guide reviews and revisions.

Since the development of the *Crisis Communications Guide*, the District Public Information Officers have trained and successfully used the guide during actual events, including the Papal Visit in September 2015 and various winter snow events.

4.3 Ensure that all District pandemic planning and response partners follow a standard social media policy.

Social media has become a highly effective tool for providing clear, straightforward information to the public to allay fears and build trust during a pandemic event. However, as information spreads rapidly, social media messages sent from various agencies can quickly become inaccurate if a standardized social media policy is not followed by all partners. In order to develop and maintain uniform social media messaging, all response partners must abide by established District social media policies.

Appendix A: Commission and Stakeholder Meetings

The Commission is required to meet on a quarterly basis throughout the year to discuss and evaluate the status of homeland security within the District. The Commission also met with a select group of District agencies and private sector stakeholders to examine their efforts in planning for and responding to a pandemic in the District. The following table outlines the dates of each Commission meeting and stakeholder briefing that was held over the last two years.

Meeting/Briefing	Date
Commission Meeting	February 26, 2014
Commission Meeting	April 22, 2014
Commission Meeting	June 24, 2014
Commission Meeting	July 30, 2014
Commission Meeting	October 29, 2014
DC Homeland Security & Emergency Management Agency Briefing	January 29, 2015
DC Department of Health Briefing	March 20, 2015
Commission Meeting	April 29, 2015
DC Emergency Healthcare Coalition Briefing	May 20, 2015
DC Department of Health Briefing	August 5, 2015
Commission Meeting	August 11, 2015
Commission Meeting	September 17, 2015
DC Emergency Healthcare Coalition Briefing	September 22, 2015
Commission Meeting	October 28, 2015
Commission Meeting	December 2, 2015

Appendix B: CDC Public Health Preparedness Capabilities[6]

BIOSURVEILLANCE

Public Health Laboratory Testing

Definition: Public health laboratory testing is the ability to conduct rapid and conventional detection, characterization, confirmatory testing, data reporting, investigative support, and laboratory networking to address actual or potential exposure to all-hazards. Hazards include chemical, radiological, and biological agents in multiple matrices that may include clinical samples, food, and environmental samples (e.g., water, air, and soil). This capability supports routine surveillance, including pre-event or pre-incident and post-exposure activities.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

- Function 1: Manage laboratory activities
  - Measure 1: Time for sentinel clinical laboratories to acknowledge receipt of an urgent message from the CDC Public Health Emergency Preparedness (PHEP)-funded Laboratory Response Network biological (LRN-B) laboratory
  - Measure 2: Time for initial laboratorian to report for duty at the CDC PHEP-funded laboratory
- Function 2: Perform sample management
  - Measure 1: Percentage of Laboratory Response Network (LRN) clinical specimens without any adverse quality assurance events received at the CDC PHEP-funded LRN-B laboratory for confirmation or rule-out testing from sentinel clinical laboratories
  - Measure 2: Percentage of LRN non-clinical samples without any adverse quality assurance events received at the CDC PHEP-funded LRN-B laboratory for confirmation or rule-out testing from first responders
  - Measure 3: Ability of the CDC PHEP-funded Laboratory Response Network chemical (LRN-C) laboratories to collect relevant samples for clinical chemical analysis, package, and ship those samples
- Function 3: Conduct testing and analysis for routine and surge capacity
  - Measure 1: Proportion of LRN-C proficiency tests (core methods) successfully passed by CDC PHEP-funded laboratories

[6] See Centers for Disease Control and Prevention, Public Health Preparedness Capabilities: National Standards for State and Local Planning, March 2011, available at http://www.cdc.gov/phpr/capabilities/dslr_capabilities_july.pdf, (accessed December 2015).

    - Measure 2: Proportion of LRN-C proficiency tests (additional methods) successfully passed by CDC PHEP-funded laboratories
    - Measure 3: Proportion of LRN-B proficiency tests successfully passed by CDC PHEP-funded laboratories
- Function 4: Support public health investigations
    - Measure 1: Time to complete notification between CDC, on-call laboratorian, and on-call epidemiologist
    - Measure 2: Time to complete notification between CDC, on-call epidemiologist, and on-call laboratorian
- Function 5: Report results
    - Measure 1: Percentage of pulsed field gel electrophoresis (PFGE) subtyping data results for E. coli O157:H7 submitted to the PulseNet national database within four working days of receiving isolate at the PFGE laboratory
    - Measure 2: Percentage of PFGE subtyping data results for Listeria monocytogenes submitted to the PulseNet national database within four working days of receiving isolate at the PFGE laboratory
    - Measure 3: Time to submit PFGE subtyping data results for Salmonella to the PulseNet national database upon receipt of isolate at the PFGE laboratory
    - Measure 4: Time for CDC PHEP-funded laboratory to notify public health partners of significant laboratory results

Public Health Surveillance and Epidemiological Investigation

Definition: Public health surveillance and epidemiological investigation is the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes, as well as to expand these systems and processes in response to incidents of public health significance.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

- Function 1: Conduct public health surveillance and detection
    - Measure 1: Proportion of reports of selected reportable diseases received by a public health agency within the jurisdiction-required time frame
- Function 2: Conduct public health and epidemiological investigations
    - Measure 1: Percentage of infectious disease outbreak investigations that generate reports
    - Measure 2: Percentage of infectious disease outbreak investigation reports that contain all minimal elements
    - Measure 3: Percentage of acute environmental exposure investigations that generate reports

    - Measure 4: Percentage of acute environmental exposure reports that contain all minimal elements
- Function 3: Recommend, monitor, and analyze mitigation actions
    - Measure 1: Proportion of reports of selected reportable diseases for which initial public health control measure(s) were initiated within the appropriate time frame
- Function 4: Improve public health surveillance and epidemiological investigation systems

COMMUNITY RESILIENCE

Community Preparedness

Definition: Community preparedness is the ability of communities to prepare for, withstand, and recover — in both the short and long terms — from public health incidents. By engaging and coordinating with emergency management, healthcare organizations (private and community-based), mental/behavioral health providers, community and faith-based partners, state, local, and territorial, public health's role in community preparedness is to do the following:

- Support the development of public health, medical, and mental/behavioral health systems that support recovery
- Participate in awareness training with community and faith-based partners on how to prevent, respond to, and recover from public health incidents
- Promote awareness of and access to medical and mental/behavioral health resources that help protect the community's health and address the functional needs (i.e., communication, medical care, independence, supervision, transportation) of at-risk individuals
- Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community
- Identify those populations that may be at higher risk for adverse health outcomes
- Receive and/or integrate the health needs of populations who have been displaced due to incidents that have occurred in their own or distant communities (e.g., improvised nuclear device or hurricane)

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Determine risks to the health of the jurisdiction
- Function 2: Build community partnerships to support health preparedness

- Function 3: Engage with community organizations to foster public health, medical, and mental/behavioral health social networks
- Function 4: Coordinate training or guidance to ensure community engagement in preparedness efforts

Community Recovery

Definition: Community recovery is the ability to collaborate with community partners, (e.g., healthcare organizations, business, education, and emergency management) to plan and advocate for the rebuilding of public health, medical, and mental/ behavioral health systems to at least a level of functioning comparable to pre-incident levels, and improved levels where possible.

This capability supports National Health Security Strategy Objective 8: Incorporate Post-Incident Health Recovery into Planning and Response. Post-incident recovery of the public health, medical, and mental/behavioral health services and systems within a jurisdiction is critical for health security and requires collaboration and advocacy by the public health agency for the restoration of services, providers, facilities, and infrastructure within the public health, medical, and human services sectors. Monitoring the public health, medical and mental/behavioral health infrastructure is an essential public health service.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Identify and monitor public health, medical, and mental/behavioral health system recovery needs
- Function 2: Coordinate community public health, medical, and mental/behavioral health system recovery operations
- Function 3: Implement corrective actions to mitigate damages from future incidents

COUNTERMEASURES AND MITIGATION

Medical Countermeasure Dispensing

Definition: Medical countermeasure dispensing is the ability to provide medical countermeasures (including vaccines, antiviral drugs, antibiotics, antitoxin, etc.) in support of treatment or prophylaxis (oral or vaccination) to the identified population in accordance with public health guidelines and/or recommendations.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

- Function 1: Identify and initiate medical countermeasure dispensing strategies
- Function 2: Receive medical countermeasures
- Function 3: Activate dispensing modalities
    - Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response
- Function 4: Dispense medical countermeasures to identified population
    - Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response
- Function 5: Report adverse events

Medical Materiel Management and Distribution

Definition: Medical materiel management and distribution is the ability to acquire, maintain (e.g., cold chain storage or other storage protocol), transport, distribute, and track medical materiel (e.g., pharmaceuticals, gloves, masks, and ventilators) during an incident and to recover and account for unused medical materiel, as necessary, after an incident.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

- Function 1: Direct and activate medical materiel management and distribution
    - Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response
- Function 2: Acquire medical materiel
    - Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response
- Function 3: Maintain updated inventory management and reporting system
    - Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response
- Function 4: Establish and maintain security
    - Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response
- Function 5: Distribute medical materiel

    - Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response
- Function 6: Recover medical materiel and demobilize distribution operations
    - Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Non-Pharmaceutical Interventions

Definition: Non-pharmaceutical interventions are the ability to recommend to the applicable lead agency (if not public health) and implement, if applicable, strategies for disease, injury, and exposure control. Strategies include the following:

- Isolation and quarantine
- Restrictions on movement and travel advisory/warnings
- Social distancing
- External decontamination
- Hygiene
- Precautionary protective behaviors

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Engage partners and identify factors that impact non-pharmaceutical interventions
- Function 2: Determine non-pharmaceutical interventions
- Function 3: Implement non-pharmaceutical interventions
- Function 4: Monitor non-pharmaceutical interventions

Responder Safety and Health

Definition: The responder safety and health capability describes the ability to protect public health agency staff responding to an incident and the ability to support the health and safety needs of hospital and medical facility personnel, if requested.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Identify responder safety and health risks
- Function 2: Identify safety and personal protective needs

- Function 3: Coordinate with partners to facilitate risk-specific safety and health training
- Function 4: Monitor responder safety and health actions

INCIDENT MANAGEMENT

Emergency Operations Coordination

Definition: Emergency operations coordination is the ability to direct and support an event or incident with public health or medical implications by establishing a standardized, scalable system of oversight, organization, and supervision consistent with jurisdictional standards and practices and with the National Incident Management System. 10 Public Health Preparedness Capabilities: National Standards for State and Local Planning U.S. Department of Health and Human Services Centers for Disease Control and Prevention AT-A-GLANCE: Capability Definitions, Functions, and Associated Performance Measures

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

- Function 1: Conduct preliminary assessment to determine need for public activation
- Function 2: Activate public health emergency operations
    - Measure 1: Time for pre-identified staff covering activated public health agency incident management lead roles (or equivalent lead roles) to report for immediate duty. Performance Target: 60 minutes or less
- Function 3: Develop incident response strategy
    - Measure 1: Production of the approved Incident Action Plan before the start of the second operational period
- Function 4: Manage and sustain the public health response
- Function 5: Demobilize and evaluate public health emergency operations
    - Measure 1: Time to complete a draft of an After Action Report and Improvement Plan

INFORMATION MANAGEMENT

Emergency Public Information and Warning

Definition: Emergency public information and warning is the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management responders.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

- Function 1: Activate the emergency public information system
- Function 2: Determine the need for a joint public information system
- Function 3: Establish and participate in information system operations
- Function 4: Establish avenues for public interaction and information exchange
- Function 5: Issue public information, alerts, warnings, and notifications
    - Measure 1: Time to issue a risk communication message for dissemination to the public

Information Sharing

Definition: Information sharing is the ability to conduct multijurisdictional, multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, territorial, and tribal levels of government, and the private sector. This capability includes the routine sharing of information as well as issuing of public health alerts to federal, state, local, territorial, and tribal levels of government and the private sector in preparation for, and in response to, events or incidents of public health significance.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Identify stakeholders to be incorporated into information flow
- Function 2: Identify and develop rules and data elements for sharing
- Function 3: Exchange information to determine a common operating picture

SURGE MANAGEMENT

Fatality Management

Definition: Fatality management is the ability to coordinate with other organizations (e.g., law enforcement, healthcare, emergency management, and medical examiner/coroner) to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental/ behavioral health services to the family members, responders, and survivors of an incident.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Determine role for public health in fatality management
- Function 2: Activate public health fatality management operations
- Function 3: Assist in the collection and dissemination of antemortem data
- Function 4: Participate in survivor mental/behavioral health services
- Function 5: Participate in fatality processing and storage operations

Mass Care

Definition: Mass care is the ability to coordinate with partner agencies to address the public health, medical, and mental/ behavioral health needs of those impacted by an incident at a congregate location. This capability includes the coordination of ongoing surveillance and assessment to ensure that health needs continue to be met as the incident evolves.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Determine public health role in mass care operations
- Function 2: Determine mass care needs of the impacted population
- Function 3: Coordinate public health, medical, and mental/behavioral health services
- Function 4: Monitor mass care population health

Medical Surge

Definition: Medical surge is the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community. It encompasses the ability of the healthcare system to survive a hazard impact and maintain or rapidly recover operations that were compromised.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Assess the nature and scope of the incident
- Function 2: Support activation of medical surge
- Function 3: Support jurisdictional medical surge operations
- Function 4: Support demobilization of medical surge operations

Volunteer Management

Definition: Volunteer management is the ability to coordinate the identification, recruitment, registration, credential verification, training, and engagement of volunteers to support the jurisdictional public health agency's response to incidents of public health significance.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

- Function 1: Coordinate volunteers
- Function 2: Notify volunteers
- Function 3: Organize, assemble, and dispatch volunteers
- Function 4: Demobilize volunteers

Appendix C: Public Health Preparedness Capability Findings

Through its assessment of pandemic planning and response in the District, the Commission collected a significant amount of information from various District agencies and external partners. In this section, the information collected is aligned with the Centers for Disease Control and Prevention's (CDC) Public Health Preparedness Capabilities needed for achieving state and local public health preparedness. Each of the fifteen (15) Capabilities falls under one of the following domains: Biosurveillance; Community Resilience; Countermeasures and Mitigation; Incident Management; Information Management; or Surge Management. For a complete list and description of the CDC Public Health Capabilities, see Appendix B.

Biosurveillance

Public Health Laboratory Testing

The DC Department of Forensic Sciences oversees the Public Health Laboratory and has responsibility for conducting and managing laboratory testing during a public health emergency. However, DOH may use the services of the Public Health Laboratory during an emergency to test food samples and other specimen.

Public Health Surveillance and Epidemiological Investigation

The Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) is DOH's syndromic surveillance program. This system is based on hospital capacities and does not currently incorporate information from other healthcare facilities.

In addition to ESSENCE, DOH is also developing a more robust Health Information Exchange (DOH HIE) through which it will receive additional public health information from primary care facilities and patients at home. Over 138 provider and hospital sites are actively transmitting health-related data electronically to DOH through the DOH HIE. The main data types that are exchanged via the DOH interfaces are immunizations, electronic lab reporting, syndromics, and cancer. The DOH HIE infrastructure is expected to be fully implemented by 2017.

DOH has also begun to develop an online system to electronically receive case information for reportable diseases that will work in tandem with DOH HIE. The system's initial testing phase was recently completed, and it was pushed out to hospitals in August 2015. This online system is a step forward over the current process, which relies on hand

faxing case reports and incomplete and inconsistent reporting. Currently, the online system has been made available to all nine acute care hospitals in the District, but as the system improves, it will be pushed out to other types of healthcare facilities as well.

These systems work together to provide a comprehensive picture of disease activity in the District. While ESSENCE will be able to provide a real-time look at overall disease trends across the District, the electronic case reporting system will be able to provide focused, detailed information on specific cases in a more timely fashion.

During epidemiological investigations, DOH will act as the liaison between the Public Health Laboratory, healthcare facilities, and federal partners including the CDC, to determine if and when testing will be conducted. If testing is required, DOH will coordinate with the healthcare facility and the Public Health Laboratory for specimen collection, preparation, and transport. To facilitate this collaboration, DOH has an on-call epidemiologist system in place to handle emergencies at any time, while the Public Health Laboratory has a courier system to pick-up samples after they are collected from healthcare facilities.

Community Resilience

Community Preparedness

DOH has established a Health and Medical Committee to work directly with the DC Emergency Healthcare Coalition to build community partnerships to support healthcare emergency preparedness efforts and to engage non-traditional community healthcare organizations and community groups that provide public health services.

Community Recovery

The District Recovery Plan was finalized in September 2014. The Plan covers all natural, technological/accidental, and human/adversarial hazards that the District faces, including pandemics. In the intermediate and long-term period following a pandemic, the District will build upon the response activities implemented during the pandemic. All key stakeholders will be included to identify, assess, and implement recovery actions that will meet the needs of the District.

Countermeasures and Mitigation

Medical Countermeasure Dispensing/Medical Materiel Management and Distribution

As the lead agency for ESF #8 (Public Health and Medical Services) in the District, DOH has the responsibility to coordinate and direct the activation and deployment of resources of health and medical personnel, supplies, and equipment during a public health emergency.

Current federal emergency preparedness funding to DOH does not allow the DOH Health Emergency Preparedness and Response Administration (HEPRA) to purchase pharmaceuticals. In the event that biopacks containing ciprofloxacin and doxycycline are necessary, DOH would purchase these medicines once the need is known. The Strategic National Stockpile (SNS) Program's Vendor Managed Program states that it will deliver the drugs to the requested site within 12 hours based on the identified need.

DOH has 34 closed point of dispensing (POD) sites and 16 open POD sites, with eight more open POD sites proposed. Currently, each ward has two POD sites suitable for the walk-through dispensing of pharmaceuticals during a public health emergency requiring medical countermeasure. Each of these sites has been surveyed for its suitability, accessibility, and security for dispensing pharmaceuticals. The closed POD sites were selected to support the continuity of operations of certain facilities to promote the continuity of government and other critical functions and services. The open PODs are staffed with a mix of DOH staff and volunteers. Closed PODs are staffed by the staff of the particular agency. At a minimum, DOH staff receive annual training, and closed POD partners are also required by their respective memorandum of agreement to train their staff annually. The Department of Public Works (DPW) and the Metropolitan Police Department (MPD) receive just-in-time training immediately before an operations-based exercise or real world response.

The Public Health Emergency Operations Plan (EOP) outlines the ESF #8 strategies and procedures that occur during a response to a public health emergency. The transportation plan for the distribution of medical countermeasures and medical equipment is contained within one of the functional annexes of this EOP. The transportation functional annex includes an estimated transportation need for various scenarios, including an influenza pandemic. Scenarios have been developed for various disease types, pills, and vaccines from the SNS. The transportation plan involves HEPRA's collaboration with DPW and the Department of Transportation (DDOT) to deliver SNS assets.

The transportation plan was exercised in March 2012 and again in August 2015. The August 2015 exercise demonstrated and then evaluated the transportation strategy requirements. The scenario for the full-scale exercise was based on an aerosolized anthrax attack at Union Station that resulted in the activation of the SNS and a managed inventory of doxycycline and ciprofloxacin as a medical countermeasure. Ground transportation included the use of 915 army trucks with a mid-sized trailer and a MPD escort to nine closed POD partners. The partners completed a transportation questionnaire, providing information on the delivery dock type, location, security, and limitations for their facility.

Non-Pharmaceutical Interventions

Non-pharmaceutical interventions (NPIs) include the following: (1) isolation and quarantine; (2) restrictions on movement and travel advisories/warnings; (3) social distancing; (4) external decontamination; (5) hygiene; and (6) precautionary protective behaviors.

Non-pharmaceutical interventions are comprised of voluntary interventions:

- **At *Home* (e.g., voluntary isolation or quarantine at home);**
- **In *School* (e.g., dismissals, curtailment of school-based activities and child-care programs); and**
- **In the *Workplace/Community* (e.g., hand-washing, social distancing by limiting meetings, reducing access to mass transit, canceling public gatherings, modifying work schedules and shifts).**

DOH recommends implementation of NPIs based on syndromic surveillance findings in correlation with the best science-based approach. Implementation of NPIs generally starts by selecting a strategy of voluntary measures and implementing a sustained strategic messaging campaign using a variety of communication modes.

In order for NPIs to be truly effective in mitigating the severity of an outbreak/epidemic, all District Government departments and agencies would need to implement NPIs equally among their own staff. Simultaneously, the city would need to launch a high-profile messaging campaign aimed at residents and visitors that is clear, consistent, and sustained for the length of the epidemic. Similarly, all departments and agencies would need to monitor the implementation of NPIs while the DOH conducts community-wide health surveillance to assess changes in disease transmission rates, hospital visits, fatality rates, etc.

District Government leadership (Mayor, City Administrator, Deputy Mayors) and other DOH partners (e.g., HSEMA, FEMS, Office of the Chief Medical Examiner) usually become involved in the decision-making process. Once a NPI strategy has been devised for implementation, every government department/agency is responsible for implementing those measures within their own workforce. Additionally, the District's unique role as the capital city bordering Maryland and Virginia requires special consideration. Specifically, the daily flow of commuters in and out of the District necessitates a regional NPI strategy among local, state, and federal agencies.

Responder Health and Safety

Section 2017.10 of Title 22-B of the DC Municipal Regulations requires persons working with patients or near patient areas to have immunization from communicable diseases in accordance with the recommendations of the CDC.

Per DOH policy, all District emergency responders and their families will receive medications from POD sites. DOH has identified police, fire and emergency medical service workers, healthcare workers, and other first responders as a priority to receive medications in the event of a pandemic.

Incident Management

Emergency Operations Coordination

As the lead agency for ESF #8 (Public Health and Medical Services), DOH will coordinate emergency operations during a pandemic in collaboration with ESF #8 support agencies including but not limited to the Coalition, the DC Hospital Association, the Homeland Security and Emergency Management Agency (HSEMA), the Department of Behavioral Health (DBH), the Department of Human Services, the Office of the Chief Medical Examiner (OCME), and the Mayor's Office.

The DOH Public Health Emergency Operations Plans (February 2014) describes the coordinated and effective response operations of ESF #8. This plan is supplemented by several annexes and appendices. The annexes describe the functions that will be carried out during an emergency, including access to medical care, food security, and dispensing of medicines, while the appendices describe disaster-specific functions.

All plans are written and available for review upon request. Some plans are currently being updated.

Information Management

Emergency Public Information and Warning

The District Crisis Communication Plan outlines the roles, responsibilities and protocols that will guide the District in promptly sharing information with internal agencies, external partners, and the general public.

In the event of a major pandemic, HSEMA will establish and operate a Joint Information Center (JIC) to coordinate public messaging with DOH, the Mayor's Office of Communications, and other relevant District agencies. Information will be disseminated to response agencies, the public, and media via hotlines, websites, press releases, public service announcements, and social media.

Information Sharing

The Health Alert Network (HAN) provides a secure communications network that transmits critical public health information to multiple public health and healthcare partners simultaneously. As the administrator of the online system, DOH develops the messages shared with stakeholders. There are currently approximately 650 recipients in the HAN system.

The HAN system can be used as either a "push" or "pull" information system, but is most commonly used in "push" mode to transmit information to DOH staff, members of the Health and Medical Coalition, and other public health emergency stakeholders as necessary. In "pull" mode the HAN system can be used to issue Requests for Information (RFIs) and to direct required actions.

The Health Alert Network is configured to disseminate four basic types of messages:

- **Health Alerts:** ***Information that requires immediate attention or action,***
- **Health Advisories:** ***Information that may not require immediate action,***
- **Health Updates:** ***Updated information that is unlikely to require immediate action,*** **and**
- **General non-emergency information service messages.**

Designated DOH staff can log onto the online HAN platform, create new messages or use existing templates, and send messages to an established distribution list. Currently, there are 21 templates in the system used for administrative notifications, training drills, and extreme weather responses.

DOH also receives information about the capacity of District acute care hospitals through various methods, including:

- Hospital Information System (HIS)/Healthcare System and Resource Status Dashboard – a web-based information sharing platform that provides daily situational awareness of the District's bed capacity within the hospitals.
- Hospital Available Beds for Emergencies and Disasters (HAvBED) – a US Department of Health and Human Services program through which DOH collects available bed counts in real-time through phone surveys and reports.
- Hospital Mutual Aid Radio System (HMARS) – the current radio method used by hospitals in an emergency. The system utilizes a tone-activated radio system to alert hospitals of various incidents and to obtain initial emergency bed counts.

Although the first two systems are web-based, DOH also uses either paper forms or locally developed and operated databases that do not rely on network capability to track the capacity of healthcare facilities. Information is then relayed via radio or telephone.

To maintain regional situational awareness, DOH uses the Maryland Facility Resource Emergency Database (FRED) and the Northern Virginia Hospital Alerting and Status System (VHASS). These systems monitor their respective jurisdiction's hospitals' available bed status and facilities' operational status. Like the District's HIS, these web-based programs are compatible with HAvBED.

In addition to the web-based programs, DOH has developed a Microsoft Access database that can input the information from the three local jurisdictions' systems (HIS, FRED and VHASS) and produce a 'NCR Available Bed' report. This database has been used on numerous occasions since its first use in April of 2010, and the software is currently being updated.

In cooperation with the DC Hospital Association, DOH uses the Hospital Mutual Aid Radio System (HMARS), which connects all of the District's acute care hospitals and skilled nursing facilities. Several regional hospitals are on the radio network as well as OCME, the Northern Virginia Regional Hospital Coordinating Center, the Maryland Emergency Resource Center, the National Capitol Poison Center, and the Office of the Attending Physician at the US Capitol.

DOH also uses the patient tracking system developed by Global Emergency Resources (GER) and incorporated into the HC Standard platform. Maryland and some local jurisdictions in Northern Virginia also utilize this system, which has the ability to upload patient information into HC Standard when scanning a triage tag. The system has been successfully used during numerous special events and National Special Security Events in the District and Maryland. FEMS will use this system during mass casualty incidents

(MCI), with the initial deployment on their AmbuBus and MCI Support Units. This system can track patients in both Maryland and the District.

Finally, DOH is developing a Watch Officer program that will establish an ongoing situational awareness capability and communications among the local and regional healthcare facilities. Communications will be maintained through the DOH and HMARS radio systems and through the use of the HAN.

Surge Management

Fatality Management

OCME is responsible for mass fatality management in the District and maintains a Mass Fatality Plan. The District morgue is solely responsible for all deaths that occur within District borders, and its current maximum capacity is 206 decedents. In partnership with DOH, OCME recently purchased four mobile storage units with a capacity of 26 decedents per unit, which will be used to support fatality surge in the District. Day-to-day body transport services are currently contracted out.

OCME may require additional services through the activation of available regional memoranda of understanding (MOUs) or emergency management assistance compacts (EMACs) or through a request for federal assistance to support fatality management in the District.

Mass Care

The Department of Human Services (DHS) is the lead agency for ESF #6 (Mass Care, Emergency Assistance, Housing and Human Services) for the District. In this capacity, DHS ensures that shelters are appropriately staffed to direct operations of the shelter facility. DHS has designated emergency shelter sites located throughout the District. These sites include recreation centers, public schools, and libraries. Shelters are activated based on the needs of the population impacted and displaced by the emergency.

During a pandemic outbreak, however, shelters are not usually activated as sheltering would spread disease throughout the sheltered population and staff. Instead, the appropriate social distancing measures for at-risk residents and visitors would be determined by DOH and the medical community through ESF #8 (Public Health and Medical Services). At-risk residents and visitors would likely be asked to remain at home or report to a hospital if treatment is needed. Public messaging, alerts, and social media would be used to communicate the appropriate social distancing measures to the public.

Shelter sites are pre-assessed to determine safety and re-checked for all hazards as well as appropriate distance away from the hazard that caused the displacements. Security Officers are provided internally via the DC Protective Services Division of the Department of General Services (DGS) and externally via MPD. Sanitation kits are used at each site to mitigate the spread of germs and bacteria. DHS also coordinates and assists with emergency feeding in and out of the shelter environment with District, federal, and non-government partners.

DHS maintains a written Mass Care Plan that documents the policies and procedures for mass care and human services in the District. This Plan was updated in late 2015.

Medical Surge

The Joint Commission is an independent, non-profit organization that accredits and certifies healthcare organizations and programs in the United States.[7] Pursuant to a requirement of the Joint Commission to plan for medical surge, every hospital in the District maintains a hospital surge plan. Hospitals in the District are often at near capacity on a daily basis. Therefore, in practice, some hospitals may not reach their desired surge capacity during a pandemic, especially as there is no designated alternate location to which to send surge patients.

Additionally, DOH assesses the nature and scope of an incident primarily through ESSENCE. Although this system tracks hospital surge capacities during emergencies, DOH does not currently track capacity, patient movement, or increased activity in private community health centers or specialty care centers such as dialysis centers. Community health centers may need emergency preparedness planning assistance in the form of additional staffing and/or funding to integrate into the District-wide public health emergency response system.

Volunteer Management

DOH maintains and manages a registry of about 950 volunteers of which about half are licensed medical professionals. These volunteers have signed up to assist in response to a public health emergency, and many have received Community Emergency Response Team (CERT) Training. This volunteer registry is updated on an annual basis. Numerous medical centers and universities including Howard University and George Washington University have formed their own Medical Reserve Corps (MRCs). DOH has signed

[7] The Joint Commission website, available at http://www.jointcommission.org/about_us/about_the_joint_commission_main.aspx, (accessed September 2015).

MOUs with all of the MRCs with which it regularly works, and has trained these and other partners to open and operate PODs.

Representatives from the Coalition do not usually use or rely on medical volunteers who may not be properly vetted. Instead, Coalition members have mutual aid agreements to assist each other during a public health emergency.

Appendix D: Background Information about the Commission

Each District of Columbia Homeland Security Commission member has been jointly vetted by the District of Columbia Homeland Security and Emergency Management Agency and the Deputy Mayor of Public Safety and Justice and then appointed by the Mayor. Each member's background and expertise is listed below.

J. Michael Barrett: Mr. Barrett is a seasoned professional in both counterterrorism and risk assessment. Mr. Barrett is the CEO of Diligent Innovations, Inc., a consulting firm that advises clients on policy development, strategy, and business plan execution in the areas of defense and national security. He has served on the White House Security Council as the Senior Analyst for the Joint Chiefs of Staff and as a U.S. Navy Intelligence Officer for the Office of the Assistant Secretary of Defense.

Barbara Childs-Pair: Ms. Childs-Pair is an expert on security and transportation and has over three decades of experience in emergency management and homeland security, including as Director of HSEMA's predecessor agency, the District of Columbia Emergency Management Agency. She currently serves in the Office of Emergency Management for the Washington Metropolitan Area Transit Authority.

John M. Contestabile: Mr. Contestabile's expertise includes over thirty years of experience in the transportation sector addressing such areas as homeland security/emergency management, COOP, critical infrastructure protection, and interoperable communications. Mr. Contestabile worked for the Maryland Department of Transportation in various senior-level positions coordinating with all the modal agencies in the Department (highway, transit, airport, maritime/port). Mr. Contestabile now works at the Johns Hopkins University/Applied Physics Lab where he is working on projects with the Department of Homeland Security - Science and Technology Directorate and the Department of Justice - National Institute of Justice, which focus on the use of video in public safety and the next generation first responder technologies.

Darrell Darnell: Mr. Darnell's expertise is risk assessment. Currently, Mr. Darnell is Senior Associate Vice President for Safety and Security at the George Washington University, where he directs the University's Police Department, Emergency Management personnel, and the Office of Health and Security. A retired Master Sergeant with the United States Air Force, Mr. Darnell has nearly a decade of experience at the U.S. Departments of Homeland Security and Justice. Before moving to the White House, he served as director of the District of Columbia Homeland Security and Emergency

Management Agency, the Agency responsible for all-hazards emergency planning, preparation, response, and recovery for the District.

Daniel Kaniewski: Dr. Kaniewski is the Mission Area Director for Resilience and Emergency Preparedness/Response at the Homeland Security Studies and Analysis Institute. He is also an adjunct assistant professor at Georgetown University where he teaches in the School of Foreign Service and serves on the advisory board of the graduate program in Emergency and Disaster Management. Previously, Dr. Kaniewski was Assistant Vice President for Homeland Security and Deputy Director of the Homeland Security Policy Institute at George Washington University. He also spent three years on the White House staff as Special Assistant to the President for Homeland Security and Senior Director for Response Policy.

Rebecca L. Katz: Dr. Rebecca Katz is an Associate Professor at the George Washington University School of Public Health and Health Services in the Department of Health Policy. Her research is focused on public health preparedness, the intersection of infectious diseases and national security, and health diplomacy. Since 2007, the primary focus of her research has been domestic and global implementation of the International Health Regulations. She previously worked on Biological Warfare counter proliferation at the Defense Intelligence Agency, was an Intelligence Research Fellow at the Center for Strategic Intelligence Research in the Joint Military Intelligence College, and spent several years as a public health consultant for the Lewin Group. Since 2004, Dr. Katz has been a consultant to the Department of State, working on issues related to the Biological Weapons Convention, Avian and Pandemic Influenza, and disease surveillance. She is the co-editor of the Encyclopedia of Bioterrorism Defense, 2nd edition, and author of a textbook on Public Health Preparedness.

Appendix E: List of References

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3. District of Columbia Recovery Plan, September 2014.
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9. Interview with Chris Geldart (Director of HSEMA) and Nicole Chapple (Assistant Director for External Affairs and Policy at HSEMA), DC Homeland Security and Emergency Management Agency (January 29, 2015).
10. Interview with Dr. LaQuandra Nesbitt (Director of DC Department of Health), Dr. Brian Amy (former Senior Deputy Director of Health Emergency Preparedness and Response Administration), Dr. Fern Johnson-Clarke (Senior Deputy Director for the Center for Policy, Planning, and Evaluation), Dr. John Davies-Cole (State Epidemiologist), Keith Li (Center for Policy, Planning, and Evaluation), Patrice Dickerson (Government Affairs Liaison at DC Department of Health), and Mahlori Isaacs (Media and Public Health Advisor at DC Department of Health) (March 20, 2015).
11. Interview with Craig DeAtley (Administrator of the DC Emergency Healthcare Coalition), James Ott (Hospital Emergency Manager, Office of Emergency Management, MedStar Georgetown University Hospital), and James H. Thomas (Director of Respiratory Care & Emergency Management, Sibley Memorial Hospital Patient Care Services) (May 20, 2015).

12. Interview with Dr. LaQuandra Nesbitt (Director of DC Department of Health), Torrance Hubbard (Senior Deputy Director of Health Emergency Preparedness and Response Administration), and Dr. Jacqueline A. Watson, (Chief of Staff at DC Department of Health) (August 5, 2015).
13. Interview with Bruno Petinaux (DC Emergency Healthcare Coalition) and Veronica Sharpe (Executive Director of the DC Health Care Association) (September 22, 2015).