



Disease Surveillance Support Annex

Regional Coordinating Organizations

Metropolitan Washington Council of Governments
Metropolitan Washington Public Health Assessment Center

Local Coordinating Jurisdictions

Alexandria
Arlington County
Bowie
College Park
District of Columbia
Fairfax
Fairfax County
Falls Church
Frederick County
Gaithersburg
Greenbelt
Loudoun County
Rockville
Montgomery County
Prince George's County
Prince William County
Takoma Park

DRAFT

District of Columbia Health Organizations

District of Columbia Department of Health
DC Office of the Chief Medical Examiner
DC Department of Health and Human Services
DC Public Schools
DC Employee Health Services
DC Fire & Emergency Medical Services

Maryland State and Local Health Organizations

Maryland Department of Health and Mental Hygiene
Maryland Institute of Emergency Medical Services Systems
Maryland Office of the Chief Medical Examiner
Montgomery County Hospital Groups
Prince George's County Hospital Groups
Montgomery County Department of Health and Human Services
Prince George's County Health Department

Frederick County Health Department
County Public Schools
County and State Employee Health Services
County Emergency Medical Services

Virginia State and Local Health Organizations

Virginia Department of Health
Virginia Office of the Chief Medical Examiner
Arlington County Health Department
City of Alexandria Health Department
Fairfax County Health Department
Loudoun County Health Department
Prince William County Health District
County Public Schools
County and State Employee Health Services
County Emergency Medical Services

Federal Government Organizations

Office of Public Health Emergency Preparedness
Centers for Disease Control and Prevention (CDC)
Department of Defense
Global Emerging Disease Surveillance System (GEIS)
Veterans Health Administration

Private-sector Health Organizations

DC Hospitals
Maryland Hospitals
Virginia Hospitals
Health Maintenance Organizations
Sentinel Private Physician Practices
Sentinel Pharmacies
Sentinel Veterinary Clinics

I. Introduction

A. Purpose

The Disease Surveillance Annex facilitates the ability for each jurisdiction to communicate with the other jurisdictions across state lines concerning the presence of abnormal disease indicators. This will enable early identification of disease outbreaks, whether naturally occurring or resulting from bioterrorism. Rapid identification, treatment, and isolation are required to contain an otherwise exponentially growing infectious disease outbreak. To control such epidemics, public health practitioners have placed a premium on surveillance systems that can generate timely data.

B. Scope

1. The Disease Surveillance Annex focuses on the need for establishing a centralized, inter-jurisdictionally-coordinated, regional electronic disease surveillance system that involves the ongoing, systematic and timely collection, analysis, and interpretation of infectious disease-related data.
2. Although a variety of disease surveillance systems exist for some specific diseases in the metropolitan Washington region, there is currently no electronic system for regional coordination of disease identification and response or for coordinating information dissemination or recommendations.
3. An evaluation of the requirements for an optimal regional electronic disease surveillance system are provided in sections VI, D and VII of this Annex, including an analysis of the legal issues that enable or restrict data sharing across state lines with regard to patient confidentiality; information technology, such as the Centers for Disease Control and Prevention's (CDC's) National Electronic Disease Surveillance System (NEDSS), currently under development, to improve communication and coordination throughout the region; and, the potential for syndromic surveillance.

II. Policies

- A. The Disease Surveillance Annex will not usurp or override the policies of any federal agency, state government, or local government or jurisdiction.
- B. The Metropolitan Washington Council of Governments (COG) will facilitate coordination among member organizations to ensure the Disease Surveillance Annex procedures are maintained and in concert with the stated

missions and objectives of the Regional Emergency Coordination Plan (RECP).

- C. Essential elements of information (EEIs) will be shared through the Regional Incident Communication and Coordination System (RICCS) as required by the incident.
- D. The COG Health Officials Committee will provide a liaison to R-ESF #5 as necessary.

III. Situation

A. Regional Emergency Condition

1. When a public health surveillance program identifies an aberrancy (an excursion statistically above the expected value), and when an investigation by local health departments in concert with their respective state health departments confirms a community health problem, active surveillance is initiated.
2. Early recognition of the presence of emerging disease by the jurisdictions through their bio-surveillance systems allows preventive actions to be undertaken, thereby reducing the impact on the region.
3. Electronic transfer of appropriate information from clinical information systems in the health care industry to public health departments will facilitate the timeliness and quality of information provided.
4. Surveillance can help:
 - a. Identify the site and nature of an attack, and the perpetrator(s);
 - b. Separate hoaxes and natural occurrences from actual attacks;
 - c. Alleviate suffering and reduce health consequences by enabling a rapid intervention; and
 - d. Minimize the spread of an infectious agent to populations not initially exposed.

B. Planning Assumptions

1. Disease surveillance systems collect and monitor data for infectious disease trends and/or outbreaks so that public health personnel can protect the nation's health.
2. A surveillance system supports disease prevention and control in a bioterrorism attack when it produces information that identifies cases

- quickly after an attack; locates contacts of cases who are still asymptomatic; identifies high-risk populations; and, pinpoints the source, nature, and location of the attack.
3. Currently, a variety of different systems exist both across the region and the nation.
 4. Due to the proximity of the jurisdictions and the well-developed transportation routes between them, it is not uncommon for individuals to live in one jurisdiction, work in another one, and receive healthcare in yet another.
 5. Current local systems do not allow for automatic centralization of “real-time” data.
 6. The legal authority and responsibility for disease surveillance reside with the three state health departments, with the District of Columbia Department of Health functioning as both a state and local health department. The primary responsibility for carrying out disease surveillance is assigned to the local health departments in each jurisdiction.
 7. Each state has a list of reportable diseases and conditions.
 8. In each of the COG jurisdictions, providers are required to file reports within a specific time period when a reportable disease is confirmed or, in the case of specific high-priority diseases, suspected.
 9. Providers may be physicians in the hospitals and/or in private practice, health centers, health maintenance organizations, hospital emergency departments or infection control personnel, laboratory personnel, school nurses, et al.
 10. The local health department then initiates an investigation and epidemiologic follow-up, and will report its findings to the State health department.
 11. The State health department can at any time consult with the CDC and, once the case is confirmed, will report its findings to them.
 12. Syndromic surveillance—statistical analyses of counts of individuals in emergency rooms or other health care settings with pre-identified sets of symptoms, rather than confirmed diagnoses—can be utilized for early detection of large attacks and quick intervention. Many public and private organizations in the metropolitan Washington region are developing syndromic surveillance systems.

13. Communication needs to improve between public health departments and private providers regarding clinical feedback on reports submitted and on reporting requirements in general.
14. COG has completed a study to evaluate the requirements for the development of an optimal Metropolitan Washington Regional Disease Surveillance System.
15. A highly functioning reportable disease surveillance system will quickly detect most large-scale outbreaks and effectively support emergency response to both covert and overt attacks.
16. Public health surveillance activities are embedded in a legal framework that empowers government action to protect the public's health, while balancing authority against competing social interests, such as privacy protection.
17. State rather than federal privacy laws and regulations are most likely to present barriers to sharing of information for surveillance purposes.

IV. Concept of Coordination

A. General

1. Upon the threat and/or occurrence of a regional emergency incident that includes health-related issues, the disease surveillance mechanisms will be activated and/or "stepped up" and applicable regional personnel may be called.
2. All local health jurisdictions will coordinate and execute their respective authorities and program responsibilities during a regional emergency.
3. The Disease Surveillance function will establish a capability to collect, analyze, synthesize, and disseminate information concerning regional disease issues in conjunction with R-ESF #8, R-ESF #5 and the RICCS.
4. Requests for information through RICCS regarding emergency regional disease issues will be referred to the Health Officials Committee, which is the liaison to RICCS for the coordination of health and disease-related problems throughout the region.

B. Organization

Disease Surveillance in the National Capital Region operates under the auspices of the COG Health Officials Committee. A Regional Surveillance Coordination Center can play an important role in the coordination of surveillance data. It will need to work under the delegated authority of the three state health departments and in conjunction with the COG Health Officials Committee.

COG Health Officials Committee:

District of Columbia Department of Health
Maryland Department of Health and Mental Hygiene
Virginia Department of Health
Arlington County Health Department
City of Alexandria Health Department
Fairfax County Health Department
Frederick County Health Department
Loudoun County Health Department
Montgomery County Department of Health and Human Services
Prince George's County Health Department
Prince William County Health District

C. Notification

1. Currently, there are no electronic linkage systems between local hospitals and physicians practicing in the community, even when outpatient practices and hospitals are affiliated with a single investor.
2. Private providers often overlook the role of public health when encountering unusual cases of infectious disease, often relying on informal consultations among other providers, and may not report cases or suspect cases to their local health departments. These problems have been attributed to a lack of feedback from health departments to providers on cases as well as a lack of understanding among physicians of the requirement to report certain diseases and their public health responsibilities in general.

3. RICCS can be used to provide a more streamlined communication system between federal, state, and local health departments and between private providers. This will help to overcome the gaps in coordination between public health authorities and, in the event of an outbreak, the delays in clinical action.

Upon notification by any jurisdiction of a potential or actual regional emergency, RICCS will provide a communication platform to support the coordinated response of the participating agencies. RICCS provides for the multi-directional flow of communications. Communications will be made in cooperation with R-ESF #2—Communications Infrastructure.

RICCS notification is for informational purposes only. RICCS is designed to facilitate the ability of all pieces of the medical community to communicate with one another and with the public in an emergent situation.

RICCS is not intended to usurp everyday channels of communication but rather to facilitate the coordination of communication when the system must be expanded to deal with an unusual situation.

RICCS can be used to provide a more streamlined communication system between federal, state, and local health departments and between private providers. This will overcome the lack of coordination between public health authorities and, in the event of an outbreak, the delays in clinical action.

Ideally, RICCS may be able to facilitate the incorporation of physician outpatient private practices into the public health surveillance network.

D. Coordination

1. Initial Actions

Continuous active monitoring of the population of the metropolitan Washington area for unusual patterns of events is in effect.

Current reporting methods are:

- **District of Columbia**—The D.C. Department of Health functions as both a local and state health department.

- **Virginia**—Local health departments send completed forms to state health departments. In Northern Virginia, local health departments send all forms to the regional epidemiologist for Northern Virginia who reviews and then forwards them to the State.
- **Maryland**—County health departments report the details of cases electronically to the state health department in Baltimore using the Maryland Electronic Reporting and Surveillance System (MERSS).
- States use reportable disease data to determine whether there are disease outbreaks affecting multiple jurisdictions within their states or with the potential to cross state lines. *At this time, detection of clusters of outbreaks is based on informal means.*

Syndromic surveillance currently in operation in the National Capital Region gathers data for the following categories:

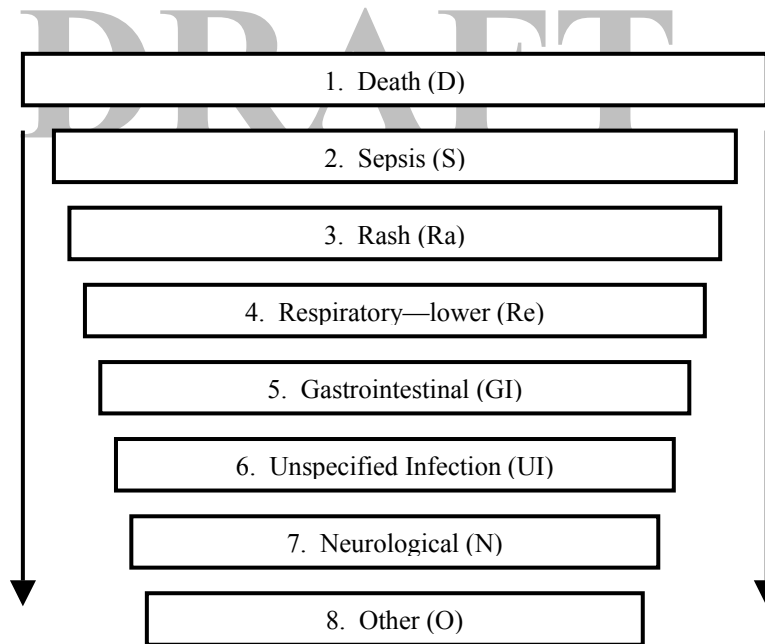


Fig 1. Modified Syndromic Surveillance
Priority Categorization (Courtesy of Arlington County)

When a patient is seen and diagnosed by a physician or hospital in a jurisdiction other than the one in which they live, the provider is supposed to report to the health department in the jurisdiction in which the provider is located. That department, in turn, is supposed to contact the health department in the jurisdiction in which the patient resides, which then takes over any necessary follow-up or intervention.

These formal reporting mechanisms are not the only ways that information about reportable disease is exchanged within and across jurisdictions. Many informal communication mechanisms exist between local health departments across the region, such as making phone calls to share information about potential regional outbreaks.

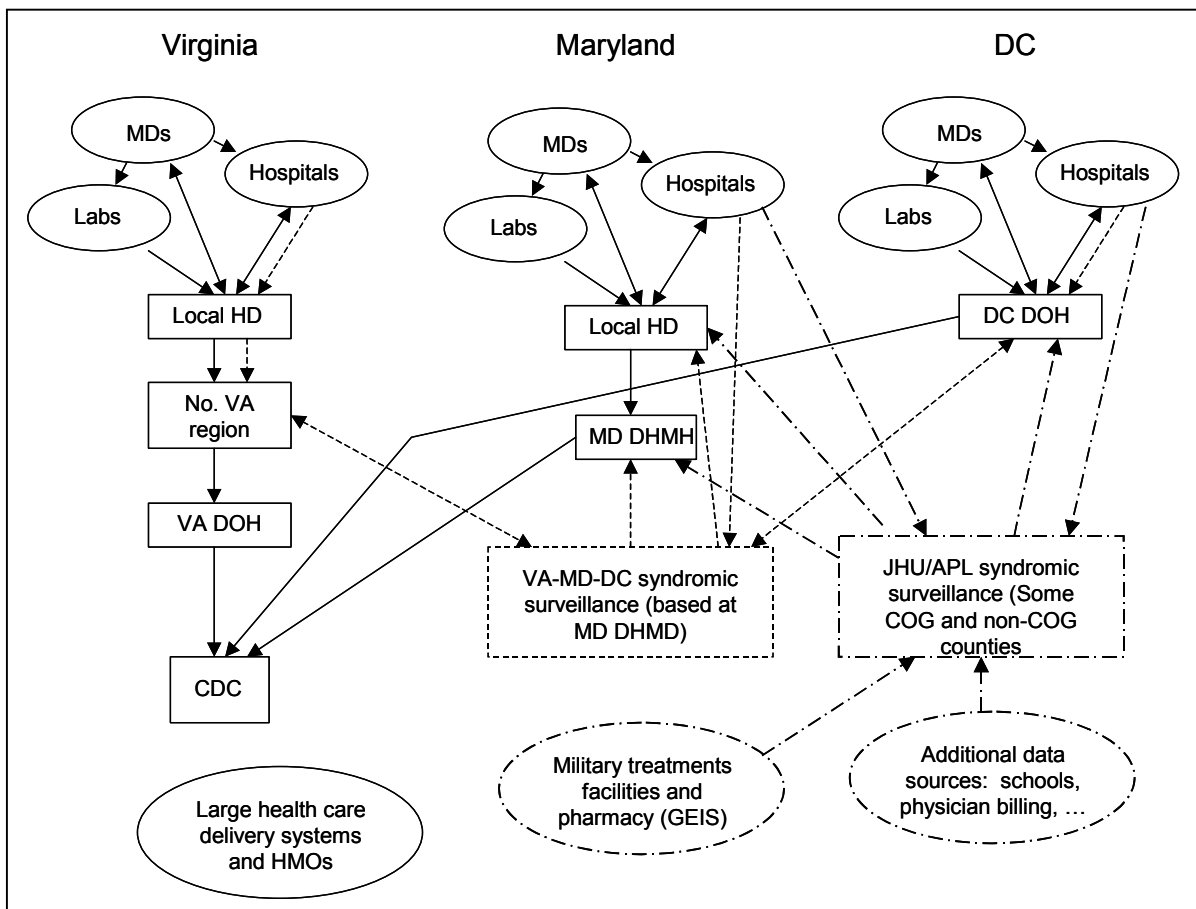


Fig 2. Current flow of surveillance information in the Washington metropolitan area (Courtesy of RAND Report)

Surveillance and related activities are essential at each of the four risk levels in the current plan.

- At Risk Level 4, no active threat, surveillance and planning are the primary activities.
- At Risk Level 3, suspicious event encountered, surveillance should be stepped up from passive to active.
- At Risk Level 2, unexplained event (possibly bio-event), epidemiologic investigation begins. Appropriate and up to date surveillance data is essential to doing such investigations efficiently.
- At Risk Level 1, a confirmed bio-event, epidemiological investigation continues, and surveillance data guides medical interventions and event management, the primary activities at that stage.

Communication with the public is critical, and regional surveillance provides the accurate information that is needed to make such communication credible.

RICCS will be used to facilitate information sharing about unusual cases among an existing network of health officials, epidemiologists and infectious disease specialists.

2. Continuing Actions

COG's current response plan for a bioterrorist event calls for a regionally coordinated effort, with continuous surveillance to detect abnormalities in disease patterns and epidemiologic investigation with allied health partners, to ascertain the nature and extent of the event.

Once epidemiologists have established working case definitions, information will be provided to physicians to enhance their ability to detect suspicious cases of illness.

Once the emergency response is launched, a shift will occur and the information collection will focus on monitoring the parameters of the epidemic and measuring the impact of disease control and prevention efforts.

Surveillance systems will be needed during the response phase to allow health authorities to monitor the impact of the attack and evaluate the effectiveness of public health responses.

RICCS can facilitate the two-way communication with physicians to further improve health outcomes.

Public health preparedness and response refers to the specific accountabilities of health departments before and after an emergency event. (See chart below.)

When a bioevent occurs, the health departments shift from preparedness to response mode.

Public health officials will coordinate the medical response needed to contain the spread of the pathogen.

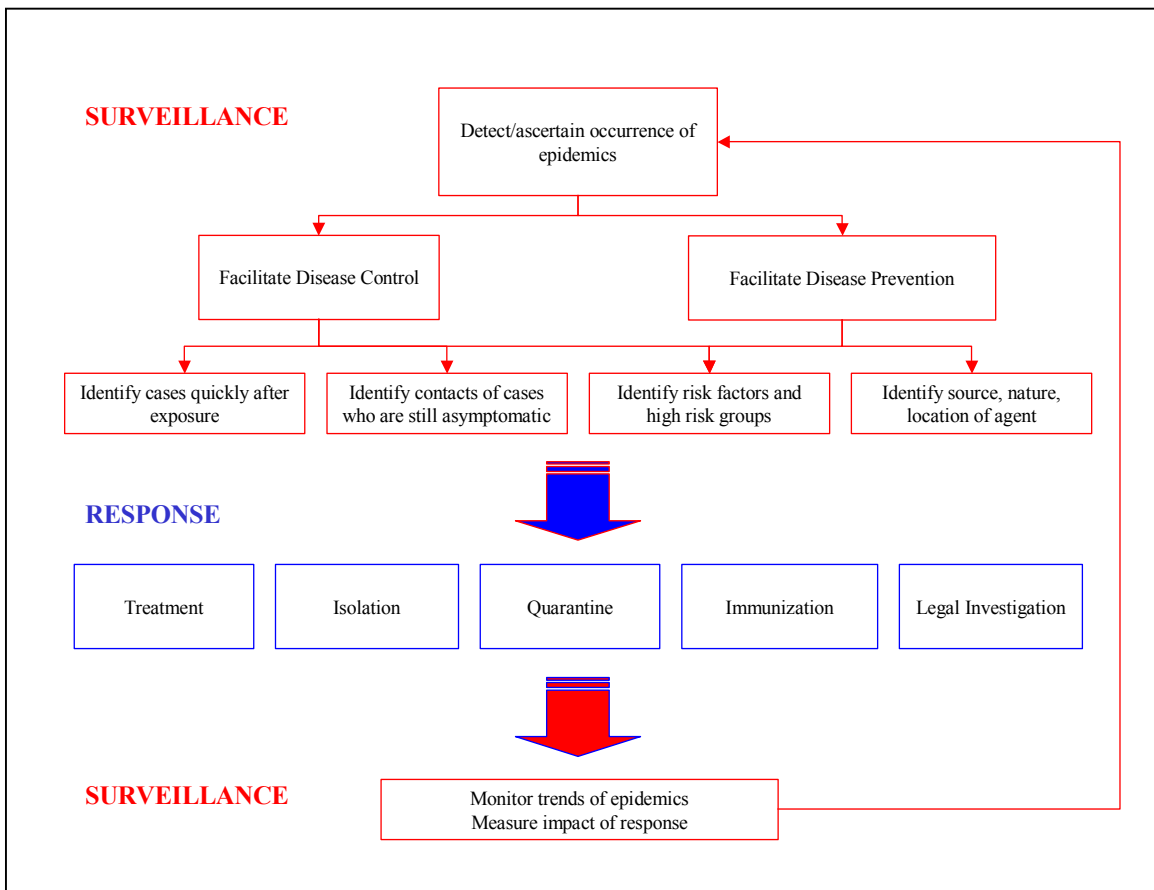


Fig. 3 How surveillance contributes to enhanced response (Courtesy of RAND Report)

3. Stand Down

At the point where the regional emergency is no longer affecting more than one jurisdiction, and does not require inter-jurisdictional communication and coordination, notification will be made through RICCS and a stand-down debriefing conference call will take place.

As there may be many long-term secondary effects that require regional attention, regional communication may be needed on an ongoing basis for some incidents. Passive surveillance will continue.

4. After-action Critique

Within four weeks of stand-down of the regional health emergency, information for an after-action critique will be gathered by the participating organizations, and the Health Officials' Committee will convene a meeting of interested persons to share lessons learned.

V. Responsibilities**A. Participating and Supporting Agencies**

All healthcare entities in the region, both public and private will contribute information to RICCS as required by the incident and RECP policy.

B. Essential Elements of Information

1. One of the primary purposes of the RECP is to facilitate the exchange of information among the signatory agencies during emergency situations. R-ESF #5—Information and Planning is responsible for the exchange, analysis, reporting and dissemination of regional information. R-ESF #5 contains detailed information about the process of information exchange and describes regional EEIs, which have been determined as the minimum essential information categories to satisfy coordination needs among the R-ESFs and with RICCS.
2. In addition to regional EEIs covered in R-ESF #5, additional EEIs apply for this Annex and may include, but not be limited to:

- Status of communications system;
- Message being sent to the public;
- Identify need for any key piece of equipment or personnel;
- Status of mutual aid support;
- Ability of local hospitals to handle case load;
- Pharmacy sales of prescription and non-prescription medications;
- Clinical information from private physicians offices, hospital emergency departments, public clinics, etc.;
- Laboratory and poison center data;

Notifiable disease reports;
Insurance claims data;
Absenteeism in schools and workplaces;
Case definitions;
Communicability of organism;
Clinical practice modalities;
Location of contacts of cases who are still asymptomatic;
Identification of high-risk populations; and
Source, nature, and location of the attack.

This is information that both public health and healthcare providers need to effectively provide for the treatment, isolation, quarantine, and immunization of individuals in the population. Law enforcement agencies may also find public health surveillance data useful in their separate efforts to apprehend the perpetrator(s) of the attack.

VI. Preparedness Cycle

A. Planning

Planning includes a comprehensive review of existing capabilities and an analysis of strengths and gaps;

Roles and responsibilities during an incident are defined and communications interfaces developed so that all sectors of the healthcare community can receive the identical information without compromising patient confidentiality;

This enables effective decision-making and communication thereof to both healthcare providers and the public; and

Agent fact sheets with appropriate instructions are developed in advance (and in collaboration with the recommendations of the Protective Actions Annex) and made available for dissemination to providers and the community in the event of an incident.

The Health Officials Committee and COG are responsible for maintaining the Disease Surveillance preparedness cycle.

B. Training

Train physicians and school health nurses to identify patterns, numbers, and locations of suspicious symptoms; astute clinicians treating individual cases may then be able to detect a possible outbreak;

Train all parties to understand and use their jurisdictions' correct channels of communication to report unusual or sentinel symptoms to the public health departments;

Train all parties to understand and follow the procedures for surveillance and reporting in the four risk levels described in R-ESF #8—Health, Mental Health, and Medical Services;

Provide user training for any electronic or online surveillance system (public and private) developed for syndromic and notifiable disease reporting;

Ongoing training presented by different organizations is codified and published so that all members of the healthcare community can attend the appropriate classes; and

These training classes will include those provided by the different institutions and academic entities in the National Capital Region as well as State and Federal and distance-learning opportunities.

C. Exercises

Exercises, both local and regional, are conducted on a regular basis and the participation of COG and the different jurisdictions is solicited to create a coordinated regional response structure;

These will be tabletop, functional, and/or field exercises that will exercise all elements of the healthcare community in conjunction with their counterparts in other emergency response agencies to identify and report suspicious symptoms, based on the four risk levels described in R-ESF #8; and

Multi-disciplinary, multi-agency cooperation is a key component of an effective response mechanism.

D. Evaluation

After-action reports will be developed for both real and notional events.

E. Corrective Action

Lessons learned from exercises and real world experiences will be captured and entered into a database where they are available on request by the member jurisdictions.

VII. Analysis of Legal Issues and Recommended Action

An analysis of the legal issues that enable or restrict data sharing across state lines with regard to patient confidentiality highlight the following:

A. Privacy protection is a matter of both state and federal law;

B. At the federal level, regulations promulgated under the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”) serve to protect the confidentiality of health information throughout the United States:

Federal law in the form of the privacy regulations under HIPAA is unlikely to impose a major incremental burden on state public health activities;

This is because the HIPAA privacy regime specifically exempts public health surveillance from federal confidentiality standards.

- C. *State, rather than federal, privacy laws and regulations are most likely to present barriers to sharing of information for surveillance purposes.*
- D. Maryland, Virginia, and the District of Columbia have enacted different laws and regulations for protecting health information privacy;
- E. State law provisions are designed to protect identifiable health information and to preserve individual anonymity;
- F. The disclosure of health information that is *non*-identifiable does not present a threat to privacy, and thereby circumvents the focus of legal privacy restrictions:

To the extent that some aspects of a public health surveillance system can be structured to make use of non-identifiable data, this might offer a threshold strategy for minimizing the regulatory barriers imposed by privacy laws.

- G. State public health statutes in each of Maryland, Virginia, and the District of Columbia impose additional confidentiality requirements on state officials:

However, the statutes, which differ from state to state, draw heavily on the judgment of public health administration officials at the highest levels to balance privacy against the need for disclosure.

- H. Current state statutes create barriers to disclosure of confidential information across state lines. Two possible steps to reduce the legal barriers associated with sharing public health data across state lines could include the following:

To consult among the highest-level state public health authorities in Maryland, Virginia, and the District of Columbia, to seek consensus regarding state-level confidentiality restrictions; and

To publish a state regulatory guidance describing in greater detail how public health officials actually implement the balancing that is mandated by statute.