

INCIDENT SPECIFIC

BIOLOGICAL/BIOTERRORISM

Lead Agency

Biological: Town Health Officer; Maine CDC; Fire Departments; Police Department

Bio-Terrorism: Federal Bureau of Investigation (FBI)

Purpose

The purpose of the Biological Incident Specific Annex is to outline the actions, roles, and responsibilities associated with response to a human disease outbreak of known or unknown origin. In this document, a biological incident includes naturally occurring biological diseases (communicable and noncommunicable) in humans as well as terrorist events. This definition also includes those biological agents found in the environment, or diagnosed in animals, that have the potential for transmission to humans (zoonosis). **Incidents that are restricted to animal, plant, or food health or safety are reviewed in other annexes.**

Actions described in this annex take place with or without a Presidential Stafford Act declaration or a public health emergency declaration by the Federal or Maine CDC. This annex outlines biological incident response actions including threat assessment notification procedures, laboratory testing, joint investigative/response procedures, and activities related to recovery.

Scope

The objectives of the Town of York response to a biological or bio-terrorism event, or to a naturally occurring disease outbreak with a known or novel pathogen are to:

1. Detect the event through human and animal disease surveillance and vector and environmental health monitoring systems.
2. Identify and protect the people at risk, including responders.
3. Identify the cause and prevent the recurrence of any potential resurgence, additional outbreaks, or further spread of disease.
4. Determine the source of the disease.
5. Assess the public health, law enforcement, local and county implications.
6. Control and contain any possible epidemic with proper assistance.

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7. Augment public health and medical services and provide surge capacity.
8. Assess the extent of residual biological contamination and conduct response and recovery actions, as necessary with proper assistance.

The unique attributes of this response require separate planning considerations that are tailored to the specific characteristics of the disease agent and situation, such as terrorism versus natural outbreaks, or outbreaks due to communicable versus non-communicable agents. The primary difference between the response to a naturally occurring disease outbreak and to a bioterrorism event is the involvement of law enforcement in the investigation of the source and the determination of the perpetrators. Standard operational guidelines and procedures to address the unique aspects of a particular biological agent or planning consideration will supplement this Annex, and are intended as guidance to assist local, county, and state public health and medical planners and responders.

Situation

The confirmation of a single case of an otherwise unexplainable biological disease anywhere in the world will constitute evidence of a bioterrorism attack. The risk of a biological disease outbreak is unknown, but real. A small number of countries are known to retain biological agents. Although kept under guard, terrorists could steal or purchase a supply.

Due to lack of vaccination against biological diseases, there is a great risk of catastrophic damage to societies and economies throughout the world.

Assumptions

This Annex may be implemented for naturally occurring events, or industrial accidents or human-caused acts of terrorism.

1. All Biological Incidents
 - a) Public health functions will be activated during a biological event.
2. Non-Terrorist Biological Incidents
 - a) Disease transmission can occur via direct contact with contaminated environment, infected people, animals or arthropods, ingestion of contaminated food or liquids, and natural or artificial infectious aerosols or droplets.
 - b) In a large disease outbreak, local, state and federal public health officials must be able to implement a highly coordinated public health and medical response, potentially in multiple places simultaneously, requiring simultaneous management of multiple "incident sites".

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- c) No single entity possesses the authority, expertise, and resources to act unilaterally on the many complex issues that may arise in response to a disease outbreak and loss of containment affecting multiple areas.
- d) Experience from multi-jurisdictional outbreak response (e.g. for foodborne outbreaks) may be helpful but must be implemented with flexibility.
- e) The introduction of biological agents is often detected through reporting of suspected or diagnosed cases by doctors, hospitals and infection preventionists.
- f) Most of the same methods that are used for outbreak detection are also useful for situational awareness once an outbreak has been detected; for example, to determine the geographic extent of the outbreak and whether it is increasing or decreasing in size.
- g) Confirmation of outbreaks will be determined by the Maine CDC.
- h) Response to disease outbreaks suspected of being deliberate in origin requires consideration of special law enforcement and Department of Homeland Security (DHS) requirements.

3. Terrorist Incident

- a) The LRN (Laboratory Response Network), a component of the National CDC, provides law enforcement with the necessary notification to initiate a threat assessment for criminal intent and chain of custody procedures. Early coordination enhances the likelihood of successful preventative and investigative activities necessary to neutralize threats and locate the source of the outbreak.
- b) The response to an actual or threatened incident, will involve law enforcement and investigative activities as an integrated element.
- c) Response to disease outbreaks suspected of being deliberate in origin requires consideration of special law enforcement and DHS requirements.
- d) In the case of a threat, there may not be an incident site, external consequences, or a need to establish traditional Incident Command System (ICS) elements.
- e) In the case of a biological attack, there may be no defined incident site. However, response operations may be conducted over multijurisdictional or multi-state regions in a unified command structure.
- f) An act of terrorism, particularly an act directed against a large population center within the U.S., will have major consequences that can quickly exceed current capabilities and capacities.

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- g) Small-scale attacks of limited lethality can elicit a disproportionate amount of terror and real or perceived psychological and social disruption, as evidenced by the 2001 anthrax letter attacks.
- h) An actual or threatened terrorist incident may occur at any time with little or no warning, may involve single or multiple geographic areas, and may result in mass casualties.
- i) Terrorists are more likely to be able to obtain and use biological pathogens than nuclear weapons. Some biological pathogens may be poorly secured and at risk of theft by those who would put these materials to harmful use or would sell them on the black market to potential terrorists.
- j) Developing a biological weapon that can inflict mass casualties is technologically and operationally complex and not likely to occur unless the weapon is from a controlled or classified source.
- k) The suspected or actual involvement of terrorists adds a complicated dimension to incident management, communication and public information.
- l) A biological attack involving a contagious agent may require quarantine activities to contain the disease outbreak.
- m) If appropriate standard operating guidelines (SOGs), personal protective equipment (PPE) and capabilities are not available to ensure responder safety and an area is contaminated, it is possible that response actions may be delayed until the contamination has dissipated to a safe level.

Concept of Operations

Assessment of Threat

1. Recognition of an outbreak can occur in multiple ways. Outbreaks are very common and range from the occasional waterborne outbreaks to foodborne outbreaks, including person-to-person neurovirus gastroenteritis outbreaks each year. Public health agencies assess an outbreak's potential for becoming a serious epidemic requiring an emergency response.
2. Surveillance systems must be sensitive to detect outbreaks from clusters of disease or localized increases in laboratory confirmed reportable diseases.
3. Detection may result from increased or altered behavior or healthcare service utilization in syndromic surveillance systems, and unsolicited outbreak reports from multiple sources.

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4. Routine public health surveillance provides continuous monitoring for cases and outbreaks of human illness from any cause, including food and waterborne illness. Initial indication of a food and or waterborne emergency, unintentional or deliberate, will most likely be detected using routine public health surveillance systems.
5. The existing surveillance system uses specific triggers and human pattern recognition to identify potential outbreaks. Factors that may indicate, singly or taken together, that an outbreak is out of the ordinary include:
 - a) Unusually large numbers of cases at the time of assessment.
 - b) Unusually severe cases with many hospitalizations and deaths.
 - c) Wide atypical geographic spread.
 - d) Unexplained mode of spread.
 - e) Widely distributed mode of spread (e.g. food item in wide commercial distribution).
 - f) Atypical temporal or unseasonal clusters of a disease (e.g. illness resembling mosquito-borne encephalitis in winter).
 - g) Short incubation period and/or high secondary attack rates, indicating potential for a rapid increase in the number of cases.
6. Lead epidemiologists in the Maine CDC are responsible in their respective domains for:
 - a) Assessing all outbreaks that come to their attention.
 - b) Seeking consultation and assistance, as necessary, to characterize an outbreak.
 - c) Notifying appropriate officials of suspicious outbreaks with epidemic potential.
7. The sample collection and the analyses must be sufficient to characterize the causative agent of the outbreak. LRN Public Health Reference Laboratories and Food Emergency Response Network (FERN) laboratories fulfill the federal responsibility for rapid analysis of biological agents. In a suspected terrorism incident, sample collection activities and testing are coordinated with the Federal Bureau of Investigation (FBI) and LRN members.
8. Since there is no definitive/reliable field test for biological agents of concern, all potential bioterrorism samples are transported to an LRN Public Health Reference Laboratory via courier, where expert analysis will be conducted using established LRN approved protocols and reagents. A key component of this process is the establishment and maintenance of the law enforcement chain of custody and transport arrangements.

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9. Any potential biological agent, disease outbreak, or suspected bioterrorism act affecting or involving humans is to be brought to the immediate attention of the Maine CDC.
10. When a food or waterborne illness is suspected, it is critical that information be shared between jurisdictions early in the process to reduce exposure, prevent secondary cases, as well as to eliminate the source of the outbreak as quickly as possible. Maine CDC notification procedures for food and waterborne emergencies should be followed.
11. LRN Public Health Reference Laboratories will provide the results of their testing and analysis of suspect bioterrorism samples to the entity that submitted the sample and to all public officials with a need to know.
12. Instances of disease that raise the “index of suspicion” for terrorist or criminal involvement, as determined by the CDC are reported to the Maine State Police and the FBI. In these instances, the FBI Headquarters, in conjunction with DHHS and/or the U.S. Department of Agriculture (USDA), examines available law enforcement and intelligence information, as well as the technical characteristics and epidemiology of the disease, to determine if there is a possibility of criminal intent. If warranted, the FBI, DHHS, USDA and or Environmental Protection Agency (EPA), and respective state, tribal, county and local health officials will conduct a joint law enforcement and epidemiological investigation to determine the causative agent of the disease outbreak, the extent of the threat to public health and safety, and the individual(s) responsible.

Organization and Assignment of Responsibilities

The Maine CDC will be the lead agency for Biological or Bio-Terrorism, partnering with federal, state, county, and local agencies during the various stages of a biological incident in the preparation, planning, and/or response processes and will perform the roles described in this Annex.

Administration and Logistics

The Maine CDC is primarily responsible for detecting and responding to disease outbreaks and implementing measures to minimize the health consequences of outbreaks. The Governor is the principal state official for state incident management and will appoint a State Coordinating Officer (SCO). The SCO is responsible for coordinating state operations to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies, including biological incidents.

Asset/Resource List

See checklist that follows.