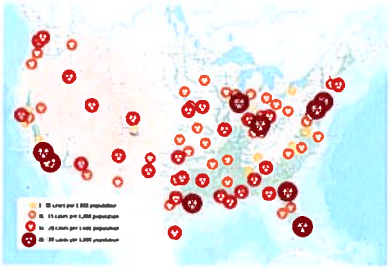
MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

Infectious Disease Emergency Response Plan

February 2020

Version 2.0



1. Introductory Material

1.1 Promulgation/Adoption

The Massachusetts Department of Public Health (MDPH) Infectious Disease Emergency Response Plan (IDER) is an Annex to the MDPH Emergency Operations Plan (EOP). It describes the roles and responsibilities of the MDPH in supporting response operations, and will be activated when an infectious disease, including a pandemic, affects the public health and safety of the Commonwealth.

State statutes and regulations establish the roles and responsibilities of the MDPH in response to a disaster or public health emergency. The IDER adheres to all applicable laws in order to maximize the efficiency of response operations. Relevant statutes and authorities are cited in the EOP, Authorities and References.

This Annex is consistent with guidance provided by the United States Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC), and Office of the Assistant Secretary for Preparedness and Response (ASPR).

1.2 Approval and Implementation

The IDER provides the MDPH's operational framework for supporting the public health and health care systems' ability to effectively prepare for and respond to infectious diseases that threaten the Commonwealth. This Plan will be revised and updated as described in the EOP, Plan Development and Maintenance.

This Plan may be implemented as a stand-alone plan or in coordination with the MDPH EOP.

Approved and adopted on this date Feb 24 2020 by:

MBharel

Monica Bharel, MD, MPH, Commissioner
Massachusetts Department of Public Health

1.3 Record of Changes

Change Number	Date of Revisions	Subject Area and Summary of Change	Name

1.4 Table of Contents

2. Purpose, Scope, Situation Overview, and Assumptions

2.1 Purpose

The Massachusetts Department of Public Health (MDPH) Infectious Disease Emergency Response (IDER) Plan defines the concept of operations for an infectious disease emergency response, outlines department roles and responsibilities, and describes procedures and the coordination among and across responding agencies to ensure an effective operation.

The IDER Plan establishes the framework for incident recognition and the activation and coordination of MDPH and partner agency actions in response to infectious disease incidents having public health implications. The plan also describes the activities to ensure coordination, effective communication, and ongoing planning.

2.2 Scope

The MDPH IDER Plan details roles and activities to coordinate and support state, tribal, regional, and local response to an infectious disease emergency that threatens public health in the Commonwealth.

The MDPH Bureau of Infectious Disease and Laboratory Sciences (BIDLS) collaborates with health and medical entities in the investigation of infectious diseases. Generally, local public health assumes the primary role in investigating most infectious diseases; however, under Massachusetts General Law, Chapter 111, Section 7, MDPH has "coordinate powers" with local health and may initiate any disease investigation as needed.

MDPH provides technical assistance and support to local public health agencies and healthcare providers when clusters of illness, potential bioterrorism agents, emerging infectious diseases, or other serious threats to public health are identified. The department may provide assistance in a consulting capacity or directly manage case investigation, implementation of control and prevention measures, and follow-up activities. If necessary, MDPH may request federal technical assistance from the Centers for Disease Control and Prevention (CDC).

2.3 Situation Overview

This plan may be activated for an outbreak of an existing reportable condition, emerging infectious disease, pandemic or suspected bioterrorism event that threatens the public's health. An infectious disease emergency will require timely and effective use of public health and medical resources, including facilities, personnel, equipment, mental and behavioral health services, and pharmaceutical and other supplies. The need for resources may exceed routine operations and overwhelm resources available at the local, tribal, regional, and state level.

2.4 Planning Assumptions

- An infectious disease emergency response may:

    - Involve single or multiple geographic areas
    - Involve a novel pathogen
    - Overwhelm the capacity and capabilities of local and tribal governments, Health and Medical Coordinating Coalitions (HMCCs), and/or state agencies
    - Require a flexible and scalable response
    - Require short-notice resource coordination and response
    - Require prolonged, sustained incident management operations and support activities
- Surveillance systems are in place at the state level to detect threats and send alerts and notifications
- MDPH will provide guidance and technical assistance to local public health and health care
- Designated mandatory reporters for infectious disease – local public health departments, laboratories, and health care providers – will communicate through established policies and procedures regarding possible and confirmed cases
- An infectious disease outbreak will require significant communication and information sharing across jurisdictions and between the public and private sectors
- Public health officials will be expected to communicate clear, consistent, and timely public information and risk messaging based upon the best available data and infection control principles known at that time; the expectation is that this information may change rapidly and will be updated accordingly
- A proactive, coordinated response is significantly more likely to lead to better outcomes than a delayed or reactive response
- Individuals with access and functional needs (including, but not limited to, people who are homeless, homebound, economically or transportation disadvantaged, hearing or visually impaired, or who have limited English proficiency) are often disproportionately affected by emergencies and may require additional assistance in an emergency
- Healthcare providers and emergency response and public safety personnel may be at heightened risk of exposure in the course of their work, depending upon the mode of disease transmission
- Responding agencies may also be impacted by the incident and have limited staffing
- If the infectious disease outbreak is widespread (regional, national or international), it may not be possible to obtain resources from other areas
- High attack rates or case fatality rates will likely place overwhelming demands on the public health and healthcare systems. These systems will implement their surge plans to best attempt to mitigate the impact on operations and the healthcare system

3.Concept of Operations

3.1 Initial Assessment of Threat Warning Information

The Division of Epidemiology and Laboratory staff leadership at the Massachusetts State Public Health Laboratory (MASPHL) closely monitors infectious disease activity as part of their normal operating procedures. As a result of constant engagement with other infectious disease experts and resources, BIDLS may receive information that suggests or indicates a potential or real public health threat. In such instances, the BIDLS Director may brief the Commissioner or designee of the potential need for activation of the MDPH EOP (and any associated Annexes, as needed) as well as to assess the need for an infectious disease response outside of the normal disease control capacity based on the following criteria:

Characteristics of the Disease Event May Include:

- Worldwide declaration of a Public Health Emergency of International Concern by the World Health Organization (WHO)
- Information received about a current infectious disease event with the potential to affect the Commonwealth from CDC's Health Alert Network
- Notification of unusual infectious disease activity with the potential for significant morbidity and/or mortality from physicians, public health partners, or state and local authorities
- High profile situation involving an infectious disease
- Possible or confirmed intentional release of a biological agent
- A large disease outbreak requiring more than routine resources
- Positive signal from an acknowledged environmental detector
- First or initial case(s) of an emerging infectious disease with the potential for significant illness or death in the population

Characteristics of the Disease Agent May Include:

- Ease of transmission (person to person, multiple transmission routes)
- Significant morbidity and/or mortality
- Disease is infectious before symptom onset (e.g. influenza)
- Minimal or no existing immunity in the population
- Minimal or no availability of appropriate personal protective equipment

3.2 Activation

Based on the characteristics of the disease agent and the disease event, and in consultation with the Directors of BIDLS and OPEM and the Executive Team, the Commissioner will activate this plan and the MDPH EOP. The purpose of activating the EOP is to assign roles and responsibilities, coordinate the flow of internal and external information, conduct situational awareness, develop response and recovery objectives and support response and recovery resource requests. Once the Commissioner approves the

activation of the EOP and IDER, he/she will then designate an Incident Manager (IM) to oversee the incident response actions of the Department. The IM has overall responsibility for managing the incident by establishing objectives, planning strategies, and implementing tactics. In addition, the IM will also designate other Command and General Staff positions to be activated to aid in managing the response. Command and General Staff positions will be filled based on the needs of the incident and will be staffed by personnel from within the Department, with knowledge and expertise to support the role. Lastly, upon recommendation of the OPEM Director, the Commissioner will also determine whether the Department Operation Center (DOC) will be activated, to which level and in which location. Once the DOC is activated and staff are in place, including a liaison from BIDLS, the Planning Section will work with the IM and Operation Section to develop the initial Incident Action Plan (IAP) that will help guide the department's initial response. The IAP will be updated for each operational period and the approved IAP will be presented to staff at the operational briefing at the beginning of each operational period.

3.3 MDPH Operations

Following a structured approach to infectious disease planning and response can provide greater detail and clarity with regards to the potential timing of key actions to mitigate the spread of disease. This plan is structured according to six infectious disease response intervals which include: Preparation, Investigation/Alerting, Recognition, Initiation, Acceleration, and Demobilization. These intervals describe the progression from routine surveillance through threat identification, response and recovery.

Not every infectious disease threat will progress sequentially to every IDER interval. For example, the Division of Epidemiology may investigate an infectious disease case and conclude that no further follow up action is needed. Alternatively, some responses to specific pathogens may skip preliminary levels/intervals as they may immediately require a more robust response, as may be the case with a suspected bioterror incident or a particularly virulent communicable disease. Should an infectious disease incident warrant the bypassing of initial intervals, responding agencies will still review and follow the key actions of skipped intervals to ensure a comprehensive response.

Key considerations and action items for each interval can be found below as well as in Section 6: Domains.

Preparation Interval

Interval Indicators: Routine activities including response to localized outbreaks of infectious disease known or likely to occur in the state. Preparing for future outbreaks that require infectious disease response, beyond routine activities.

The Preparation Interval provides a baseline for infectious disease response activities and largely consists of normal operating procedures.

- This interval includes ongoing IDER Plan review and maintenance, periodic exercising of the plan, and continuation of other related planning efforts, such as surge planning and continuity of operations planning

- Routine surveillance and case follow up are occurring
- MDPH participates in professional development training and offer educational opportunities for partners, as able

Concrete triggers that may signal a need to transition from the Preparation Interval to the Investigation/Alerting Interval include:

- The posting of an item on a professional association or federal agency listserv (i.e., ProMed, CDC, World Health Organization (WHO), etc.) that requires further action as determined by BIDLS leadership
- CDC or WHO mobilizing a response to an infectious disease in any country
- Any case or cluster that is assigned to an Epidemiologist-of-the-Day for investigation that requires more than a routine response

BIDLS senior leadership, the State Epidemiologist, Division Medical Directors, Division of Epidemiology , Office of Integrated Surveillance and Informatics Services (ISIS), and Laboratory staff, lead the transition to the Investigation/Alerting Interval. These subject matter experts receive information from their situational awareness sources and determine whether the situation merits closer attention.

Investigation/Alerting Interval

Interval Indicators: Identification of either a new infectious disease or a developing outbreak of a known or suspected infectious disease that may have relevant implications for human health in any location.

During the Investigation/Alerting Interval, BIDLS monitors the progression of the infectious disease and conducts analysis on the potential impact on affected populations; there is not an active response, but an active community, as information is sought and shared.

- BIDLS will gather information on the disease and share information internally and externally with select partners
- The Division of Epidemiology will assess the potential for the infectious disease to cause severe disease and/or a significant outbreak in humans. They will also assess the likelihood of the infectious disease affecting the residents of, or travelers to the Commonwealth
- Laboratory Sciences and Division of Epidemiology staff will monitor and update the case definition for the infectious disease as appropriate, incorporating any guidance from the CDC and WHO
- The Communications Office will recommend a strategy for public messaging

Concrete triggers that may signal a transition from the Investigation/Alerting Interval to the Recognition Interval may include:

- The Division of Epidemiology determines further action within or external to MDPH is necessary (i.e., issuing further communications)
- The Laboratory Sciences staff contacts the Division of Epidemiology, who then alerts OPEM, over concerns of a potential threat

- CDC declares a public health emergency, issues alerts, monitors travel advisories, and/or activates its Emergency Operations Center (EOC)

The Incident Manager, in consultation with the Executive Team, manages the transition from the Investigation/Alerting Interval.

Recognition Interval

Interval Indicators: Increasing number of human cases or clusters of an infectious disease with characteristics indicating potential for ongoing transmission or increased potential for development of human-to-human transmission in any location.

During the Recognition Interval, the Executive Team, Division of Epidemiology and Laboratory staffs have determined a threat exists, and work with MDPH colleagues and external partners to decide what is needed in terms of response.

- BIDLS staff will actively monitor the outbreak to continually assess the likelihood of the infectious disease affecting the residents of, or travelers to, the Commonwealth
- Division of Epidemiology and ISIS staff will determine whether additional data collection is appropriate and determine appropriate mechanisms
- There will be increased internal communication within MDPH, and external communication with governmental and response partners. The threat assessment, case definition, and other relevant information are regularly updated
- Laboratory staff will determine what may be needed or available to support relevant testing for disease
- MDPH will communicate with the public to support awareness of the infectious disease and all available personal, family and community non-pharmaceutical protective measures
- MDPH will begin to discuss essential services in preparation for a scaled-up infectious disease emergency response

Concrete triggers that may signal a transition from the Recognition Interval to the Initiation Interval include:

- Note in the Incident Action Plan that further action is needed

The decision may also be made based on actions or requests from the executive level, such as the Governor's Office, or federal agencies, such as the CDC or WHO, which are then discussed by the Commissioner's Office.

The Incident Manager will be responsible for the transition from one level to another.

Initiation Interval

Interval Indicators: Confirmation of human cases of an infectious disease with demonstrated ongoing transmission or evidence of increased human-to-human transmission. No, or few, cases or contacts in MA.

During the Initiation Interval, the response concentrates on identifying public health actions that may control the outbreak, focusing on the potential use of case-based control measures, including treatment and isolation of ill persons and voluntary quarantine of contacts, if relevant and/or appropriate.

- Surveillance activities will be enhanced. It also may be necessary to provide increased education and training regarding surveillance at this time, to provide healthcare practitioners with the appropriate context when looking for specific signs and symptoms of the disease
- There will be increased and scheduled internal communication within MDPH, and external communication with governmental and response partners regarding the infectious disease and all necessary and appropriate preparation and response measures
- The Communications Office will increase its communications with the public and continue to monitor for rumor control and correct misinformation
- MDPH may work with providers and vendors to coordinate the pre-positioning of equipment and supplies in anticipation of a surge in infectious disease cases

The transition from the Initiation Interval to the Acceleration Interval may be based primarily on the definition of the number of cases, and/or upon a continuing increase of number of cases or contacts with no stopping point.

The Incident Manager will be responsible for the transition from one level to another.

Acceleration Interval

Interval Indicators: Increasing numbers of infectious disease cases or contacts identified in MA, indicating established transmission in the area or continuing introduction of travel-associated cases or contacts.

During the Acceleration Interval, MDPH will support a potential surge in infectious disease cases, monitor hospital capacity and capability to treat infected patients, and provide assistance to local public health agencies standing up EDSs, when needed.

- This interval will include enhanced surveillance of the operational consequences of the infectious disease on the health system and in the community
- There will be consideration of initiation and/or expansion of appropriate community mitigation measures and social distancing, in addition to significant efforts to support the efficient management of public health resources (medical countermeasures and vaccines, if available)
- There will be a ramping up of healthcare surge activities and staffing in organizations that will be relied upon to respond to an infectious disease event, including possible implementation of triage systems to help direct cases to the most appropriate venue for care
- There will be maximal communication internally, with response partners, and with the public concerning disease prevention, control measures, and response actions, as appropriate

Concrete triggers that may signal a transition from the Acceleration Interval to the Demobilization Interval include:

- The Commissioner may declare that transmission is no longer ongoing (i.e., two incubation periods have passed)
- There may be additional information or new knowledge that changes the nature of the response

The Incident Manager, will be responsible for the transition from one level to another.

Demobilization Interval

Interval Indicators: Decreasing rate of newly acquired infectious disease cases or contacts in MA, or establishment of endemicity.

The Demobilization Interval discusses debriefing, the transition back to normal operating procedures, and/or integrating new response activities into baseline procedures.

- Public health and government officials will plan for the appropriate suspension of community mitigation measures or adaptation of measures into routine response
- Public health and government officials will work to facilitate the recovery of public health, healthcare, and community infrastructure
- Enhanced surveillance protocols will be drawn down but continued when necessary to a lesser extent to detect subsequent waves of illness
- Debriefing and after action reporting will occur at all levels
- A timely and effective behavioral health campaign may be a priority in order to assist the population process the impact of the infectious disease event

3.4 Information Sharing and Situational Awareness

Based on the nature of the infectious disease, MDPH may notify stakeholders both within and outside of the department of EOP and IDER activation in order to obtain their subject matter expertise and input into future key decisions based on the needs of the incident.

- The BIDLS Director is responsible for regularly updating the Commissioner during the Investigation/Alerting Interval. Upon activation of the EOP, the Incident Manager, is responsible for transitioning between Intervals based on extent of disease progression
- Incident Manager will schedule internal DPH coordination check-in calls which may cover:
    - Review and determine what information should be shared and with which audiences
    - Coordinate information sharing based on when information is being released by the federal government
    - Identifying who is tasked with preparing, reviewing, and distributing different information types (federal guidance, state guidance, internal/external messaging) along with the approval process
- Communications Office will designate a liaison overseeing the information flow and coordinating with the Incident Manager
- MDPH will develop Health and Medical Situation Reports and will distribute them via listservs and/or the HHAN

- Throughout the infectious disease event, the Incident Manager and Communications Office (and Public Information Officer (PIO) if one has been formally assigned) assess the need to notify additional stakeholders and coordinate any messaging, guidance or requests that are sent to external stakeholders

3.5 Demobilization

Upon assessment of response needs, the IM will work with Command and General Staff to determine which areas can move towards resuming normal operations and which areas will remain active in the response to ensure incident objectives are being met. The IM, in consultation with the Commissioner, will approve full deactivation of the response when the remaining demands of the incident can be met by normal MDPH operations.

The IM, in consultation with the Commissioner and other offices and bureaus that were engaged in the response, will schedule an incident debriefing meeting to occur as soon after the event as possible. For a complex, multi-bureau response, more than one debriefing session may be scheduled. All staff that participated in the response will be expected to participate in the debriefing. Following the debriefing, an After Action Report (AAR) will be completed as part of the Demobilization process, and an Improvement Plan (IP) developed. See Section 9: Plan Development and Maintenance for more information about AAR/IPs.

4. Organization and Assignment of Responsibilities

4.1 State Organizations

Massachusetts Department of Public Health (MDPH)

Commissioner of the Massachusetts Department of Public Health/designee: As the lead health official for the Commonwealth of Massachusetts, the Commissioner/designee is responsible for coordinating a response within the Department in an emergency and authorizes activation of the MDPH EOP. Additionally, the Commissioner/designee has the following responsibilities, following the activation of the EOP:

- Serve as liaison to the Executive Office of Health and Human Services
- Direct the opening of the DOC and request opening of the State Emergency Operations Center (SEOC), if necessary
- Serve as chief spokesperson for MDPH, unless otherwise delegated
- Approve overall MDPH response and recovery goals
- Issue directives to waive licensing or regulatory requirements, as needed and during a state of emergency or public health emergency, following approval of the Public Health Council

The Commissioner's Executive Team is responsible for strategic planning, policy, and leadership during an incident or event. In addition to the Commissioner, the team is comprised of the Associate Commissioner, Assistant Commissioners, Chief Operating Officer, Chief of Staff, General Council, Chief Financial Officer and Director of Diversity. For the purpose of response, the OPEM Director, Communications Director and Director of Government Affairs are consulted. The Commissioner's Executive Team may also consult with other relevant Bureau or Office directors, and may establish advisory groups of subject matter experts (SME) as needed.

Director of Communications/designee: The Director is responsible for ensuring that the communications office is the point of contact for media relations and advises the IM on information that will be shared with external partners.

Director of the Office of Preparedness and Emergency Management (OPEM)/designee: The Director is responsible for overseeing planning and emergency preparedness for the Department and may be delegated with authority by the Commissioner/designee to coordinate a response within the Department during an emergency and to activate the EOP and DOC. The Director oversees the OPEM 24/7 Duty Officer Team.

Director of the Bureau of Infectious Diseases and Laboratory Sciences/designee: The Director is responsible for overseeing the planning for and response to an infectious disease in Massachusetts. The

Director would advise the Commissioner of an event that may warrant the activation of this plan or a need to respond to other infectious disease outbreaks.

Deputy General Counsel/designee: The Deputy General Counsel is responsible for providing legal assistance and guidance during the course of the incident including but not limited to public health declarations and certifications.

MDPH Offices and Bureaus: Organizational units throughout MDPH have response and/or recovery responsibilities during an emergency. Hazard-specific plans developed by Bureaus and Offices can be found as an Annex to the EOP. Examples of Offices and Bureaus with primary emergency roles within this plan are included below.

Office of Preparedness and Emergency Management (OPEM)

In addition to the OPEM Director role listed above, OPEM has the following areas of responsibly:

- Provides situational awareness on health and medical issues to the public health and healthcare communities
- Assists in the development and release of public information related to the infectious disease emergency
- Staffs the DOC and Emergency Support Function (ESF)-8 Desk at the SEOC, when activated
- Coordinates health and medical resources during a public health emergency, as needed
- Works with the Massachusetts Emergency Management Agency (MEMA) and federal partners to request deployment of federal assets
- Coordinates and conducts post-incident debriefings of public health participants and drafts after action reports and improvement plans for MDPH in coordination with other Bureaus as appropriate

Bureau of Infectious Disease and Laboratory Sciences (BIDLS)

In addition to the BIDLS Director role listed above, BIDLS has the following areas of responsibly:

- BIDLS is responsible for tracking, responding to, and controlling infectious diseases as well as performing laboratory tests to identify suspicious substances, food-, insect-, environmental-, and other pathogens, lead, and treatable disorders in newborns
- BIDLS is also responsible for surveillance, case/outbreak investigation, laboratory testing, providing guidance to clinicians and the public, managing vaccine allocation/distribution (for VPDs) and advising on necessary responses
- BIDLS has on-call Epidemiologists available 24/7 who can answer questions regarding infectious disease emergencies. The 24/7 contact information is 617-983-6800

Bureau of Health Care Safety and Quality (BHCSQ)

- BHCSQ works with healthcare facilities and other health response agencies to determine their capacities to accommodate a surge in cases, and consider the most effective actions to assist in supporting the infectious disease response

Bureau of Community Health and Prevention (BCHAP)

Occupational Health Surveillance Division (OHSP)

- OHSP supports the occupational safety and health of workers in Massachusetts by providing technical assistance with regards to personal protective equipment (PPE) and other protective measures during an infectious disease emergency

School Health Services (SHS)

- Collaborates with the Immunization Division and the Division of Epidemiology to ensure infection control in schools; this includes ensuring that students are immunized according to the MDPH requirements, as well as responding to and mitigating infectious disease outbreaks in the schools
- Assists in developing and/or disseminating health promotion materials to public and nonpublic schools in the Commonwealth
- Consults on school health issues, both clinical and management, with parents, students, school administrators, school nurses, school physicians, local public health departments, health educators, teachers, counselors, municipal agents, health care providers, and others

Department of Mental Health (DMH)

- Coordinates resources to provide behavioral health support services to impacted populations and affected members of the general public, as needed
- Assists in arranging Critical Incident Stress Management (CISM) services for first responders, as needed
- Provides and/or supports Disaster Behavioral Health training for volunteer clinicians and supports staff willing to respond to disasters
- Maintains a roster of trained crisis counselors

Massachusetts Emergency Management Agency (MEMA)

- Activates the SEOC and ESFs as required to support state response activities
- Supports the dissemination of public health messaging to emergency management and public safety partners
- Coordinates the support and involvement of Mass 2-1-1 in public information efforts
- Coordinates with MDPH and the Governor's Office regarding declaration of emergency as required
- As required, drafts the Governor's Emergency Declaration, and coordinate with MDPH to determine emergency orders/directives/measures that may be needed to be included in the Declaration
- Coordinates resource support from other states through the Emergency Management Assistance Compact (EMAC) or International Emergency Management Assistance Compact (IEMAC)
- Coordinates resource support from the federal government in coordination with FEMA

Office of the Chief Medical Examiner (OCME)

- Investigates instances of deaths due to unknown illness in consultation with MDPH
- Submits specimens to the MA SPHL for analysis, as requested
- Accepts and processes all deaths due to suspected bioterrorism event, and coordinates with the Executive Office of Public Safety and Security (EOPSS)

4.2 Federal Organizations

In the event that an infectious disease emergency overwhelms local, tribal, and state resources, or is particularly virulent, federal assets may be requested or provided. Federal agencies and their areas of specialty are listed below:

Office of the Assistant Secretary for Preparedness and Response (ASPR)

During an infectious disease emergency, ASPR provides federal support, including medical professionals through the National Disaster Medical System (NDMS), to augment state and local capabilities. NDMS Response Teams most commonly consist of Disaster Medical Assistance Teams (DMATs) and Disaster Mortuary Operational Response Teams (DMORTs). During normal operations, ASPR coordinates preparedness planning for public health and healthcare systems nationwide. ASPR also manages the federal Division of Strategic National Stockpile (SNS).

Centers for Disease Control and Prevention (CDC)

The CDC has a major role in protecting the public from biological or chemical threats. As part of this mission, the CDC provides guidance and directives to state and local communities during emergencies, as needed, based on the incident. MDPH reports core surveillance data to CDC routinely which would be expanded during an emergency.

Substance Abuse and Mental Health Services Administration (SAMHSA)

Infectious disease emergencies are likely to cause feelings of anxiety or stress in the public, particularly when little is known about the disease. SAMHSA leads efforts to advance the behavioral health of the nation and provides information and services to support communities and individuals that may be impacted by an infectious disease emergency.

Federal Emergency Management Agency (FEMA)

FEMA supports citizens and first responders by coordinating the response to a disaster that overwhelms local, tribal, and state authorities. Any action taken by FEMA in response to an infectious disease emergency will be in coordination with other agencies that have a primary role, such as HHS and CDC.

In rare instances, the incident may be of a nature where federal entities assume jurisdiction. A suspected bioterror incident requires involvement of federal law enforcement agencies due to the criminal element; incident command will be led by the Federal Bureau of Investigation (FBI) with the potential for inclusion of other agencies in Unified Command. MDPH will continue to direct the Commonwealth's public health response.

4.3 Regional Organizations

Health and Medical Coordinating Coalitions (HMCC)

- Assist and support member disciplines (local public health, hospitals, Emergency Medical Services, community health centers, large ambulatory care practices, long term care facilities) involved in response and recovery operations
- As requested disseminate validated information, i.e. Clinical Advisories or Health and Medical Situation Reports, from MDPH (or similar source) to members and partner agencies
- Coordinate region-wide meetings and conference calls as needed
- Provide information for situation reports
- Monitor and document HMCC member response activities
- Liaise with Regional Coordinators and other OPEM staff regarding all of the above responsibilities
- Facilitate the sharing of health and medical resources, as needed
- Provide continuous on-call coverage in order to activate the region's ECP, when necessary

4.4 Local Organizations

Local level entities consist of both municipal and non-municipal entities. At the municipal level, local public health departments play the prominent role in the prevention and mitigation of, and response to, infectious disease threats. Local public health departments are supported by their colleagues in local government, including but not limited to emergency management, law enforcement, fire services, environmental and recreation departments, school systems, and local leadership, among many others. Due to the complexity and variety of planning and response efforts that may be required for different infectious disease outbreaks, a broad combination of expert viewpoints is needed to ensure adequate assessment of each developing situation.

Local organizations also incorporate the health and medical systems and facilities that may have a role in an infectious disease event, such as hospitals, community health centers, long term care facilities,

All local level organizations are encouraged to have emergency operations plans that address infectious disease threats, and continuity of operations plans (COOP) that describe the actions needed to sustain essential services if impacted by such an event. These plans should also describe how these plans may be activated as appropriate, and how to liaise with DPH, and HMCCs as appropriate and as per their EOP.

5.Direction, Control and Coordination

5.1. Overview

A successful response to an infectious disease emergency requires the implementation of evidence-based protocols and procedures by authorities with strong, previously established relationships between local public health, tribal nations, healthcare providers and institutions, and state and federal agencies. MDPH is the lead public health agency responsible for protecting and improving the public's health throughout the Commonwealth. In the event of an infectious disease emergency, MDPH must coordinate with partners at all levels of government and in the private sector to ensure a comprehensive and effective response.

5.2 Local Coordination

Effective public health surveillance and response begins at the local level. Generally, for most infectious diseases, local public health departments assume the primary role in conducting case investigation and follow up.

The Commonwealth of Massachusetts has laws mandating that providers report cases of certain diseases to local public health departments. Local public health departments work with hospitals and healthcare providers to obtain reports on infectious disease cases in their communities. If an infectious disease is listed as reported by Regulation 105 CMR 300.00, or is made reportable in response to an emergency situation by the Commissioner, the local public health official is responsible for notifying the Epidemiologist On-Call with suspected or confirmed cases of certain diseases. Local public health officials may also create an event in the Massachusetts Virtual Epidemiological Network (MAVEN), the Department's web-based infectious disease surveillance and case management system that enables secure data sharing between local and state public health officials. Throughout the infectious disease emergency, the local public health department and MDPH collaborate closely for infectious disease case management and the activation of Emergency Dispensing Sites (EDS) as appropriate.

Local public health departments also work with local law enforcement, government officials, school administrators, and other stakeholders to develop plans for local response and to ensure that policies and procedures are in place that support implementation of appropriate community mitigation actions.

If local public health is in need of public health and medical resources, they will reach out to the HMCC to determine if the resource can be located within the region. If they need a resource that is non health and medical, they will work with their local Emergency Management Director (EMD), who in turn will work with MEMA to locate the resource.

5.3 Regional Coordination

MDPH has worked to establish six regional Health and Medical Coordinating Coalitions (HMCCs) to promote cross-disciplinary planning, and to support public health and medical response across the Commonwealth during emergencies and disasters.

The HMCCs consist of member agencies from local public health, hospitals, community health centers/large ambulatory care practices, emergency medical services, long term care facilities and emergency management. In some areas, planning among HMCCs has also extended to additional disciplines, such as university health centers, dialysis centers, and pharmacies, among others, whenever possible.

When needed, HMCC staff is also able to assist with resource coordination, matching requesting and supplying agencies whenever possible. The HMCC staff work closely with OPEM staff in order to support coordination between state and local entities. If a resource is requested through the HMCC, but can not be obtained regionally, the HMCC will reach out to OPEM to fill the request.

Each HMCC has developed an Emergency Coordination Plan (ECP), Disease Surveillance Annex, Medical Countermeasures Annex, and Resource Coordination Annex to help guide HMCC staff and member agency interaction during an infectious disease emergency.

5.4 State Coordination

MDPH Department Operations Center

At the department level, the MDPH EOP describes the departmental response to an emergency, and the roles and responsibilities of bureau and office staff to ensure an effective response. To coordinate the state public health response, MDPH may activate the DOC, located at the MDPH Central Office, with backup locations at the MA SPHL and Marlborough Office. The DOC provides a central location for the facilitation of and efficient coordination of information sharing, resources and communication to support MDPH response and recovery activities. The DOC would also support the ESF-8 Desk when the SEOC is activated. If resource requests are received from an HMCC that can not be filled within the Commonwealth, DOC staff would work with MEMA to make the request up to the Federal level, through either the ASPR Region 1 REC and/or FEMA.

MEMA State Emergency Operations Center

The overarching document that guides emergency operations coordination among responding departments and agencies is the Massachusetts Emergency Management Agency (MEMA) Comprehensive Emergency Management Plan (CEMP) and its supplemental Emergency Support Function (ESF) and Hazard-Specific Annexes. The CEMP describes when activation of the State Emergency Operations Center (SEOC) is warranted; should the SEOC be activated for an infectious disease emergency, MDPH will send a representative to the SEOC to staff the ESF-8 Desk, to coordinate Public Health and Medical activities.

5.5 Federal Coordination

In the event that an infectious disease emergency overwhelms local, tribal, and state resources, or is particularly virulent, federal assets may be requested or provided. The request for such resources will be made in collaboration with MEMA. In addition, guidance and information sharing resources will be provided from the CDC or ASPR, down to the States to help guide them in their response activities. The CDC will also work with the States on vaccine distribution and planning to ensure target populations are the first to receive the vaccine once it becomes available.

6.Domains

While most incidents are handled on a day-to-day basis by a single local jurisdiction, there are instances in which successful incident management depends on the involvement of multiple jurisdictions, functional agencies, and emergency responder disciplines at the local, state, and federal levels. During an infectious disease outbreak MDPH has overall coordination of the health and medical response for the Commonwealth and will coordinate response activities as indicated by the situation.

Below is a grouping of capabilities and the associated activities that will occur within each during the lifecycle of an infectious disease response within Massachusetts.

6.1 Public Health Surveillance and Epidemiological Investigation

Preparation	Public health surveillance is the ongoing systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event to drive public health action to reduce morbidity and mortality and to improve health. During this interval, routine surveillance occurs at the local and state levels. The local and state public health agencies receive disease reports from health care providers and laboratory results through Electronic Laboratory Reporting (ELR) mechanisms. Public health also engages in follow up activities as needed: conducting investigations into potential disease cases and/or clusters, and collaborating with the Division of Epidemiology. The List of Reportable Infectious Diseases identifies those diseases that local public health agencies, clinical laboratories and healthcare providers must also immediately report to the Epidemiologist On-Call with suspected or confirmed cases. Hospital emergency departments and certain urgent care centers report visit level data to the National Syndromic Surveillance Platform. Data are monitored in real time to assess situational awareness. During the Preparation/Routine Interval, at the state level: • The Division of Epidemiology collaborates with local public health agencies to conduct case investigations and provide technical assistance as needed • The Office of Integrated Surveillance and Informatics Services collects and manages disease surveillance data used to inform activities for BIDLS and local health departments and provides routine updates to MAVEN and supporting infrastructure to ensure readiness • The Division of Epidemiology Influenza Surveillance Program monitors sentinel sites, a network of volunteer providers and healthcare organizations which report on influenza-like illness (ILI). An influenza-like illness activity level is reported weekly throughout flu season to the CDC and via the MDPH weekly flu report • BIDLS works with the BioWatch Division to detect biological agents that may present a threat to public health

Investigation/ Alerting	When a known infectious disease outbreak or new infectious disease has emerged outside of the Commonwealth, BIDLS staff will monitor the case definition as set forth by the CDC and/or WHO (if available). The Division of Epidemiology and ISIS may engage in enhanced surveillance, working closely with the healthcare providers and laboratories most likely to report a particular disease or disease group, and with local public health to monitor disease trends in the population that may signify the occurrence of an infectious disease in Massachusetts. Staff will assess MAVEN and supporting infrastructure to determine whether additional data collection and system modifications are appropriate. The Immunization Division will communicate with the CDC to determine if a vaccine response is needed, or available, for the infectious disease. Local and state public health agencies will continue to use MAVEN to share information relative to disease case management and investigation. MDPH will monitor international trends related to the outbreak of emerging infectious disease due to the potential impact on Massachusetts residents who travel for business, school, and personal reasons. MDPH will assess the Commonwealth's demographics to identify early concerns based on global events.
Recognition	BIDLS staff will monitor, update and disseminate the case definition, threat assessment, laboratory diagnostic and clinical guidance, and preventative information for the infectious disease as appropriate, incorporating any guidance disseminated by the CDC and WHO. The Division of Epidemiology will also be in close communication with local public health agencies in order to provide necessary technical assistance, and prepare for a potential increase in case investigations. The Division of Epidemiology staff will likely be fielding increased call volumes with requests for information. BIDLS leadership will identify staff support options in anticipation of a surge in infectious disease cases. ISIS staff will work with IT to enhance MAVEN and supporting infrastructure to incorporate new data collection and triage needs.
Initiation	In addition to supporting local public health agencies with increased case investigations and contact tracing, the Epidemiology Division will assess the need for additional support options to handle increased call volumes and ways to triage and quickly respond to questions from the "worried well" while maintaining SME time for critical stakeholders.
Acceleration	The Division of Epidemiology will work at maximum to support local public health agencies with their efforts to implement isolation and quarantine, and serve as advisors for governmental initiatives aimed to promote social distancing to stop the spread of disease. The Division of Epidemiology and Immunization Division may recall contract support to assist in responding to public requests for information via the hotline, and with other activities as needed.
Demobilization	The Division of Epidemiology and ISIS staff will continue both enhanced and active surveillance activities to ensure the decreased transmission of the disease, to a less urgent degree than during the peak of infection rates. Meanwhile, they will also resume routine surveillance and testing activities that may have become delayed due

	to the infectious disease emergency. The Division of Epidemiology will work with local public health departments to transition the full load of investigations and follow-up activities back to the local public health domain.

6.2 Public Health Laboratory Testing

Preparation	Laboratory Sciences at the MA SPHL is a regional resource as it maintains the capability of working with Tier 1 biological select agents and toxins, and conducts advanced level specimen testing. Baseline activities include reviewing situational awareness sources for testing developments and monitoring CDC's Laboratory Response Network (LRN) and the Association of Public Health Laboratories (APHL) for guidance on testing for new diseases. Laboratory staff routinely communicates important information to the sentinel laboratories in Massachusetts. Annually, Laboratory staff surveys the sentinel labs to verify emergency contact information and determine their laboratory testing capabilities. Additionally, Laboratory Sciences provides training opportunities throughout the year in agents of bioterrorism, biosafety and biosecurity, and packaging and shipping of clinical specimens. They also offer biological, chemical, and radiological terrorism training to first responders who may respond to suspicious mail or substances.
Investigation/ Alerting	Laboratory Sciences will communicate with state and national public health officials to gather information and plan for a potential infectious disease emergency response. Laboratory leadership, in discussions with the State Epidemiologist and other appropriate medical and epidemiology SMEs, will first determine the need to bring a new test on board; many factors are assessed to make this decision, such as Massachusetts' geography, the infectious disease characteristics and likelihood of spread to the Commonwealth. The BIDLS Director/designee may also consult the Commissioner to review the case for bringing on a new test. If MDPH determines to bring on testing, laboratory staff would look to the CDC's LRN for existing protocols. Next, Laboratory leadership will determine if the new test requires specialized or additional supplies and equipment to conduct testing for the particular infectious disease threat. Leadership will ask staff to inventory and restock general use items as needed, including personal protective equipment; however, Laboratory staff would wait until the next interval to order items needed to test the specific disease. Laboratory leadership will also assess staff capabilities to determine if there is sufficient expertise and coverage to address the particular infectious disease threat. Laboratory staff will notify sentinel laboratories of the decision to bring on testing and prepare them for arrival of the infectious disease. Notification will be coordinated with appropriate Medical Directors and Epidemiologists to ensure consistent messaging with laboratories and providers.
Recognition	During this interval, Laboratory leadership will ensure its networks are prepared for the infectious disease event by offering training, ordering supplies, and maintaining open lines of communications with sentinel laboratories to provide necessary

	technical assistance, and prepare for a potential increase in testing. • Laboratory leadership will convene meetings to speak to employees about personal protection, and conduct internal trainings and risk assessments in preparation for disease response • Laboratory leadership will review contingency plans to assess the need to expand testing if needed in the future • Laboratory staff will start to procure any necessary supplies and equipment in order to be able to test for the disease • Laboratory staff will survey provider and laboratory networks regarding capabilities and capacities for the specific disease threat and address any concerns on conference calls The Director of BIDLS may contact the Commissioner to request additional funds to maintain the response, as needed.
Initiation	During the Initiation interval, Laboratory leadership will participate in statewide conference calls and national calls with CDC and APHL to learn more about the disease and any best practices employed by laboratories that are currently responding to the threat. Laboratory staff will network with Epidemiologists and in-state and out-of-state labs to maintain situational awareness. Laboratory staff may also anticipate that the CDC pushes out reagents specific to the outbreak. Laboratory leadership will review its staffing plan and evaluate the need for additional support. Depending on the nature of the infectious disease, the Laboratory may feel the most strain in Serology, and experience slight backlogs in confirmatory testing and data reporting. Additional staff may be brought on to assist, depending on the level of funding CDC is able to release for the infectious disease response.
Acceleration	During this interval, Laboratory leadership will work to confirm whether the predicted scope of disease spread is in line with epidemiological data and observations. Operationally, the Laboratory will look to streamline tasks wherever possible. Laboratory staff will work at maximum to perform confirmatory tests and coordinate with the Division of Epidemiology to report results to requesting providers and/or laboratories. Laboratory leadership may recall contract support in order to process the number of tests needed during the surge; specifically, contractors may be needed to assist with the pre-analytical (i.e., receiving tests, data entry) and post-analytical (i.e., data reporting) activities. Laboratory leadership will also look internally to cross train staff. Laboratory staff will continue to liaise with Epidemiologists and in-state, out-of-state, and federal laboratories at the CDC in order to stay up-to-date on disease characteristics and best practice methodologies. Depending on the geographic distribution of the infectious disease, out-of-state laboratories may also be able to assist by processing routine laboratory tests while the MASPHL focuses its efforts on the response.
Demobilization	Laboratory staff will continue to process, test, and report data from the infectious disease event, and resume routine laboratory testing. Laboratory leadership will assess quality management measures, review standard operating procedures and rewrite procedures as needed. Laboratory staff will also play a pivotal role in the debriefing and after action

	reporting of the infectious disease response. They will debrief internally before participating in a joint hotwash with the Division of Epidemiology and ISIS; they will also communicate with sentinel laboratories and all users of laboratory services to evaluate the response.

6.3 Responder Health and Safety

Preparation	N/A
Investigation/ Alerting	In order to maintain safe and healthy work environments, NIOSH, under the CDC, will provide technical assistance and resources with regards to PPE. NIOSH will issue evidence-based recommendations on what, when, and how to don PPE. The State Epidemiologist and the Division of Epidemiology staff will review the case definition, if available, and federal agency guidance to determine disease transmission type and other characteristics that will impact the kind and quantity of personal protective equipment needed to respond to the infectious disease. Working with OPEM and the OHSP, they may source or collate a list of recommended PPE by responder type.
Recognition	Following State Epidemiologist and other subject matter expert review and determination, PPE recommendations for equipment and training will be disseminated to healthcare providers and other frontline responders via the HHAN and MDPH listservs. OPEM will also reach out to HMCCs in anticipation of materials shortages or requests for technical assistance from member agencies, and monitor vendor purchasing to anticipate shortages and/or restrictions.
Initiation	Depending on the nature of the infectious disease, the State Epidemiologist, in consultation with the Executive Team, may consider recommending an increase in levels of PPE usage, and evaluate whether PPE training offerings meet the demand. OPEM will provide guidance as issued by the CDC or other such authority to healthcare providers and frontline responders using PPE. Guidance may include, but is not limited to: • Disseminating PPE donning and doffing protocols • Disseminating environmental control guidance • Identifying individuals with appropriate backgrounds to conduct PPE trainings and fit tests, as needed OPEM may also recommend that healthcare facilities and HMCCs conduct inventory assessments at this time.
Acceleration	The PIO, in consultation with the Communications Office and OPEM, will coordinate increased messaging and training on appropriate PPE, and discuss where modifications may be made. For diseases that are transmitted person-to-person, healthcare providers and frontline responders must don appropriate PPE for contact with the public, and follow protocols for the safe doffing and disposal of contaminated PPE. The Planning Section will monitor for the potential depletion of supplies due to training and responder use.

	Frontline responders will also be provided with medical countermeasures, as appropriate, to protect against exposure. For more information on how responders will receive medical countermeasures, refer to the regional HMCC Medical Countermeasures Annexes (Authorities and References).
Demobilization	Healthcare providers and frontline responders will, if necessary based on the transmission characteristics of the disease, continue to don appropriate PPE for contact with the public to protect against subsequent waves of illness until advised by MDPH officials otherwise. At this time, MDPH and partner agencies in the response will conduct another inventory assessment to measure resource depletion. Following this, agencies will replenish PPE levels to pre-incident levels and/or purchase more appropriate equipment needed for future responses, depending on the effectiveness of the equipment. OPEM will evaluate the effectiveness of PPE trainings, and debrief with training instructors.

6.4 Non-pharmaceutical Interventions

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	During the Recognition Interval, the PIO will disseminate information to the public to use precautionary protective behaviors appropriate to the disease that will usually include, but are not limited to, personal hygiene activities (hand hygiene, cough etiquette, etc.). Internally, MDPH may begin to review community mitigation measures that may need to be implemented depending on the infectious disease spread. Travel screenings may be considered in order to mitigate the spread of disease. The Division of Epidemiology will monitor the CDC's Travelers Health website for any travel notices in effect for affected countries, and stay up-to-date on any public health monitoring (direct active monitoring or active monitoring) activities that may be needed for travelers who may have been exposed. For more information, see CDC's recommendations on NPIs: https://www.cdc.gov/nonpharmaceutical-interventions/index.html
Initiation	The PIO, in consultation with the Communications Office, BIDLS and OPEM, will continue to encourage precautionary protective behaviors. The Division of Epidemiology, in consultation with the Office of the General Council, will work with local public health agencies to implement isolation and quarantine of individuals that are or may be infected. Internally, the Executive Team, in consultation with BIDLS leadership, will continue to review recommended community mitigation measures that may need to come into effect depending on the severity of infectious disease spread. These measures may

	include, but are not limited to:
	• Enhanced travel screening
	• Social distancing, for example:
	  o Schools suspending classes and transitioning to web-based learning, if possible
	  o Employers setting up flexible shift plans, offering telecommute options
	• Postponement of events or services with large gatherings
	  o Sports events, concerts, parades, festivals
	Mass transit systems

Acceleration	During a severe infectious disease emergency, state and local health departments may implement community mitigation measures that decrease social contact within groups or whole communities to minimize the spread of disease. The Governor has the ability to declare a public health emergency, which provides the Commissioner greater authority to initiate these measures. After the Governor issues an emergency declaration, the Commissioner may convene other Commissioners to hold agency-level discussions to make community mitigation recommendations to the HHS Secretary and the Governor's Office. As community mitigation measures affect the whole society, the Commissioner will consult with other relevant stakeholders in government in order to recommend measures that will protect public health yet cause minimal economic and social disruption. These recommendations may include, but are not limited to implementing school closures, postponing public gatherings, and otherwise limiting opportunities for the disease to spread among the population. MDPH may also encourage healthcare facilities to implement changes intended to limit the number of visitors accessing facilities during an infectious disease emergency.
Demobilization	• Public health and government officials will plan for the appropriate suspension of community mitigation measures • Upon the Governor declaring an end to the state of emergency, the Commissioners of EEC, DESE, and Higher Education will plan for the resumption of schools and daycare facilities • The Communications Office will encourage the public to maintain precautionary protective behaviors • BIDLS staff will monitor the CDC and WHO travel advisories, and communicate with Massport, to plan for the cessation of travel screening in the Commonwealth

6.5 Medical Surge

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	N/A
Initiation	***Staffing*** During this interval, MDPH will assess potential staffing shortages in response to an infectious disease emergency, and evaluate their ability to increase staffing levels. ***Monitoring Healthcare Facilities*** • The Hospital Branch Director, under the Operations Section, will work with healthcare facilities and other health response agencies to determine their capacities to accommodate a surge in cases, and consider the most effective actions to assist in supporting the response • The Hospital Branch Director, in consultation with OPEM and BHCSQ, will also anticipate potential stress points that may hinder healthcare facilities' abilities to effectively provide care • The Planning Section Chief will work with the Office of Emergency Medical Services (OEMS), Bureau of Health Care Safety and Quality (BHCSQ) and others to identify what data is available and should be collected to help inform response decisions where waivers and extraordinary actions may be required to support an effective response ***Monitoring Resources*** Peak planning will occur to pre-position needed medical supplies and equipment prior to an anticipated surge in infectious disease cases. Depending on the type of infectious disease response needed, scarcities in PPE, medical equipment, and pharmaceuticals may be expected to occur, likely during the Acceleration Interval. To anticipate this: • The Planning Section Chief will monitor the WebEOC's Resource Request Board to identify specific resources that may be needed across health and medical disciplines in the Commonwealth • The Planning Section will monitor pharmacies for antibiotic or antiviral use and liaise with the Logistics Section Chief as needed regarding surpluses or shortages in supply The Incident Manager may also initiate an internal discussion with the Executive Team and senior-level BIDLS management on resource prioritization. The prioritization of scarce resources depends on the type of resource; if there is a shortage of pharmaceuticals, then prioritization information will be disseminated by the CDC, and the PIO, in consultation with the Executive Team, will distribute a letter describing the target population. The PIO must be very clear to identify the priority group and describe the scarce resource, and s/he must exert tight control over messaging around those areas.

Acceleration	During the Acceleration interval, the Planning Section will monitor WebEOC and the Operations Section will communicate with HMCCs and healthcare facilities during routine intervals to assess surge activities. The Operations Section will take action as needed to support agencies and organizations responding to surge. The Governor may declare a Public Health Emergency or State of Emergency, as needed. ***Staffing*** As staffing will likely be a major concern across MDPH, leadership may begin to prioritize essential services. Select MDPH Bureaus and Offices may also contract with outside agencies as needed to support employees working on the infectious disease response; for example, there is a precedent for the Division of Epidemiology to contract with a consulting firm for hotline operators to assist with infectious disease inquiries from the public. The Division of Epidemiology may be especially resource strapped as it will continue to support local public health nurses with case investigation and follow up. OPEM may encourage HMCCs to activate staffing clauses in Memoranda of Understanding (MOUs) as needed. ***Monitoring Healthcare Facilities*** • The Hospital Branch Director may call for healthcare organizations to implement actions aimed at reducing patient census, such as canceling elective surgeries, to ensure all facilities are prepared to evenly share the patient surge • The Medical Section and Operations Section Chief may request regulatory relief measures to allow for crisis standards of care, such as revising or temporarily suspending statutes governing the number of licensed or staffed beds allowed in healthcare organizations, or regulations stipulating provider-to-patient ratios and other standards of care parameters • The OEMS Branch Director may confer with OEMS on the need for waivers regarding EMS standards of care • The Planning Section will continue to monitor facility status and capability through WebEOC o OPEM may coordinate with HMCCs to ask healthcare facilities to post updates to WebEOC (i.e., outpatient/Emergency Department/inpatient census) o OPEM may coordinate with HMCCs to ask local public health to post updates to WebEOC (i.e. EDS status) ***Monitoring Resources*** • The Planning Section will monitor WebEOC to assess for and prioritize scarce resources across health and medical disciplines • The Planning Section will continue to communicate with pharmacies regarding anticipated antibiotic or antiviral shortages, and vendors for PPE usage
Demobilization	N/A

6.6 Medical Countermeasure Dispensing

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	If a countermeasure response is anticipated to be needed for the infectious disease threat, the Executive Team and Incident Manager will convene to plan for prophylactic interventions. In the case of a vaccine preventable disease, the Immunization Division may be asked to contact the CDC to ascertain vaccine allocation amounts.
Initiation	The Operations Section Chief and Executive Team, in consultation with the BIDLS Director, State Epidemiologist and OPEM leadership, may discuss the provision of medical countermeasures in support of treatment or prophylaxis to an identified population. After communicating with the Executive Team, the Incident Manager will convene conference calls with affected communities to assess the need for medical countermeasures. Items for discussion will include the potential number of impacted people, the type of prophylaxis required, where the prophylaxis could be sourced, and how to dispense to impacted populations. The timeline for dispensing will also be discussed. Should the need for pharmaceutical or ancillary supplies be determined, the Incident Manager may begin to activate SNS request protocols. Also during this interval, the OPEM Health Volunteer Division Coordinator will monitor LBOH's need for Medical Reserve Corps (MRC) volunteer activation. For additional information on medical countermeasure dispensing, please refer to the following plans (also noted in Authorities and References): *State Plans* • Mass Vaccination and Dispensing Annex • Massachusetts Medical Countermeasure Plan *Regional Plans* • HMCC Medical Countermeasure Dispensing Annexes *Local Plans* • Emergency Dispensing Site (EDS) Plans, as maintained by municipal Public Health Departments
Acceleration	Mass dispensing of vaccines, antivirals or antibiotics will begin, depending on the infectious disease and the availability of prophylaxis. • The Planning Section will monitor WebEOC to assess the need for SNS assets (both pharmaceutical and ancillary supplies) and coordinate with the Incident Manager and Operations Section Branch Directors to determine allocations • The Incident Manager will communicate SNS requests to MEMA and the ASPR Region 1 REC, as appropriate • OPEM will work closely with local public health agencies and HMCCs to monitor the activation of EDSs in communities to provide medical countermeasures, where appropriate

	○ The Planning Section will solicit regular updates from communities to the WebEOC Event board to maintain situational awareness ○ OPEM may encourage HMCCs to promote regional EDSs should staffing become an issue at community-based EDSs ○ MDPH will promote MedFinder which is a free online service for provides and the public to quickly locate nearby pharmacies, clinics or other healthcare facilities with MCMs on hand. Currently, MedFinder is focused on influenza medications. See: https://www.medfinder.us. For additional information on medical countermeasure dispensing, please refer to the Massachusetts Medical Countermeasure Plan (Authorities and References).
Demobilization	Following the administration of pharmaceutical or vaccine interventions, the relevant MDPH divisions will initiate demobilization procedures in order to account for the quantity of therapeutics and/or prophylactics dispensed. For a vaccine preventable disease, the Immunization Division will begin de-escalation procedures which include but are not limited to compiling and analyzing vaccine usage/administration data as reported to the MIIS. For a scenario in which pharmaceuticals are dispensed, local EDS operations are responsible for arranging for the return of federal assets, if appropriate. OPEM will work with local public health to arrange for the proper return of any medical countermeasure materials to the CDC, as appropriate. OPEM will also work with the HMCC division staff to collate data on medical countermeasures administered. For additional information on mass vaccinations, please refer to the Mass Vaccination Annex. For additional information on pharmaceutical dispensing, please refer to the Massachusetts Medical Countermeasure Plan (Authorities and References).

6.7 Fatality Management

Preparation	MDPH will be the responsible agency for the mass fatality management response if it is a result of a pandemic or other significant communicable disease outbreak resulting in a large number of deaths.
Investigation/ Alerting	N/A
Recognition	N/A
Initiation	The Incident Manager, in coordination with staff from OPEM and the Division of Epidemiology, may convene calls with the Office of the Chief Medical Examiner (OCME) to discuss a potential surge in infectious disease deaths and to ensure that the OCME has the information needed to protect staff from accidental exposures. Topics for discussion may include the proper recovery, handling, transportation, tracking, storage and disposal of human remains after an infectious disease emergency response.

Acceleration	The Incident Manager, in consultation with staff from OPEM and BIDLS, will communicate regularly with the OCME to receive updates related to infectious disease deaths, provide guidance on the proper handling of decedents, and plan for the safe disposal of human remains. The Incident Manager will also work with OCME and MEMA to procure sufficient storage space for the recently deceased.
Demobilization	N/A

6.8 Behavioral Health

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	N/A
Initiation	Regardless of the scope of the infectious disease event, impacted populations may need behavioral health support to process feelings of being under threat and any issues of morbidity and mortality. To minimize lasting behavioral health implications, DMH will work in conjunction with MDPH to provide crisis support as requested. For additional information please refer to the Statewide Disaster Behavioral Health Plan (Authorities and References).
Acceleration	Continue to monitor the behavioral health needs and deploy additional resources as needed. Will also evaluate the need for Critical Incident Stress Management (CISM) for response personnel.
Demobilization	Assist as needed to help bring staff and the public back to pre-event well being.

7.Communications

7.1 Internal Communication

The Commissioner's Office will notify senior management of incidents or emergencies using the senior management group on the Health and Homeland Alert Network (HHAN) to send emergency alerts and notifications. MDPH staff that is needed to respond to an emergency will be notified by their supervisor or Office or Bureau Director during regular business hours. If the emergency occurs outside of regular business hours, MDPH staff will be notified via the HHAN notification system or by the Bureau's/Office's after-hours notification procedure.

See below for internal notification procedures.

Notifications will include:

- A brief description of the situation
- Security level or sensitivity
- DOC Activation Level
- The incident management structure to be implemented for this response
- Instructions for action (including when and where to report, shift length), if any
- Information regarding further briefings or updates

During an incident, messages, information and guidance may be received by individual Offices or Bureaus within MDPH. Individual Offices or Bureaus can share this information with the IM via the regular coordination call or if the information is critical/time sensitive, it should be forwarded to the IM immediately. Processes should be put into place early on in the incident to identify how information will be shared, who it will be shared with, and how it will be vetted by leadership if it needs to be shared with external partners.

7.2 External Communication

Soon after the IDER is activated, a PIO should be designated as part of the Incident Management system to help coordinate messaging to external stakeholders and the public. The PIO will also be engaged in providing press releases and identifying the appropriate personnel for press availability requests.

Upon activation of the IDER, MDPH may need to communicate with external stakeholders in order to:

- Provide updates on the status of an event
- Request information about potential health threats
- Obtain other information about the event
- Develop a better understanding of concerns relating to the event
- Address specific needs relating to the incident
- Provide rationale for priority groups (if applicable)
- Provide notification of contraindications and possible adverse events from the vaccine
- Communicate location of vaccination clinics

- Communicate measures other than vaccine to prevent the spread of the disease
- Provide recommendations and request that specific actions be taken

External stakeholders may include but are not limited to the following public, non-profit, and private sectors:

- Agriculture/animals
- Business/industry
- Education
- Environmental protection/public works
- Fire services
- Law enforcement
- Military services
- Mortuary services
- Transportation

Communication vehicles for external stakeholders include, but are not limited to:

- HHAN groups
- Internet conferencing and teleconferencing
- One-to-one phone contact
- Group and individual e-mail messages
- Meetings
- WebEOC
- Listservs

Timely public information during an emergency can calm people's fears, manage their expectations, and help persuade them to make important health-related decisions to help ensure their safety. Using health literacy standards to create materials intended for the general public, MDPH may provide information on any of the following regarding an emerging infectious disease incident:

- Information about the disease (fact sheet)
- Answering FAQs such as:
    - Who is at risk?
    - What is a close contact?
    - What is a confirmed case?
    - How is it spread?
    - What are the symptoms?
    - How can people protect themselves?
    - What is the treatment?
    - Are travel advisories recommended?
    - Where can I get more/updated information?

DPH is committed to reducing health disparities by setting standards for materials development that require the use of plain language, relevant visuals, and effective layout and design to ensure information is accessible to the target audience, especially those with limited language proficiency.

The following health literacy standards should inform the development of all materials for the public including but not limited to: consent forms, regulations, brochures, fact sheets, and other health education information, reports and other publications.

- Plan for clear health communication
- Use plain language
- Make messages easier-to-read using layout and design
- Use visuals to help communicate messages
- Follow CLAS and other translation guidelines

Depending on the scope of the emergency and the populations affected, Communications typically will translate public information materials into the five most commonly spoken languages other than English in the Commonwealth: Spanish, Portuguese, Haitian Creole, Vietnamese, and Chinese. During more severe outbreaks, that list of translated languages may expand to include the next top five languages spoken in the Commonwealth.

Additional consultation with the Office of Health Equity and other subject matter experts may be needed to ensure that information can be provided in culturally and linguistically appropriate formats and is accessible to individuals with who are blind, partially sighted, deaf or hard of hearing.

Once vetted, public information materials will be posted to the MDPH website (which may include the creation of a page/s created specifically for the disease). Communications also will utilize its Twitter account to push information out and direct people to resources for further information (either state or federal resources). The Department may also monitor its own and associated social media accounts which serve as a feedback mechanism with the public to determine what issues or concerns they continue to have, rumors, inaccuracies, or misinformation that may be circulating, and help inform additional public information materials that the Department may create and distribute.

When formal mechanisms are used to develop and disseminate messages, guidance or information (as noted above) to external stakeholders or the general public, the process is as follows:

- The Planning Section identifies target audiences for communication, based on input or requests from the Planning Chief, the MDPH PIO, or division staff. Relevant lists are available through the OPEM Duty Officer HHAN page
- The MDPH PIO works with the designated SME in the Planning Section to develop or adapt appropriate messages and materials, taking care ensuring that:
  - Messages are clear, concise, and provide unambiguous action steps
  - Appropriate supporting materials have been identified
  - Messages convey an appropriate sense of urgency or level of priority
  - Messages are consistent with any state and federal guidance

- The Incident Manager works with the Communications Office to obtain appropriate approvals prior to dissemination of messages and information
- Once approval for dissemination is received, the Liaison Officer works with the PIO to identify appropriate vehicles or mechanisms for dissemination of messages and materials to previously identified target audiences
- The Liaison Officer provides messages and information to parties with operational responsibility for selected dissemination vehicles and mechanisms for delivery to target audiences

Additional Tools that may be used to communicate with external stakeholders and the public include:

Websites

MDPH OPEM website: https://www.mass.gov/orgs/office-of-preparedness-and-emergency-management

MDPH BIDLS website: https://www.mass.gov/orgs/bureau-of-infectious-disease-and-laboratory-sciences

- From this website, you can link to disease specific pages, and also to other helpful information regarding vaccination.
- This web page has links to the CDC, is continually updated, and will be a primary source of information for providers and the public during an outbreak of infectious disease.

Mass 211/Flu On Call

If needed, MDPH, in collaboration with MEMA, may activate Mass 211 using MDPH staff and/or existing 211 staff with special training to answers questions about where to get vaccine, care of sick patients at home, and prevention measures. Alternatively, during an influenza pandemic, Flu on Call® may be utilized.

Flu on Call® is an effort led by the U.S. Centers for Disease Control and Prevention (CDC), in collaboration with United Way Worldwide, and other partners to establish a national network of telephone help lines, staffed by information specialists and medical professionals, designed to be used during a severe influenza pandemic.

8. Plan Development and Maintenance

8.1 Revision Process

OPEM will coordinate the ongoing assessment and maintenance of the IDER Plan. The IDER Plan will be reviewed bi-annually, and will revise the plan as needed following any exercise or real event. Changes or amendments to this plan may also be proposed by the Commissioner's Office or any Bureau or Office. Proposed changes are submitted to OPEM, who will review submissions for clarity. Suggested changes must be consistent with National Incident Management System (NIMS) policies and procedures. Additionally, all suggested changes should clearly identify the section, sub-section, paragraph, and page number affected. OPEM will track and document any changes to this plan.

8.2 Debriefing/After Action Reports

Debriefing and after action reporting will be needed to document the strengths and areas for improvement that were noted during the response. Debriefing will occur at the multidisciplinary level, such as among agencies staffing the SEOC, and also within specific agencies. Both are crucial to improve policies and procedures as described in state-level and department-level emergency operations plans.

Recommendations for the various levels of debriefing are as follows:

- Statewide debriefing, likely held at the SEOC, to include all agencies that staffed the SEOC, if activated
- MDPH-wide debriefing, likely held at the Central Office, to include all responding Offices and Bureaus
- Office- and Bureau-wide debriefing, to include all responding agencies within the office or bureau (i.e., The Division of Epidemiology, Laboratory staff, and the Immunization Division would all participate as part of BIDLS)
- Division-specific debriefing, to include all Division leadership and staff.

MDPH may share the results of the after action report(s) with governmental and responding agencies in order to plan for a community-wide recovery. Improvement Plan tasks will be assigned to specific agencies and organizations. OPEM will revise this document in addition to other plans activated for the response in order to incorporate lessons learned to improve future responses.

8.3 Exercises

The plan shall be exercised annually through, at a minimum, a tabletop exercise of plan protocols, and there may be a functional or full-scale exercise of selected plan components. OPEM will coordinate a debriefing following any exercise or real event, and, draft an after action report and improvement plan (AAR/IP) as noted above.

9.Authorities and References

The following organizations shared infectious disease response resources that were referenced during the development of this document:

- The City of San Francisco Department of Public Health, Infectious Disease Emergency Response Plan
- Centers for Disease Control and Prevention
- Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response
- World Health Organization

The following plans are referenced throughout this document:

State of Massachusetts Plans

- MA Statewide Disaster Behavioral Health Plan
- Massachusetts Department of Public Health (MDPH) All-Hazards Emergency Operations Plan (EOP)
    - Massachusetts Continuity of Operations Plan
    - Massachusetts ESF-8 Annex
    - Massachusetts Medical Countermeasures Plan
- Massachusetts Comprehensive Emergency Management Plan (CEMP)
- Commonwealth of Massachusetts Mass Fatality Management Plan

Regional (HMCC) Plans

- Emergency Coordination Plans
    - Disease Surveillance Annex
    - Medical Countermeasures Annex
    - Resource Coordination Annex

Local Plans

- Emergency Dispensing Site Plans

Appendices

Acronyms

List of Infectious Diseases Reportable by Law

Infectious Disease Notification & Information Sharing Platforms

CDC Recommendations for Non-pharmaceutical Interventions

Societal Sectors

Acronyms

AAR	After Action Report
APHL	Association of Public Health Laboratories
BHCSQ	Bureau of Health Care Safety and Quality
BIDLS	Bureau of Infectious Disease and Laboratory Sciences
CDC	Center for Disease Control and Prevention
COOP	Continuity of Operations Plan
DEP	Department of Environmental Protection
DESE	Department of Elementary and Secondary Education
DMH	Department of Mental Health
DOC	Department Operations Center
ECP	Emergency Coordination Plan (HMCC)
EEC	Department of Early Education and Care
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
ICS	Incident Command System
IDER	Infectious Disease Emergency Response
IP	Infection Preventionist
ISIS	Integrated Surveillance and Informatics Services, Office of
JIC	Joint Information Center (ICS)
HHAN	Health and Homeland Alert Network
HMCC	Health and Medical Coordinating Coalition
LRN	Laboratory Response Network
MAVEN	Massachusetts Virtual Epidemiological Network
MDPH	Massachusetts Department of Public Health
MEMA	Massachusetts Emergency Management Agency
MOU	Memoranda of Understanding
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NPI	Nonpharmaceutical Interventions
OCME	Office of the Chief Medical Examiner
OEMS	Office of Emergency Medical Services
OHSP	Occupational Health Surveillance Division
OPEM	Office of Preparedness and Emergency Management
PIO	Public Information Officer (ICS)
PPE	Personal Protective Equipment
SEOC	State Emergency Operations Center
SME	Subject Matter Expert
SNS	Strategic National Stockpile
WHO	World Health Organization

Diseases reportable to the Massachusetts Department of Public Health and local boards of health by Law

List of Diseases Reportable by Healthcare Providers

List of Diseases Reportable by Clinical Laboratories

For information on these diseases reportable by Law per provider please click on the link below:

105 CMR 300.00 Reportable diseases, surveillance and isolation and quarantine

Infectious Disease Surveillance Systems in Massachusetts

(Information subject to change without notice and accurate as of January 29,2020)

Platform	Description	Maintained by
City of Boston		
Boston Surveillance System (BoSS)	The city's electronic web-based case management system for city-wide infectious disease surveillance. BoSS provides daily electronic data to MDPH MAVEN.	Boston Public Health Commission – Infectious Disease Bureau
Boston Syndromic Surveillance System (B-SYNSS)	The city's secure, web-based surveillance application that performs a daily review of all acute care visits to Boston emergency departments and other select healthcare sites, with the ability to provide enhanced situational awareness during outbreaks and other high profile public events.	
Statewide		
MDPH Influenza Surveillance Division	Influenza surveillance in MA is a year-round activity involving many partners and activities: a network of volunteer providers and healthcare organizations which report on influenza-like illness; hospitals which report on confirmed influenza hospitalizations; laboratory testing at the MA SPHL and other hospital and commercial labs, with additional testing at CDC; required electronic reporting of positive influenza test results to Integrated Surveillance and Informatics Services (ISIS); and required reporting of both influenza-related pediatric deaths and clusters of influenza-like illness in long-term care settings. An influenza-like illness activity level is reported weekly throughout flu season to CDC and via the MDPH weekly flu report.	MDPH Division of Epidemiology
Massachusetts Virtual Epidemiological Network (MAVEN)	The state's infectious disease surveillance and case management system that enables state and local health departments to appropriately collect and share epidemiologic, surveillance and laboratory data efficiently and securely. Its surrounding infrastructure allows for real-time reporting of infectious disease data from clinical and reference laboratories, the SPHL, and health care providers.	MDPH Integrated Surveillance and Informatics Services (ISIS)
Health Information Reporting Portal	The portal is the conduit for receiving all electronic reporting data feeds for MAVEN; these include electronic laboratory reporting (ELR) from clinical reference laboratories and the MASPL, the city of Boston's daily transfer from BoSS, and electronic case	MDPH Integrated Surveillance and Informatics Services (ISIS)

	reporting (eCR) from health care providers via ESP (Electronic Support for Public Health). The portal is also provides electronic testing order and reporting capacity for the MASPHL.	
Massachusetts Syndromic Surveillance System (MA SyS)	MA SyS is the state's syndromic surveillance system and currently submits emergency department data from ED and urgent care facilities to the National Syndromic Surveillance System Platform (NSSP).	MDPH Integrated Surveillance and Informatics Services (ISIS)
CaseMix Dataset	A secure, electronic database which captures discharge diagnoses from Emergency Department and Urgent Care centers visits in Massachusetts.	Center for Health Information Analysis (CHIA)
Massachusetts Immunization Information System	A web-based lifespan immunization registry and vaccine management system. The MIIS provides patient and practice level reports to aid in the administration and tracking of immunizations. Additionally, the MIIS provides an online platform to manage and track the approximately 3 million doses of vaccine distributed by the MDPH annually.	MDPH Immunization Division
National		
Nationally Notifiable Disease Surveillance System (NNDSS)	The national surveillance system for monitoring notifiable conditions reported from state and local health departments. MDPH submits data to NNDSS through a variety of mechanisms.	CDC
National Syndromic Surveillance Division (NSSP)	A national secure, cloud-based health information system that enables users to rapidly collect, aggregate, evaluate, share and store syndromic data from healthcare organizations across the nation. MA Sys utilizes the Mass HIway infrastructure to aggregate and send syndromic data to the NSSP.	CDC
Division for Monitoring Emerging Diseases (ProMED-Mail)	A web-based reporting system dedicated to rapid global dissemination of information and real-time discussion on outbreaks of infectious diseases and acute exposures to toxins.	International Society for Infectious Diseases
PulseNet	A national laboratory network that connects foodborne illness cases to detect outbreaks.	CDC
CaliciNet	A national norovirus outbreak surveillance network of federal, state, and local public health laboratories in the United States. CDC launched CaliciNet in 2009 to	CDC

	collect information on norovirus strains associated with gastroenteritis outbreaks in the United States.	
National Healthcare Safety Network	A national, secure, web-based reporting system which captures data on specific Healthcare Associated Infections (HAI) of concern. It also includes a Hemovigilance module which Massachusetts actively utilizes.	CDC
The National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS)	A collaboration among state and local public health departments, CDC, the U.S. Food and Drug Administration (FDA), and the U.S. Department of Agriculture (USDA). This national public health surveillance system tracks changes in the antimicrobial susceptibility of certain enteric (intestinal) bacteria found in ill people (CDC), retail meats (FDA), and food animals (USDA) in the United States.	CDC
National Outbreak Reporting System (NORS)	A web-based platform used by local, state, and territorial health departments in the United States to report all waterborne and foodborne disease outbreaks and enteric disease outbreaks transmitted by contact with environmental sources, infected persons or animals, or unknown modes of transmission to CDC.	CDC
SEDRIC	Used by CDC to collect state-level data on clinical and exposure information on cases in multi-state outbreak investigations.	CDC

Infectious Disease Notification and Information Sharing Platforms (Outgoing)

Platform	Point of Contact
Local-level	
Reverse 9-1-1, CodeRed, Everbridge, etc.	Local Government Officials
State-level	
Massachusetts Alerts	MEMA
MDPH Health & Homeland Alert Network (HHAN)	MDPH OPEM Communications Manager, HHAN Administrator
Regional-level	
The NorthEast Disaster Recovery Information X-Change (NEDRIX) Notify	NEDRIX volunteers
Federal-level	
Emergency Alert System (EAS)	Federal Communications Commission

Non-Pharmaceutical Interventions Information

Non-Pharmaceutical Interventions (NPI) Matrix

The public should take precautions to avoid becoming ill during a public health incident. Below are some common non-pharmaceutical interventions for different disease transmission modes. In addition to washing hands with soap and water, social distancing can reduce the spread of infection. Social distancing may include personal actions such as standing 6-feet away from an ill individual, or community actions such as canceling school or mass gatherings.

Disease Transmission Modes and Examples	Common Non-Pharmaceutical Interventions
Airborne • Measles • Chicken pox • Tuberculosis • Inhalational anthrax	• Wash hands frequently or use hand sanitizer • Avoid people who are ill • Stay home from work or school if ill • Cover coughs and sneezes with tissue or shirt sleeve • Clean and disinfect high-contact surfaces regularly • Get vaccinated (if available)
Contact • Herpes • Human Immunodeficiency Virus (HIV) • Conjunctivitis (Pink Eye) • Methicillin-resistant Staphylococcus aureus (MRSA) • Scabies	• Wash hands frequently or use hand sanitizer • Clean and disinfect high-contact surfaces regularly • Avoid sharing personal items (e.g. towels) • Cover cuts and scrapes • Use condoms during sexual activity
Droplet • Common cold • Influenza • Meningococcal diseases • Pertussis (Whooping cough)	• Wash hands frequently or use hand sanitizer • Avoid close contact with people who are ill • Use personal protective barriers (e.g. masks) • Clean and disinfect high-contact surfaces regularly • Refrain from sharing food and/or drinks • Get vaccinated (if available)
Foodborne • Giardia • Shiga-producing E. coli • Salmonella • Listeria • Hepatitis A • Campylobactor	• Wash hands frequently or use hand sanitizer • Clean food preparation areas and utensils to prevent cross contamination • Cook foods properly • Store foods at appropriate temperatures • Use safe water sources for drinking and food preparation • Do not prepare food for others when ill
Vectorborne • Lyme • West Nile virus • Eastern Equine Encephalitis (EEE) • Rabies • Zika	• Use insect repellants • Perform tick checks after being in tick-prone areas • Don't approach or touch stray/wild animals • Wear long sleeve shirts and pants • Shelter indoors during peak mosquito activity

CDC Recommendations for Non-pharmaceutical Interventions during a Pandemic

The table below, from the 2017 Community Mitigation Guidelines to Prevent Pandemic Influenza – United States, recommends nonpharmaceutical interventions for specific environments based upon pandemic severity. Although developed for influenza pandemics, these recommendations may be suitable for other highly pathogenic infectious diseases. Nonpharmaceutical intervention recommendations tailored for Massachusetts residents and visitors will be made by the Commissioner's Executive Team, in consultation with BIDLS leadership.

TABLE 10. Recommended nonpharmaceutical interventions for influenza pandemics, by setting and pandemic severity*

Return to Top

Setting	Pandemic severity Low to moderate severity (mild to moderate pandemic)	High severity (severe pandemic)	Very high severity (very severe to extreme pandemic†)
All	CDC recommends voluntary home isolation of ill persons, respiratory etiquette, hand hygiene, and routine cleaning of frequently touched surfaces and objects.§	CDC recommends voluntary home isolation of ill persons, respiratory etiquette, hand hygiene, and routine cleaning of frequently touched surfaces and objects.	CDC recommends voluntary home isolation of ill persons, respiratory etiquette, hand hygiene, and routine cleaning of frequently touched surfaces and objects.
Residences	CDC generally does not recommend voluntary home quarantine of exposed household members.	CDC might recommend voluntary home quarantine of exposed household members in areas where novel influenza virus circulates.	CDC might recommend voluntary home quarantine of exposed household members in areas where novel influenza virus circulates.
	CDC generally does not recommend use of face masks by ill persons.	CDC might recommend use of face masks by ill persons when crowded community settings cannot be avoided.	CDC might recommend use of face masks by ill persons when crowded community settings cannot be avoided.
Child care facilities, schools for grades K–12, and colleges and universities	CDC might recommend selective school dismissals in facilities serving children at high risk for severe influenza complications.	CDC might recommend temporary preemptive, coordinated dismissals of child care facilities and schools.¶	CDC might recommend temporary preemptive, coordinated dismissals of child care facilities and schools.
		If schools remain open, CDC might recommend social distancing measures.**	If schools remain open, CDC might recommend social distancing measures.
Workplaces	CDC generally does not recommend social distancing measures.	CDC might recommend social distancing measures.††	CDC might recommend social distancing measures.
Mass gatherings§§	CDC generally does not recommend modifications, postponements, or cancellations.	CDC might recommend modifications, postponements, or cancellations.	CDC might recommend modifications, postponements, or cancellations.

Abbreviation: NPI = nonpharmaceutical intervention.

*Personal, community, and environmental NPIs should be 1) initiated early in a pandemic before local epidemics begin to grow exponentially, 2) targeted toward the nexus of transmission (in affected areas where the novel virus circulates), and 3) layered together to reduce community transmission to the greatest extent possible.

†During a very severe or extreme pandemic (similar to the 1918 pandemic), CDC is likely to take an aggressive stance and recommend certain additional NPIs.

§Recommended NPIs are the same for seasonal influenza.

¶Preemptive, coordinated dismissals might be implemented early during a pandemic to decrease the spread of influenza before many students and staff members become ill. Selective dismissals might be implemented by schools that serve students at high risk for complications from infection with influenza. Reactive dismissals might be implemented when many students and staff members are ill and not attending school or when many students and staff members are arriving at school ill and being sent home. Selective and reactive dismissals do not help slow disease transmission in the community.

**Social distancing measures that reduce face-to-face contact in schools might include dividing classes into smaller groups of students who are spaced further apart from each other within the classroom.

††Social distancing measures that reduce face-to-face contact in workplaces might include offering telework and remote meeting options. Flexible sick leave policies should be implemented to encourage workers to stay home if needed.

§§In all scenarios, mass gathering attendance during local outbreaks should be discouraged for persons at high risk for severe influenza-related complications.

Qualls N, Levitt A, Kanade N, et al. Community Mitigation Guidelines to Prevent Pandemic Influenza — United States, 2017. MMWR Recomm Rep 2017;66(No. RR-1):1–34. DOI: http://dx.doi.org/10.15585/mmwr.rr6601a1.

Societal Sectors Appendix

In the event of an infectious disease emergency that affects the Commonwealth, MDPH will need to work cooperatively with representatives from multiple sectors in society to support a coordinated and effective overall response. The sections below describe actions that may be considered by MDPH to best support partners and associated organizations in affected major sectors of society during each interval of an infectious disease emergency response. A list of example disciplines and organizations with whom MDPH may wish to engage within each societal sector in order to maximize effective cooperation is also provided.

Agriculture/Animals

Public

- Massachusetts Department of Agricultural Resources (MDAR)
    - Division of Animal Health
- Massachusetts Department of Fish and Game
    - Division of Fisheries and Wildlife
- Department of Environmental Protection
- Department of Conservation and Recreation
- Massachusetts Environmental Police

Non-profit

- Animal Control Officers Association of Massachusetts
- Animal Rescue League of Boston
- Massachusetts Farm Bureau Federation
- Massachusetts Humane Society
- Massachusetts Society for the Prevention of Cruelty to Animals (MSPCA)
- Massachusetts Veterinary Medical Association
- New England Aquarium
- State of Massachusetts Animal Response Team (SMART)

Preparation	N/A
Investigation/ Alerting	• The MDPH State Veterinarian may collaborate with the Chief Veterinary Health Officer at MDAR regarding any reports of a disease with zoonotic potential • The Food Protection Division within the Bureau for Environmental Health may provide alerts on food safety issues through the HHAN and through the food recall system, which will facilitate rapid notification and transfer of communications with all partners involved in food safety and defense
Recognition	N/A
Initiation	N/A
Acceleration	• In the event of an infectious disease emergency impacting animals, MDPH may consider providing support and/or technical assistance upon request to the Division of Animal Health as they request countermeasures from the National Veterinary Stockpile and plan for the receipt, processing and distribution of assets • If the emerging disease is zoonotic in nature, MDPH may coordinate with DEP and the Division of Animal Health on waste management options for the disposal of carcasses and related materials, which would be classified as infectious waste • MDPH may consider consulting with DEP on waste management issues related to

	disposal of contaminated or potentially contaminated materials • The Massachusetts Environmental Police and or MSP may assist in designating approved routes for shipment of infectious waste materials
Demobilization	N/A

Business/Industry

Public

- Secretary, Labor and Workforce Development
- Massachusetts Department of Workforce Development

Private

- NorthEast Disaster Recovery Information X-change (NEDRIX)
- Chambers of Commerce

Preparation	• MDPH may consider providing guidance to local public health departments on how to partner with selected local businesses to establish closed emergency dispensing sites in order for businesses to provide post-exposure prophylaxis when needed in an infectious disease emergency for their employees and families
Investigation/ Alerting	N/A
Recognition	N/A
Initiation	• MDPH may consider providing guidance as needed to local public health departments with closed EDS agreements with private sector organizations, as requested • MDPH may consider collaborating with MEMA to offer planning resources to private sector partners regarding continuity of operations if the infectious disease emergency is anticipated to be a prolonged event
Acceleration	• MDPH will provide recommendations to business sector representatives related to whether social distancing measures are indicated in the workplace
Demobilization	N/A

Education

Public

- Secretary of Education
- Massachusetts Department of Early Education and Care (EEC)
- Massachusetts Department of Elementary and Secondary Education (DESE)
- Massachusetts Department of Higher Education
- University of Massachusetts system

Non-profit

- Massachusetts Association of School Superintendents

Private

- Residential schools, including colleges and universities
- Independent School League
- Religious elementary and secondary education schools
- Child day care facilities

Preparation	• The Immunization Division will support school nurses as they monitor immunization requirements and will provide technical assistance as needed • MDPH will communicate with school nurses and/or school leaders who may become concerned with unusually high levels of absenteeism due to illnesses and may seek guidance from the Director of School Health, who may then refer them to the Division of Epidemiology depending on the situation • The Director of School Health may encourage schools to ensure that safety plans address the continuation of essential school services during times of high absenteeism; communication with staff and students after school hours, and communication with the media
Investigation/ Alerting	• Should school leaders become aware of rumors concerning infectious disease within the school community, MDPH can consider providing fact sheets, other messaging tools, and other public messaging to dispel inaccurate or incomplete information
Recognition	• Schools may reach out to MDPH, in collaboration with local public health departments, for guidance regarding PPE purchasing and use for staff • MDPH may consider encouraging schools to stay up-to-date regarding appropriate PPE guidance and non-pharmaceutical interventions • Colleges should monitor students that travel or attend classes from other countries where outbreaks may be occurring
Initiation	• MDPH may consider communicating with school leadership on whether there are any evidence-based recommendations for social distancing measures or not. MDPH will consider collaborating with school leadership on joint messaging campaigns that support evidence-based policies • School districts may become concerned about students traveling on school trips contracting an infectious disease, and seek guidance from MDPH. MDPH may consider providing technical expertise related to whether screening students upon return from travel to areas with infectious disease activity is warranted, and may offer guidance on other technical questions to school districts as needed • Should a need for mass dispensing of treatment or prophylaxis be anticipated, and if the pre-identified emergency dispensing site is anticipated to be located within a school, MDPH may encourage local health departments to coordinate with school leaders and other community partners regarding the timeline and scope of EDS operations
Acceleration	• The Commissioner, in conjunction with the state education agency commissioners, may consider discussing the appropriateness and necessity of implementing social distancing measures in schools, depending on the specific characteristics of the outbreak • Communications and recommendations regarding the appropriate evidence-based triggers for school closure and indicators for schools to re-open may originate from the Commissioner's Office and will be shared with the leadership of all appropriate state educational agencies, who may disseminate the recommendations as appropriate to school superintendents or other educational leaders • MDPH, DMH and state educational agencies may collaborate to provide age-appropriate behavioral crisis support for schools that have been affected by the infectious disease emergency
Demobilization	N/A

Environmental Protection/Public Works

Public

- Massachusetts Executive Office of Energy and Environmental Affairs
  - Department of Agricultural Resources
  - Department of Conservation and Recreation
  - Department of Environmental Protection
  - Department of Fish and Game
- Massachusetts Water Resources Authority
- Massachusetts Office of Coastal Zone Management

Non-profit

- Massachusetts Water Pollution Control Association
- Massachusetts Water Works Association
- Massachusetts Highway Association

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	N/A
Initiation	N/A
Acceleration	• If the emerging disease is zoonotic, the MDPH may consider coordinating with DEP and the Division of Animal Health on waste management options for the disposal of carcasses and related materials • MDPH will consider providing recommendations regarding enhanced infection control measures in the public spaces that may be relevant to the threat
Demobilization	N/A

Fire Services

- Secretary, Executive Office of Public Safety and Security
- Department of Fire Services (DFS)
- Fire Chiefs Association of Massachusetts
- Local fire departments

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	N/A
Initiation	N/A
Acceleration	• MDPH and EOPSS will monitor the adequacy and use of personal protective measures for first responders and ensure the first responder community receives timely and accurate information about risks and personal protection • MDPH, EOPSS and DMH may consider collaborating to provide crisis support services as needed to support any responders that have been affected by the infectious disease emergency

Demobilization	N/A

Law Enforcement

- Federal Bureau of Investigation (FBI)
- Secretary, Executive Office of Public Safety and Security (EOPSS)
- Massachusetts State Police (MSP)
- Massachusetts Chiefs of Police Association
- Massachusetts Police Association
- Department of Corrections and County Jails
- Local law enforcement agencies

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	N/A
Initiation	• MDPH may consider communicating any recommendations related to potential social distancing interventions that may be indicated to MEMA, EOPSS and MSP • MDPH may consider coordinating with Department of Environmental Protection (DEP) and/or MSP relating to discussion of any necessary transportation of Category A or other infectious clinical sample and/or waste materials
Acceleration	• For any incident where there is suspicion of an intentional use of biological agents, MDPH may coordinate actions with the relevant federal, state and local law enforcement agencies. MDPH, EOPSS and DMH may collaborate to provide crisis support services as needed to support any responders that have been affected by the infectious disease emergency
Demobilization	N/A

Military Services

- Massachusetts National Guard

Preparation	N/A
Investigation/ Alerting	• If an intentional release of a biological agent is suspected, the FBI will be the lead agency for investigation. MDPH will coordinate with the FBI on public health issues pertaining to the infectious disease event. National Guard assets may be called upon by the Governor to assist with the identification of CBRNE agents and/or substances, assessment of current and projected consequences, and advisement on response measures
Recognition	N/A
Initiation	• MDPH may consider providing closed EDS guidance as requested to the National Guard in the case that antivirals, antibiotics or antidotes are required and available for dispensing, as appropriate for the infectious disease emergency. MDPH may consider coordinating with MEMA, the National Guard, and other security partners to anticipate the need for and logistics surrounding the mass dispensing of pharmaceuticals, cancellation of large public gatherings, or other large scale operations relevant to the infectious disease response
Acceleration	N/A

Demobilization	N/A

Mortuary Services

- Office of the Chief Medical Examiner (OCME)
- Board of Registration in Embalming and Funeral Directing
- Massachusetts Funeral Directors Association
- Funeral Homes
- Morgues

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	• MDPH may consider providing technical assistance specific to the mortuary services sector, such as environmental infection control and PPE considerations to mitigate the spread of disease • Division of Epidemiology staff should consider providing technical assistance and support to the Medical Examiner upon notification of a positive finding on a travel-screening questionnaire
Initiation	• MDPH will consider whether there is a need to provide additional specific technical assistance on issues such as travel and other history screening protocols, environmental infection control, and PPE for the mortuary sector, and will maintain open lines of communication with the OCME regarding death surveillance. The death surveillance contacts at OCME are the Chief Medical Examiner, Chief Medicolegal Investigator, and Chief Administrative Officer
Acceleration	• MDPH may consider working with the death surveillance contacts at OCME to ensure complete reporting of infectious disease-related deaths • MDPH may coordinate with OCME to assess the need to activate the Mass Fatality Management Plan or other relevant plans, as appropriate • MDPH may consider referring to the EOP pertaining to OCME as a support agency at the ESF8 Desk, particularly to coordinate resources to support disaster mortuary services, including Incident Morgue sites, as needed • MDPH may consider coordinating with the OCME to provide information to hospitals regarding notification and transportation of deceased individuals to an Incident Morgue • MDPH may consider collaborating with EOPSS and DMH to provide crisis support for OCME staff that may have been impacted by the infectious disease emergency • MDPH may consider supporting local public health departments as they work with the Board of Registration in Embalming and Funeral Directing regarding the processing of death certificates during an infectious disease emergency
Demobilization	N/A

Transportation

- Massachusetts Department of Transportation (MassDOT)
- Massachusetts Bay Transportation Authority (MBTA)
- Massachusetts Port Authority (Massport)

Preparation	N/A
Investigation/ Alerting	N/A
Recognition	• MDPH may consider providing technical assistance specific to the transportation sector, such as guidance on developing and implementing travel screening tools and infection control protocols
Initiation	• Following the sharing of a case definition and the issuance of CDC guidance, MDPH's BIDLS may communicate with partners in Massport to monitor the number of residents that may be traveling to or from affected areas, in addition to monitoring the volume of visitors arriving to the Commonwealth from affected areas. MDPH's BIDLS will help to provide appropriate content expertise to inform policy decisions as appropriate • MDPH may consider convening a planning meeting with MA Department of Transportation (MADOT) and/or MSP to discuss whether there are any social distancing measures that may be anticipated that would affect public or commercial transportation in the Commonwealth
Acceleration	• The Commissioner, in conjunction with the EOHHS Secretary and Secretary of Transportation, may assess whether there are any additional social distancing measures that may be needed that would affect public or commercial transportation in the Commonwealth • MDPH may continue to provide specific technical assistance on issues such as travel screening protocols, environmental infection control, and social distancing recommendations
Demobilization	N/A

General Considerations – All Sectors

Preparation	• MDPH may reach out to, and collaborate with, various societal sector points of contact when developing, revising and exercising emergency response plans for the Commonwealth, as appropriate • MDPH may consider working with various societal sector points of contact to encourage public health campaigns (i.e. flu prevention, hand hygiene, cough etiquette, etc.)
Investigation/ Alerting	• MDPH may consider disseminating alerts with reports on infectious disease activity outside of Massachusetts as appropriate via Clinical Advisories when there are potential implications for Massachusetts residents and travelers
Recognition	• MDPH may consider disseminating alerts of infectious disease activity within Massachusetts and the potential scope of the infectious disease event to their planning partners via Health and Medical Situational Reports and/or Clinical Advisories, in addition to more specific guidance as it becomes available • MDPH may consider offering public education campaign resources as they become available (i.e. symptoms to look for, how to prevent infection) for wide dissemination • Following State Epidemiologist review, MDPH may disseminate PPE guidance for equipment and training to frontline responders in all sectors
Initiation	• As the scope or nature of the infectious disease emergency changes, MDPH may share these updates with Societal Sector representatives in the form of Health

	and Medical Situation Reports or conference calls, depending on the urgency of the situation • MDPH may consider continuing to provide specific technical assistance on issues such as travel screening protocols, environment infection control, and social distancing recommendations, and will raise awareness of disease-specific resources and materials for public consumption • MDPH may consider collaborating with MEMA to offer guidance to state agencies and other planning partners regarding continuity of operations if the infectious disease emergency is anticipated to be a worsening and/or a prolonged event • MDPH may consider providing guidance as needed describing any countermeasures that are available and recommended for first responders
Acceleration	• As the scope or nature of the infectious disease emergency changes, MDPH may consider sharing these updates with societal sector partners in the form of Health and Medical Situation Reports or conference calls, depending on the urgency of the situation • Upon declaration of a public health emergency by the Governor, the Commissioner, in conjunction with other state government officials, may discuss the implementation of social distancing and community mitigation measures necessary for the containment of the infectious disease, including, but not limited to, deferred travel, school closures, and the suspension of large gatherings. The Commissioner may also issue an order to expand the scope of service to support the response
Demobilization	• MDPH may consider including representatives from societal sectors in any debriefing activities following an infectious disease event, as appropriate • MDPH may consider collecting and documenting the observations, concerns, and other feedback from response partners and other key stakeholders regarding the infectious disease emergency, in order to have these viewpoints reflected in after action reports • MDPH may consider collaborating with MEMA to disseminate information regarding environmental infection control activities, as needed and according to the infectious disease in question • MDPH, MEMA and DMH may collaborate to provide information to the public on how to access crisis support for those who have been impacted by the infectious disease emergency • MDPH may coordinate with DMH and MEMA and EOPSS to assess whether providers' and responders' behavioral health needs are being adequately addressed post-incident

Annex

Mass Vaccination and Dispensing Annex

Mass Vaccination and Dispensing Annex

This Annex includes guidance on undertaking a mass vaccination or mass dispensing campaign for the public, depending on the infectious disease threat and response needed.

Mass Dispensing

Mass dispensing includes the dispensing of antibiotics, antivirals or other medical resources to Massachusetts residents, through their local communities. For additional information on Mass Dispensing see the MDPH Medical Countermeasures Plan maintained by DPH OPEM.

Contact Information:
Medical Countermeasures Coordinator
Office of Preparedness and Emergency Management
Massachusetts Department of Public Health

Mass Vaccination

Mass vaccination occurs when there is a need to vaccinate a sizeable portion of Massachusetts against an infectious disease, such as, but not limited to, pandemic influenza.

Contact Information:
Director, Immunization Division
Massachusetts Department of Public Health
305 South St., Jamaica Plain, MA 02130

Agencies Involved

- Massachusetts Department of Public Health (MDPH)
- 351 Local Public Health Departments
- Heath care providers including hospitals, PCPs, CHS, pharmacies

Overview

Vaccine will be administered in all sites to priority groups determined by the Commissioner of Public Health and based on recommendations from the CDC. Local health departments/local health coalitions have the responsibility to plan Emergency Dispensing Sites (EDSs) for administration of vaccine or medications to large groups of people. Approximately 500 EDS have been identified by local communities. MDPH has developed and distributed guidance for local communities on planning and implementing EDSs. In the event of a pandemic, local communities may use elements of their EDS plans to stand up vaccination clinics for priority groups in their communities. Many communities will use their Medical Reserve Corps (MRCs) to help staff EDS (http://www.mamedicalreservecorps.org/). Many communities use seasonal flu clinics to exercise their EDS plans.

Just-In-Time Training, if needed, will be provided by the BIDLS nursing staff and resources will be posted on the MDPH website.

In addition to local EDS clinics, vaccine will be distributed to hospitals and long term care facilities for vaccination of personnel and patients, and to residential colleges and universities, prisons and jails, and other large residential facilities that have developed plans to vaccinate their personnel and residents. Vaccine will also be distributed to health care providers in outpatient settings for vaccination of their prioritized patients. Retail pharmacies will also play a role in providing vaccine to the public.

Local public safety is responsible for security of the vaccine at EDSs and facility security will be responsible at hospitals, outpatient settings, long-term care facilities, and other facilities.

The established Vaccine Adverse Event Reporting System (VAERS) system will be used for reporting of adverse events associated with the vaccine. Data on vaccines will be transmitted to CDC on a weekly basis using Option 2 of the Countermeasure Response System (CRA).

Provider Recruitment

There are currently close to 3,000 health care provider sites enrolled in the Immunization Division's vaccine distribution division and/or reporting data to the MIIS. This includes close to 900 pediatric providers enrolled in the VFC division, all major hospital systems and community health centers, and over 1,000 pharmacy locations. There are an estimated 1,500 additional immunizing health care providers who are required by law to report their immunizations to the MIIS that are currently not enrolled and reporting data. Active recruitment of these additional health care providers is ongoing and a streamlined enrollment and registration process will be implemented as needed in the event of a pandemic.

Vaccine Allocation and Distribution

- Designated Distribution Manager: MDPH Vaccine Unit Manager
- All providers must be registered with the MIIS in order to receive state-supplied flu vaccine. Registration of providers is currently on-going and a streamlined process will be implemented to rapidly register any remaining providers as needed in the event of a pandemic.

Vaccine Allocation

The MDPH Immunization Division is responsible for vaccine allocation. Vaccine allocation will be based on priority groups as identified by CDC and approved by the MDPH Commissioner's Office, and by the number and types of providers registered with the MIIS and by the estimated patient volume of the provider practices.

Vaccine Distribution

- All pandemic vaccine will be distributed by the current centralized distribution vendor (McKesson) for federally contracted vaccines directly to each provider site enrolled in the MIIS that is being allocated vaccine by the MDPH Immunization Division
- MDPH will be notified on a daily basis through CDC's daily allocations report about the number of doses and formulations that are available for Massachusetts
- Based on the number of doses and formulations available, MDPH will allocate doses directly to provider sites based on the priority groups for vaccination and the quantities of vaccines available at the time. Allocations will be made as frequently as new allocations are made available

- The MDPH Vaccine Unit will create the vaccine allocations in an Excel spreadsheet or other electronic format and then upload them into the MIIS. The MIIS will then generate a vaccine order file that will be uploaded into CDC's VTrckS, which will then generate the vaccine order information that is transmitted to the distributor McKesson
- An email will be sent to every provider receiving an allocation informing them of the number of doses and formulations in their allocation, and when they can expect to receive them
- Once vaccine orders have shipped from McKesson, the vaccine order confirmation information will be downloaded from VTrckS into the MIIS, where the shipment tracking information is made visible to the provider site

Vaccine Administration and Medication Dispensing

Staffing and training requirements

MDPH maintains the *Emergency Dispensing Sites (EDS) A GUIDE FOR LOCAL HEALTH ON PLANNING FOR MEDICAL COUNTERMEASURE (MCM) DISPENSING* OPERATIONS as a guide for local communities https://www.mass.gov/files/documents/2019/08/05/eds-planning-guide-2019.pdf

MDPH will develop contracts with mass vaccinators to be utilized by local health and other agencies to facilitate vaccination of the prioritized groups.

Local EDS plans include a list of health care workers and institutions, and non-medical volunteers, who will staff their EDS, as well as a call-down system for their volunteers. Local EDS plans include workforce protection plans for vaccination of all volunteers.

There are several ways in which non-licensed people could be authorized to administer or dispense necessary medications in a pandemic or emergency situation.

- Current Authority: Pharmacists
  Under current DPH regulations, registered pharmacists may administer all ACIP-recommended vaccines to people 9 years of age and older, provided that the administration is done pursuant to DPH guidelines which include training, record keeping, etc. 105 CMR 700.004(B)(6)

- Current Authority: Paramedics/Mobile Integrated Health & Community EMS
  For complete information regarding approval of a Community EMS Division, please refer to 105 CMR 173.000 and associated sub-regulatory guidance. Mobile Integrated Health Care (MIH) and Community EMS are new divisions that utilize mobile resources to deliver care and services to patients in an out-of-hospital environment in coordination with healthcare facilities or other healthcare providers. For more information, please see: https://www.mass.gov/mobile-integrated-health-care-and-community-ems

- Public Health Emergency
  Under M.G.L. c. 17, § 2A, if the Governor declares that an emergency exists which is detrimental to the public health, the Commissioner may "take such action and incur such liabilities as she/he

may deem necessary to ensure the maintenance of public health and the prevention of disease." This authority is very broad and would allow the Commissioner to issue an order specifying what categories of people could administer or dispense medications to others; what training would be required, etc.

- State of Emergency
  The statute that authorizes the operations of the Massachusetts Emergency Management Agency (MEMA) allows the Governor to declare a state of emergency. When this occurs, the Governor may exercise "any and all authority over persons and property, necessary or expedient for meeting said state of emergency." This authority includes but is not limited to "Variance of the terms and conditions of licenses, permits or certificates of registration issued by the commonwealth or any of its agencies or political subdivisions." Chapter 639 of the Acts of 1950, 33 App. § 13-7(o). Like the public health emergency authority discussed above, this authority is broad and would allow for a Governor's order with respect to administration and dispensing of needed medications.

Personnel who are currently licensed to administer vaccine and/or dispense medication:

- Physicians
- Registered nurses
- Nurse practitioners and other advance practice nurses
- Licensed practical nurses
- Physician assistants
- Paramedics
  Paramedics may administer flu vaccines and other vaccinations designated by the Department to persons 18 years old and over, as authorized by clinical protocols in a Department-approved MIH or Community EMS Program. See 105 CMR 700.003(A) (4) of the Drug Control Program (DCP) regulations.
- Medical Assistants
  Medical assistants who meet the certification requirements to administer immunizations under the direction of a primary care provider (PCP) acting within his or her designated scope of practice.
- Nursing and medical students are authorized to administer vaccine under the direct supervision of licensed practitioner
- Pharmacists & Pharmacy interns
  (Qualified pharmacists and pharmacy interns may administer certain vaccines to individuals 9 years of age and older as included in the Recommended Immunization Schedules approved by the U.S. Centers for Disease Control and Prevention (CDC). MDPH Drug Control Program regulations (105 CMR 700.004 (B)(6)) permit pharmacists and pharmacy interns who have completed a duly accredited training course to administer vaccines designated by the Department. [Regulations permit pharmacy interns to administer vaccines provided that the pharmacy intern is registered as an intern with the Board, has received standardized training in accordance with Department regulations at 105 CMR 700.004(B)(6)(c)1 and the intern is under the direct supervision of a registered pharmacist in accordance with Board of Registration in Pharmacy regulations at 247 CMR 8.01(2)]

Personnel for whom administering vaccine or dispensing medication would constitute an expanded role:

- Emergency medical technicians (EMTs)
- Dentists

Training for volunteers

- MDPH will conduct regional and webinar refresher courses in vaccine storage and handling, administration, and documentation for public health nurses, school nurses, and other community vaccinators, before and during a pandemic event
- MDPH provides support and training for locally-based Medical Reserve Corps (MRC) around the state. The MRCs are involved in EDS exercises conducted by their communities
- MDPH has developed *Guidelines for Vaccination Clinic Operations,* which outlines how to hold an offsite mass vaccination clinic. These guidelines, along with other useful resources or helpful links, can be found on the MDPH Vaccine Administration and Clinical Guidance webpage: https://www.mass.gov/service-details/vaccine-administration-and-clinical-guidance.

Vaccine administration guidance and materials from CDC can be found at:
https://www.cdc.gov/vaccines/hcp/admin/admin-protocols.html

Tools to assist satellite, temporary and off-site vaccination clinics were developed by the National Adult and Influenza Immunization Summit in coordination with CDC and can be found at: https://www.izsummitpartners.org/naiis-workgroups/influenza-workgroup/off-site-clinic-resources/. The tools offer step-by-step guidance for activities that need to take place before, during, and after a vaccination clinic to ensure proper vaccine storage and handling, vaccine administration and patient safety.

- All communities are expected to exercise their EDS plans, provide MDPH with After Action Reports, and use the reports to refine their plans. Many communities use their annual flu clinics to exercise their plans, including the use of the Incident Command System (ICS). Many communities include their Medical Reserve Corp (MRC) and Community Emergency Response Team (CERT) volunteers in these exercises

Protocols, Forms and Information Sheets for Vaccine Administration

MDPH is responsible for making all protocols, forms and information sheets (in multiple languages, as appropriate) used in the EDS available on MDPH website and through the Homeland and Health Alert Network (HHAN). Local EDS managers are responsible for downloading and copying the forms for use during the EDS. Local EDS planning committees are encouraged to have arrangements with copy businesses for large-scale copying of written materials. A family-based data collection form has been developed for emergency vaccination clinics and is being piloted during emergency clinic exercises. This form will be used until a clinic data collection form is developed by CDC, and contains information necessary for the EDS sites to call back people for a second dose of vaccine, if needed.

Protocols for administration will include guidance about:

- Use of standing orders
- Use of Vaccine Information Statements (VISs)
- Screening of all patients for contraindications and precautions
- Providing patients with an immunization record

Documentation of vaccine administration: All immunizations must be reported to the MIIS.

- If two doses are needed, vaccine providers and employers of critical workforce should have plans in place to provide reminders about the 2nd dose. Methods include: immunization cards, EHR-based reminders, MIIS-based reminders, post cards, automated texts or phone calls

Vaccine Safety Monitoring

- Vaccine safety: All vaccines will receive a VIS describing the risks and benefits of the vaccine being administered. VISs in different languages, and other needed vaccine clinic information, can be found at Immunization Action Coalition website: https://www.immunize.org/
- All adverse events will be reported through the federal Vaccine Adverse Events Reporting System (VAERS). Providers and the general public can report adverse events by going to the VAERS website (https://vaers.hhs.gov/) and filling out a report online, or by completing a writeable VAERS PDF form and uploading it to the VAERS website. Additional assistance is available via email at info@vaers.org or by phone at (800) 822-7967
- Designated Massachusetts VAERS Coordinator: MDPH Immunization Nurse Manager
- Contingency plan for emergency use authorization (EUA) provisions: MDPH will follow all EUA protocols for inventory control and record keeping, including signed consent. All protocols, forms and information sheets relating to the EUA protocol will be provided to all clinics/providers using the EUA vaccine, and will be posted on the MDPH website described above

Verification of priority group membership at EDS:

- MDPH will update local health departments and all providers on groups eligible for vaccine at any time
- Identifying priority group membership at EDS sites will include asking vaccinees about their age, medical, and/or employee status
- EDS sites will not be required to verify membership in a priority group
- Rationale for priority groups will be included in public messaging

Communications

Please see the Communications Section of this plan for details on communication with the public about the following issues:

- Rationale for priority groups (if applicable)
- Contraindications and possible adverse events from the vaccine
- Location of vaccination clinics
- Measures other than vaccine to prevent the spread of the disease

Websites

- MDPH OPEM website: https://www.mass.gov/orgs/office-of-preparedness-and-emergency-management
- MDPH BIDLS website: https://www.mass.gov/orgs/bureau-of-infectious-disease-and-laboratory-sciences

- From this website, you can link to disease specific pages, and also to other helpful information regarding vaccination
- This web page has links to the CDC, is continually updated, and will be a primary source of information for providers and the public during an outbreak of infectious disease

MDPH urges providers and other agencies to *register their locations* on the HealthMap Vaccine Finder site too (https://vaccinefinder.org/)

- MedFinder is also a free online service for provides and the public to quickly locate nearby pharmacies, clinics or other healthcare facilities with MCMs on hand. Currently, MedFinder is focused on influenza medications. For more information see: https://medfinder.org/
- As part of their EDS plans, local communities also are expected to have plans to provide the people in their jurisdiction with specific information about their public clinics

Mass 211/Flu On Call

If needed, MDPH, in collaboration with MEMA, may activate Mass 211 using MDPH staff and/or existing 211 staff with special training to answers questions about where to get vaccine, care of sick patients at home, and prevention measures. Alternatively, during an influenza pandemic, Flu on Call® may be utilized.

Flu on Call® is an effort led by the U.S. Centers for Disease Control and Prevention (CDC), in collaboration with United Way Worldwide, and other partners to establish a national network of telephone help lines, staffed by information specialists and medical professionals, designed to be used during a severe influenza pandemic.

Pictogram Signage and Show Me Tool

Pictogram signage and a pocket communicator utilizing pictograms have been developed. The materials include a series of pictograms designed to promote universal access to emergency dispensing site services. The pictograms represent the clinic stations as well as questions that staff may ask a client. The Show Me Tool was developed to be used to aid in language identification and pictographic communication of screening and treatment concepts. These materials are available for distribution.

Special Populations

Local EDS plans include provisions for the vaccination of special populations (e.g., the homebound and homeless, people with disabilities (both physical and cognitive), people who speak limited English or languages other than English, etc.). MDPH will have required documents translated into at least 6 languages. These documents will be posted on the MDPH website. Local Boards of Health can also use the ShowMe for Emergencies Tool and app to enhance communication between individuals with communication challenges and public health personnel and volunteers during times of emergencies. The ShowMe tool is available at: https://www.mass.gov/service-details/show-me

MDPH's Emergency Dispensing Sites (EDS): A Guide for Local Health on Planning for Medical Countermeasure (MCM) Dispensing Operations can be found at: https://www.mass.gov/files/documents/2019/08/05/eds-planning-guide-2019.pdf

Pandemic Influenza Specific Information

Pandemic Planning Assumptions

Epidemiologic and Clinical Assumptions

- The seasonality of a pandemic cannot be predicted with certainty
- The novel virus will have the ability to spread rapidly worldwide
- If the pandemic is characterized by severe disease, it will have the potential to disrupt national and community infrastructures (including health care, transportation, commerce, utilities, and public safety) due to widespread illness, absenteeism, and death among workers and their families, as well as concern about ongoing exposure to the virus
- During a pandemic, infection in a localized area can last about six to eight weeks. At least two pandemic disease waves will occur. Following the pandemic, the newly circulating virus is likely to become a regularly occurring seasonal influenza
- Near simultaneous clusters likely will occur in many communities across the United States, thereby limiting the ability of any jurisdiction to support and assist other jurisdictions
- Immunity to the novel pandemic influenza subtype will vary based on the strain of the virus, but most people will likely be susceptible, depending on whether a similar strain has circulated in previous seasons
- The clinical disease attack rate could range from 20% to 30% of the overall population. Illness rates will likely vary by age group (and other epidemiologic characteristics) and could create selective pressures on segments of the community, such as nursing homes or schools
- The typical incubation period (the time between acquiring the infection and becoming ill) for influenza averages two days (range is one to four days)
- Of those who become ill with influenza, up to 50% will seek outpatient medical care
- The number of hospitalizations and deaths will depend on the severity of the disease and the success of steps to mitigate its transmission. Nonetheless, estimates could differ by as much as a factor of 10 between more and less severe scenarios
- Risk groups for severe and fatal infections cannot be predicted with certainty. People who become infected will shed virus and transmit infection for up to one day before the onset of illness. Viral shedding and the risk for transmission will be greatest during the first two days of illness and may persist for five to seven days
- Children will shed the greatest amount of virus and, therefore, are likely to pose the greatest risk for transmission
- The most severely ill people with influenza will shed the most virus for the longest period of time
- One or two secondary infections will occur as a result of transmission from someone who is ill. In contrast, some estates from past pandemics have been higher, with up to three secondary infections per primary case
- In the event of influenza pandemic, up to 945,000 doses could be available for Massachusetts per week until 80% of the population has received 2 doses

Vaccine Assumptions

- Delays in availability of vaccines and shortages of antiviral drugs are likely, particularly early in the pandemic
- Two doses of pandemic influenza vaccine, separated by 21 days, may be recommended for all people ages 6 months and older
- Demand for the pandemic influenza vaccination may be high throughout the response; at least 80% of the population may want to be vaccinated
- Seasonal influenza vaccine production and campaign may be halted, but other routine immunizations will continue
- Adequate federal funding will be available to implement a large-scale pandemic vaccination response
- Mass vaccination clinics will be used more extensively than for H1N1
- HHS will work with partners, including vaccine manufacturers, to develop pandemic vaccine matched to the emerging circulating strain for the entire US population; however, there may be limited early supply of this matched vaccine
- Vaccination goals for the critical workforce, high risk groups and the general public will tailored according to pandemic severity, transmissibility, vaccine supply and be in accordance with the latest guidance from CDC and HHS
- In a scenario where there may be initial limited supply of vaccine, targeted vaccination may be recommended for the first stages of a response for young children, pregnant women, high-risk adults, health care workers, and/or certain other critical workforce groups depending on supply and severity
- Pandemic influenza vaccine and ancillary supplies, including needles and syringes, will be provided at no cost to pandemic vaccine providers
- Most pandemic influenza vaccine will be inactivated, packaged in multi-dose vials, and may require adjuvant, which may need to be mixed at the point of administration by vaccine providers
- Federally supplied pandemic influenza vaccine may be supplied under an Emergency Use Authorization (EUA)[9]
- CDC will distribute standard communication materials on the EUA for the general public, similar to the vaccine information statement (VIS), and specific communication to vaccine providers on the EUA
- Public health divisions will be required to enroll pandemic influenza vaccine providers (similar to the 2009 H1N1 response) using a template developed by CDC
- Pandemic influenza vaccine distribution, based on state population or pro-rata, may begin as early as 45 days after the decision is made to make and distribute pandemic influenza vaccine
- Once developed, pandemic vaccine matched to the emerging pandemic virus strain may become available for approximately 10–15% of the U.S.population per week for distribution to enrolled vaccine providers (i.e., 30–45M vaccines may be available nationally per week once pandemic vaccine is available for distribution)

- HHS has stockpiled a very limited supply of vaccine against influenza A viruses predicted to have pandemic potential.During the early stages of an influenza pandemic response, this stockpiled vaccine may be determined to be useful against the emerging pandemic virus and may be distributed
- All influenza vaccine will be administered according to the priorities set by the Commissioner of Public Health, pursuant to MGL Chapter 111, Section 5A., and based on the priority groups recommendation of the U.S. Department of Health and Human Services (DHHS). This list may change on short notice depending upon the epidemiologic and clinical features of the pandemic disease
- Pandemic vaccine will be distributed to sites administering it to priority groups and the general public. These sites include (but are not limited to) provider sites, occupational health sites, hospitals, pharmacies emergency dispensing sites (EDS) and other mass vaccination sites as described below
- Local health departments/local health coalitions have plans in place to administer vaccine to essential personnel and residents based on the established priority groups
- The current Vaccine Adverse Event Reporting System (VAERS) system will be used to monitor vaccine safety

Sources:

Epidemiologic and Clinical Assumptions:

Pandemic Influenza Plan. 2017 Update. DHHS, CDC. p. 43-44

https://www.cdc.gov/flu/pandemic-resources/pdf/pan-flu-report-2017v2.pdf

Vaccine Assumptions:

Roadmap to Implementing Pandemic Influenza Vaccination of Critical Workforce – Guidance for State and Local Planners 2019. CDC and HHS. See page 9 https://www.cdc.gov/flu/pandemic-resources/pdf/roadmap_panflu.pdf

Vaccination of Priority Groups

The tables below list the priority groups for influenza vaccine during a severe pandemic. The numbers in each group are rough estimates derived through extrapolation of national estimates as listed in the 2018 Interim Updated Planning Guidance on Allocating and Targeting Pandemic Influenza Vaccine. (https://www.cdc.gov/flu/pandemic-resources/pdf/2018-Influenza-Guidance.pdf- please see this document for a more detailed definition of each group). Another source is the CDC document Roadmap to Implementing Pandemic Influenza Vaccination of Critical Workforce (https://www.cdc.gov/flu/pandemic-resources/pdf/roadmap_panflu.pdf)

All public and private employers of essential personnel (health care workers, public health and public safety workers, and utility, transportation and telecommunications/IT workers) are responsible for developing continuity of operations plan and prioritizing their personnel for vaccination.

Category	Population Group	Estimated Number[3]	Low Severity[4]	Moderate Severity	High/ Very High Severity
Homeland and national security	Deployed[5] & mission essential personnel	850,000			
	Essential military support & sustainment personnel	650,000			
	Intelligence services	150,000			
	National Guard personnel	500,000			
	Other domestic national security personnel	150,000			
	Other active duty military & essential support	1,500,000			
Health care and community support services	Public health personnel	300,000			
	Inpatient health care providers	3,200,000			
	Outpatient & home health providers	2,600,000			
	Health care providers in long-term care facilities	1,600,000			
	Pharmacists & pharmacy technicians	725,000			
	Community support & emergency management	600,000			
	Mortuary services personnel	50,000			
	Other health care personnel	350,000			
Other critical infrastructure	Emergency services & public safety sector personnel (EMS, law enforcement, & fire services)	2,000,000			
	Manufacturers of pandemic vaccine & antivirals	50,000			
	Communications/information technology (IT), electricity, nuclear, oil & gas, water sector personnel, & financial clearing & settlement personnel	2,200,000			
	Critical government personnel - operational & regulatory functions	425,000			
	Banking & finance, chemical, food & agriculture, pharmaceutical, postal & shipping, & transportation sector personnel (critical infrastructure with greater redundancy)	3,400,000			
	Other critical government personnel	400,000			
General population	Pregnant women	4,000,000			
	Infants & toddlers 6-35 months old	11,000,000			
	Household contacts of infants <6 months old	4,500,000			
	Children 3-18 years old with high risk condition	7,000,000			
	Children 3-18 years old without high risk condition	62,000,000			
	Adults 19-64 years old with high risk condition	38,000,000			
	Adults ≥65 years old	41,000,000			
	Healthy adults 19-64 years old	132,000,000			

Low Severity Influenza Pandemic

MA % of US Population = 2.1097%

US Census = 327,167,434 MA Census = 6,902,149

Category	Population Group	US Estimate	MA Estimate	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	TOTALS
Homeland & National Security	Deployed & Mission-Critical Personnel	850,000	17,932	17,932					
	Critical Military Support & Sustainment Personnel	450,000	9,494						
	Intelligence Services	150,000	3,165						
	National Guard Personnel	500,000	10,548						
	Other Domestic National Security Personnel	150,000	3,165						
	Other Active Duty Military & Critical Support	1,500,000	31,645						
Health Care & Community Support Services	Public Health Personnel	300,000	6,329	6,329					
	Inpatient Health Care Providers	3,200,000	67,509	67,509					
	Outpatient & Home Health Providers	2,600,000	54,851	54,851					
	Health Care Providers in Long-Term Care Facilities	1,600,000	33,755	33,755					
	Pharmacists and Pharmacy Technicians	725,000	15,295	15,295					
	Community Support & Emergency Management	600,000	12,658						
	Mortuary Services Personnel	50,000	1,055						
	Other Health Care Personnel	350,000	7,384						
Critical Infrastructure	Emergency Services & Public Safety Sector Personnel (EMS, Law Enforcement, & Fire Services)	2,000,000	42,193	42,193					
	Manufacturers of Pandemic Vaccine & Antivirals	50,000	1,055	1,055					
	Communications/Information Technology (IT, Electricity, Nuclear, Oil & Gas, Water Sector Personnel, & Financial Clearing & Settlement Personnel)	2,200,000	46,413						
	Critical Government Personnel-Operational & Regulatory Functions	425,000	8,966						
	Banking & Finance, Chemical, Food & Agriculture, Phamaceutical, Postal & Shipping, & Transportation Sector Personnel (Critical Infrastructure with greater Redundancey)	3,400,000	71,729						
	Other Critical Government Personnel	400,000	8,439						
General Population	Pregnant Women	4,000,000	84,387	84,387					
	Infants & Toddlers 6-35 Months Old	11,000,000	232,064	232,064					
	Household Contacts of Infants < 6months old	4,500,000	94,935		94,935				
	Children 3-18 Years Old with High-Risk Conditions	7,000,000	147,677		147,677				
	Children 3-18 Years Old Without High-Risk Conditions	62,000,000	1,307,995		1,307,995				
	Adults 19-64 Years Old with High-Risk Conditions	38,000,000	801,674		801,674				
	Adults > 65 Years Old	41,000,000	864,964		864,964				
	Healthy Adults 19-64 Years Old	132,000,000	2,784,763			2,784,763			
TOTALS		321,000,000	6,772,037	555,370	3,217,245	2,784,763	0	0	6,557,378

Moderate Severity Influenza Pandemic

MA % of US Population = 2.1097%

US Census = 327,167,434 MA Census = 6,902,149

Category	Population Group	US Estimate	MA Estimate	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	TOTALS
Homeland & National Security	Deployed & Mission-Critical Personnel	850,000	17,932	17,932					
	Critical Military Support & Sustainment Personnel	450,000	9,494		9,494				
	Intelligence Services	150,000	3,165		3,165				
	National Guard Personnel	500,000	10,548		10,548				
	Other Domestic National Security Personnel	150,000	3,165		3,165				
	Other Active Duty Military & Critical Support	1,500,000	31,645			31,645			
Health Care & Community Support Services	Public Health Personnel	300,000	6,329	6,329					
	Inpatient Health Care Providers	3,200,000	67,509	67,509					
	Outpatient & Home Health Providers	2,600,000	54,851	54,851					
	Health Care Providers in Long-Term Care Facilities	1,600,000	33,755	33,755					
	Pharmacists and Pharmacy Technicians	725,000	15,295	15,295					
	Community Support & Emergency Management	600,000	12,658		12,658				
	Mortuary Services Personnel	50,000	1,055		1,055				
	Other Health Care Personnel	350,000	7,384		7,384				
Critical Infrastructure	Emergency Services & Public Safety Sector Personnel (EMS, Law Enforcement, & Fire Services)	2,000,000	42,193	42,193					
	Manufacturers of Pandemic Vaccine & Antivirals	50,000	1,055	1,055					
	Communications/Information Technology (IT, Electricity, Nuclear, Oil & Gas, Water Sector Personnel, & Financial Clearing & Settlement Personnel)	2,200,000	46,413						
	Critical Government Personnel-Operational & Regulatory Functions	425,000	8,966						
	Banking & Finance, Chemical, Food & Agriculture, Phamaceutical, Postal & Shipping, & Transportation Sector Personnel (Critical Infrastructure with greater Redundancey)	3,400,000	71,729						
	Other Critical Government Personnel	400,000	8,439						
General Population	Pregnant Women	4,000,000	84,387	84,387					
	Infants & Toddlers 6-35 Months Old	11,000,000	232,064	232,064					
	Household Contacts of Infants < 6months old	4,500,000	94,935		94,935				
	Children 3-18 Years Old with High-Risk Conditions	7,000,000	147,677		147,677				
	Children 3-18 Years Old Without High-Risk Conditions	62,000,000	1,307,995		1,307,995				
	Adults 19-64 Years Old with High-Risk Conditions	38,000,000	801,674			801,674			
	Adults > 65 Years Old	41,000,000	864,964			864,964			
	Healthy Adults 19-64 Years Old	132,000,000	2,784,763				2,784,763		
TOTALS		321,000,000	6,772,037	555,370	1,598,074	1,698,283	2,784,763	0	6,636,490

Severe Influenza Pandemic

MA % of US Population = 2.1097%

US Census = 327,167,434 MA Census = 6,902,149

Category	Population Group	US Estimate	MA Estimate	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	TOTALS
Homeland & National Security	Deployed & Mission-Critical Personnel	850,000	17,932	17,932					
	Critical Military Support & Sustainment Personnel	450,000	9,494		9,494				
	Intelligence Services	150,000	3,165		3,165				
	National Guard Personnel	500,000	10,548		10,548				
	Other Domestic National Security Personnel	150,000	3,165		3,165				
	Other Active Duty Military & Critical Support	1,500,000	31,645			31,645			
Health Care & Community Support Services	Public Health Personnel	300,000	6,329	6,329					
	Inpatient Health Care Providers	3,200,000	67,509	67,509					
	Outpatient & Home Health Providers	2,600,000	54,851	54,851					
	Health Care Providers in Long-Term Care Facilities	1,600,000	33,755	33,755					
	Pharmacists and Pharmacy Technicians	725,000	15,295	15,295					
	Community Support & Emergency Management	600,000	12,658		12,658				
	Mortuary Services Personnel	50,000	1,055		1,055				
	Other Health Care Personnel	350,000	7,384			7,384			
Critical Infrastructure	Emergency Services & Public Safety Sector Personnel (EMS, Law Enforcement, & Fire Services)	2,000,000	42,193	42,193					
	Manufacturers of Pandemic Vaccine & Antivirals	50,000	1,055	1,055					
	Communications/Information Technology (IT, Electricity, Nuclear, Oil & Gas, Water Sector Personnel, & Financial Clearing & Settlement Personnel)	2,200,000	46,413		46,413				
	Critical Government Personnel-Operational & Regulatory Functions	425,000	8,966		8,966				
	Banking & Finance, Chemical, Food & Agriculture, Phamaceutical, Postal & Shipping, & Transportation Sector Personnel (Critical Infrastructure with greater Redundancey)	3,400,000	71,729			71,729			
	Other Critical Government Personnel	400,000	8,439			8,439			
General Population	Pregnant Women	4,000,000	84,387	84,387					
	Infants & Toddlers 6-35 Months Old	11,000,000	232,064	232,064					
	Household Contacts of Infants <6months old	4,500,000	94,935		94,935				
	Children 3-18 Years Old with High-Risk Conditions	7,000,000	147,677		147,677				
	Children 3-18 Years Old Without High-Risk Conditions	62,000,000	1,307,995			1,307,995			
	Adults 19-64 Years Old with High-Risk Conditions	38,000,000	801,674				801,674		
	Adults >_65 Years Old	41,000,000	864,964				864,964		
	Healthy Adults 19-64 Years Old	132,000,000	2,784,763					2,784,763	
TOTALS		321,000,000	6,772,037	555,370	338,074	1,427,191	1,666,638	2,784,763	6,772,037

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