Infectious Disease Emergency Response Plan

(Last Updated March 2016)

March 2016
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We also acknowledge the contributions to the plan by the Utah Department of Health Bureau of Emergency Medical Services and Preparedness.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAR</td>
<td>After-Action Report</td>
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<tr>
<td>AI/AN</td>
<td>American Indians/Alaskan Natives</td>
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<tr>
<td>BOE</td>
<td>Bureau of Epidemiology</td>
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<tr>
<td>BT</td>
<td>Bioterrorism</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<td>COOP</td>
<td>Continuity of Operations Plan</td>
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<tr>
<td>DCP</td>
<td>Disease Control and Prevention</td>
</tr>
<tr>
<td>DOC</td>
<td>Department Operations Center</td>
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<td>DREAM</td>
<td>Disease Response, Evaluation, Analysis and Monitoring</td>
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<td>EMS</td>
<td>Emergency Medical Services</td>
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<td>EOC</td>
<td>Emergency Operations Center</td>
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<td>EOP</td>
<td>Emergency Operations Plan</td>
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<td>EPI</td>
<td>Epidemiology</td>
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<td>EVD</td>
<td>Ebola Virus Disease</td>
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<tr>
<td>IAP</td>
<td>Incident Action Plan</td>
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<tr>
<td>ICS</td>
<td>Incident Command System</td>
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<td>IDER</td>
<td>Infectious Disease Emergency Response</td>
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<tr>
<td>IVR</td>
<td>Interactive Voice Response</td>
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<td>JAS</td>
<td>Job Action Sheet</td>
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<td>JIC</td>
<td>Joint Information Center</td>
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<tr>
<td>LHD</td>
<td>Local Health Department</td>
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<tr>
<td>MERS</td>
<td>Middle East Respiratory Syndrome</td>
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<tr>
<td>NACCHO</td>
<td>National Association of County and City Health Officials</td>
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<tr>
<td>PIO</td>
<td>Public Information Officer</td>
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<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
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<tr>
<td>SARS</td>
<td>Severe Acute Respiratory Syndrome</td>
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<td>SERT</td>
<td>State Emergency Response Team</td>
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<tr>
<td>SME</td>
<td>Subject Matter Expert</td>
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<tr>
<td>SOP</td>
<td>Standard Operating Procedures</td>
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<tr>
<td>UDOH</td>
<td>Utah Department of Health</td>
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<tr>
<td>UNIS</td>
<td>Utah Notification &amp; Information System</td>
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<td>UPHL</td>
<td>Utah Public Health Laboratory</td>
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</table>
I. IDER OVERVIEW

A. BACKGROUND

Infectious disease emergencies, such as pandemic influenza or bioterrorism event, have the potential to cause widespread illness and death. Infectious disease emergencies range from naturally occurring outbreaks of illness (e.g., measles, pertussis, hepatitis A, meningococcal disease) to emerging infectious diseases (e.g., SARS, avian influenza) or intentional acts of bioterrorism (e.g., anthrax). The circumstances of infectious disease emergencies vary by many factors, including type of agent, scale of exposure, and mode of transmission. Planning and preparing in advance of an infectious disease emergency is critical for an effective response.

Over time, as laboratory detection and surveillance of infectious diseases has improved, and outbreak investigations have become more numerous and complex, the need for a coordinated response by public health and its partners has increased. At the same time, globalization and political issues have created an environment where biological agents may also become terrorist threats.

In response to these issues, the Utah Department of Health (UDOH) created the Infectious Disease Emergency Response (IDER) Plan as a framework with the flexibility to respond to any infectious disease incident.

B. PURPOSE

The purpose of the IDER Plan is to provide guidance for containing an outbreak of disease caused by an infectious organism or a biological toxin, or responding to other infectious disease emergencies by UDOH. This is consistent with UDOH’s mission to protect the public from illness and/or death. In the past, UDOH has drafted disease-specific plans to address infectious disease emergencies. However, as it is apparent that there are many infectious disease threats and events that may require a coordinated response, this plan has been organized as an all-inclusive plan for any infectious disease emergency. The plan has also been organized to fit into the state’s general disaster and emergency response planning systems because it is important for infectious disease emergency response to be well-integrated into these systems. Many of the basic response activities for infectious diseases are similar, and this approach to planning will also help to avoid duplication.

The goals of this plan are to minimize serious illness and death, and limit societal disruption and economic losses. The plan is also intended to coordinate well with response plans at the local, national, and global levels. Efforts have been made to ensure this plan is consistent with plans developed by the World Health Organization and the U.S. Department of Health and Human Services.

The approach to writing the IDER Plan is modeled after a toolkit developed by the San Francisco Bay Area Advanced Practice Center and endorsed by the National Association of City and County Health Officers (NACCHO) (http://apc.naccho.org/Products/APC20102190/Pages/Overview.aspx). As such, the organization of the plan follows the Incident Command System (ICS) structure and addresses planning and policies, roles and responsibilities, operations, logistics and finance for any incident. The planning process has been fully
integrated with and is part of the state’s all-hazards emergency planning process (IntroductionMarch2011.pdf).

Activities that may be implemented during an infectious disease emergency response include:

- Coordinating with other local, respective AI/AN health liaison, regional, state, and federal agencies and other organizations responding to the emergency
- Developing and disseminating information and guidance for the medical community, responders, general public, and special populations and settings
- Working with partners to implement public health disease containment measures such as infection control, mass prophylaxis (e.g., vaccines, immunoglobulin), isolation and quarantine, or restriction and clearance
- Working with partners who coordinate medical care systems and management of alternate care and/or shelter sites
- Conducting epidemiological surveillance and investigation activities, such as surveillance, data collection, outbreak investigation, and laboratory testing
- Collecting and analyzing data to support the development of objectives, strategies, and policies

The UDOH IDER plan is focused on activities at the state level and does not intend to instruct local health department (LHDs) on their responses to infectious disease emergencies. LHDs have important public health powers including direct responsibility for assembling public health surveillance data, implementing federal and state programs, administering federal or state public health laws, and setting public health policies for their specific populations. Outbreak investigations and public health events usually begin and end at the local level, and LHDs decide how they will delegate the authority and the scope of the authority in an outbreak investigation. Therefore, each LHD may stand up its own ICS structure and may create a plan that is tailored specifically to its own needs.

C. ROLES AND RESPONSIBILITIES

UDOH is the lead agency for coordination of any state-level health or medical emergency response. Under the Communicable Disease Control Act (Rule R386-702), UDOH has the authority to investigate and control the causes of epidemic infections and communicable disease within the state. UDOH shall provide for the statewide detection, reporting, prevention, and control of communicable diseases, epidemic infections, or any other health hazard which may affect public health.

This plan is focused on UDOH’s responsibilities and activities regarding infectious disease emergencies. An infectious disease emergency that encompasses a large region of the state, the entire state, or the nation would require significant coordination, consistency, and standards to ensure that all citizens of Utah are informed and protected, and receive appropriate care. A situation such as this would require the UDOH to lead a coordinated response with all LHDs, tribal areas, and partnering response agencies. Thus, the plan includes guidance for best practices and coordination of activities across the state. However, the plan does not presume to instruct LHDs and tribal areas on their local responses to an event. Disaster response is inherently local, and LHDs and tribal areas have developed their own plans for response based on their needs and capabilities. This plan seeks to complement, rather than replace, local health planning. Throughout the planning process, LHDs and tribal areas have been informed of the state’s planning process and invited to provide input in areas where their local responses and activities may be impacted.
**UDOH Staff**: UDOH’s Bureau of Epidemiology (BOE) is the lead section for an infectious disease emergency response and will provide leadership for UDOH Department Operations Center (DOC) staff for the duration of an IDER response. UDOH Executive Leadership will serve as the Policy Group, with the role of advising response leadership and making policy decisions. Other UDOH ICS positions will be staffed by UDOH Epidemiology, Laboratory, Preparedness, Emergency Medical Services, and Employee Response Team, as determined by the Incident Commander.
## IDER ORGANIZATIONAL ROLES AND RESPONSIBILITIES

<table>
<thead>
<tr>
<th>JOB TITLE</th>
<th>TASK OVERVIEW</th>
<th>CRITICAL SKILLS</th>
<th>CORE POSITION*</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMAND STAFF</strong></td>
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<tr>
<td>Incident Commander</td>
<td>Manage the overall incident. Develop the incident action plan, sets objectives, and approves major decisions.</td>
<td>Management and leadership experience; ICS experience.</td>
<td></td>
<td>DOC</td>
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<tr>
<td>Medical Officer</td>
<td>Provide clinical recommendations.</td>
<td>Medical and infectious disease experience.</td>
<td></td>
<td>DOC</td>
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<tr>
<td>Public Information Officer</td>
<td>Liaison to media. Provide media and social networking plan. Develop press releases. Serve as a liaison to the JIC as needed.</td>
<td>Media/public relations experience.</td>
<td></td>
<td>DOC/JIC</td>
</tr>
<tr>
<td>SERT Liaison</td>
<td>Provide point of contact and coordination with SERT (State Emergency Response Team).</td>
<td>Management, leadership experience, and communication skills.</td>
<td></td>
<td>State EOC/DOC</td>
</tr>
<tr>
<td>LHD Liaison</td>
<td>Provide point of contact and provide recommendations and prepare orders for isolation and/or quarantine.</td>
<td>Management, leadership and communication skills.</td>
<td></td>
<td>DOC</td>
</tr>
<tr>
<td>Public Health Information Hotlines</td>
<td>Answer outbreak/disease specific questions from the public.</td>
<td>Communication and information management skills.</td>
<td></td>
<td>DOC</td>
</tr>
<tr>
<td>AI/AN Health Liaison</td>
<td>Provide point of contact and coordination with tribal health departments.</td>
<td>Communication and management skills, experience working with tribal health departments.</td>
<td></td>
<td>Highland Building</td>
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<tr>
<td><strong>FINANCE</strong></td>
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<tr>
<td>Finance/Administration Section Chief</td>
<td>Carry out unit functions if they have not been activated. Oversee issues related to personnel for the response. Identify and mobilize additional staffing resources required for the response.</td>
<td>Accounting or purchasing manager and authority to approve purchase orders. Human resource management experience. HR experience.</td>
<td></td>
<td>DOC</td>
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<tr>
<td><strong>LOGISTICS</strong></td>
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<tr>
<td>Logistics Section Chief</td>
<td>Track resources used for the response. Obtain/request required supplies. Recruit, orient, &amp; train additional people to help with response efforts. Ensure all emergency communication &amp; resource monitoring systems function properly.</td>
<td>Experience in facilities, systems or HR. Experience in Volunteerism, Medical Reserve Corps. Experience in systems, IT, data management. Experience in security, law enforcement.</td>
<td></td>
<td>DOC</td>
</tr>
<tr>
<td>Role</td>
<td>Responsibilities</td>
<td>Required Skills</td>
<td>Department</td>
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<tr>
<td>Operations Section Chief</td>
<td>Achieving objectives set by the Command staff through directed strategies and execution of tactics.</td>
<td>Management, leadership and communication skills.</td>
<td>DOC</td>
<td></td>
</tr>
<tr>
<td>EMS Liaison</td>
<td>Provide point of contact and coordinate activities with the Bureau of Emergency Medical Services.</td>
<td>Management, leadership and communication skills, emergency management skills.</td>
<td>DOC</td>
<td></td>
</tr>
<tr>
<td>Healthcare Liaison</td>
<td>Coordinate with healthcare sites, hospitals, clinics, and other healthcare facilities.</td>
<td>Management and communication skills, knowledge of healthcare system.</td>
<td>DOC</td>
<td></td>
</tr>
<tr>
<td>Lab Operations</td>
<td>Provide guidance on specimen collection, testing procedures, and regional lab resources.</td>
<td>Ability to understand and interpret lab results; familiarity with lab procedures.</td>
<td>UPHL</td>
<td></td>
</tr>
<tr>
<td>Epidemiology Operations Chief</td>
<td>Supervise and manage Epidemiology, Surveillance, &amp; Data Analysis Branch activities.</td>
<td>Supervisory experience; Training and/or experience in epidemiological field investigations.</td>
<td>DOC</td>
<td></td>
</tr>
<tr>
<td>Investigation Team</td>
<td>Manage and coordinate Investigation Group activities. Collect information about exposures, contacts, and other details.</td>
<td>Supervisory or project coordination experience; experience and/or education in epidemiology field investigations.</td>
<td>DOC</td>
<td></td>
</tr>
<tr>
<td>NEDSS/Informatics</td>
<td>Provide guidance on collecting, managing and analyzing data about the infectious disease. Develop or enhance systems to support investigation and response.</td>
<td>Data management experience and knowledge of clinical data collection.</td>
<td>DOC</td>
<td></td>
</tr>
<tr>
<td>Active Monitoring Team</td>
<td>Conduct one-on-one interviews with cases and contacts to collect information about exposures, symptoms, and other details.</td>
<td>Knowledge of infectious disease and experience in contact tracing.</td>
<td>DOC</td>
<td></td>
</tr>
<tr>
<td>Surveillance</td>
<td>Coordinate and manage surveillance activities and develop a surveillance strategy.</td>
<td>Knowledge of and experience in infectious disease surveillance.</td>
<td>DOC</td>
<td></td>
</tr>
<tr>
<td>Public Health Guidance</td>
<td>Develop and distribute clinical and Public Health guidance for external partners.</td>
<td>Infectious disease knowledge and experience, and organizational skills.</td>
<td>DOC</td>
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</tr>
<tr>
<td>Infection Control</td>
<td>Oversee implementation of activities to prevent the spread of disease and prevent mortality.</td>
<td>Knowledge of and experience in infectious disease surveillance and control.</td>
<td>DOC</td>
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</tr>
<tr>
<td>Data Security</td>
<td>Ensure secure transfer and storage of confidential information regarding the infectious disease.</td>
<td>Knowledge of and experience in data security.</td>
<td>DOC</td>
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</tr>
<tr>
<td>Role</td>
<td>Responsibilities</td>
<td>Knowledge and Skills</td>
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<tr>
<td>Immunizations Chief</td>
<td>Oversee activities to dispense antibiotics/vaccines to at-risk populations.</td>
<td>Infectious disease and vaccine knowledge and experience, understanding vaccine/IG ordering, handling, and storage.</td>
<td></td>
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</tr>
<tr>
<td>Vaccine Supply</td>
<td>Monitor quantity of vaccine administered, and coordinate vaccine ordering, handling, and storage.</td>
<td>Knowledge of infectious disease and ordering, handling, and storage of vaccine.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IG Supply</td>
<td>Monitor quantity of IG administered, and coordinate IG ordering, handling, and storage.</td>
<td>Knowledge of infectious disease and ordering, handling, and storage of IG.</td>
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</tr>
<tr>
<td><strong>PLANNING</strong></td>
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<tr>
<td>Planning/Intelligence</td>
<td>Supervise planning activities, assign responsibilities, orient staff and serve as a resource for Section staff. Ensure Situation Reports and Incident Action Plans are prepared and disseminated as directed by the Incident Commander.</td>
<td>Management and leadership skills; organizational skills.</td>
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Core Position*: Check positions applicable to the incident.
D. SCOPE

The scope of this plan is primarily focused on the activities and responsibilities of UDOH in response to infectious disease emergencies. The communicable disease teams in the BOE in the Division of Disease Control and Prevention (DCP) routinely receive reports of cases of reportable infectious disease, and assist LHDs and tribal areas with conducting investigations and implementing disease containment measures.

Using the IDER Plan in this setting creates a decision making and coordination infrastructure that allows the organization to leverage staff and resources in an efficient and seamless way. It also ensures that everyone involved in the response is aware of policy and operational decisions, enabling them to stay focused on their assigned tasks.

E. PLAN ACTIVATION

The IDER Plan is intended to be used for any infectious disease emergency that requires a response that exceeds the BOE’s normal disease control capacity, or that requires an increase level of communication between agencies. Some outbreaks or situations will require limited response activities; other situations will require large-scale response efforts that involve many divisions within the UDOH and the cooperation and coordination of the LHDs, tribal areas, and other partners.

The UDOH IDER Plan is structured according to the UDOH ICS. The IDER Plan will focus on activities specifically related to infectious disease emergency response; otherwise, the plan will refer to the all-hazards UDOH Emergency Operations Plan when activities do not significantly differ from the latter.

Levels of ICS response described in the IDER Plan are graduated based on need: initial (baseline or routine), partial, and full activation. Because the UDOH is a smaller state health department, there are many situations in which staff must be pulled away from their routine tasks to respond to outbreaks that affect more than one local jurisdiction. By organizing the IDER Plan in levels of activation, we will be able to structure our response to routine outbreaks using the plan, and thus be better prepared to implement the plan to respond to larger emergencies.

Only authorized UDOH staff may activate and deactivate the IDER Plan. The steps to IDER activation and deactivation can be used during an infectious disease outbreak (Figure 1). UDOH staff authorized to initiate activation and deactivation of the IDER Plan include:

- Executive Director
- Deputy Director
- Division of Disease Control and Prevention Director
- State Epidemiologist
- Bureau of Epidemiology Director
- Disease Response, Evaluation, Analysis, and Monitoring Program Manager
Figure 1: IDER Activation/Deactivation Flowchart

1. “Incident Occurs”
   - Workload exceeds normal or communication increases
     - NO: Informal IDER activation/IDER practice
     - YES: Notify UDOH staff authorized to activate IDER
   - Leadership will activate IDER; send notifications to all UDOH key ICS staff via UNIS
   - Determine and notify potential key/core IDER positions to meet at UDOH DOC
   - Initial Briefing and role assignment
   - Meet every operational period to report/update on the current situation

2. Command staff decides to deactivate IDER
   - Authorized UDOH staff will formally deactivate IDER
   - Send out notifications to all IDER positions via UNIS
   - Schedule after action meeting
   - After action meeting and revise current IDER Plan as needed

3. Informal IDER activation/IDER practice
   - YES: Notify Bureau Director or Program Manager for informal IDER activation
   - IDER informally activated for BOE or DREAM Program
   - Determine and notify potential key/core IDER positions to meet in EPI Emergency Response room

4. No IDER activation
F. NOTIFICATION

The following UDOH leaders must be notified when the IDER Plan is activated:

- Executive Director
- Deputy Director
- Division of Disease Control and Prevention Director
- State Epidemiologist
- Bureau of Epidemiology Director
- Disease Response, Evaluation, Analysis, and Monitoring Program Manager
- Division of Family Health and Preparedness Director
- Bureau of Emergency Medical Services and Preparedness Director
- Public Information Officers
- Utah Public Health Laboratory Director

Other internal and external partners will be notified of the IDER Plan activation including liaisons and representatives from LHDs and tribal areas if the local health jurisdiction is involved in the incident.

G. IDER COMMUNICATIONS

The IDER Plan assumes that all communications and requests follow incident command guidelines (e.g., vertical communication to supervisees or supervisor). During each operational period, there should be a minimum of one briefing between supervisors and supervisees.

H. OPERATIONAL PERIOD

The length of the operational period (e.g., 8 hours, 12 hours, 24 hours, 1 week) is determined by the needs of the incident and set by the Command and General Staff. In rapidly escalating or very complex incidents, the operational periods should be shorter to allow for rapid response to changing events.

I. TRAINING

To maintain the necessary skills and knowledge to appropriately respond to an emergency, UDOH will provide ongoing training opportunities for UDOH and community partner staff at all levels of the organization. These include, but are not limited to:

- Communication drills
- Notification drills
- IDER Plan trainings, drills, and exercises
- UDOH-led workshops, drills and exercises
II. IDER BY SECTION

COMMAND SECTION

DESCRIPTION

As in a typical ICS organization, the IDER Incident Command Section consists of the Incident Commander and various Command Staff positions. The Command Staff are specifically designated, report directly to the Incident Commander, and are assigned responsibility for key activities that are not a part of the General Staff functional elements. Positions that are typically identified in the Incident Command section include: Public Information Officer and Liaison Officers for LHDs and tribal areas. Additional positions may be required, such as technical specialists, depending on the nature, scope, complexity, and location(s) of the incident(s), or according to specific requirements established by the Incident Commander. More detailed information may be found in the UDOH Emergency Operations Plan and Job Action Sheets.

A. PURPOSE & OBJECTIVES

The purpose of the IDER Incident Command Section is to provide overall management and to be responsible for the major decisions of the infectious disease emergency response. Command objectives include:

- Establish the IDER Department Operations Center (DOC) Command and response modules
- Approve and authorize the Incident Action Plans and Situation Reports
- Approve and authorize any major decisions, policies, informational materials, or requests that are a part of the response
- Ensure close coordination with the DOC, other DOCs, partners, field command posts, and ongoing operations of UDOH
- Assist in creation of response guidance and other materials to facilitate a coordinated statewide response
- Maintain an appropriate response organization

B. METHODS

IDER Plan: The IDER plan, including the Annexes and Appendices, is a guide for responding to different types of infectious disease emergencies.

Operational Period: The length of the operational period (e.g., 8 hours, 12 hours, 24 hours, 1 week, etc.) is determined by the needs of the incident and set by the Command and General Staff. In rapidly escalating or very complex incidents, the operational periods should be shorter to allow for rapid response to changing events.

C. IMPLEMENTATION

INCIDENT COMMANDER

Activate the Incident Commander for all activations.

The Incident Commander is responsible for the overall management of the incident at the UDOH DOC and any activated field sites (e.g., Strategic National Stockpile warehouse, etc.). The Incident Commander is directly responsible for ensuring that all activities are directed toward accomplishment of the overall objectives. The Incident Commander, with assistance from General and Command Staff, is responsible for setting the objectives for the operational period. The size or complexity of an incident may prompt the Incident Commander to expand the incident response organization (activate or deactivate modules).

Incident Manager shall be used to designate the leader for UDOH ICS when UDOH is not the agency in command of the incident.

MEDICAL OFFICER

Activate the Medical Officer for all activations.

The Medical Officer serves as the senior physician for the UDOH who organizes and directs medical support activities to the public, staff, and other agencies. The Medical Officer will review the Incident Action Plan to recommend the specific medical operations sub-units to be activated. Additional responsibilities for the Medical Officer may include: monitoring the CDC, state health department and other resources for medical updates; reviewing all planned public information to assure medical accuracy and consistency with CDC and state health department messages; serving as medical consultant to the UDOH and other partner agencies; and coordinating with the Epidemiology Operations Chief to monitor list of affected persons.
AI/AN HEALTH LIAISON OFFICER

Activate the Liaison Officer when the incident is multi-jurisdictional or involves tribal partners. The AI/AN Health Liaison Officer is the point of contact for tribal health departments and other related partners. (Note: The Liaison Officer will ensure representation for UDOH if there is Unified Command). The AI/AN Health Liaison Officer will maintain a list of partners and representatives; serve as a contact for partners and cooperating agencies; provide updates and receive and ensure the prompt response to questions, resource requests, and other needs; and participate in planning meetings to report on partner capabilities, resources and needs.

LOCAL HEALTH DEPARTMENT (LHD) LIAISON

Activate the Liaison Officer when the incident is multi-jurisdictional. The LHD Liaison Officer is the point of contact between UDOH and all LHDs. (Note: The Liaison Officer will ensure representation for UDOH if there is Unified Command). The LHD Liaison Officer will maintain a list of partners and representatives; be a contact for partners and cooperating agencies; provide updates and receive and ensure the prompt response to questions, resource requests, and other needs; and participate in planning meetings to report on partner capabilities, resources, and needs. The LHD Liaison Officer will work with LHDs to coordinate and monitor isolation and quarantine events in order to prevent secondary spread of the infectious disease.

PUBLIC INFORMATION OFFICER (PIO)

Activate the Public Information Officer (PIO) when the event is likely to attract media attention or when media should be utilized for information dissemination. The PIO has previously developed the UDOH Risk Communications Plan, which will be utilized in any event requiring activation of this position. The PIO will also receive requests from the press and set up interviews, press conferences, press tours, and other activities as needed. S/he may act as a spokesperson or recruit a technical expert for this role. The PIO will coordinate closely with the State Emergency Management Public Information Officer and/or Joint Information Center (JIC) if these entities are activated. This may include sharing incident and response information, informational materials (e.g., fact sheets, health alerts, press releases created by the Communicable Disease Information Branch), and acting as a media spokesperson.

PUBLIC HEALTH INFORMATION HOTLINES

Activate Public Health Information Hotlines when needed. Public health information hotlines will provide scripted information to the general public, and refer the public to the appropriate public health infectious disease specialist or healthcare professional when questions go beyond scripted information. The information provided will be crafted with the guidance from PIOs and subject matter experts. Public health information hotlines could provide information in three different ways including: interactive voice response (IVR) containing public health information messages related to the outbreak triaged by Utah Poison Control Center, 211, and recorded messages through Health Resource Center. Additional functions for public health information hotlines include: provide empathetic, respectful
assistance to those who call; refer for medical management; report media calls to PIOs promptly; and complete call records to track and document calls as instructed.

C. REPORTING

The Command Staff and all Section Chiefs report to the Incident Commander.

D. DELIVERABLES

The Command Staff conduct operations to reach the incident objectives, establish tactics, and direct all operational resources. They are responsible for producing the following:

- Approved Incident Action Plan for each operational period
- Approved Situation Reports weekly or as determined necessary
- List of approved documents, policies, and guidelines (with date and time)
- List of assisting and cooperating agencies and agency representatives
- Safety Plan for incident responders
- List of incident responder health and safety incidents
- Press releases and other coordinated public information messages
- Resource Tracking resources, information collection and analysis, and maintenance of documentation
- Resources and needed services to support the achievement of the incident objectives
- Monitoring and documentation of costs related to the incident. Provide accounting, procurement, time recording, and cost analyses

E. RESOURCES

The following resources will be required to perform response operations:

<table>
<thead>
<tr>
<th>Items</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>ICS Forms</td>
<td>Appendix A</td>
</tr>
<tr>
<td>Job Action Sheets</td>
<td>Found in EOP</td>
</tr>
</tbody>
</table>

FINANCE SECTION
DESCRIPTION

The IDER plan contains brief summary information for the Finance/Administration Section. More detailed information on this group and how it functions can be found in the UDOH Emergency Operations Plan (EOP), including the Job Action Sheets (JAS) and Standard Operating Procedures (SOPs) Appendices for each specific role. The Finance/Administration Section functions in any response, and its basic job duties don’t change dramatically from one disaster to another. In order to minimize redundancies, these job duties are summarized here.

A. PURPOSE & OBJECTIVE

The purpose of the Finance Section is to facilitate the purchase and reimbursement of resources utilized in an infectious disease emergency response. Finance Section objectives include:

- Track hours worked by response staff for local, state, and/or federal reimbursement
- Facilitate purchasing of supplies necessary for the emergency response
- Monitor multiple sources of funds
- Track and report to the Incident Commander the financial cost of the response

B. METHODS

The Finance Section utilizes the following methods to achieve objectives:

**Procurement:** All financial matters related to the purchase of supplies and services for the emergency event are managed by the Procurement Unit. The Unit will ensure that proper purchasing protocols are utilized throughout the response. The Unit will generate purchase requisitions, obtain purchase order approvals, manage vendor contracts, and conduct all financial transactions with vendors.

**Cost Tracking:** All financial tracking and reporting for the response is managed by the Cost Unit. The Unit will ensure that all incident-associated costs are captured using existing, standard UDOH methodologies, as well as alternate response-specific mechanisms. The Unit will produce cost reports and projections to decision makers in the ICS organization to help inform and shape the response objectives and strategies.

**Time Tracking:** The Time Tracking Unit is responsible for ensuring the accurate recording of personnel time and compliance with agency and donor reporting policies. The Time Tracking Unit will maintain time records for all personnel assigned to the incident in preparation for cost recovery reporting after the response. The Unit will coordinate with payroll departments to ensure that payroll processing for response staff occurs in a timely fashion.

C. IMPLEMENTATION

Activate the Finance Section Chief as needed.

The Finance Section Chief is responsible for managing the direct financial needs of the incident. In an incident requiring DOC activation, some or all finance functions may be performed at the DOC. The Finance Section
Chief will determine which Units are required for the response and will activate the appropriate Units, after approval by the Incident Commander.

Functions of the Finance Section include:

- Manage all financial functions for the response
- Regularly provide updated financial information on the cost of the response, cost analysis information, and projected expenditures at Command Staff meetings and as needed
- Maintain daily contact with the DOC on finance matters. This is particularly critical in proclaimed disasters where state and/or federal reimbursement is likely
- Ensure that all personnel time records are accurately completed, according to UDOH policy
- Provide financial input to demobilization planning
- Ensure that all claims, invoices, and purchase orders are properly executed

D. REPORTING

The Finance/Administration Section Chief reports to the Incident Commander.

E. DELIVERABLES

The Finance Section is responsible for producing the following:

- Summary of Costs
- Time Tracking Report
- Module Objectives and Update, ICS Form 202b (for each Operational Period)
- Summary of Purchase Orders
- Expenditure Report
- Cost Projection Report
- Personnel Time Tracking Report

F. RESOURCES

The following resources will be required to perform response operations.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
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</tbody>
</table>

Advanced Practice Center (APC)/NACCHO & Other Resources

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Funding for Public Health Emergency Preparedness: Implications and Ongoing Issues for Health Departments</td>
<td>This report describes the results of two surveys conducted by NACCHO that examine the local impact of changes in federal funding for public health preparedness.</td>
<td>See NACCHO’s website</td>
</tr>
</tbody>
</table>
The IDER Plan contains brief summary information for the Logistics Section. More detailed information on this group and its functions can be found in the UDOH Emergency Operations Plan (EOP), including the Job Action Sheets (JAS) and Standard Operating Procedures (SOPs). The Logistics Section functions in any response, and its basic job duties don’t change dramatically from one disaster to another. In order to minimize redundancies, these job duties are summarized here.

A. PURPOSE & OBJECTIVES

The purpose of the Logistics Section is to locate or request the supplies and personnel needed to support the response and responders, and then to direct these resources to the appropriate location. The Section will also ensure that communications and information technology infrastructure is functioning and interoperable. Logistics Section objectives include:

- Receiving and fulfilling personnel requests
- Receiving and fulfilling supplies
- Tracking inventory of supplies and personnel, including donations
- Setting up, maintaining, troubleshooting, and repairing communications and information technology equipment for the response
- Setting up conference rooms for use by responders working outside the UDOH DOC
- Ensuring security of response activities
- Ensuring well-being of responders by arranging for food, water, and medical services as needed.
- Demobilizing resources
- Ensuring all UDOH resources and assets, including response teams and equipment, are available and ready to be deployed should the response require it
- Collecting, tracking and responding to all resource requests from local health departments, healthcare facilities, and other partners
- Ensuring appropriate Personal Protective Equipment (PPE) for UDOH responders is available and worn, as necessary and recommended by the Safety Officer, Medical Officer, and/or Incident Commander
• Ordering requested equipment and supplies required for the event, as approved by the Incident Commander

B. METHODS

Logistics methods utilized to achieve objectives include:

**Personnel Recruitment:** The Volunteers Unit will work with human resources and/or health department managers to identify and assign staff to the response. For activations requiring additional personnel, the Volunteers Unit will coordinate with the DOC and State EOC.

**Communications and Information Technology Systems:** These units will ensure redundant communications and information technology systems are set up and functioning as outlined in the resource needs section of each activated IDER plan module.

C. IMPLEMENTATION

Activate the Logistics Section as needed.

The Logistics Section oversees all response-related requests for personnel and equipment, and set-up of communications and computer equipment for the response. At the beginning of an infectious disease emergency response, an Employee Support set-up crew may be in process of setting up rooms for the ICS activation. Once Logistics Section responders have signed-in, this Section should assume set-up responsibility (which may or may not include the same individuals).

The Logistics Section Chief oversees all Section activities and is responsible for receiving and fulfilling logistics requests. The Logistics Section Chief determines which resources require Incident Commander, Section Chief, or Branch Director approval, and ensures that responders are made aware of requirements. S/he tracks the status of human and physical resources that are in use or available for use during the response, makes certain that all assigned personnel and other resources have checked in for the incident response period, and keeps track of the current location and status of all resources.

*Functions of the Logistics Section*

- Oversee all Section activities
- Attend Command/General Staff meetings
- Provide logistical input to the Incident Commander and Plans Section in preparing the Incident Action Plan
- Brief Unit Leaders on the situation and their roles and responsibilities for the operational period
- Provide oversight and guidance to Unit Leaders (e.g., answer questions, address problems, make decisions in keeping with the Section’s operational objectives, and determine which problems, requests or questions need further approval)
- Provide updates for the Incident Action Plans
- Anticipate logistics requirements
- Request and coordinate with the State EOC liaison (SERT member) for additional resources
D. REPORTING

The Logistics Section Chief will report to the Incident Commander. The Resource Monitoring Branch Director and Employee Support Branch Director will report to the Logistics Section Chief. The Assets/Supplies, Volunteers, and Emergency Systems Units will report to the Resource Monitoring Branch Director. The Technology, Food/Basic Needs, and Security Units will report to the Employee Support Branch Director.

E. DELIVERABLES

The Logistics Section is responsible for producing the following:
- Module Objectives and Update, ICS Form 202b (for each Operational Period) [Appendix A]
- Facility assessment prior to use, if required
- Logistics Resource Status Reports
- Equipment & technology service logs
- Supplies inventory list
- Technology inventory list

F. RESOURCES

The following resources will be required to perform minimum response operations.

<table>
<thead>
<tr>
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<tr>
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</table>

**Additional Resources**

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Training for Medical Reserve Corps Volunteers</td>
<td>Provides training for Medical Reserve Corps candidates.</td>
<td><a href="http://www.medicalreserves.org/volunteerFldr/AboutVolunteering">http://www.medicalreserves.org/volunteerFldr/AboutVolunteering</a></td>
</tr>
</tbody>
</table>
DESCRIPTION

The Operations Section is responsible for achieving Command’s objectives through directed strategies and execution of tactics. The IDER plan contains brief summary information for the Operations section. More detailed information can be found in the UDOH Emergency Operations Plan and Job Actions Sheets. The Operations section functions may differ for different infectious diseases, selected disease specific information can be found under Section C of the Appendix.

A. PURPOSE & OBJECTIVES

The purpose of the Operations Section is to carry out the response activities described in the Incident Action Plan. Operation Section objectives include:

- Coordinate with emergency medical services and medical treatment systems
- Provide technical consultation and guidance on appropriate specimens and lab testing
- Provide infectious disease information to responders, clinicians, and the public
- Implement surveillance strategies to identify cases, contacts, and the source and magnitude of the infectious disease emergency
- Determine risk factors for disease and identify susceptible populations
- Determine and implement effective strategies to contain the infectious disease
- Manage and analyze data related to the infectious disease emergency, and response
- Provide vaccine and Immune Globulin to at risk populations
B. METHODS

Operations strategies and activities used to achieve objectives include:

**Infectious disease information and guidance:** This includes the development and provision of disease and event-specific guidance to various population groups. Requests for information will be screened and triaged so that critical questions can be answered appropriately.

**Disease containment:** Disease containment encompasses public health strategies actively performed by emergency responders and/or strategies performed by others. Activities may address community mitigation, restriction, exclusion, clearance, mass prophylaxis, isolation and/or quarantine.

**Medical treatment system:** Activities will focus on coordinating the infectious disease emergency response with local medical care systems in order to ensure that the needs of healthcare sites and patients are met. This may involve monitoring and coordinating resource requests from healthcare sites; forecasting trends in supply and demand for healthcare services and resource needs; ensuring there is support for casualty management including triage, treatment and transportation; designating and managing alternate care and/or shelter sites; and coordinating with the Medical Examiner to manage mass fatalities.

**Epidemiology and surveillance:** Epidemiology activities will primarily focus on establishing a case definition and identifying cases, contacts of cases, the population at risk, the sources of infectious disease emergency, and the magnitude of the event. Surveillance activities will focus on completing and coordinating case reporting and data collection, review syndromic surveillance data, and provide assistance on disease reporting and surveillance. The information obtained by epidemiology and surveillance activities will be used to guide containment activities and situational awareness.

**Laboratory:** Laboratory activities include providing recommendations for laboratory testing and facilitate specimen collection and transport to UPHL or to the CDC. Laboratory testing will help to confirm the presence of an infectious disease agent and determine its identity and antimicrobial susceptibilities.

**Data management and analysis:** This include the collection, organization, and evaluation of data related to cases, contacts, information requests, administration of treatment/prophylaxis to ensure data quality and completeness, as well as data analysis to evaluate disease trends.

C. IMPLEMENTATION

Activate the Operations Section immediately for all IDER activations. The Epidemiology Operations Branch and Lab Operations Branch will most likely need to be activated immediately for all infectious disease emergencies. The Operations Section will provide ongoing guidance to branches and ensure that necessary approvals are obtained and information and requests are forwarded appropriately. Decisions and policies about response goals, objectives, activities, and policies are forwarded to the Incident Commander for approval prior to implementation. Protocols, documents, and recommendations are forwarded to the Public Information Officer for approval prior to dissemination. Personnel and supply requests are forwarded to the Logistics Section and Finance Section. Updates on the event and response operations will be forwarded to the Planning Section.
Functions of the Operations Section include:

- Assisting in the development of the Incident Action Plan
- Implementing the Incident Action Plan
- Meeting with Branch Directors regularly to address implementation issues
- Overseeing the development and dissemination of event and disease-related information to clinicians, responders, the public, special populations, and other stakeholders
- Overseeing the implementation of public health strategies to contain the infectious disease
- Overseeing the implementation of case/contact investigation and surveillance
- Overseeing the analysis of data related to the infectious disease emergency, and response
- Requesting approvals from the Incident Commander, Policy Group, and Public Information Officer prior to implementation of activities or dissemination of materials
- Forwarding updates and personnel and supply requests to Command Staff and other Sections as needed.
- Managing administrative support at UPHL
- Coordinating with healthcare and EMS groups throughout the state to ensure situational awareness and guidance dissemination

D. REPORTING

The Operations Section Chief will report to the Incident Commander.

E. DELIVERABLES

The Operations Section is responsible for producing the following:

- Response documents and/or products assigned to active modules within the Operations Section
- Outbreak associated reports
- Laboratory test results and reports
- Guidelines regarding specimen collection

F. RESOURCES

The following resources will be required to perform minimum response operations:

<table>
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<tr>
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<tbody>
<tr>
<td>ICS Forms</td>
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<tr>
<td>Incident Action Plan Template</td>
<td>Appendix A</td>
</tr>
</tbody>
</table>
**PLANNING SECTION**

**DESCRIPTION**

The Planning Section is responsible for collecting, evaluating, and disseminating operational information pertaining to the incident. This Section maintains information and intelligence on the current and forecasted situation, as well as the status of resources assigned to the incident. The Planning Section prepares and documents Incident Action Plans and incident maps, and gathers and disseminates information and intelligence critical to the incident. The Planning Section has four primary Units and may also include technical specialists to assist in evaluating the situation and forecasting requirements for additional personnel and equipment. More detailed information may be found in the UDOH Emergency Operations Plan and Job Action Sheets.

**A. PURPOSE & OBJECTIVES**

The purpose of the Planning Section is to succinctly provide the response with accurate and comprehensive information that enables optimal decision making regarding ongoing and future management. Planning Section objectives include:

- Collecting, assessing, and integrating incident and response information to produce an overall assessment of the incident, which includes the status of the infectious disease emergency, operational activities, and resource use
- Preparing projections of the incident, response needs, and response capabilities
- Providing recommendations for decisions and/or actions that will address future response needs
- Drafting the Incident Action Plans for each Operational Period
- Drafting the Situation Reports weekly, or as determined by the Incident Commander
- Providing mapping of disease spread
- Acting as Liaison with the UDOH Continuity of Operations Team to ensure prioritized essential UDOH functions continue to be carried out
- Maintaining documentation of the response and store original response-related documents
- Ensuring coordination between the response and ongoing health department activities
- Coordinating demobilization and after-action reporting
- Disseminating information within the response
- Coordinating access to technical specialists as needed
- Collecting Activity Logs / ICS 214 forms from all UDOH employees involved in the response
- Ensuring development of an agency After-Action Report following the close of the incident response
B. METHODS

Planning strategies include, but are not limited to:

- Incident Action Plan
- Situation Status Briefing Board
- Resource Tracking Summaries
- Continuity of Operations Activities
- Documentation
- Technical Specialists
- Demobilization

More detail on these methods is described in the UDOH Emergency Operations Plan (EOP), Standard Operating Procedures (SOPs) and Job Action Sheets (JAS) for the Planning Section.

C. IMPLEMENTATION

Planning/Intelligence Section Chief

At the beginning of a response, always consider activation of the Planning Section Chief. Upon activation, the Planning Section Chief will be briefed by the Incident Commander on the situation and current operational objectives. The Planning Section Chief has the responsibility to ensure that all necessary functions and deliverables are accomplished in a timely and accurate manner.

Functions of the Planning Section

- Collect and assess information on the current situation, response activities, and available resources (e.g., Module Objectives and Update, ICS Form 202b, Inventory Database)
- Provide incident status summary to Command and General Staff
- Identify gaps in response capacity and recommend actions to address gaps; this may include alternative future response strategies and specialized resources
- Organize and facilitate planning meetings with General and Command Staff
- Draft the Incident Action Plan for each Operational Period and request approval from the Incident Commander
- Distribute all internal incident-related documents, such as federal guidance and Incident Action Plans
- Ensure coordination between the response and ongoing health department activities
- Plan for and lead demobilization of the response

D. REPORTING

The Planning/Intelligence Section Chief will report to the Incident Commander. Unit Leaders, if activated, will report to the Planning/Intelligence Section Chief.

E. DELIVERABLES

The Planning Section is responsible for producing the following:
• Module Objectives and Update, ICS Form 202b (for each Operational Period) [Appendix A]
• Incident Action Plan, ICS Form IAP, and attachments (for each Operational Period) [Appendix A]
• Situation Status Briefing Board (white board, web-based, or other updatable medium)
• Resource Summary Report (for each Operational Period)
• Personnel and Communications List, ICS Form #205 [Appendix A]
• Healthcare Assessment Summaries/Reports
• Log of incident-related documents
• Demobilization Plan and Checkout Procedure
• After-Action Report
• Corrective Action Plan
• Log of technical specialist requests
• Specific technical protocols or recommendations relevant to the situation

F. RESOURCES

The following resources will be required to perform minimum response operations. See Planning Section Unit modules for resources required by each Unit.

<table>
<thead>
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</tbody>
</table>
III. THREATS/PRIORITIES/FUNCTIONS

Bioterrorism Agents

Bioterrorism agents can be separated into three categories, depending on how easily they can be spread and the severity of illness or death they cause.

Category A

These high-priority agents include organisms or toxins that pose the highest risk to the public and national security because:

- They can be easily spread or transmitted from person-to-person
- They result in high death rates and have the potential for major public health impact
- They have the potential to cause public panic and social disruption
- They require special action for public health preparedness
- Category A bioterrorism agents include: anthrax (Appendix C), botulism, plague, smallpox, tularemia, and viral hemorrhagic fevers

Category B

These agents are the second highest priority because:

- They are moderately easy to spread
- They result in moderate illness rates and low death rates
- They require specific enhancements of CDC's laboratory capacity and enhanced disease monitoring
- Category B BT agents include: brucellosis, Epsilon toxin of Clostridium perfringens, food safety threats, glanders, melioidosis, psittacosis, Q fever, ricin toxin from Ricinus communis, Staphylococcal enterotoxin B, typhus fever, viral encephalitis, and water safety threats (i.e., Vibrio cholera, Cryptosporidium parvum)

Category C

These third highest priority agents include emerging pathogens that could be engineered for mass spread in the future because:

- They are easily available
- They are easily produced and spread
- They have potential for high morbidity and mortality, and therefore, could have a major health impact
- Category C BT agents include emerging infectious disease such as Nipah virus and Hantavirus
IV. APPENDIX

A. ICS FORMS

**ICS Incident Briefing Form (Form 201)**
Available at [https://training.fema.gov/emiweb/is/icsresource/icsforms.htm](https://training.fema.gov/emiweb/is/icsresource/icsforms.htm).

Completed by IDER command staff during activation and notification; it summarizes situational information and objectives of the first operational period.

**Incident Action Plan**
Incident action plan defines the response activities and resource utilization for an operational period. The IAP contains objectives of the overall incident strategy and specific actions for the next operational period (will attach template or provide link).

B. UDOH PLANS

**Continuity of Operations Plan (COOP)**
The UDOH COOP plan outlines critical functions and services that are necessary to provide vital services, exercise civil authority, maintain the safety and well-being of the general populace, or sustain critical support to the Utah Department of Health (UDOH). These services, depending on the emergency level, may be implemented within a 12-hour period and should be able to be sustained for a period of up to 30 days after a natural disaster.


**Emergency Operations Plan (EOP)**
The UDOH Emergency Operations Plan (EOP) details the functions and responsibilities of the UDOH and assets during the preparedness, response, and recovery phases of emergency/disaster operations. This plan establishes a department organizational structure for emergency/disaster response, as well as describes the concepts and policies under which the department agencies will operate during emergencies/disasters. In addition, the plan provides for coordination with other state and local agencies (will provide link later).

C. COMMUNICABLE DISEASE INFORMATION

**Anthrax**
Anthrax is caused by *Bacillus anthracis*, a gram-positive, spore-forming bacillus which can cause serious acute infections in both animals and humans. *B. anthracis* can be found naturally in soil, and affects domestic and wild animals worldwide. Although it is rare, people can get sick with anthrax if they come in contact with infected animals or contaminated animal products. The incidence of anthrax has decreased in developed countries, but it remains a considerable health
problem in developing countries. Anthrax occurs primarily in three forms: cutaneous, inhalational/respiratory, and gastrointestinal. Due to the nature of the disease, \textit{B. anthracis} could be used as a weapon of bioterrorism.

The anthrax disease plan and the “white powder incident” investigation process can be found at: \url{http://health.utah.gov/epi/diseases/anthrax/plan.pdf}.

\textbf{Ebola Virus Disease (EVD)}

The Ebola virus causes acute and serious illness which is often fatal if left untreated. The incubation period for Ebola virus disease (EVD) is 2 to 21 days. Initial symptoms include sudden onset of fever, fatigue, muscle pain, headache, and sore throat. This is followed by vomiting, diarrhea, rash, symptoms of impaired kidney and liver function, and in severe cases, both internal and external bleeding. Fruit bats of the \textit{Pteropodidae} family are thought to be the natural Ebola virus hosts. Person-to-person transmission of EVD occurs through direct contact with infected blood, urine, vomit, diarrhea, other infected secretions or organs, or semen. There is no proven treatment and no licensed vaccines available for Ebola virus disease. Effective outbreak control relies on case management, surveillance and contact tracing, as well as good laboratory service. The current EVD outbreak (started in March of 2014) is the largest and most complex outbreak since the Ebola virus was first discovered in 1976.

Ebola virus disease plan can be found at: \url{http://health.utah.gov/epi/diseases/ebola/plan.pdf}

\textbf{Middle East Respiratory Syndrome (MERS)}

MERS is a newly recognized disease that first appeared in the Middle East in 2012 that is associated with severe respiratory illness. All identified cases have occurred in, or have been associated with, people who travel to the Middle East. In 2015, an outbreak of MERS occurred in South Korea primarily among health care workers after the virus was introduced into a hospital by a traveler from the Middle East. MERS appears to have a high case fatality rate. There is no cure and no vaccine to prevent MERS. Correct diagnosis and early detection of cases and their contacts is crucial in preventing future cases and outbreaks.

MERS disease plan can be found at: \url{http://health.utah.gov/epi/diseases/MERS/plan.pdf}

\textbf{Severe Acute Respiratory Syndrome (SARS)}

SARS was first described in February 2003. It is thought to have originated in the Guangdong Province of China, with initial infectious human cases occurring sometime around November 2002. By July 2003, multiple major international outbreaks of SARS had resulted from spread from an initial outbreak in Hong Kong to other countries, including Canada, China, Taiwan, Singapore, and Vietnam. The disease then spread to 20 other major locations following standard airline travel routes. The largest proportion of cases occurred within hospitals and among hospital workers and their families. According to the World Health Organization (WHO), a total of 8,098 people worldwide were diagnosed with SARS during the 2003 outbreak. Of these cases, 774 died (9.6%). In the U.S., eight people had laboratory-confirmed evidence of SARS-CoV infection. All of these cases appeared to have been imported from other countries where SARS
was widespread. One case was identified in Utah. Further spread of SARS within the U.S. did not occur.

In 2004, although several cases of SARS were reported in China, there were no documented cases of human-to-human transmission. Individuals at greatest risk for SARS-CoV infection include those who have recently traveled to a country where community-wide spread of SARS has been documented and those who have had direct, close contact with someone who is ill with SARS.


**Measles**

Measles, also known as Rubeola, is a highly contagious, acute viral illness that can lead to serious complications. The illness is characterized by a prodrome followed by a maculopapular rash. Measles is transmitted airborne by droplet spread, direct contact with nasal or throat secretions of an infected person. The period of communicability extends from four (4) days before rash onset to four (4) days after. Since the implementation of effective childhood immunization programs, measles cases in many developed countries have dropped dramatically and generally occur in young unimmunized children or older children, adolescents, or young adults. The case-fatality rate is estimated to be less than 1% in developed countries, but can be 3-5% in developing countries. Vaccination is the primary method of prevention.


**Pandemic Influenza**

Influenza, caused by RNA viruses, is an acute respiratory disease characterized by abrupt onset of fever and respiratory symptoms. It is primarily transmitted via large droplets generated when infected persons cough or sneeze. Transmission may also occur through direct contact, or indirect contact, with respiratory secretions. Indirect exposure may occur, for example, when touching surfaces contaminated with influenza virus and then touching the eyes, nose, or mouth. The virus has good persistence in the environment, particularly in cold conditions with low humidity. Influenza spreads rapidly in a population because it has a short incubation period of 1-3 days, and because persons are infectious before the onset of symptoms and during early illness. Emerging new influenza viruses have the potential to cause pandemics since the human population has little to no immunity against it. The best way to prevent influenza and influenza-related complications is to receive a yearly influenza vaccination.


**Disease Plans**

Additional disease plans for Utah reportable diseases can be found at: [http://health.utah.gov/epi/phdepts/a_z.html](http://health.utah.gov/epi/phdepts/a_z.html).