

Infectious Disease Emergency Response Toolkit

The San Francisco Bay Area Advanced Practice Center is pleased to present the Infectious Disease Emergency Response (IDER) Toolkit. This toolkit was developed to assist local health departments in developing and/or supplementing their infectious disease emergency response plans in order to strengthen their ability to prepare for and respond to infectious disease emergencies. Although the IDER Toolkit addresses infectious disease emergencies, it can also help inform other public health response plans.

The toolkit consists of the following sections:

Introduction and Overview	Learn why the toolkit was created, how the IDER Plan was developed and how to use the toolkit.
Organizational Charts	Sample organizational charts illustrate the plan’s modular and scalable format which allows the plan to be adjusted for specific infectious disease emergency events.
IDER Plan	The IDER Plan describes the roles and responsibilities for each box on the organizational chart. Guidance is also provided on activation protocols and communication structure within an Incident Command System (ICS) framework.
Annexes	Situation-specific annexes are designed to supplement the IDER Plan with guidance on how to respond to unique events such as pandemic influenza or bioterrorism. The content in each Annex should be used in tandem with the general information in the IDER Plan.
Appendices	The Appendices contain reference material to assist in the response. Modifiable templates and samples include public health specific ICS forms, Health Alerts, Job Action Sheets, protocols, forms, reference materials, and instructions.
Training Materials	Materials are provided to train staff on how to implement and use the IDER Plan, along with exercises that may be used to practice and test the plan.

The majority of the toolkit is comprised of sample and template documents:

Samples: Sample documents are specific to the San Francisco Department of Public Health but are included as an example should local health departments choose to create a similar document for inclusion in their IDER plan.

Templates: Template documents are provided so that local health departments can quickly modify them for inclusion in their own IDER plan. Content that requires modification is indicated by highlighted text which appears in brackets throughout the template documents.

IDER TOOLKIT: INTRODUCTION AND OVERVIEW

PURPOSE

The purpose of the IDER Toolkit is to assist local health departments in preparing for and responding to infectious disease emergencies. It is recognized that the needs and capacities of local health departments will vary greatly. The IDER Toolkit is intended to be a resource that local health departments can utilize to supplement their current emergency plans. Whether a local health department utilizes the entire IDER Toolkit, or simply supplements an existing emergency response plan with specific items, the IDER Toolkit contains materials that are useful and appropriate for all types of local health departments.

The IDER Toolkit adapts the Incident Command System (ICS) specifically to infectious disease emergencies. Infectious disease emergencies are circumstances caused by biological agents, including organisms such as bacteria, viruses or toxins with the potential for significant illness or death in the population. Infectious disease emergencies may include naturally occurring outbreaks (e.g., measles, mumps, meningococcal disease), emerging infectious diseases (e.g., SARS, pandemic influenza) and bioterrorism. The circumstances of infectious disease emergencies may vary by multiple factors, including type of biological agent, scale of exposure, mode of transmission and intentionality (bioterrorism), and other factors. Public health measures to contain such outbreaks are especially important for diseases with high morbidity or mortality and limited medical prophylaxis and/or treatment.

Users of the IDER Toolkit should be able to:

- recognize how the ICS may be adopted to plan for and respond to infectious disease emergencies
- discuss the necessary roles and responsibilities during an infectious disease emergency response
- describe how to develop an infectious disease emergency response plan

BACKGROUND

The IDER Toolkit contains the IDER Plan, which integrates the key elements of communicable disease control and prevention with emergency management concepts. A National Incident Management System (NIMS) compliant ICS organizational structure is utilized to scale the response to effectively manage and meet incident objectives of an infectious disease emergency response. The NIMS is an emergency response system that was created for use during the event of a national crisis. It allows multiple agencies, both private and governmental, in various jurisdictions to work together using a common hierarchy of command. One facet of NIMS is ICS, a management system that is used to achieve optimal command and control within an organization as well as seamless inter-agency coordination during any type of emergency event. It uses a clearly defined chain of command, a common nomenclature for key management positions, defined management sections and specifically described emergency response functional roles. More information about NIMS and ICS is available at www.nimsonline.com.

The materials presented in this toolkit are based on resources developed and currently used by the San Francisco Department of Public Health. The San Francisco Department of Public Health developed its infectious disease emergency response plan in 2006 with the input of key internal stakeholders. The goal was to create an ICS-based, NIMS-compliant plan that would direct the health department's response to a myriad of infectious disease emergencies. Since its initial development by the San Francisco Department of Public

Health, the IDER Plan has been refined numerous times based on use of the plan in training exercises and real-life emergency response events that have lasted days to as long as several months. For example, the plan was activated during the department's response to the 2009/2010 H1N1 swine flu pandemic.

The IDER Plan contained in this toolkit is similar to San Francisco's IDER plan and has benefited from the experience and feedback gained through use of the plan at the San Francisco Department of Public Health. However, the IDER Plan presented in the toolkit has been modified to be more applicable to many different types of local health departments. Similarly, many items in the Appendices have been modified into templates so that local health departments may easily co-opt materials and individualize them based on their unique needs. Other items include samples, APC resources or placeholders that local health departments can refer to or develop on their own.

SCOPE

An infectious disease emergency occurs when urgent and possibly extensive public health and medical interventions are needed to respond to and contain an infectious disease outbreak or biological threat that has the potential for significant morbidity and mortality.

Local health departments routinely receive reports of cases of infectious disease, conduct investigations and implement disease containment measures. The IDER Plan could be used for any infectious disease emergency that requires a response that exceeds a local health department's day-to-day operational capacity. This may include outbreaks with significant morbidity and/or mortality of naturally occurring diseases, emerging or unknown diseases, waterborne outbreaks, and bioterrorism situations. Some outbreaks or situations will require limited response activities; other situations will require large-scale response efforts that involve many sections within the health department and/or many city, regional, state and federal agencies.

Many local health departments have staffing surge plans, which allow them to augment their normal day-to-day disease control resources with staff from other sections of the health department. Given this situation, when should a health department activate an emergency plan? The IDER Plan is intended to be activated when both normal operations and a health department's prearranged surge capacities are overwhelmed. This type of situation implies that the health department must operate outside of normal "business as usual" functions in order to respond to the event. Using an IDER response plan in this setting creates a decision making and coordination infrastructure that allows the organization to harness staff and resources in an efficient and seamless way. It also ensures that everyone involved in the response is kept aware of policy and operational decisions and is able to stay focused on their assigned tasks.

Some health departments may choose to use the IDER Plan when responding to outbreaks during day-to-day operations. In adapting the IDER Plan to their jurisdiction, the Southern Nevada Health District in Las Vegas, Nevada, changed the "E" in "IDER" from "Emergency" to "Event" to indicate that their plan is used for smaller scale events as well as emergencies. Routine activation and/or use of the IDER Plan structure provides an excellent opportunity to exercise the plan and to train staff on how the department would be structured during an IDER activation.

The IDER Plan's broad-based application makes it a useful starting point for any type of public health emergency planning – not just infectious disease. For example, most of the IDER Plan functions would remain the same for all public health responses (i.e., Command Staff, Plans, Logistics, Finance, and some parts of Operations). With a few additions to the Operations Section portion of the IDER Plan and organizational

chart to reflect the unique functions that need to occur in other types of public health responses, such as chemical and radiological, the IDER Plan can be transformed into an all-hazards, public health response plan.

Ultimately, local health departments should determine under what specific circumstances to use the IDER Plan. Local health departments should include activation protocols that explicitly state criteria for an infectious disease emergency that must be met for IDER Plan activation and list persons who are authorized to activate the plan. (More information on this is included in the IDER Plan Introduction. A sample IDER Activation and Notification Protocol is also included in the Appendix.)

ASSUMPTIONS

The primary audience for which the IDER Toolkit is intended includes local health department staff members who are involved in infectious disease emergency preparedness planning and activities. Examples of such staff include bioterrorism coordinators, pandemic influenza coordinators, mass prophylaxis/SNS coordinators, emergency preparedness staff, and communicable disease controllers. Ideally, these individuals will be familiar with ICS and NIMS and will have achieved high level ICS training.

The IDER Toolkit acknowledges that there may be a limited number of personnel within a local health department with knowledge and training in infectious diseases, epidemiology, public health, and emergency preparedness. Therefore, the IDER Toolkit includes a functional IDER Plan that can be used to guide disaster service workers called in to respond to the infectious disease emergency. The IDER Plan maximizes the use of expert personnel within the local health department disease control function and/or the public health laboratory in appropriate leadership positions in the response and as representatives to the Department Operations Center (DOC), Emergency Operations Center (EOC), and/or a local or regional health policy team.

The IDER Toolkit also assumes that each infectious disease emergency incident will require tailored activation and utilization of the IDER Plan. Therefore, the plan exists in a modular, scalable format that allows for adjustment to address scenarios varying by infectious disease agent, size and/or overall severity.

TOOLKIT STRENGTHS

The IDER Toolkit was created to assist local health departments in developing and supplementing their infectious disease emergency response plans. The following are some of the key strengths of the IDER Toolkit:

Uses an Incident Command System (ICS) structure that accounts for unique public health and infectious disease-related challenges. Though ICS is regularly used by fire departments, law enforcement and others to routinely respond to emergencies, it is not ingrained in the culture of public health practice. Public health professionals, therefore, may be less comfortable using an ICS structure to conduct emergency response public health functions. However, the use of ICS (in addition to being mandated by federal and state requirements for emergency response) does offer distinct advantages in an emergency response. These include the delineation of clear roles, chain of command, and communication channels. The IDER Toolkit bridges the gap between ICS and public health by addressing the role of specific public health functions such as disease containment and epidemiology and surveillance. It also provides some modified communication protocols that clarify allowed and necessary lateral communication between collaborating

functions, while honoring traditional ICS chain of command. Additionally, the toolkit contains modified ICS forms that take into account the unique reporting needs of an infectious disease emergency response.

Provides one core, over-arching plan for all infectious disease emergencies. Due to various emergency preparedness requirements, many health departments have had to create emergency response plans that address a variety of infectious disease scenarios such as Strategic National Stockpile, mass prophylaxis, bioterrorism, pandemic influenza and others. It can be burdensome and unwieldy to coordinate and update many, separate plans. The IDER Plan contained in this toolkit provides one, overarching plan that may be utilized for all infectious disease emergencies and may serve as an annex to an all-hazards plan. With some additions to the Operations Section portion of the IDER Plan and organizational chart, the plan can function as an all-hazards public health emergency response plan.

Provides guidance on how to “operationalize” your plan. There are many materials and resources that say “what” to do during a response. It is much harder to figure out “how” to actually do it within the confines of your organization. The IDER Toolkit contains the specific details necessary to plan and implement the day-to-day emergency operations. The plan provides clarification of roles, responsibilities, and communication both within and outside of the response. As many staff will be recruited and/or reassigned into roles different from their normal duties, this plan provides clear and specific staffing needs and Job Action Sheets to facilitate integration into the emergency response.

Is modular and scalable. Because every IDE incident will require a tailored response, the plan exists in a modular and scalable format to address scenarios varying by infectious disease agent, size and/or overall severity. The plan outlines key functions and roles, but depending on the scale of the event and the response, one individual responder may fulfill more than one role or position. As one responder becomes overwhelmed with responsibility, the IDER Plan provides the structure for recruiting additional staff to assist with those needs.

Recognizes existing “promising practices” in emergency preparedness. There are many “promising practice” resources related to emergency preparedness. Rather than “re-create the wheel,” we have reviewed currently available resources and referenced those that we or others have identified as promising practices.

HOW TO USE THE TOOLKIT

The IDER Toolkit is not intended to be a “one size fits all” emergency response plan. Instead, it should be viewed as a compilation of resources that a local health department may use to supplement and improve current emergency response plans. Following are some tips on how to start using the toolkit:

Compare the IDER Plan to your organization’s current emergency response plan. Look at the sample organizational chart and compare it to the structure used by your organization. Think about what roles various staff could fill, and involve key individuals in determining how to update or modify your current plan. (Remember that if you had a big IDE event, you will likely need to recruit others to assist, and this plan provides the structure to orient and place these additional staff.) Use the Current Plan Needs Assessment to assess the strengths and potential weaknesses of your organization’s current plan. While not intended to be prescriptive, the tool provides a starting point for familiarizing yourself with the resources contained in the IDER Toolkit and prioritizing which resources may be most useful for the unique needs of your organization.

Recognize that each “box” in the organizational chart represents a function/role, not a person.

The organizational chart included in the toolkit includes multiple “boxes”, which represent functions that may need to occur during an infectious disease emergency response, depending on the specific scenario. It is important to keep in mind that one person can fulfill several roles, especially in a smaller response, but the structure included in the toolkit clarifies the scope of these roles. Additionally, your department may decide that a specific “box” should be in a different location on your DOC organizational chart. The usefulness of this toolkit lies in fleshing out what activities each “box” is responsible for, and which other “boxes” should be coordinated closely with.

See how other health departments have adapted the IDER Plan. Visit the San Francisco Bay Area Advanced Practice Center’s [IDER Plan in Action web page](#) for examples of how other health departments have modified the IDER Plan to fit their needs.

Modify the IDER Plan to fit your needs. The IDER Plan presented in this toolkit is not a “one size fits all” plan; instead, it represents a model that may be modified based on an organization’s unique needs. While each role outlined in the IDER Plan is important, its location in the IDER ICS structure can often be modified based on your organization’s preference and needs. Local health departments should feel empowered to tailor the organizational chart to fit their unique needs. Below are some common modifications to the IDER organizational structure:

- Information & Guidance Branch may be placed under Plans instead of Operations. (No matter where this Branch reports to, it must communicate and coordinate closely with the Media Officer and Information Officer.)
- Data Branch could be placed in Plans.
- Laboratory Group could be its own branch under Operations.
- Continuity of Operations could be its own branch under Operations or Plans.

Supplement your current plan with resources from the Appendices. The Appendices contain numerous forms, instructions and other templates that may be modified and individualized by local health departments. Some of the most useful items include public health-specific ICS forms, Job Action Sheets, and pre-written health alerts.

Address challenges experienced during your recent IDER experiences. Refer to your recent experiences with pandemic influenza or other infectious disease emergency activations or exercises. Based on these experiences, you may use the IDER Toolkit to address issues that warrant improvement. After Action Reports and/or Corrective Action Plans may also offer insights into aspects of your current plan that could be supplemented with resources from the IDER Toolkit.

Utilize the training resources to educate your staff about your plan. Having a robust IDER plan in place is not enough - staff must also be trained on how to use the plan. The training resources contained in the IDER Toolkit may be modified and used to train your staff about your organization’s plan and their roles and responsibilities when the plan is activated or exercised. Consider training key lead staff pre-event and/or during exercises, and modifying the “just-in-time” training for external staff recruited to the response.

COMMON CHALLENGES

The implementation of any infectious disease emergency response plan is not without its challenges. Based on the feedback from staff at the SFPD and other health departments who have exercised IDER plans, the following are challenges you may encounter, along with suggestions on how to respond to those challenges:

Gaining staff support for using an ICS structure. A common challenge reported by health departments is that staff members are often resistant to using an ICS structure to conduct emergency operations. Often, many staff members have received only minimal training in ICS, and have not seen how ICS can be modified to work for public health. Therefore, staff may not feel that use of an ICS structure can meet the needs of a public health emergency response. This plan uses a modified ICS structure that takes into account the unique needs of a public health infectious disease emergency and response. For example, the plan addresses the role of specific public health functions such as disease containment and surveillance, and provides communication protocols that clarify allowed and necessary lateral communication between collaborating functions, yet honors traditional ICS chain of command. It is important to communicate to your staff about how your IDER Plan addresses common concerns about ICS and about the benefits of using a public health ICS model.

Lack of coordination between disease control and emergency preparedness. Local health departments vary greatly in terms of how functions are organized, and often, the emergency preparedness function is separate from the disease control function. While the emergency preparedness function may take the lead for the public health response to emergencies like natural disasters, disease control staff must play a leadership role during an infectious disease emergency. Local health departments should pre-designate a team or function within their organization that has ownership and primary responsibility for the IDER Plan and the IDER response. During an infectious disease emergency, key staff leading the response will likely come from this responsible party, which is often the disease control function of the LHD. However, it is important to ensure there is internal coordination between the disease control function and the emergency preparedness function in your organization. Establish a mechanism for regular communication between these two functions and involve key staff members from both functions in the preparation of the IDER Plan.

Meeting response needs and optimizing structure with limited staff resources. It can be daunting for an organization with limited staff members to conceptualize planning for and responding to a large infectious disease emergency response. Keep in mind that though the IDER Plan outlines a number of key functions and roles, depending on the scale of the event and the response, one individual responder may fulfill more than one role or position, and many will not be filled. During a large infectious disease emergency, it is likely that your health department would recruit from other organizations to assist in the response. The IDER Plan contained in the IDER Toolkit provides a structure to orient and place these external staff.

Training staff on use of the plan. Finding the time to train your already busy staff on the IDER Plan can be a challenge. However, it is important that all staff within the health department, not just disease control and emergency preparedness staff, receive training about the IDER Plan and their potential role during an IDER event. Ideally, this training should occur both pre-event and during the event. The IDER Toolkit includes a variety of training resources to meet this need. These resources include pre-event training presentations about the IDER Plan for all staff, as well as Job Action Sheets that can be used to train staff during a response. It may be possible to hold an IDER Training periodically for all new staff hired by your organization, or you might adapt an IDER training and place it online for staff to complete. Additionally, consider using exercises as training opportunities.

CONCLUSION

The IDER Toolkit contains a variety of materials to help local health departments prepare for and respond to infectious disease emergencies that may also be used to help inform other types public health response plans. Whether a local health department utilizes the entire IDER Toolkit, or simply supplements an existing emergency response plan with specific items, the IDER Toolkit contains materials that are useful and appropriate for all types of local health departments and all types of public health responses.