Procedural Steps for Identifying and Prioritizing Essential Functions

Step 1: Identifying Essential Functions - Categorization

To identify the essential functions, it is initially helpful to group all of the laboratory's analytical and support functions into overarching categories. Depending on the particular laboratory's operation, these broad categories may include (but are not limited to) the following:

- Biological or Chemical Threat/Terrorism
- Infectious Disease
- Environmental Health
- Newborn Screening
- Food Safety
- Laboratory Support

Identification of Essential and Nonessential Laboratory Functions					
Overarching Category	**Kind of Agent**	**Pathogenic Condition**	**Specific Test or Method**	**Essential (E) or Nonessential (NE)**	**Priority**
Infectious Disease					
Biological or Chemical Threat/Terrorism					
Infectious Disease					
Environmental Health					
Newborn Screening					
Food Safety					
Laboratory Support					

Step 2: Identify Essential Functions – Subdivision of Categories

The next step in identifying core laboratory activities is to create subdivisions within the overarching categories. These subdivisions are used to group the laboratory's functions into those that are essential, and therefore must be continued, and those that are nonessential, which may be suspended. The nature of these subdivisions, or whether they are even necessary, depends upon the particular overarching category. For example, if all of the laboratory activities in the newborn screening category are considered essential, then subdividing this overarching category into smaller units to reveal essential and nonessential activities is unnecessary. The same may be true for an overarching category like environmental health. If all the routine testing of environmental samples is essential but readily outsourced to laboratories with comparable analytical capabilities and capacities in the private sector, then subdivision of this broad category may be helpful only to determine which alternate laboratory to use for particular kinds of analytical methods. In contrast, within a broad overarching category such as infectious disease, there may be both essential and nonessential activities that need to be identified. For example, while activities related to the subtyping of microbial isolates for early detection of infectious disease outbreaks may be essential to public health, some of the routine reference testing done in the public health laboratory may be nonessential. By effectively subdividing an overarching category like infectious disease, the process of differentiating between essential and nonessential activities becomes more manageable.

Identification of Essential and Nonessential Laboratory Functions					
Overarching Category	**Kind of Agent**	**Pathogenic Condition**	**Specific Test or Method**	**Essential (E) or Nonessential (NE)**	**Priority**
Infectious Disease	Bacterial				
	Viral				
	Fungus				
	Parasitology				
	Environmental Samples				
	Weapons of Mass Destruction				
Biological or Chemical Threat/Terrorism					
Infectious Disease					
Environmental Health					
Newborn Screening					
Food Safety					
Laboratory Support					

Identify and Prioritize Essential Functions

The overarching category of infectious disease can be examined as a model to identify and prioritize the essential functions of the laboratory. While other approaches or variations of this approach can be used, the outcome should be the same. The laboratory's essential functions should become clearly identified and appropriately prioritized to guide COOP action.

For the purpose of this course, we will further breakdown the infectious disease category into various subdivisions. However, this procedure should be completed for all categories, as applicable, using subdivisions that apply to that category. The subdivisions may include the kind of microbial agent, the type of analytical tests or the nature of the laboratory program, i.e., enteric diseases, sexually transmitted diseases or invasive diseases. Other subdivisions may also be used. For this table, we will be subdividing the infectious disease agents using the following guide:

- First, divide each kind of agent into specific pathogenic conditions;
- Second, divide each condition into specific tests or general methods;
- Third, evaluate the activities listed to identify essential and nonessential; and
- Fourth, prioritize each essential function

Step 3: Divide Kind of Agent into Pathogenic Condition

In this step, you will want to divide the kind of agents you work with into specific pathogenic conditions.

Identification of Essential and Nonessential Laboratory Functions					
Overarching Category	**Kind of Agent**	**Pathogenic Condition**	**Specific Test or Method**	**Essential (E) or Nonessential (NE)**	**Priority**
Infectious Disease	Bacterial	Tuberculosis			
		Enteric Diseases			
		Sexually Transmitted Disease			
	Viral	Influenza			
		Encephalitis			
		Rabies			
	Fungus				
	Parasitology				
	Environmental Samples	Drinking water and regulatory/ non regulatory Special project			
	Weapons of Mass Destruction				
Biological or Chemical Threat/Terrorism					
Infectious Disease					
Environmental Health					
Newborn Screening					
Food Safety					
Laboratory Support					

Step 4: Divide Pathogenic Condition into Specific Tests or Methods

In this step, you will want to divide the pathogenic conditions you work with into specific test or methods you use.

Identification of Essential and Nonessential Laboratory Functions					
Overarching Category	**Kind of Agent**	**Pathogenic Condition**	**Specific Test or Method**	**Essential (E) or Nonessential (NE)**	**Priority**
Infectious Disease	Bacterial	Tuberculosis	Drug sensitivity testing		
			Diagnosis		
			Gen-Probe		
			Biochemicals		
			HPLC		
			Confirmation		
		Enteric Diseases	Diagnosis		
			Outbreak detection		
		Sexually Transmitted Disease	HIV diagnosis		
			HIV molecular subtyping		
			Syphilis confirmation		
	Viral	Influenza	Routine diagnosis		
			Subtype surveillance		
			H5N1 identification		
		Encephalitis	West Nile		
			Herpes		
		Rabies	All Activities		
	Fungus		All Activities		
	Parasitology		All Activities		
	Environmental Samples	Drinking water and regulatory/ non regulatory Special project	All Activities		
	Weapons of Mass Destruction		LRN assays		
Biological or Chemical Threat/Terrorism					
Infectious Disease					
Environmental Health					
Newborn Screening					
Food Safety					
Laboratory Support					

Step 5: Essential and Non-Essential

Some things to consider when identifying essential functions are:

1. Laboratories should review their functions to determine those directed by applicable laws, directives, and executive orders.
2. Laboratories should determine the essential functions that need to be continued uninterrupted or resumed within 12 hours, regardless of circumstance.
3. Laboratories should identify those essential functions that provide interdependent support to an essential function performed by another organization, including when and where the vital support would be provided.

Identification of Essential and Nonessential Laboratory Functions					
Overarching Category	**Kind of Agent**	**Pathogenic Condition**	**Specific Test or Method**	**Essential (E) or Nonessential (NE)**	**Priority**
Infectious Disease	Bacterial	Tuberculosis	Drug sensitivity testing	E	
			Diagnosis	E	
			Gen-Probe	E	
			Biochemicals	NE	
			HPLC	NE	
			Confirmation	E	
		Enteric Diseases	Diagnosis	NE	
			Outbreak detection	E	
		Sexually Transmitted Disease	HIV diagnosis	NE	
			HIV molecular subtyping	E	
			Syphilis confirmation	E	
	Viral	Influenza	Routine diagnosis	NE	
			Subtype surveillance	E	
			H5N1 identification	E	
		Encephalitis	West Nile	NE	
			Herpes	NE	
		Rabies	All Activities	E	
	Fungus		All Activities	NE	
	Parasitology		All Activities	NE	
	Environmental Samples	Drinking water and regulatory/ non regulatory Special project	All Activities	E	
	Weapons of Mass Destruction		LRN assays	E	
Biological or Chemical Threat/Terrorism					
Infectious Disease					
Environmental Health					
Newborn Screening					
Food Safety					
Laboratory Support					

Step 6: Prioritize Essential Functions

Once the laboratory's essential functions have been identified, they must be prioritized. Depending on the nature of the incident causing a disruption of the affected laboratory's operation, it is possible that only some of the essential functions can be continued. It is therefore critical to know which have the highest priority. This prioritization should be based on time sensitivity and the public health impact if the function is NOT continued during the disruptive event. Each essential laboratory function should be rated as follows:

- Priority 1 – Highest priority
  If the task, service or function is mission priority critical—life, health or safety issue if not restored within one hour.
  Recovery/restoration objective: 0 to 12 hours, normally performed on a 24/7 basis

- Priority 2 – Medium priority
  If the task, service or function is **mission priority** urgent —will cause definite, irreparable harm if not restored in less than 24 hours.
  Recovery/restoration objective: 12 hour to 48 hours—normally performed on a 24/7 basis

- Priority 3 – Medium priority
  If the task, service or function is a **business unit priority** — will cause definite irreparable harm if not restored in less than one week.
  Recovery/restoration objective: two to seven days —a function that is routinely monitored on a daily basis

- Priority 4 –Lower priority
  If the task, service or function is important — significant, but not time critical—normal day-to-day functions that would NOT cause irreparable harm if not restored within the first 30 days.
  Recovery/restoration objective: from 1 week plus

Identification of Essential and Nonessential Laboratory Functions					
Overarching Category	**Kind of Agent**	**Pathogenic Condition**	**Specific Test or Method**	**Essential (E) or Nonessential (NE)**	**Priority**
Infectious Disease	Bacterial	Tuberculosis	Drug sensitivity testing	E	1
			Diagnosis	E	1
			Gen-Probe	E	2
			Biochemicals	NE	4
			HPLC	NE	4
			Confirmation	E	1
		Enteric Diseases	Diagnosis	NE	4
			Outbreak detection	E	2
		Sexually Transmitted Disease	HIV diagnosis	NE	4
			HIV molecular subtyping	E	2
			Syphilis confirmation	E	2
	Viral	Influenza	Routine diagnosis	NE	4
			Subtype surveillance	E	2
			H5N1 identification	E	1
		Encephalitis	West Nile	NE	4
			Herpes	NE	4
		Rabies	All Activities	E	2
	Fungus		All Activities	NE	4
	Parasitology		All Activities	NE	4
	Environmental Samples	Drinking water and regulatory/ non regulatory Special project	All Activities	E	2
	Weapons of Mass Destruction		LRN assays	E	1
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Infectious Disease					
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Laboratory Support					

This job aid is a component of the free, on-demand CDC training course “Laboratory Continuity of Operations.” Find the course at https://www.cdc.gov/labtraining.