

Emerging Infectious Diseases (EIDs)

A Planning Toolkit for Tribal Preparedness

Inter-Tribal Council of Arizona, Inc

Tribal Epidemiology Center

August 2022



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Developed By:
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Definitions

Case Definition	Includes criteria for person, place, time, and clinical features. This helps with the base communication for symptom descriptions to the community. It provides context.
De-identified	The names of the individuals diagnosed are withheld
Elimination	The disease is sufficiently controlled to prevent an epidemic from occurring in a defined geographical area. Elimination means that the disease is no longer considered a major public health issue
Emerging Infectious Disease	Any previously unknown illness that can spread (like Coronavirus 2019 or Rocky Mountain spotted fever in Arizona), or any previously controlled disease (like measles or syphilis) where we start to see an acceleration in new cases leading to an epidemic or pandemic
Emergency Operation Center	An emergency operations center (“EOC”) is a central command and control group responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management functions at a strategic level during an emergency.
Epidemic	An epidemic is an outbreak of new disease. There is not a certain number of cases that determines an epidemic. It depends on the disease. An epidemic can be local or regional.
Infodemic	Typically refers to a rapid and far-reaching spread of both accurate and inaccurate information about something, such as a disease. It typically refers to information, often obtained from the internet, which is a combination of fact, accurate and inaccurate information.
Novel	New (disease) not previously identified
Pandemic	A pandemic is a type of epidemic (one with greater range and coverage), of a disease that occurs over a wide geographic area and affects an exceptionally high proportion of the population. Pandemics frequently involve several countries populations. (The difference between an epidemic and pandemic, according to the WHO, is not the severity of the disease, but the degree to which it has spread).
Public Health Crisis	An urgent situation in which the health status of the population within an area is adversely affected.
Public Health Crises	Localized outbreaks of an infectious disease or a potential outbreak of an infectious disease that has a reasonable possibility of occurring and that poses a significant threat to a community or region.

Resurgent Diseases	Resurgent diseases are diseases that reappear after they have been on a significant decline. Reemergence may happen because of a breakdown in public health measures for disease that were once under control. They can also happen when new strains of a known disease-causing organisms appear. Examples of resurgent diseases include syphilis, Congenital syphilis, and Whooping Cough.
Sentinel Event	Sentinel events are unanticipated and involve diseases which left unchecked, could result in an outbreak, epidemic or pandemic. The identification of a sentinel event should trigger an immediate investigation. Examples of diseases which should be investigated immediately with a sentinel event include Ebola, malaria, cholera, yellow fever and small pox.
Targeted Antiviral Prophylaxis	Measures designed to preserve health, as of an individual or of society, and prevent the spread of disease.
Trend	The number of cases reported over time. This is an important indicator of the status of the progression or regression of an EID.
Unified Command	The Unified Command is a structure that brings together the Incident Commanders of the many organizations involved in the incident in order to coordinate an effective response, while at the same time allowing each to carry out their own jurisdictional, legal, and functional responsibilities. Members of the Unified Command work together to develop a common set of incident objectives and strategies, share information, maximize the use of available resources, and enhance the efficiency of the individual response organizations. Often in Tribal settings, in addition to key members of the Tribe's Incident response team, a Unified Command approach may include officials from local towns, cities, counties, and states.
Vaccine Preventable Diseases	A vaccine-preventable disease is an infectious disease that has a vaccination. If a person acquires a vaccine-preventable disease and dies from it, the death is considered a vaccine-preventable death. Examples include: Measles, mumps and Rubella; Diphtheria, Tetanus and Pertussis; COVID, Influenza, Small pox
Zoonotic Diseases	Also known as zoonoses, these are diseases that are caused by viruses, bacteria, fungus, or parasites that can spread between animals and humans. Examples include diseases found in the southwest like West Nile Virus, Rocky Mountain spotted fever, Hantavirus, Rabies, and Anthrax.

Acronyms

AI/AN	American Indian/Alaska Native
CDC	Centers for Disease Control and Prevention
COVID-19	Coronavirus 2019
CS	Congenital Syphilis
DTap	Diphtheria, Tetanus, Pertussis
EHR	Electronic Health Record
EID	Emerging Infectious Disease
EOC	Emergency Operations Center
HAI	Health Care-Associated Infection
HIV	Human Immunodeficiency Virus
IAP	Incident Action Plan
IC	Incident Commander
ICC	Incident Command Center
IHS	Indian Health Services
ILI	Influenza-like Illnesses
MCM	Medical Countermeasures
MMR	Measles, Mumps and Rubella
MOA	Memorandum(s) of Agreement
MOU	Memorandum(s) of Understanding
NPI	Non-Pharmaceutical Interventions
OMH	Office of Minority Health
PIO	Public Information Officer
R & D	Research and Development
RMSF	Rocky Mountain Spotted Fever
RPMS	Resource Patient Management System
SAMHSA	Substance Abuse and Mental Health Services Administration

SNS	Strategic National Stockpile
TEC	Tribal Epidemiology Centers
WHO	World Health Organization

Introduction to the Toolkit

Purpose

There are many different types of and purposes for an emergency response plans. A few of the threats an emergency response plan may address are:

- Natural disasters (flooding, wildfires, earthquakes, hurricanes, severe storms, etc.);
- Chemical emergencies (chemical plant spills, industrial accidents, etc.);
- Radiation emergencies; and
- Pandemics and epidemics.

For the purpose of this toolkit, the focus will be on Emerging Infectious Diseases (EID) planning for epidemics and pandemics.

This toolkit is meant to provide an overview of the important components and considerations when preparing and responding to an EID emergency in a Tribal setting. It is not meant to be the plan itself; rather a guide to support the Tribal planning process and emergency response networks.

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Intended Audience

The information in this toolkit is meant to serve as a guide for public health professionals, emergency responders, and any Tribal representatives that plan for and respond to public health emergencies involving EIDs.

How to Use This Toolkit

This toolkit contains eight primary sections (see listed below) that provide action steps, tips, and planning guidance regarding EIDs in a Tribal-specific setting:

1. Introduction to EIDs
2. Preparation
3. Surveillance Activities
4. Emergency Response Framework
5. Identifying a Tribal Response Team: Internal and External Partners
6. Epidemic Phases and Response Interventions
7. Elements for a Comprehensive Outbreak Response
8. Recovery

Throughout the toolkit, you will find key action steps in a special font (see below):

Key Action Step: This special font will contain recommended actions based on best practices.

In addition to the key action steps, this toolkit will also provide specialized tips in the following format:

Tip: Common Planning Pitfalls

One of the most common reasons plans fail is that they are overly complicated and are perceived to be overwhelming by those who are supposed to be involved in implementing them. Always keep in mind your Tribal community local capabilities, and funding you have available to implement your plan. Developing a simple, realistic, and flexible plan for the local community is always best.

Information in this toolkit is meant to serve as a guide for Tribal public health professionals, emergency responders, and any Tribal representatives that plan for and respond to local public health emergencies involving EIDs.

Introduction to Emerging Infectious Disease (EID) Planning

EID Planning and its Purpose

As public health emergencies are imminent, it's important that all Tribal governments be prepared for EIDs in order to prevent injury, protect lives, reduce fears and anxiety amongst responders and the community, and prevent or mitigate the likelihood of epidemics and pandemics.

What is an EID?

According to the National Institute of Allergy and Infectious Diseases, EIDs are commonly defined as:

- Outbreaks of previously unknown diseases;
- Known diseases that are rapidly increasing in incidence or geographic range in the last 2 decades; and
- Persistence of infectious diseases that cannot be controlled.

Caused by novel pathogens, EIDs require rapid intervention and prevention activities to curtail the spread of infection. As noted above, EIDs can also re-emerge after eradication or containment of the disease. One of the things which makes EIDs so threatening is there are generally no vaccines for them.

What is an outbreak of an EID?

An outbreak, or epidemic, occurs when there are more cases of a disease than would normally be expected in a specific time and place. There is not a specific number of cases that determines an epidemic of disease, it is just "more than expected". The disease may show symptoms doctors have already seen before just in a new form, or in abnormally high numbers, such as foodborne, or health care-associated infections (HAI); it may be an emerging disease that the public may not know much about, like COVID-19. Once an outbreak is identified, it is important to conduct an outbreak investigation. Key components include why the outbreak has happened, and how to prevent other people from getting sick or dying.

How do EID outbreaks impact Tribal communities?

It is important to note that across all demographics and geographic regions, uncontrolled EIDs can result in epidemics, or even pandemics that can have serious effects and threats to local, regional, and global economies, medical and health care systems, and society. As we saw during COVID-19, EIDs have the ability to disrupt travel and trade, create panic and anxiety amongst the public, and ultimately can become a public health risk itself that can create surges and stress on health systems.

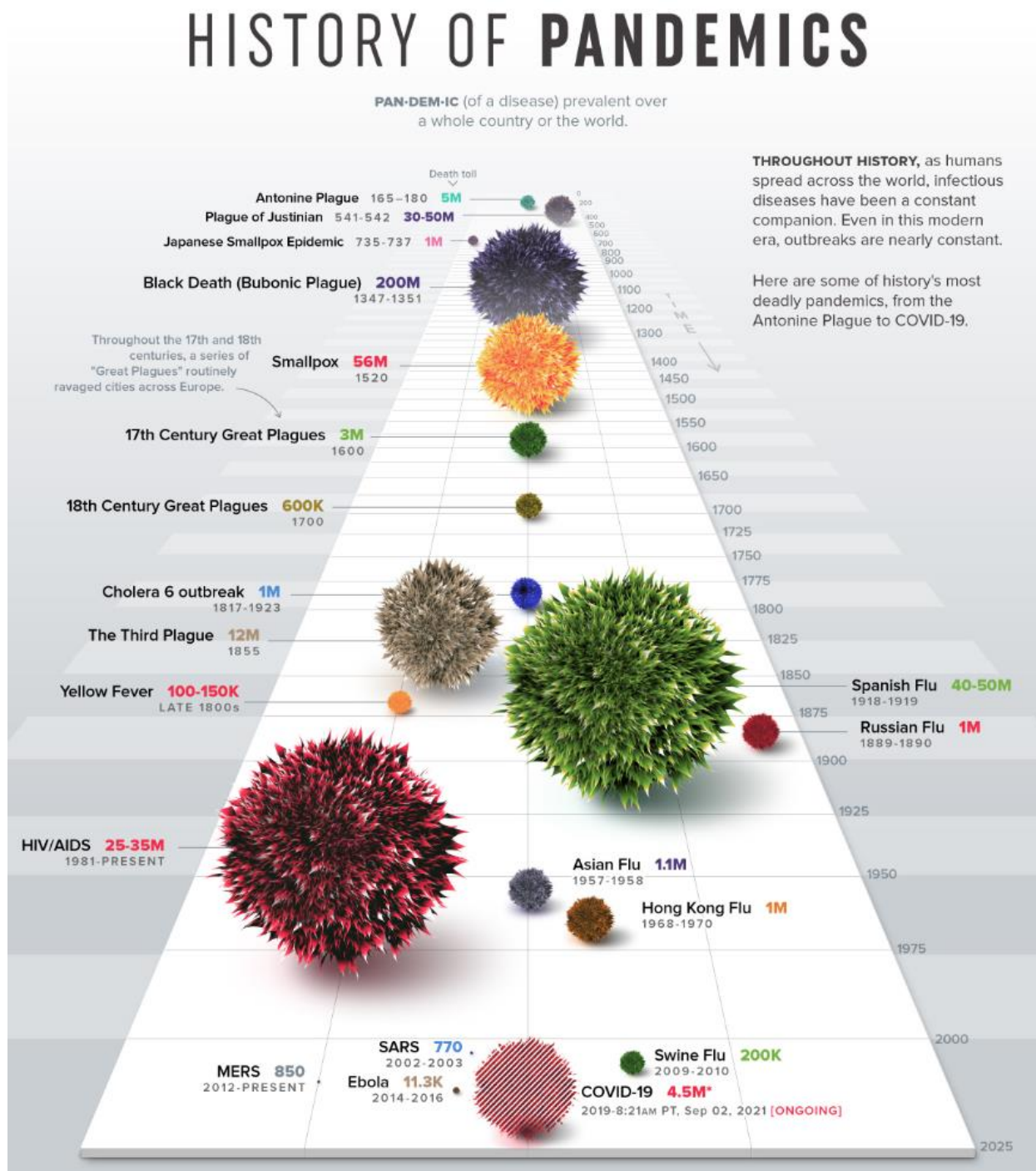
An EID is any previously unknown communicable illness or any previously controlled contagion whose incidence and prevalence are suddenly rising.

"Over time, diseases very rarely disappear. And there always seems to be room for new ones."
-World Health Organization

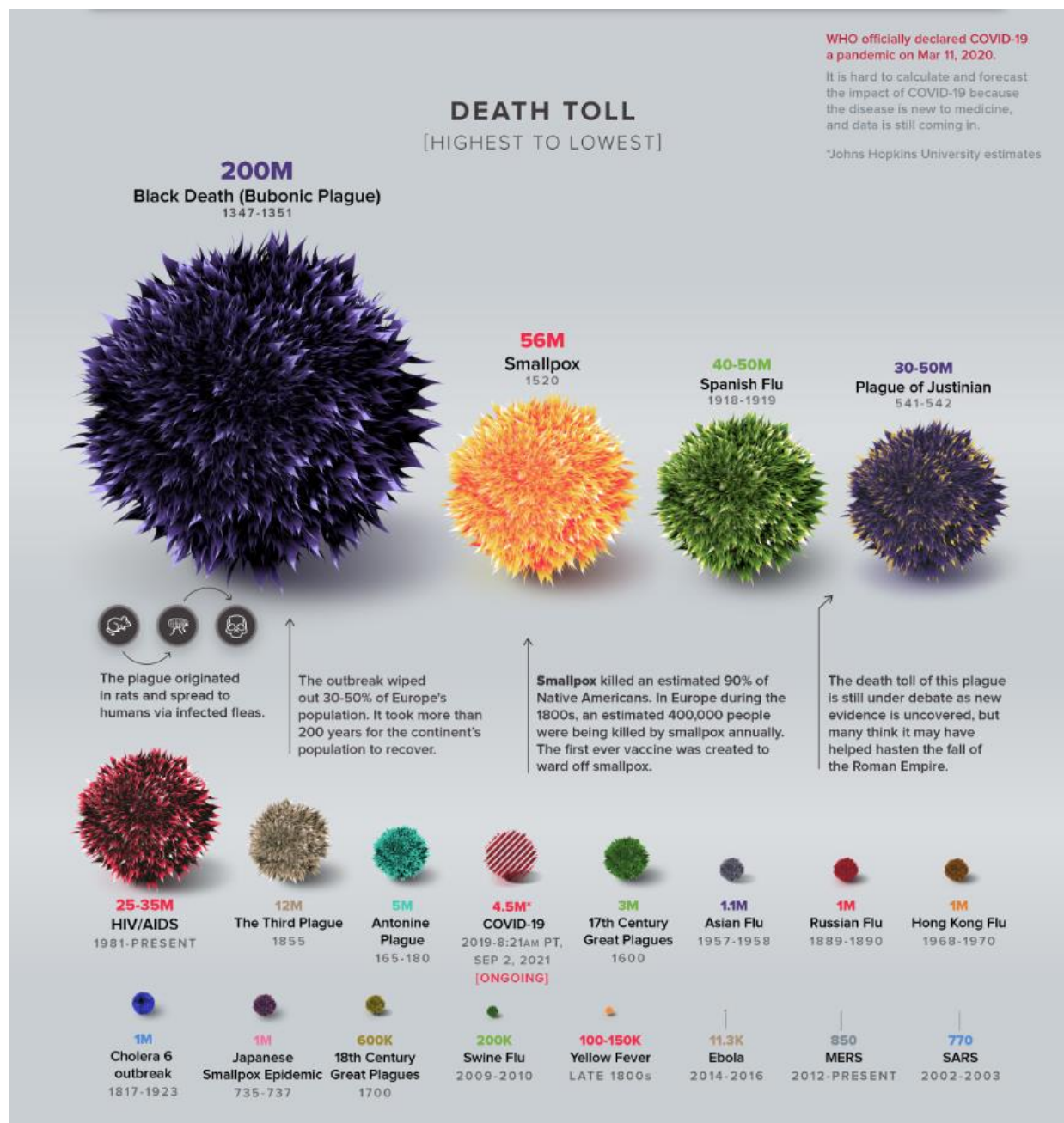


How have EID outbreaks impacted the world historically?

For millennia, infectious diseases have plagued humanity due to the unpredictable powers of nature. The WHO claims that since 1970, more than 1,500 new pathogens were discovered; 70% of which were proved to be of animal origin¹. The below infographic shows a timeline and death tolls from some of the deadliest pandemics the world has ever seen.²



² Visualizing the History of Pandemics. Visual Capitalist 2020; Mar 14. <https://www.visualcapitalist.com/history-of-pandemics-deadliest>.



WHO declared COVID – 19 a pandemic on March 11, 2020. Currently the estimated death toll according to Johns Hopkins University is 6.3 M as of July 8, 2022

For many years, humankind had been left vulnerable to EIDs with minimal understanding of plague origins and mitigation strategies. Historically, EIDs had been characterized as the “wrath of the gods” that would inflict disease among Roman rulers and their civilizations. This is seen in the case of the Justinian Plague, named after the reign of emperor Justinian I, who according to a historian had “to be either a devil or was being punished by God for his evil ways.”³ This non-scientific theory of EIDs has fortunately transformed into a better understanding of EID causes and mitigation measures.

Pre-contact

American Indian groups were most definitely not living in a disease-free environment before contact with Europeans. Different human populations, across the globe were impacted at different times by infectious diseases, and suffered varying rates of mortality.⁴ Diseases such as tuberculosis were already present in the Americas, along with diseases such as rabies, amebic dysentery, hepatitis, herpes, pertussis, and poliomyelitis, although the prevalence of almost all of these was probably low in any given group.⁵

Diseases typically categorized as “Old World” or from Europe, Africa, or Asia, that were not present in the Americas until contact included bubonic plague, measles, smallpox, mumps, chickenpox, influenza, cholera, diphtheria, typhus, malaria, leprosy, and yellow fever. American Indians in the Americas had little to no immunity to these infectious diseases and in these situations, disease will spread more rapidly and be more severe.⁶

Post-contact

Historically in the Americas, American Indian and Alaskan Natives have suffered disproportionately from diseases including Emerging Infectious Disease. There is wide agreement about the effects of diseases and epidemics associated with European contact. The first well-documented, widespread epidemic in what was to become New Mexico was smallpox in 1636. Shortly thereafter, measles entered the area, and many Pueblos lost as many as a quarter of their inhabitants.⁷ After the founding of Spanish settlements and missions,

Historically in the Americas, American Indian and Alaskan Natives have suffered disproportionately from diseases including EIDs. There is wide agreement about the effects of diseases and epidemics associated with European contact.

³ Horgan, J. (2021, September 17). *Justinian's plague (541-542 CE)*. World History Encyclopedia. Retrieved September 22, 2021, from <https://www.worldhistory.org/article/782/justinians-plague-541-542-ce/>.

⁴ Larsen CS. In the wake of Columbus: native population biology in the post contact Americas. *Yearbook Phys Anthropol* 1994;**37**: 109-154. [[Google Scholar](#)] [[Ref list](#)]

⁵ Ortner DJ, Putschar WGJ. Identification of Pathological Conditions in Human Skeletal Remains. Washington, DC: Smithsonian Institution Press; 1981. [[Ref list](#)]

⁶ Virgin soil epidemics as a factor in the aboriginal depopulation in America. *Crosby AW William Mary Q.* 1976 Apr; 33():289-99. [[PubMed](#)] [[Ref list](#)]

⁷ Chavez A. Archives of the Archdioceses of Santa Fe. Publications of the Academy of American Franciscan History Bibliographical Series 8. Washington, DC: Academy of American Franciscan History; 1957. [[Ref list](#)]

there was substantially more contact, and throughout the 17th century, epidemic disease was repeatedly imported.

The lack of access to vaccines and other supplies from the Federal Government, which directly negatively impacted the spread of many infectious diseases on Indian reservations, absolutely predates COVID-19. The 1832 Indian Vaccination Act only appropriated \$12,000 to vaccinate members from select Indian Tribes and in 1939 \$5,000 was appropriated. The 1837 Small pox outbreak among Tribal populations in the Americas then decimated these communities due to contact with settlers.

Since the 1970s, remarkable progress has been made on EID research and developments in technology, treatments, and vaccines. This is a relief to humankind as scientists and health care workers continue to gain control over EIDs. However, due to the unpredictable nature of new diseases and the re-emergence of previously contained EIDs, the world and Tribal Nations must take proactive measures to build and sustain public health and emergency response capacities. With international and intercontinental travel happening each day, this requires a quicker response to identify outbreaks and mitigate the spread of infections.



What are some general planning concepts that can be carried over into emergency planning for EIDs?

Regardless of the specific purpose of the plan, there are fundamental principles all planners should consider as best practices.

- Plans should reflect the needs of the entire population of the community. One way to ensure this is to gather community member input throughout the planning process. This can be done through surveys, focus groups, and town halls.
- The planning process itself should be formal. This toolkit may be used as a guide to walk you through a comprehensive process that should be documented and result in a written implementable plan.
- The plan should be flexible and scalable.
- The plan should have a clearly defined mission and supporting goals.
- The plan should be specific. It should identify tasks, allocate resources, and establish accountability.
- Planning should, to the greatest extent possible, involve Tribal Leadership.

It is recommended that Tribal public health response planning for EIDs be done in coordination with other Tribal, local, state, and federal partners. Because infectious diseases don't observe geographic boundaries, it is important that Tribes coordinate with others when planning a response.

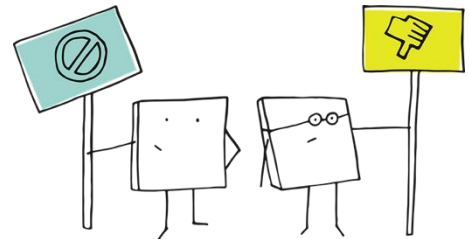
Plans should:

- **Reflect the needs of the community**
- **Have a formal planning process**
- **Be flexible and scalable**
- **Be specific**
- **Involve Tribal Leadership**

Preparation

Review of Previous Operations/ Systems Used

Key Action Step: Review previous response systems and make adjustments as needed.



One of the key initial steps a Tribe can take is to review their response to previous similar public health emergencies or outbreaks. A formal mechanism for reviewing the Tribe's response operations and systems is to conduct an After Action Review (AAR) following an incident. An AAR helps Tribes identify what works and what may need improvement. An AAR is a structured, qualitative review of actions taken in response to an incident of public health concern. An AAR is a simple powerful tool used to assess performance, document lessons learned, and identify areas for improvement.

A Tribe should consider conducting an AAR if:

- Corrective actions need to be implemented immediately
- A plan needs to be developed to better prepare for the next incident
- Medium- and long-term actions are needed to strengthen and institutionalize the necessary capabilities of the public health system.

An AAR Toolkit is available and can be found at the following link:
<https://tribalepicenters.org/itca-tec-success-story-after-action-review-toolkit-guided-workshop/>

More about AARs

It may be appropriate to conduct an AAR in an ongoing epidemic. An AAR assesses the impact of preparedness on the response. As part of the AAR process, the team develops a performance improvement plan which is an ongoing process. When the Tribe is in the "anticipation" phase of an impending EID, it's appropriate to revisit the results of the AAR and the attending improvement plan. This can serve as a guide for current planning. If a Tribe hasn't recently conducted an AAR, this tool can still be used, even in a modified form, to help with planning for the impending public health emergency.

A formal mechanism for reviewing the Tribe's response operations and systems is to conduct an "After Action Review (AAR)" following an incident.

It may be appropriate to conduct an AAR in an ongoing epidemic.

A best practice in public health emergency planning is to use the CDC's list of 15 core capabilities as a premise. The CDC's *Public Health Emergency Preparedness and Response Capabilities* provide an interrelated framework for communities to prepare for, respond to, and recover from threats and emergencies. The capability standards serve as a resource to assess, build, and sustain Tribal public health preparedness and response capacity

The definitions described within the capability standards are broad. A Tribe may not have the capacity and infrastructure to simultaneously and completely address all capabilities in the short term. Instead, Tribes should prioritize the capability standards they pursue based on their capacity as well as identify which jurisdictional partners they may want or need to coordinate activities with for the protection of their community.

Equally important, resource elements described within each capability and function(s) are not representative of all potential resource types or the quantities that may be required. Therefore, identifying the need for additional prioritization criteria when assessing individual capability resource elements is critical for public health agencies because resources that are not specifically stated in the capability standards may be necessary to achieve capability tasks. For example, in some Tribal Nations, there are citizens who only speak their Native language, so having the availability of Native language speakers to translate information may be important. On some reservations, there are homes with no running water so the ability to make more, or any water, readily available when hand washing is a key mitigation factor for infection control may be of significant importance.

Table 1 (on the next page) lists the CDC's 15 Public Health Emergency Preparedness and Response Capabilities along with definitions and corresponding functions.

Tribes should prioritize the capability standards they pursue based on their capacity as well as identify which jurisdictional partners they may want or need to coordinate activities with for the protection of their community

Table 1: Capability Definitions and Functions

Capability #1: Community Preparedness	
Definition	Functions
<p>Community preparedness is the ability of communities to prepare for, withstand, and recover from public health incidents in both the short and long term. Through engagement and coordination with a cross-section of state, local, tribal, and territorial partners and stakeholders, the public health role in community preparedness is to:</p> <ul style="list-style-type: none"> • Support the development of public health, health care, human services, mental/behavioral health, and environmental health systems that support community preparedness • Participate in awareness training on how to prevent, respond to, and recover from incidents that adversely affect public health • Identify at-risk individuals with access and functional needs that may be disproportionately impacted by an incident or event • Promote awareness of and access to public health, health care, human services, mental/behavioral health, and environmental health resources that help protect the community's health and address the access and functional needs of at-risk individuals • Engage in preparedness activities that address the access and functional needs of the whole community as well as cultural, socioeconomic, and demographic factors • Convene or participate with community partners to identify and implement additional ways to strengthen community resilience 	<ul style="list-style-type: none"> • Function 1: Determine risks to the health of the jurisdiction • Function 2: Strengthen community partnerships to support public health preparedness • Function 3: Coordinate with partners and share information through community social networks • Function 4: Coordinate training and provide guidance to support community involvement with preparedness efforts
Capability #2: Community Recovery	
Definition	Functions
<p>Community recovery is the ability of communities to identify critical assets, facilities, and other services within public health, emergency management, health care, human services, mental/behavioral health, and environmental health sectors that can guide and prioritize recovery operations. Communities should consider collaborating with jurisdictional partners and stakeholders to plan, advocate, facilitate, monitor, and implement the restoration of public health, health care, human services, mental/behavioral health, and environmental health sectors to at least a day-to-day level of functioning comparable to pre-incident levels and to improved levels, where possible.</p>	<ul style="list-style-type: none"> • Function 1: Identify and monitor community recovery needs • Function 2: Support recovery operations for public health and related systems for the community • Function 3: Implement corrective actions to mitigate damage from future incidents

Capability #3: Emergency Operations Coordination	
Definition	Functions
Emergency operations coordination is the ability to coordinate with emergency management and to direct and support an incident or event with public health or health care implications by establishing a standardized, scalable system of oversight, organization, and supervision that is consistent with jurisdictional standards and practices and the National Incident Management System (NIMS)	<ul style="list-style-type: none"> • Function 1: Conduct preliminary assessment to determine the need for activation of public health emergency operations • Function 2: Activate public health emergency operations • Function 3: Develop and maintain an incident response strategy • Function 4: Manage and sustain the public health response • Function 5: Demobilize and evaluate public health emergency operations
Capability #4: Emergency Public Information and Warning	
Definition	Functions
Emergency public information and warning is the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management personnel.	<ul style="list-style-type: none"> • Function 1: Activate the emergency public information system • Function 2: Determine the need for a Joint Information System • Function 3: Establish and participate in information system operations • Function 4: Establish avenues for public interaction and information exchange • Function 5: Issue public information, alerts, warnings, and notifications

Capability #5: Fatality Management	
Definition	Functions
<p>Fatality management is the ability to coordinate with partner organizations and agencies to provide fatality management services. The public health agency role in fatality management activities may include supporting</p> <ul style="list-style-type: none"> • Recovery and preservation of remains • Identification of the deceased • Determination of cause and manner of death • Release of remains to an authorized individual • Provision of mental/behavioral health assistance for the grieving <p>The role also may include supporting activities for the identification, collection, documentation, retrieval, and transportation of human remains, personal effects, and evidence to the examination location or incident morgue.</p>	<ul style="list-style-type: none"> • Function 1: Determine the public health agency role in fatality management • Function 2: Identify and facilitate access to public health resources to support fatality management operations • Function 3: Assist in the collection and dissemination of antemortem data • Function 4: Support the provision of survivor mental/behavioral health services • Function 5: Support fatality processing and storage operations
Capability #6: Information Sharing	
Definition	Functions
<p>Information sharing is the ability to conduct multijurisdictional and multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, tribal, and territorial levels of government and the private sector. This capability includes the routine sharing of information as well as issuing public health alerts to all levels of government and the private sector in preparation for and in response to events or incidents of public health significance.</p>	<ul style="list-style-type: none"> • Function 1: Identify stakeholders that should be incorporated into information flow and define information sharing needs • Function 2: Identify and develop guidance, standards, and systems for information exchange • Function 3: Exchange information to determine a common operating picture
Capability #7: Mass Care	
Definition	Functions
<p>Mass care is the ability of public health agencies to coordinate with and support partner agencies to address, within a congregate location (excluding shelter-in-place locations), the public health, health care, mental/behavioral health, and human services needs of those impacted by an incident. This capability includes coordinating ongoing surveillance and public health assessments to ensure that health needs continue to be met as the incident evolves.</p>	<ul style="list-style-type: none"> • Function 1: Determine public health role in mass care operations • Function 2: Determine mass care health needs of the impacted population • Function 3: Coordinate public health, health care, and mental/behavioral health services • Function 4: Monitor mass care population health

Capability #8: Medical Counter-Measure Dispensing and Administration	
Definition	Functions
Medical countermeasure dispensing and administration is the ability to provide medical countermeasures to targeted population(s) to prevent, mitigate, or treat the adverse health effects of a public health incident, according to public health guidelines. This capability focuses on dispensing and administering medical countermeasures, such as vaccines, antiviral drugs, antibiotics, and antitoxins.	<ul style="list-style-type: none"> • Function 1: Determine medical countermeasure dispensing/administration strategies • Function 2: Receive medical countermeasures to be dispensed/administered • Function 3: Activate medical countermeasure dispensing/administration operations • Function 4: Dispense/administer medical countermeasures to targeted population(s) • Function 5: Report adverse events
Capability #9: Medical Material Management and Distribution	
Definition	Functions
Medical materiel management and distribution is the ability to acquire, manage, transport, and track medical materiel during a public health incident or event and the ability to recover and account for unused medical materiel, such as pharmaceuticals, vaccines, gloves, masks, ventilators, or medical equipment after an incident.	<ul style="list-style-type: none"> • Function 1: Direct and activate medical materiel management and distribution • Function 2: Acquire medical materiel from national stockpiles or other supply sources • Function 3: Distribute medical materiel • Function 4: Monitor medical materiel inventories and medical materiel distribution operations • Function 5: Recover medical materiel and demobilize distribution operations
Capability #10: Medical Surge	
Definition	Functions
Medical surge is the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community. It encompasses the ability of the health care system to endure a hazard impact, maintain or rapidly recover operations that were compromised, and support the delivery of medical care and associated public health services, including disease surveillance, epidemiological inquiry, laboratory diagnostic services, and environmental health assessments.	<ul style="list-style-type: none"> • Function 1: Assess the nature and scope of the incident • Function 2: Support activation of medical surge • Function 3: Support jurisdictional medical surge operations • Function 4: Support demobilization of medical surge operations

Capability #11: Non-Pharmaceutical Interventions	
Definition	Functions
<p>Nonpharmaceutical interventions are actions that people and communities can take to help slow the spread of illness or reduce the adverse impact of public health emergencies. This capability focuses on communities, community partners, and stakeholders recommending and implementing nonpharmaceutical interventions in response to the needs of an incident, event, or threat. Nonpharmaceutical interventions may include</p> <ul style="list-style-type: none"> • Isolation • Quarantine • Restrictions on movement and travel advisories or warnings • Social distancing • External decontamination • Hygiene • Precautionary protective behaviors 	<ul style="list-style-type: none"> • Function 1: Engage partners and identify factors that impact nonpharmaceutical interventions • Function 2: Determine nonpharmaceutical interventions • Function 3: Implement nonpharmaceutical interventions • Function 4: Monitor nonpharmaceutical interventions
Capability #12: Public Health Laboratory Testing	
Definition	Functions
<p>Public health laboratory testing is the ability to implement and perform methods to detect, characterize, and confirm public health threats. It also includes the ability to report timely data, provide investigative support, and use partnerships to address actual or potential exposure to threat agents in multiple matrices, including clinical specimens and food, water, and other environmental samples. This capability supports passive and active surveillance when preparing for, responding to, and recovering from biological, chemical, and radiological (if a Radiological Laboratory Response Network is established) public health threats and emergencies.</p>	<ul style="list-style-type: none"> • Function 1: Conduct laboratory testing and report results • Function 2: Enhance laboratory communications and coordination • Function 3: Support training and outreach
Capability #13: Public Health Surveillance and Epidemiological Investigation	
Definition	Functions
<p>Public health surveillance and epidemiological investigation is the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes. It includes the ability to expand these systems and processes in response to incidents of public health significance.</p>	<ul style="list-style-type: none"> • Function 1: Conduct or support public health surveillance • Function 2: Conduct public health and epidemiological investigations • Function 3: Recommend, monitor, and analyze mitigation actions • Function 4: Improve public health surveillance and epidemiological investigation systems

Capability #14: Responder Safety and Health	
Definition	Functions
Responder safety and health is the ability to protect public health and other emergency responders during pre-deployment, deployment, and post-deployment.	<ul style="list-style-type: none"> • Function 1: Identify responder safety and health risks • Function 2: Identify and support risk-specific responder safety and health training • Function 3: Monitor responder safety and health during and after incident response
Capability #15: Volunteer Management	
Definition	Functions
Volunteer management is the ability to coordinate with emergency management and partner agencies to identify, recruit, register, verify, train, and engage volunteers to support the jurisdictional public health agency's preparedness, response, and recovery activities during pre-deployment, deployment, and post-deployment.	<ul style="list-style-type: none"> • Function 1: Recruit, coordinate, and train volunteers • Function 2: Notify, organize, assemble, and deploy volunteers • Function 3: Conduct or support volunteer safety and health monitoring and surveillance • Function 4: Demobilize volunteers

Public Health Surveillance

Key Action Step: Identify who will lead your surveillance effort, what they will monitor and where they will secure the necessary data.



How to Identify an EID

Identifying an EID within a community doesn't always follow the same path. It's important to have an appropriate and effective monitoring system in place to create early awareness and notification of potential EID within the community. This is especially important because there are no vaccines or treatments for most emerging diseases.

The WHO has developed a Research & Development (R&D) Blueprint for action to prevent epidemics; It is a global strategy and preparedness plan that allows the rapid activation of R&D activities during epidemics. However, it should be noted that it still takes time to develop and approve vaccines. The Blueprint's aim is to fast-track the availability of effective tests, vaccines, and medicines that can be used to save lives and avert large-scale crises. Knowing and communicating this information to the community may be helpful in terms of understanding the larger response and resolution processes.

Recognizing Symptoms

Since EID's are often novel, meaning new and not previously identified/classified, often they are first recognized by clinicians through observation of patients with a similar set of symptoms. For this reason, it is important for the public health and health care professionals in a Tribal community to have a close working relationship. Once clinicians identify a pattern of patients with similar symptoms and have lab confirmation of a pattern of a certain disease, this may be recognized as a cluster. This may then be combined with data from the larger community, the surrounding county(ies), or the state. Lab results are a key part of the surveillance effort. Surveillance establishes a baseline from which disease prevalence rates and trends can be established and tracked to support decision making.

Once clinicians identify a pattern of patients with similar symptoms and have lab confirmation of a pattern of a certain disease, this may be recognized as a cluster.

This may then be combined with data from the larger community, the surrounding county(ies), or the state.

What is Surveillance?

Surveillance is a mechanism for identifying an EID early so that containment efforts can be put in place to slow the spread. Surveillance is the epidemiological practice of monitoring information to identify trends. Early recognition typically starts with clinicians who can detect unusual clusters of severe cases and who take samples resulting in laboratory diagnostics, which in turn result in the identification of patterns. One of the keys to controlling an EID is the identification of a pattern of increasing prevalence; the number of cases compared to a certain amount of the population (per thousand for example) than is typical for the same population. This may be an indicator of an EID or an impending epidemic or pandemic. The key to this is to have, or subscribe to, a good surveillance system. Tribes may or may not have the capacity to have an internal disease surveillance system. To do so requires a few things:

- An ability to access diagnostic information related to infectious diseases within their own community. This requires that there be someone who can monitor diagnostic data for reportable or specific diseases within the Tribal population starting with the Tribal health care system. This typically involves someone who has access to and can download diagnostic information from the electronic health record system, often the Registration and Patient Management System (RPMS) in Tribal clinics or whichever electronic health record (EHR) the Tribe may use. This information should be de-identified (meaning that the names of the individuals diagnosed are withheld) but that enough information is available that trends can be seen.
- Should a Tribe not have their own health clinic or the capacity to monitor this information internally, usually by an epidemiologist, then an individual should be designated as a liaison with a local public health agency that has someone who tracks this routinely and who can report and identify any abnormalities which may indicate an increase in an EID.

Once a pattern is identified, it is important to continue to monitor and track the trend. The trend, number of cases reported over time, is an important indicator of the status of the progression or regression of an EID.

Surveillance is a mechanism for identifying an EID early so that containment efforts can be put in place to slow the spread.

Surveillance is the epidemiological practice of monitoring information to identify trends.



Types of Surveillance Activities

Key Action Step: Identify someone who will be responsible for collecting, monitoring, and reporting key data elements during a potential EID outbreak.



Surveillance activities are important because they support the collection and reporting of timely and accurate information at the Tribal and local levels. This data is used to inform decisions on measures for implementing and adjusting disease reduction strategies, guiding clinical decisions, and informing Tribal Leaders, the community, and key stakeholders. This data is also used for estimating and forecasting disease burden and evaluating recommended priority groups for vaccination and antiviral therapy.

Surveillance activities may include:

- Identifying both symptomatic and asymptomatic/pre-symptomatic cases
- Tracking contacts to slow transmission (contact tracing)
- Monitoring the spread and intensity of disease
- Understanding disease severity and spectrum of illness (demographics, deaths)
- Understanding risk factors for severe disease and transmission (health status of those infected; e.g., obesity, diabetes, auto immune diseases, cardiac conditions)
- Monitoring for virus changes (variants)
- Identifying when thresholds have been met to adjust community mitigation measures

Some of the data variables considered when making decisions about community-wide measures include:

- Number of active positive cases (absolute or estimated)
- Prevalence: The rate of new cases within the community over time (usually expressed as a unit; e.g., x number of cases per 100,000 people)
- Number of hospitalized cases
- Number and percentage of cases with no identified epidemiologic link (individuals are not aware of being exposed to anyone with a positive diagnosis)
- Mortality rate
- Number of contacts in isolation and/or quarantine

Surveillance activities may include:

- **Identifying symptomatic/asymptomatic/pre-symptomatic cases**
- **Contact tracing**
- **Monitoring the spread and intensity of disease**
- **Understanding disease severity and spectrum of illness**
- **Understanding risk factors**
- **Monitoring for virus changes (variants)**
- **Identifying when thresholds have been met**

The CDC has technical mathematical modeling software to help guide mitigation recommendations. Johns Hopkins University also has a model dashboard available which Tribes can adopt should they choose to. The state and local health jurisdiction can also provide this modeling at a local community level to help guide decisions. This again, is why it is so important for the Tribe to track, to the greatest extent possible, all pandemic-related statistics.

Types of Pandemic Surveillance

Pandemic influenza surveillance includes surveillance for influenza viruses (virologic surveillance). The purpose of virologic surveillance is to track the type of viruses that may lead to a pandemic and better understand their make-up in preparation for a potential mass response. The other type of surveillance tracks influenza-associated illness, hospitalizations, and deaths (disease surveillance).

The purposes of ***virologic surveillance*** for pandemic influenza are to:

- Rapidly detect and track the virus' introduction into local areas and monitor the spread of the virus within affected areas to identify and characterize strains with pandemic potential.
- Monitor genetic changes in the pandemic virus, including the development of antiviral resistance.
- Identify and characterize circulating strains to inform vaccine formulation

The purposes of ***disease surveillance*** are to:

- Serve as an early warning system to detect increases in influenza-like illness (ILI) in the community.
- Monitor the pandemic's impact on health (e.g., by tracking outpatient visits, hospitalizations, and deaths).
- Track trends in influenza disease activity and identify populations that are severely affected.

Typically, someone in a Tribal Health Department is responsible for surveillance activities. A recommended best practice is to assign someone to monitor the state health alert system. Each state has a system that provides health alerts from the Centers for Disease Control and Prevention (CDC), sharing information and messages about emerging public health threats, recovery efforts, and other guidance with partners. Based on the nature and severity of a specific virus/pandemic, other identified health-related websites, including the Indian Health Services (IHS), may be monitored on a daily basis, to identify potential concerns, inform pandemic staging, and align appropriate responses. In addition, someone at the Tribe, typically in the Health Department, should be responsible for reporting of the positive cases, testing results, and mortality

A recommended best practice is to assign someone to monitor the state health alert system. Each state has a system that provides health alerts from the Centers for Disease Control and Prevention (CDC), sharing information and messages about emerging public health threats, recovery efforts, and other guidance with partners.

information to the state. The state in turn reports this information to the CDC.

States have public health laboratories that provide testing of influenza specimens submitted by providers and laboratories. These state labs perform preliminary typing, forward isolates or specimens with unusual results to CDC for identification of novel viruses, and provide specimens routinely to CDC for antigenic characterization.

Recommendations for testing patients during a pandemic will likely come from the CDC. The CDC will issue additional guidelines for testing as needed, based on available laboratory resources and surveillance needs. Testing recommendations may change over the course of the pandemic. The Tribe may follow the guidance of the county or state on where specimens should be submitted for testing. Information on who should get tested and under what circumstances may change throughout the outbreak and the Health Clinic is often responsible for tracking this information and communicating it to Tribal Leadership and the community.

More about Disease Surveillance

Disease surveillance provides valuable information about the burden of disease within the Tribe and the surrounding community. Data should be collected on outpatient visits at the Tribal Health Clinic, which includes those who were referred out for care, laboratory-confirmed infectious diseases, hospitalizations, and deaths. Tracking this information as it relates to EIDs is critical to staging the pandemic and informing the public about regional disease trends. It is generally recommended that Tribes follow the recommendation of the local health jurisdiction, the State, and the CDC on what information should be collected and reported on.

In addition to formal reporting of testing information, the Tribe's Incident Command team should also communicate relevant information to the community. Keeping the community informed about surveillance data as well as the larger local community and state data is an important part of gaining community support for various prevention methods such as mask-wearing, hand washing, physical distancing, etc. Setting up a dashboard to report important data elements daily is a recommended best practice. The following information may routinely be communicated:

- Number of new cases since the last report
- Current active cases
- Total positive cases
- Total deaths
- Recovered cases
- Households in quarantine and isolation
- Numbers vaccinated
- Number of positive cases post-vaccination

Recommendations for testing patients during a pandemic will likely come from the CDC. The CDC will issue additional guidelines for testing suspected influenza patients, as needed, based on available laboratory resources and surveillance needs.

Regional Tribal Epidemiology Centers

Key Action Step: Locate your regional Tribal Epidemiology Center and establish a contact.

There are twelve regional Tribal epidemiology centers (TECs), one associated with each of the Indian Health Service areas. These regional TECs can be a great resource to individual Tribes by providing guidance, identifying disease trends, and consulting on best practices for treatment and prevention recommendations. TECs have a close relationship with Indian Health Services, the CDC, SAMHSA, OMH, and other federal agencies, and as such can be a trusted partner for Tribes.

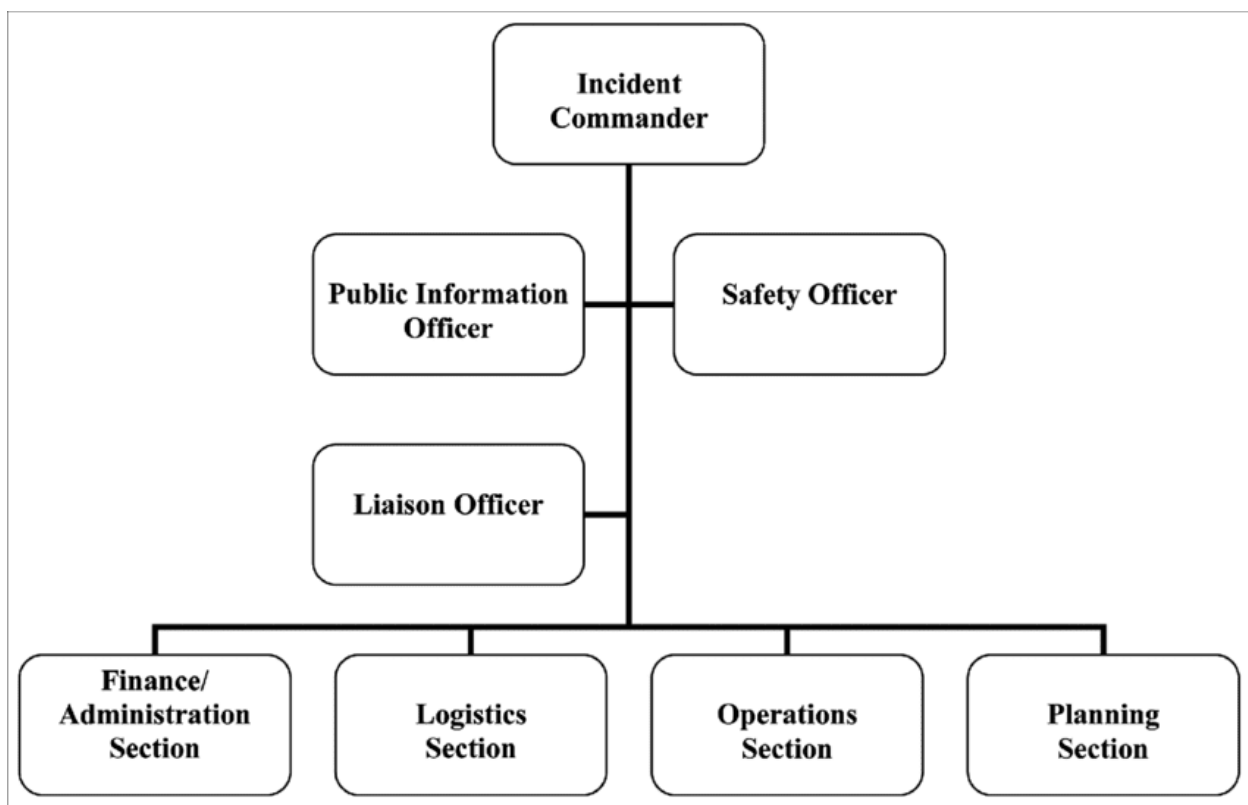


- Alaska Native Epidemiology Center, Anchorage, AK
- Albuquerque Area Southwest Tribal Epidemiology Center, Albuquerque, NM
- California Tribal Epidemiology Center, Roseville, CA
- Great Lakes Inter-Tribal Epidemiology Center, Lac du Flambeau, WI
- Great Plains Tribal Epidemiology Center, Rapid City, SD
- Inter Tribal Council of Arizona, Inc. Tribal Epidemiology Center, Phoenix, AZ
- Navajo Epidemiology Center, Window Rock, AZ
- Northwest Tribal Epidemiology Center, Portland, OR
- Southern Plains Area Tribal Epidemiology Center, Oklahoma City, OK
- Rocky Mountain Tribal Epidemiology Center, Billings, MT
- United South and Eastern Tribes, Inc. Tribal Epidemiology Center, Nashville, TN
- Urban Indian Health Institute Epidemiology Center, Seattle, WA

Emergency Response Framework

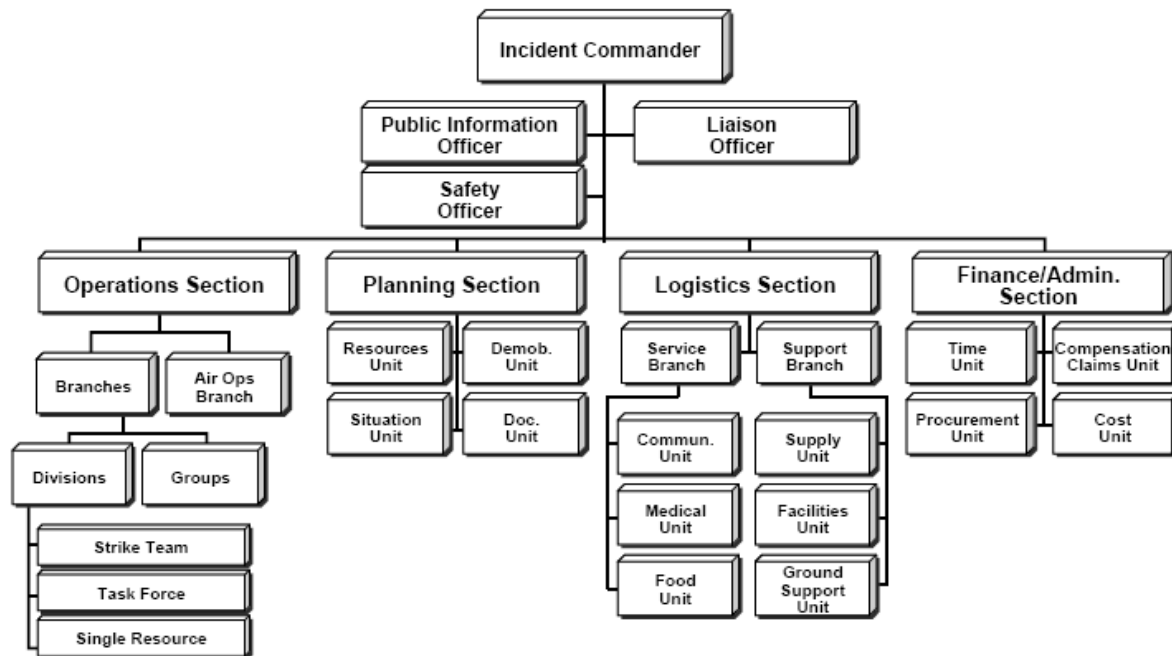
When designing a Tribe's Incident Command Framework, there are many models to choose from. It can be as complicated or as straightforward as the Tribal capacity permits. The most important thing is that the framework allows for flexibility. While this particular toolkit is focused on "EIDs," regardless of the type of emergency, the basic framework is often the same. The variations occur when it comes to who fulfills certain roles and depends on the specific phase of the outbreak. For example, if the emergency is flooding, leadership in the Operations and Logistics sections may be someone from the police or fire departments while if the emergency is public health related, it will likely be someone from the Tribal health department taking a lead role. A traditional Incident Command System may look something like this:

The most important thing is that the framework allows for flexibility.



Credit: Msimages.org

However, in larger Tribes and municipalities it may get much more complex and may look like this:



As mentioned earlier, the activities, and the intensity of those activities performed by those on the Incident Command team will vary depending on the phase of the emergency. For example, the focus during the Anticipation phase may be on acquiring supplies from the Strategic National Stockpile (SNS) during the Containment and Control and Mitigation phases the focus may be on testing, non-pharmaceutical interventions (NPIs) and vaccinations. The key is to be aware of which phase the Tribe is in based on data and adjust the Incident Action Plan accordingly.

Description of Roles and Responsibilities

This section includes a review of the FEMA best practice model for an Incident Command Structure (ICS) and descriptions of essential functions. This section will also include how these may be operationalized within a Tribal setting. Generally, in addition to the Incident Commander (IC) there are three command staff who directly support the ICS. These include the Command Staff and General Staff.

Incident Commander (IC)

The IC is technically not a part of either the General or Command Staff. The IC oversees and provides direction to both.

In addition to the Incident Commander (IC) there are three command staff who directly support the ICS. These include the Command Staff and General Staff.

The IC is responsible for:

- Having clear authority and knowing organizational policy.
- Ensuring incident safety.
- Establishing an Incident Command Center (Center of operations).
- Setting priorities, and determining incident objectives and strategies to be followed.
- Establishing the Incident Command Center organization needed to manage the incident.
- Approving the Incident Action Plan.
- Coordinating Command and General Staff activities.
- Approving resource requests and use of volunteers and auxiliary personnel.
- Ensuring after-action reports are completed.
- Authorizing information release to the media.
- Ordering demobilization as needed.⁸

Incident Commander (IC) Within a Tribal Setting

Often in a Tribal setting the Incident Commander may be any one of the following:

- Member of Tribal Council
- The Emergency Response Manager
- Chief of Police
- Tribal Administrator
- Health or Medical Director (particularly for a public health emergency such as an infectious disease outbreak.)

Often in a Tribal setting the Incident Commander may be any one of the following:

- **Member of Tribal Council**
- **Emergency Response Manager**
- **Chief of Police**
- **Tribal Administrator**
- **Health or Medical Director**

⁸ Credit: March 2018 ICS Organizational Structure and Elements EXTRACTED FROM - E/L/G 0300

Tip: Unified Command

Very often, especially in smaller Tribes, the Incident Command may take the form of a modified Unified Command. Typically, a unified command involves many different organizations, but often within a Tribal Government, in order to function effectively, the Tribe may have department Directors effectively create a Unified Command. FEMA defines a Unified Command as “In incidents involving multiple jurisdictions, a single jurisdiction with multiagency involvement, or multiple jurisdictions with multiagency involvement, unified command allows agencies with different legal, geographic, and functional authorities and responsibilities to work together effectively without affecting individual agency authority, responsibility, or accountability.”

One can see how this approach may be useful in a Tribal Government setting with many different departments who need to coordinate and share the additional burden of responding in an emergency situation. A varied group of government staff may unite to fulfil the traditional roles of the Command and Section Chiefs in a traditional FEMA model. It would not be unusual to see a Unified Command within Tribal settings comprised of any or all of the following: Tribal Council Leaders, Emergency Response Manager, Tribal Administrator, Health Director, Social Services Director, Chief of Police, Transportation Manager, and Commercial Enterprise Managers, and Community Health Representatives. These same individuals may also fulfill one or more of the following roles within the Command and General staff in a Tribal setting.

Command Staff

In a traditional FEMA model, the Command Staff is assigned to carry out staff functions needed to support the Incident Commander. These functions include interagency liaison, incident safety, and public information. Command Staff positions are established to assign responsibility for key activities not specifically identified in the General Staff functional elements. Examples of key activities and areas of responsibility for each member of the Command Staff can be found below.

Command Staff Responsibilities		
Position	Responsibilities	Tribal Considerations
Public Information Officer (PIO)	<ul style="list-style-type: none"> Determine, according to direction from the IC, any limits on information release. Develop accurate, accessible, and timely information for use in press/media briefings. Obtain IC's approval of news releases. Conduct periodic media briefings. 	During a public health emergency such as an EID outbreak, the Medical or Health Director may play a key role regarding communications. Although they may not be the actual spokesperson both internal to the Tribal Community and externally, to other jurisdictions and the media, they most certainly will provide detailed technical

	<ul style="list-style-type: none"> • Arrange for tours and other interviews or briefings that may be required. • Monitor and forward media information that may be useful to incident planning. • Maintain current information, summaries, and/or displays on the incident. • Make information about the incident available to incident personnel. • Participate in planning meetings. 	<p>information regarding the specifics of the disease, it's symptoms, transmission and medical impacts. Often the Medical and/or Health Director will work hand in hand with the IC in developing and refining the action response plan and communicating with the overall Unified Command team. Other important sources of data and information to support decision making include any epidemiological surveillance data discussed earlier in this document.</p>
Safety Officer	<ul style="list-style-type: none"> • Identify and mitigate hazardous situations. • Ensure safety messages and briefings are made. • Exercise emergency authority to stop and prevent unsafe acts. • Assign assistants qualified to evaluate special hazards. • Initiate preliminary investigation of accidents within the incident area. • Participate in planning meetings. • Make and enforce recommendations for community NPIs such as reduction in number of attendees at mass gatherings, social distancing in community settings and places of business, signage regarding enforcement of NPIs (e.g., must wear mask to enter, stay six apart) 	<p>These responsibilities are broad and meant to cover many different types of emergency situations. In an outbreak situation, the Safety Officer's responsibilities may likely be more of a supportive role and focused on infection control and mitigation activities identified by the Medical and Health Directors. Since Tribes are sovereign, they may adopt different mitigation measures than the surrounding, nearby communities and in these instances, for example Tribal reservation border closures, the Safety Officer may work with the Tribal Police department on enforcement protocols.</p>
Liaison Officer	<ul style="list-style-type: none"> • Act as a point of contact for external jurisdiction representatives. • Maintain a list of assisting and cooperating agencies and local government representatives. • Assist in setting up and coordinating interagency and cross jurisdictional contacts. • Monitor incident operations to identify current or potential interorganizational problems. • Participate in planning meetings, providing current resource status, including limitations and capabilities of agency resources. • Provide demobilization information and requirements. 	<p>In a Tribal Setting, there may often not be a separate individual to fulfill the role of Liaison. Larger Tribes may have the capacity to have this be a stand-alone role but often this will be combined with another role such as the IC themselves or the PIO. This role may even be distributed among several individuals. For example, the Chief of Police may be the Liaison Officer to the local police departments and the Health Director may be the Liaison Officer with the local public health department. A Tribal Council Member may be the point of contact with the local city Mayor and the State Government. As long as those fulfilling the Liaison role share information exchanged to the Unified Command there is no harm in splitting this role within the Tribal government.</p>

General Staff

The General Staff represents and is responsible for the functional aspects of the Incident Command structure. The General Staff typically consists of the Operations, Planning, Logistics, and Finance/Administration Sections. In many settings, the General Staff positions/section leaders are never combined. However, it may not be unusual, especially in smaller Tribes, for one individual to fulfill more than one role. For the sake of clarity, sample responsibilities of each Operations Section Leader are described.

General Staff Responsibilities		
Position	Responsibilities	Tribal Considerations
Operations Section Chief	<p>The Operations Section Chief is responsible for managing all tactical day-to-day operations during an incident. The Operations Section Chief has primary responsibility for developing and managing the Incident Action Plan. The Incident Action Plan is specific to each incident. It formally documents incident goals, operational period objectives, and the response strategy defined by incident command. It contains general tactics to achieve goals and objectives within the overall strategy, while providing important information on event and response parameters. Major responsibilities of the Operations Section Chief are to:</p> <ul style="list-style-type: none"> • Develop and manage the Incident Action Plan (IAP) (See sample Action plan in the Appendix) • Request additional resources as needed • Approve release of resources from active operational assignments. • Maintain close contact with IC and subordinate Operations personnel, and other agencies involved in the incident. 	<p>Often, in a Tribal setting the Operations Section Chief post may be filled by the Emergency Response Manager or Tribal Administrator, who may also fulfill several other functions. Most likely, in a Tribal setting, the functions of an Operations Chief may be a collaborative effort based on the work which needs to occur.</p>
Planning Section Chief	<p>The Planning Section Chief is responsible for providing planning services for the incident. Under the direction of the Planning Section Chief, the team collects situation and resource status information, evaluates it, and processes the information for use in developing action plans. This is to enable the Tribe's response to be proactive. Dissemination of information can be in the form of the IAP, in formal briefings, or through map and status board displays. Major responsibilities of the Planning Section Chief are to:</p> <ul style="list-style-type: none"> • Collect and manage all incident-relevant operational data. 	<p>One way to think of the Planning Section Chief is as the person who must be aware of all the operational sections simultaneously and of potential impacts and changes which may be necessary based on projected changes in the status of the disease within the community. For example, if the prevalence rates are growing more quickly than anticipated, it may be the Planning Section Chief's</p>

	<ul style="list-style-type: none"> • Provide input to the IC and Operations in preparing the IAP. • Incorporate Traffic, Medical, and Communications Plans and other supporting materials into the IAP. • Conduct and facilitate planning meetings. • Reassign personnel within the ICS organization. • Compile and display incident status information. • Establish information requirements and reporting schedules for units (e.g., Resources and Situation Units). • Determine need for specialized resources. • Identify and collect specialized data as necessary (e.g., epidemiological data and lab results). • Assemble information on alternative strategies. • Report significant changes in incident status. 	<p>responsibility to plan and recommend when and how to implement moving from limited access to complete shutdown at places such as schools and work places.</p> <p>The Planning Section Chief is a forward-looking role, projecting future needs based on current and previous experiences as well as projected future needs and making sure that resources will be available. In a Tribal Government, this may be a combination of the Tribal Administrator, the Finance or Procurement Officer, and/or the Emergency Response Manager. The approach should be based on what fits within the Tribal structure and best reflects the Tribal capacity.</p>
Logistics Section Chief	<p>The Logistics Section Chief provides all incident support needs with the exception of logistics support to air operations. The Logistics Section is responsible for coordinating:</p> <ul style="list-style-type: none"> • Facilities • Transportation • Supplies • Equipment maintenance and fueling • Food services (for responders) • Briefing of all logistics staff and ICS on logistical information 	<p>Similar to the Planning Section Chief, the Logistics Section Chief in a Tribal Setting will likely fulfill more than one role. This may be just one individual or a combination of Tribal staff.</p>
Finance/ Administration Section Chief	<p>The Finance/Administration Section Chief is responsible for managing all financial aspects of an incident. Not all incidents will require a Finance/Administration Section. However, in longer lasting public health emergencies, such as a pandemic, or a significant outbreak requiring a prolonged response, the Finance/Administration Section Chief may play a significant role, especially if Federal Agencies or the Department of Treasury provide response funding, there may be complicated financial compliance issues. It's important to have the Finance/Administration Chief understand these and work with Operations and Logistics to establish protocols for spending and tracking inventory for things such as supplies; masks, hand</p>	<p>The Finance/Administration Section Chief in a Tribal setting looks similar to in a non-Tribal setting with the exception that the individual fulfilling that role may also be the Tribal Administrator. Regardless of who fulfills the role, this is always an important function. Understanding the parameters of how Federal funds during an emergency may be spent is critical to the Tribe's financial health. In a Tribal setting it may be the role of the</p>

	<p>sanitizer, disinfectant as well as other materials, goods and services needed to support the community.</p> <p>This may also include necessities such as food, medications, and sanitation supplies, as well as access to technology to keep Tribal citizens connected to the rest of the world. Understanding what is and is not an allowable expense, and training the Incident Command team and staff regarding appropriate expenditures, is a critical function of the Finance/Administration Section Chief during a public health crisis. Not following the guidelines may result in penalties and the need to pay back inappropriately spent funds. Major responsibilities of the Finance/Administration Section Chief are to:</p> <ul style="list-style-type: none"> • Provide financial and cost analysis information as requested. • Ensure compensation and claims functions are being addressed relative to the incident. • Develop an operating plan for the Finance/Administration Section and approve supply and support needs. • Meet with assisting and cooperating agency/funding representatives as needed. • Maintain daily contact with ICS on finance matters. • Ensure that personnel time records are completed accurately and transmitted • Ensure that all obligation documents initiated at the incident are properly prepared and completed. • Support human resources in the identification of essential personnel and computation of any additional compensation allocated to them for services provided during the outbreak. 	<p>Finance/Administration Section Chief to learn the parameters and along with outside consulting support, inform Tribal Council so they have a platform from which they can make informed decisions, often while presented with competing priorities.</p> <p>Once the Tribal Council is aware and provides direction, it is likely that the Finance Chief will provide this information to other department directors and section leaders regarding allowable parameters established by the funder and Tribal Council. This will provide assurances that multiple individuals within the Command Team and Tribe are making informed decisions.</p>
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Identifying a Tribal Response Team: Internal and External Partners

Key Action Step: Determine who is on your planning team



For each Tribe and community, the planning and response team, sometimes referred to as the Incident Command, will differ. The size and make-up of the team will vary depending on the capacity and resources of the Tribe as well as the type and level of intensity of the situation. Creating an incident response team is not a one size fits all approach.

Tribes and communities usually establish an ICS designed to identify who is responsible for what during an emergency. Most importantly, there should be clear identification of designated authorities for decision-making and communications. In Tribal settings, the participants in the response team often include Tribal Council Members, the Emergency Response Manager, Chief of Police, Health Director, Social Services Director, Tribal Administrator, and business enterprise representative(s). In Tribal Governments, it is the Tribal Council who has the decision-making authority to declare

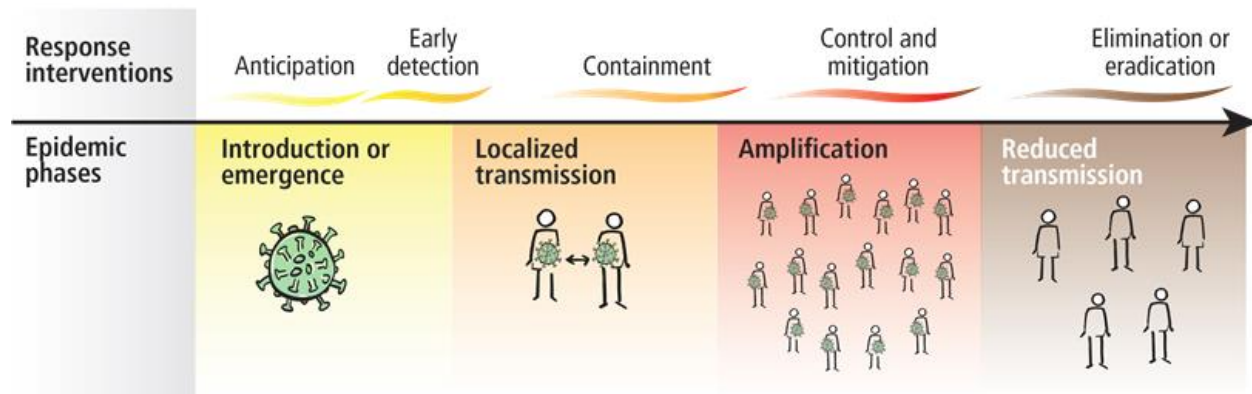
Tribes and communities usually establish an Incident Command Structure (ICS) designed to identify who is responsible for what during an emergency.

a public health emergency and decide on non-pharmaceutical interventions and other mitigation recommendations.

Often during a public health emergency, Tribes will adopt a Unified Command approach. Because infectious diseases transmit across borders and boundaries, a unified command structure is a CDC-recommended best practice approach. A Unified Command allows for a multi-agency or multi-jurisdictional approach. The Unified Command is a structure that brings together the Incident Commanders of the many organizations involved in the incident in order to coordinate an effective response, while at the same time allowing each to carry out their own jurisdictional, legal, and functional responsibilities. Members of the Unified Command work together to develop a common set of incident objectives and strategies, share information, maximize the use of available resources, and enhance the efficiency of the individual response organizations. Often in Tribal settings, in addition to key members of the Tribe's Incident response team, a Unified Command approach may include officials from different districts of the Tribe, local towns, cities, counties, and states.

Often in Tribal settings, in addition to key members of the Tribe's Incident response team, a Unified Command approach may include officials from local towns, cities, counties, and states.

Epidemic Phases and Response Interventions



The WHO has designated five separate phases⁹ to an epidemic. While not every outbreak of an EID turns into a pandemic, it can happen. Therefore, it's important to recognize these phases and become familiar with what may be appropriate response activities within a community during each phase.

Anticipation

In the earliest stage of planning a response, how severe the situation may become is still unknown but using surveillance data and early diagnostic results, likely scenarios, can be anticipated. Listening to the guidance of experts such as the WHO, CDC, IHS, and state health officials in terms of viral strains, symptomatology, and methods of transmission are at the core of initial planning. Using this expert information, the Tribe's IC can begin preparing communication materials and stockpiling infection control supplies and items needed for non-pharmaceutical interventions. During the Anticipation phase, other than providing general known information about the disease to the community, the majority of the activities are operational preparations.

In the earliest stage of planning a response, how severe the situation may become is still unknown but using surveillance data and early diagnostic results, likely scenarios, can be anticipated.

Early Detection

Much of what takes place during the "early detection" phase is dependent on the health care system, health care providers and the relay of information regarding signs, symptoms, and trends in reportable cases. In a Tribal setting, this typically takes one or two forms or a combination of both. For those Tribes who may have their own clinics or hospitals, the health care professionals in those

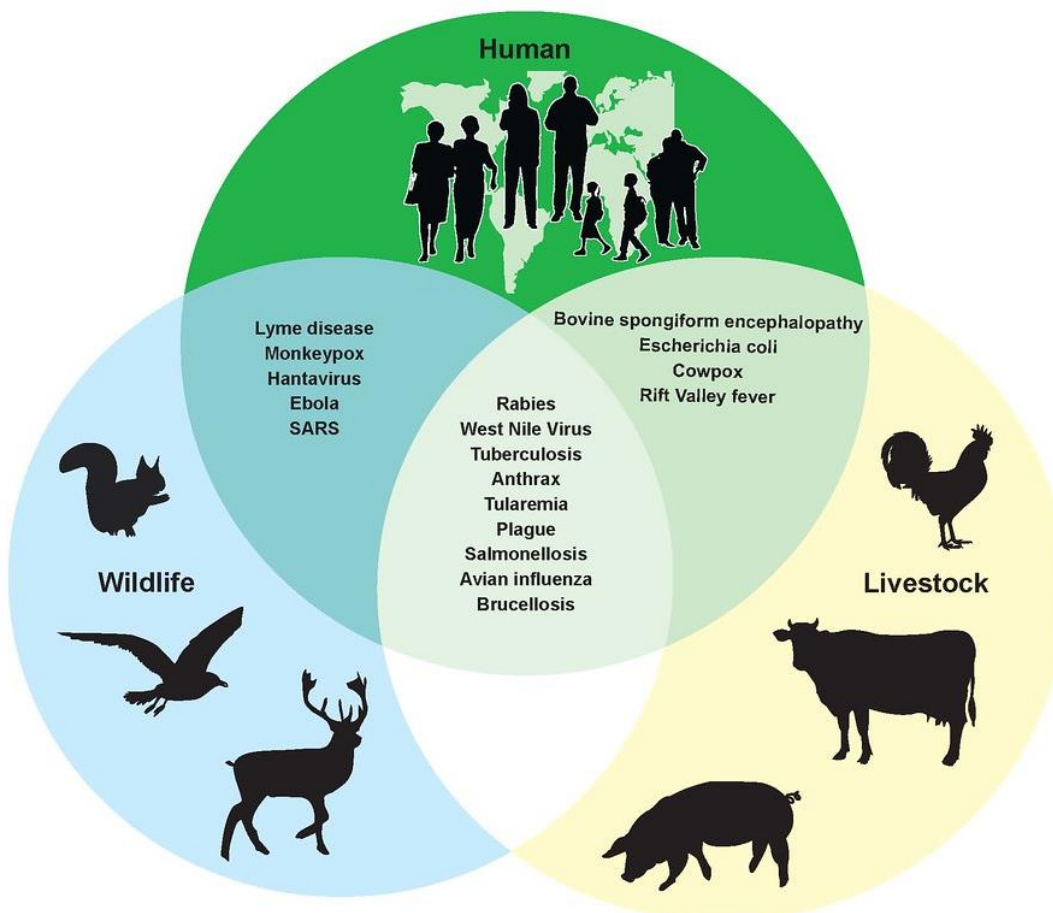
⁹ Credit: World Health Organization: Managing Epidemics; key facts about managing deadly diseases

settings will likely be informed and routinely updated on the status of the disease worldwide and locally.

In Tribal settings where there is no health clinic or hospital, it will typically fall to the Emergency Response Manager and/or Incident Command team to fill this gap. Participating in information sessions with federal agencies such as the CDC and IHS, as well as participating in activities of the local health jurisdiction to gain a local perspective, will allow Tribes to have access to the most current information. Because EIDs are often new, it's important to understand the origins of the disease, often zoonotic (caused by germs spread from animals to humans), signs, symptoms, and how the disease is transmitted. Early detection often takes place before the origin of an emerging disease, especially one of zoonotic origin, is known. This is because the transmission path from insect to animal to human can take a considerable amount of time and be extremely difficult to trace. Being aware of this as early as possible allows for advance preparations to take place. Planning for coordinated, rapid-containment measures is critical during the early detection phase which in turn helps to reduce rapid spreading early.

Because EIDs are often new, it's important to understand the origins of the disease, often zoonotic (caused by germs spread from animals to humans), signs, symptoms, and how the disease is transmitted.

Examples of Zoonotic Diseases



Another important role of both the health care providers in a Tribal setting as well as the Incident Command team, is to reduce the risk of community transmission by isolating severely ill patients. In a health care setting, this may mean placing these patients in isolation units and employing all recommended infection control guidelines in the health care setting. Best practice guidelines, specific to the novel virus will be provided by various expert resources including the CDC, IHS, and the State Health Department. It is equally important to share this information within the community so that caretakers of patients at home are also aware of best practices for infection control. This will help reduce household transmission.

An essential function during the early detection stage is to ensure that access to laboratory testing is in place. Lab testing is essential to monitor the spread of the disease within the community. For those Tribes with clinics or hospitals, the lab testing may be done on-site but the samples will likely need to be sent out to a state testing facility for confirmation. All policies and procedures for appropriate lab testing should be developed and finalized at this stage.

For those Tribes without their own health services, the IC should coordinate with the local emergency operation center and/or local health jurisdiction to learn, understand, and in turn communicate the external testing options. It is critical that all Tribal citizens be aware of testing locations and options at all times.

An essential function during the early detection stage is to ensure that access to laboratory testing is in place. Lab testing is essential to monitor the spread of the disease within the community.

Containment

Once it is confirmed that an emerging disease is active within a Tribal community it is imperative that all known containment measures be put in place. The sooner containment measures are implemented, the slower the disease can spread. **Containment can often mean the difference between an epidemic and a pandemic.** Effective and rapid containment of emerging diseases is just as vital as early detection in order to avoid a large-scale epidemic. Rapid containment should start as soon as the first case is detected; often even before knowing the actual cause of the disease. Being aware of and initiating NPI's are appropriate in the containment phase. Training health care and IC members to educate the community about NPI's will ensure that they are prepared for community-wide education about these tactics for mitigation purposes.

The sooner containment measures are implemented, the slower the disease can spread. Containment can often mean the difference between an epidemic and a pandemic.

Control and Mitigation

Once the infectious disease threat reaches an epidemic or pandemic level, the goal of the response is to mitigate its impact and reduce its incidence, morbidity, and mortality as well as disruptions to economic, political, and social systems. During this phase, widespread testing and NPI's, including travel limitations, infection

control protocols, and medical countermeasures should all be implemented.

Elimination and Eradication

While it is rare that infectious diseases are eradicated, they can be eliminated. Elimination means that the disease is sufficiently controlled to prevent an epidemic from occurring in a defined geographical area. Elimination means that the disease is no longer considered a major public health issue. However, intervention measures (surveillance and control) should continue to prevent its re-emergence. Because pandemics are often zoonotic in nature, they are automatically mandatorily reportable to the State and/or the CDC. This formal method of surveillance will detect any trends or changes in prevalence rates. Eradication of a disease, which is much more difficult and rarely achieved, involves the permanent elimination of its incidence worldwide.

While it is rare that infectious diseases are eradicated, they can be eliminated. Elimination means that the disease is sufficiently controlled to prevent an epidemic from occurring in a defined geographical area.

Elements for a Comprehensive Outbreak Response

There is no one correct way to coordinate a response to an EID. The manner in which the Tribe's community response team operates is impacted by a number of factors including resources, both financial and human, location, nature and extent of the disease, availability of health services, transportation, access to supplies, and technology. Each of these factors can have a profound impact on a Tribe's approach to response efforts.

There are however several elements that should consistently be considered and addressed to the greatest extent possible when developing a comprehensive response effort. Essential elements include:

- Coordinating Responders
- Health Information
- Risk Communication
- Health Interventions

In this next section, we will describe each element and explain their importance.

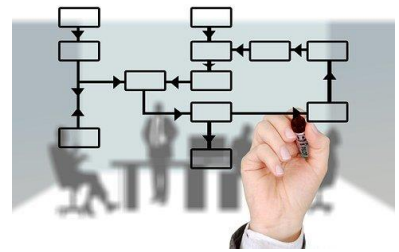
Coordinating Responders

An outbreak is an indicator of a possible epidemic or pandemic. At the earliest sign of an outbreak, during the Anticipation Phase, a Tribe should begin preparing their response efforts by convening the response team. The response team will look different at each Tribe depending on a number of the factors mentioned in the previous section. Some Tribes may choose to establish their own ICC or may instead choose to be part of the local jurisdiction's Command's; or some cases, both.

As mentioned in the "Identifying Your Response Team" section, the participants in the response team often include at a minimum: Tribal Council Members, the Emergency Response Manager, Chief of Police, Health Director, Social Services Director, Tribal Administrator, and business enterprise representative(s). While there may be others involved throughout the response effort, it is generally this core team and their designees who are the key coordinators of the response effort.

The response team will look different at each Tribe depending on a number of the factors mentioned in the previous section. Some Tribes may choose to establish their own Emergency Operations Center (EOC) or may instead choose to be part of the local jurisdiction's EOC.

Key Action Step: Select a response team structure that aligns with your capacity to implement.



Formal Structure

One of the important things to keep in mind, no matter how broad or small a Tribe's response team is, there still needs to be some formality established. This includes a designated physical meeting space with internet access and enough room to accommodate the entire team for routine meetings. Another basic tenant of the team is that there be a published list of contact information for all team participants and this be updated regularly.

If the Tribe has either an emergency response plan and/or, ideally, a pandemic response plan, that plan should be used as the basis of the response effort. Because each emerging disease is different, the response plan will need to be customized to address the unique aspects of the novel virus; e.g., signs and symptoms, effective non-pharmaceutical interventions, availability of testing, medical countermeasures, treatment options and vaccines. Updating the action plan when new information becomes available should be part of the team's regular meeting agendas.

Regardless of all the details specific to the emerging disease, the most important key to coordinating responders effectively is to clearly identify roles and responsibilities and ensure communication between team members and the community are clearly outlined.

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Coordinating Responders Checklist

Definition

PUBLIC HEALTH CRISIS means an urgent situation in which the health status of the population within an area is adversely affected. **PUBLIC HEALTH CRISES** include localized outbreaks of an infectious disease or a potential outbreak of an infectious disease that has a reasonable possibility of occurring and that poses a significant threat to a community or region.

Checklist

- ☐ Determine who should be included on the Incident Command Team:
 - Internal to the Tribal government and community
 - External jurisdictional partners such as the local town, county, hospital, Department of Health, and IHS
- ☐ Determine what role each participant will fulfill and what authorities they will have
- ☐ Determine what decisions Tribal employees can make and which decisions need the approval of Tribal Council?
- ☐ Are there memorandums of understanding (MOUs) and memorandums of agreement (MOAs) in place?
- ☐ Does the Tribe have or need a mutual aid agreement with a surrounding jurisdiction? (The intent of the Mutual aid agreement is to make equipment, personnel, and other resources available to each of the participating parties.)
- ☐ Determine where the ICC will be located.
- ☐ Is there enough room there for storage of supplies? If not, where will the supplies be stored?
- ☐ Is there sufficient access to technology for all participants?
- ☐ Is the location of the ICC easily accessible?
- ☐ Determine how team members will share information. (e.g., cell phone, email, SharePoint, Google Docs, OneNote)



State of Arizona Resources

During a public health emergency, the Tribe will likely coordinate with the surrounding jurisdictions. In the State of Arizona, there is an extensive network of organizations, systems, and resources that can be used to support a response to an EID.

State-specific resources include:

1. Arizona Tribal Executive Committee (AzTEC)
2. State-designated healthcare coalitions
3. Arizona Disaster Pediatric Coalition
4. Senior Advisory Committee (for emergency preparedness)
5. Homeland Security Senior Advisory Committee
6. Arizona Disaster Burn Care Network
7. Arizona State Citizen Corp Council
8. Arizona Emergency System for the Advance Registration of Volunteer Health Professionals (AZ-ESAR-VHP)
9. Poison Control Centers (Phoenix and Tucson)
10. Radiological Injury Treatment Network (RITN)
11. Arizona Healthcare-Associated Infection (HAI)
12. Multidisciplinary Advisory Group
13. Arizona Local Health Officers Association (ALHOA)
14. Arizona Local Public Health Emergency Response Association (ALPHERA)
15. Arizona State Emergency Council during a disaster

The state of Arizona has a health Emergency Operations Center staff which works with these partner organizations and systems to support the public health and medical response. Tribes should be sure to be connected to this network.

Tribes may also consider having mutual aid agreements in place with all surrounding counties and the state. Mutual aid agreements allow for the sharing of supplies, equipment, personnel, information, or other resources across political boundaries.

More information on mutual aid agreements from the CDC can be found here:

https://emergency.cdc.gov/planning/emacs/pdf/MutualAid_AJPH_Article.pdf

Health Information

During an epidemic or pandemic, a key component of managing the response is the gathering and sharing of health information. There are essentially two types of health information that a response team is responsible for: the first is surveillance information and the second is intervention information. Surveillance information is related to the progression and impact of the disease and may include types of data discussed earlier such as the number of active cases, number of recovered cases, and number of deaths. Intervention information is related to actions which can be taken to slow or stop the spread of a virus such as mask wearing, isolation, quarantine, vaccinations; how

widespread these practices are, and what, if any, impact they've shown on the incidence rate.

Organizing Health Information Checklist

Ensure there are clear case definitions. This helps with the base communication for symptom descriptions to the community. It provides context.

What is a case definition?

A case definition includes criteria for person, place, time, and clinical features. These should be specific to the outbreak under investigation. According to the CDC, a surveillance case definition is a set of uniform criteria used to define a disease for public health surveillance. Surveillance case definitions enable public health officials to classify and count cases consistently across reporting jurisdictions. Surveillance case definitions are not intended to be used by healthcare providers for making a clinical diagnosis or determining how to meet an individual patient's health needs.

CDC Example of Common Components and Outbreak Case Definitions

Element	Descriptive Feature	Examples
Person	Age Group	"Adults over 50"
	Sex	males
	Occupation	Food service workers
	Race	
Place	Geographic Location	Phoenix, AZ
	Facility (if in an inpatient health care setting)	Food service workers at Phoenix General; Cafeteria workers at Phoenix metro High school
Time	Illness onset	January 2020 June 2020
Clinical Features	Pneumonia	Clinically confirmed pneumonia and/or shortness of breath and fever over 102.3
Laboratory Criteria	Cultures; serology	Blood sample positive or rapid influenza test positive

A case definition includes criteria for person, place, time, and clinical features. These are specific to the outbreak under investigation.

Checklist

- ☐ Which labs are involved in the testing and confirmation and how are the samples to be shipped to these labs? (Typically, each state has designated testing/confirmation labs. You can find this out through your state department of health or if the Tribe has an IHS facility, they will handle the testing and confirmation.)
- ☐ Is there a consistent updating of data for the Tribe, County and state? Are you updating this in house or relying on the county data? Consider creating a data dashboard to share with the community. Include demographics in the data dashboard.



Intervention Data

- ☐ Identify who you are targeting for intervention
- ☐ Identify what interventions you will implement
- ☐ Identify human resources and supplies needed to implement these interventions.
- ☐ Do you have a stockpile of infection control supplies for health care workers and the community? If not, where will you obtain supplies and volunteers or additional workers?
- ☐ Sample supply list:
 - Masks
 - Gowns
 - Disinfecting wipes
 - Hand sanitizer
 - Respirators
 - Hospital beds
- ☐ Will you need additional staff and methods to dispense supplies to the community
- ☐ How will you measure impact and success: process indicators and outcomes indicators?

Communicating Risk

Key Action Step: Determine who is going to be on your communications team and what their roles will be.



It may be helpful to first understand the meaning of “Risk” and how it relates to an EID situation.

Risk:

1. The possibility of suffering a harmful event.
2. A factor or course involving uncertain danger.

Outbreaks of EIDs can be complicated to explain to the general public due to the complexity of the clinical information and the willingness to accept the serious impact of the spread of a potentially deadly disease which has no cure nor vaccine. Herein lies the “risk” factor. The potential impact is uncertain. Due to this uncertainty, there will always be some within the population who choose not to follow or adhere to proposed voluntary mitigation measures. Most often proposed mitigation measures during an EID public health emergency are voluntary and not mandatory. This can be confusing to the public. In a widespread emergency, public health response officials will need to communicate messages to the community asking them to take particular actions and refrain from other actions (e.g., engage in cough etiquette, refrain from gathering in groups, stay at home). For this reason, risk communication is an important part of the role of the IC. Explaining the potential impact of following or not following recommendations is risk communications.

It is imperative to make sure that whoever is responsible for communications clearly understands the parameters of their roles as well as the authority granted to them to deliver information to the Tribal community. Also, there will likely be different spokespeople with different areas of expertise. Therefore, it is equally important that all those with communications roles, deliver consistent information across platforms.

In the age of the internet, during an outbreak or pandemic, response teams will most likely find themselves dealing with an infodemic. An infodemic typically refers to a rapid and far-reaching spread of both accurate and inaccurate information about something, such as a disease. It typically refers to information, often obtained from the

In a widespread emergency, public health response officials will need to communicate messages to the community asking them to take particular actions and refrain from other actions (e.g., engage in cough etiquette, refrain from gathering in groups, stay at home). For this reason, risk communication is an important part of the role of the emergency response team.

internet which is a combination of fact, accurate and inaccurate information. This makes the job of risk communication even more challenging.

Communications Tip

Here are a few considerations for those tasked with communications during a public health emergency:

- When health risks are uncertain, as likely will be the case during an infectious disease outbreak, people want information about what is known and unknown, as well as interim guidance to formulate decisions to help protect their health and the health of others.
- Coordination of message development and release of information among Tribal, federal, state, and local health officials is critical to help avoid confusion that can undermine public trust, raise fear and anxiety, and impede response measures.
- Interjurisdictional and Interagency Collaboration: At any interval during a pandemic, it is perfectly reasonable to adapt materials from the CDC, WHO, HHS, or the State. To the greatest extent possible, the Tribe, should coordinate communications and messaging with the local health and State public health organizations. This will help to minimize any conflicting messages.
- Guidance to community members about how to protect themselves and their family members and colleagues is an essential component of crisis management.
- Information provided to the public should be technically correct and succinct without seeming patronizing.
- Timely and transparent dissemination of accurate, science-based information about the disease and the progress of the response can build public trust and confidence.

There are numerous types of information which an Incident Command will be responsible for during an EID outbreak. It's important to determine who, within the Tribal Nation, is the most appropriate spokesperson to deliver each type of information or data.

Status of the Disease Event

This includes the ability to collect, compile, and analyze information from varied sources to determine the extent of the outbreak within the Tribe, the local region and the state as well as monitor variances over time. Data sources may be both internal; the Tribal health clinic, and external; the county and state departments of health.

Status of Isolation and Quarantine Systems

To the greatest extent possible, the Tribe, often through their health system, will either try to track those who are supposed to be in isolation and quarantine, as well as conduct their own contact tracing. If the Tribe doesn't have sufficient staff or staff with the appropriate training, they may choose to delegate contact tracing to the local health jurisdictions. Aggregate numbers will help to inform the outbreak mitigation strategy, while detailed information will support individual patient treatment. Either way, reporting aggregate numbers of those in isolation and quarantine help the community get a sense of the local impact of the disease.

Status of Vaccination Progress

It is critical once a vaccine is available to have distribution and inventory monitoring management systems in place to maintain an adequate supply to meet demand. This also includes vaccination progress monitoring throughout the event. Monitoring distribution rates will help the Tribal Health Department to make any necessary adjustments to who, how, and where vaccination clinics should take place as well as messaging information.

Public Health and Health Interventions: Stockpiling Supplies and Access to Vaccines/Testing

During the Anticipation and Early Detection phases of an outbreak, Tribes should begin planning and understanding relevant public health and health interventions. Health interventions generally involve getting vaccinated once a vaccine is available and taking medicines to minimize the symptoms for those who have contracted the disease. These types of medical treatments are sometimes also referred to as medical countermeasures (MCMs). Public health interventions often involve non-pharmaceutical interventions (NPIs), which are actions that people and communities can take to help slow the spread of the illnesses caused by a disease outbreak. NPIs are also known as community mitigation strategies.

Because the origin of the disease may not yet be known, it may be difficult to know exactly what the appropriate health interventions and palliative treatments may be. For those Tribes who may have a health clinic or hospital, training should take place as early as possible in the outbreak. Using information provided by the CDC, IHS, and state and local health departments, training programs for the health staff, community health representatives, members of the

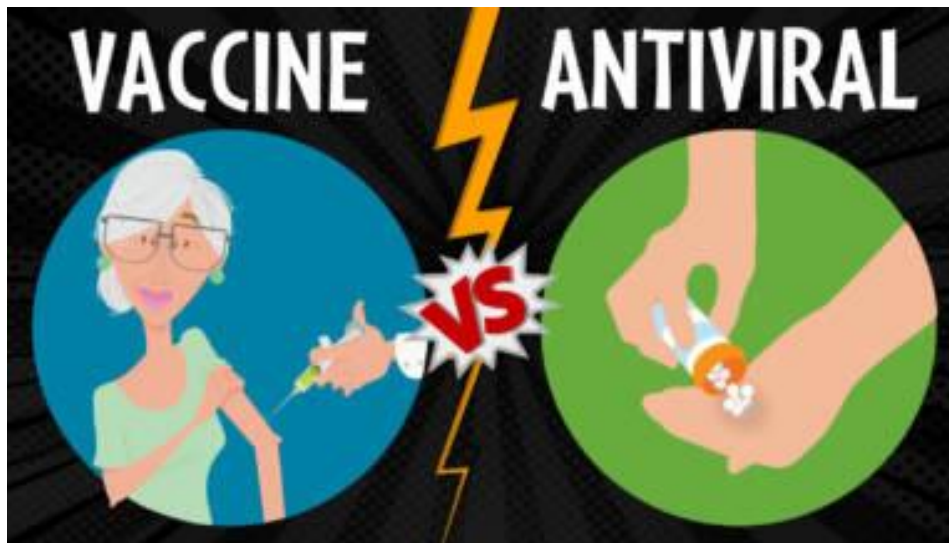
Public health interventions often involve non-pharmaceutical interventions (NPIs), which are actions that people and communities can take to help slow the spread of the illnesses caused by a disease outbreak. NPIs are also known as community mitigation strategies.

Incident Command, and the community should be developed and continuously updated.

Suggested general topics for staff education/training may include:

- Prevention and control of influenza and other infectious diseases
- Implications of an outbreak of an EID
- Benefits of annual influenza vaccination
- Role of antiviral drugs in preventing disease and reducing rates of severe complications
- Infection control strategies for the control of the disease, including respiratory hygiene/cough etiquette, hand hygiene, standard precautions, droplet precautions, and, as appropriate, airborne precautions
- Policies and procedures for the care of patients specific to the disease
- Referral procedures between and among facilities with local hospitals and other off-reservation providers should patient transfer be necessary
- Staffing contingency plans for all necessary Tribal departments, including staggered staffing and hybrid remote and onsite scheduling
- Policies for restricting visitors and mechanisms for enforcing these policies
- Reporting to the health department suspected cases of infection
- Measures to protect family and other close contacts from secondary occupational exposure
- Cross training for all clinical staff on mental and behavioral health symptoms (distress, traumatic grief, stress management and effective coping strategies, building and sustaining personal resilience, and behavioral and psychological support resources.)
- “Just-in-time” training of non-clinical staff who might be asked to assist clinical personnel (e.g., help with triage, additional infection control measures, transport patients)
- Patient, family member, and visitor education on prevention measures

Vaccines and Antivirals



While waiting for a vaccine to become available. Some patients may be treated with antivirals. Antivirals are not the same as vaccines. Vaccines are typically given before a person is infected with a virus and are most often used to prevent a person from catching a virus. While health professionals understand this, it will be important to educate the community about the different agents. Antivirals are given once a person is infected with a virus and are used to help treat a patient. Taking antiviral medication after patients have caught a virus can shorten the amount of time they are sick and may help lessen symptoms.

In addition to antiviral medications, the IC should coordinate either acquiring or arranging with partners access to hospital beds and medical equipment which may be necessary for treatment of infected patients. During the COVID-19 pandemic, two examples of this were respiratory ventilators and the drug Remdesivir, a broad-spectrum antiviral medication.

For those Tribes who have their own hospitals, stockpiling equipment and antiviral drugs is recommended. The Federal Government and IHS maintain caches of Medical Countermeasures (MCMs) in secure locations around the United States. When public health emergencies occur, these are delivered to states who then are supposed to provide them to Tribes.

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What can Tribes expect to receive from a Stockpile?

If a community experiences a large-scale public health incident in which the disease or agent is unknown, the first line of support from the stockpile is to send a broad-range of pharmaceuticals and medical supplies. Contents are pre-packed and configured in transport-ready containers for rapid delivery anywhere in the United States within 12 hours of the federal decision to deploy.

Key Action Step: Identify a clear path to the nearest (IHS or State) Strategic National Stockpile (SNS).

Immediately shipping a variety of items to the affected state and/or Tribe allows authorities to begin or sustain response efforts. All states should have plans to receive and distribute these medical countermeasures quickly to Tribes and jurisdictions. Tribes should have, as part of their disaster response plan, a clear path to their State SNS.

A resource for understanding how to access the SNS can be found here:

<https://astho.org/Programs/Preparedness/Public-Health-Emergency-Law/Emergency-Use-Authorization-Toolkit/Strategic-National-Stockpile-Fact-Sheet/>

Use of Antivirals

Generally, there are three groups for whom antivirals are appropriate: Those infected with a virus, close contacts of someone infected with a novel virus, and small clusters within a community (a Tribal community).

Treatment of Clusters Within the Tribal Community

In unique circumstances, the Tribal, state, and local health departments may consider “targeted antiviral prophylaxis (*measures designed to preserve health, as of an individual or of society, and prevent the spread of disease*) as a community-based approach for containing small clusters of infection during an outbreak. This measure may be implemented in the Tribal community because it is a small, well-defined setting. However, because targeted antiviral prophylaxis would require rapid delivery and administration of a readily available stock of antiviral drugs, its feasibility should be evaluated in light of antiviral supply and current CDC recommendations. Implementing community wide antiviral administration would also require investigation of disease clusters, administration of antiviral treatment to those with confirmed or



All states should have plans to receive and distribute these medical countermeasures quickly to Tribes and jurisdictions. Tribes should have, as part of their disaster response plan, a clear path to their State SNS.

suspected cases of the disease. Such a measure would require intensive education and communication to the Tribal Community. This measure is extreme and should only be considered in highly unusual circumstances. Once an outbreak turns into an epidemic, such a strategy should likely not be implemented as it does not represent an efficient use of limited resources.

The Incident Command Team's Role in Planning for Antivirals

Someone from the Incident Command team, often the Tribe's Health or Medical Director, may represent the Tribe by participating in State-based collaborative planning meetings with local, state and/or IHS partners. This collaboration may include:

- Involving the Tribal providers in refining guidelines for treatment and use of antivirals
- Providing information to Tribal Leaders and the Tribal community on the appropriate use of antivirals
- Identifying contacts at the State or IHS level for coordinating distribution of antivirals

Public Health Interventions: Non-Pharmaceutical Interventions

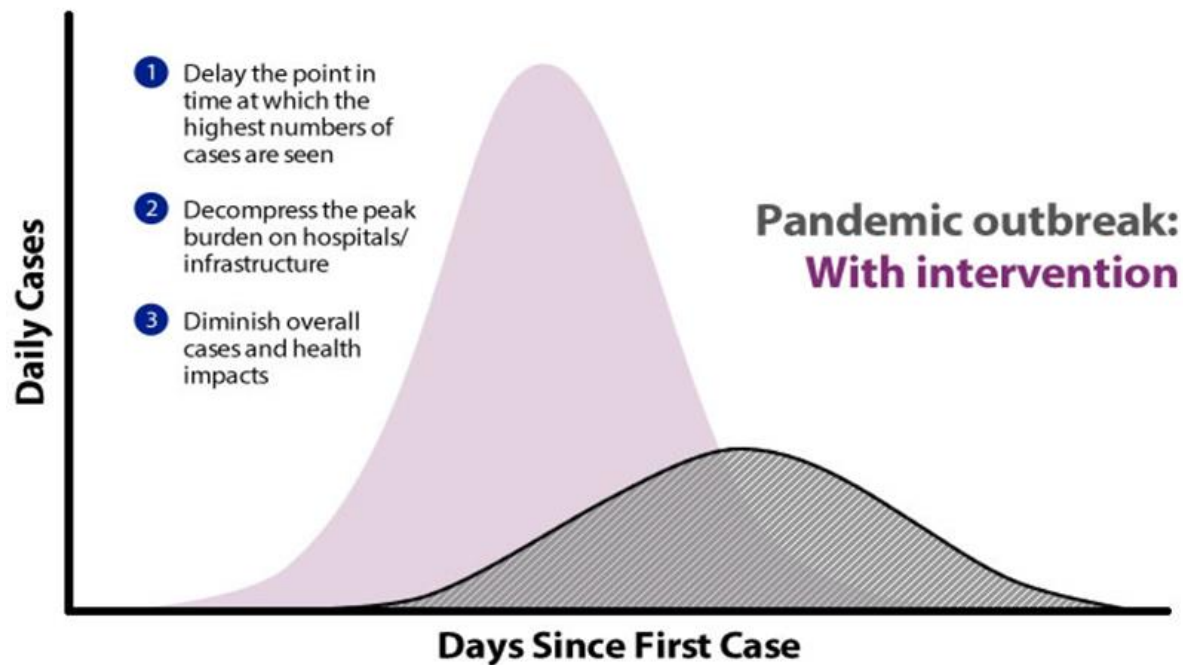
Key Action Step: Understand CDC's recommended personal, community and environmental NPIs and prepare educational materials for the community.



Communities can take actions to slow the spread of infectious diseases. Collectively these public health initiatives are referred to as non-pharmaceutical interventions (NPIs). There are three types of NPIs: personal, community, and environmental. There are many benefits to implementing NPIs early in a pandemic. They include:

- Slowing the spread of the disease
- Spreading out the number of cases over time, thus improving access to care and reducing the need for surge capacity at hospitals
- Providing scientists and public health professionals more time to develop and distribute an effective vaccine.

NPIs can be very effective.



Personal NPIs:

Personal NPIs measures are everyday preventive actions, apart from medication, that individuals can take to help keep themselves and others from getting sick. Personal NPIs include:

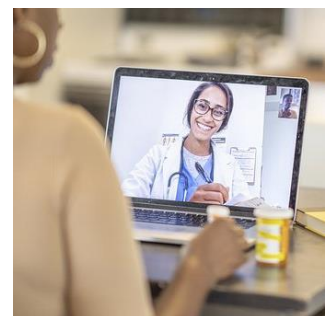
- Staying home when sick (voluntary home isolation)
- Staying home if exposed to a sick household member (voluntary home quarantine)
- Covering coughs and sneezes with a tissue (respiratory etiquette)
- Washing hands or using hand sanitizer (hand hygiene)
- Covering the nose and mouth with a mask or cloth if sick with flu-like symptoms and around people at a mass gathering in a community where the emerging disease may be



Community NPIs

Community NPI measures are actions, apart from getting vaccinated and taking medicine, that communities can take to help slow the spread of illness during an infectious disease outbreak. They include:

- School closures (temporarily closing childcare facilities and/or K-12 schools)
- Social distancing in settings where people come into close contact with one another such as, workplaces, places of worship, stores, entertainment venues, or any other places where people might gather. Attendees traveling to a mass gathering can not only introduce the disease to the host community, but also increase the spread.



On a more widespread scale, community measures may also include things such as travel bans, and in Tribal settings, they may even close the reservation borders to outside admissions except for essential services.

Mass Gatherings

One of the more difficult things to manage during a disease outbreak is decisions surrounding mass gatherings. Tribal Leaders will need to make difficult decisions about whether or not to allow certain events, including cultural events, to take place. For this reason, the CDC does provide guidance on alternatives to a complete cancellation of events:



- Reduce or limit the number of people attending
- Stagger attendance schedules, or arrange for attendees to participate remotely or broadcast to multiple staging sites
- Provide necessary infection control supplies such as hand washing stations, hand sanitizer, masks, etc. that encourage and better enable attendees to practice respiratory etiquette and hand hygiene
- Provide onsite isolation areas for medical assessment and care of those who exhibit symptoms
- Offer events only virtually
- Once a vaccine is available, limit attendance to only those who've been vaccinated.

Environmental NPIs

Environmental NPIs help to eliminate viruses from frequently touched surfaces and objects in homes, childcare facilities, schools, workplaces, and other places where people gather. During an EID outbreak, it's important for the Incident Command team to be aware of best practices for environmental NPIs and develop community education pieces about this. In addition, if resources are available, Tribes may be able to supply hand sanitizer, masks, and cleaning supplies both throughout their enterprises as well as to Tribal citizens for use in their homes. This can be a very effective way to slow the spread of disease.



Recovery

The recovery phase indicates that the infectious disease incident or emergency has subsided and next steps are to transition back to routine conditions and practices. Recovery takes time and deliberate planning to be effective. Preparedness planning is based on the fact that a well-planned recovery lays the foundation for normalizing future operations. Before there can be a continuation of routine work, appropriate measures must be taken to ensure a safe and effective transition. When looking at recovery activities, there are several aspects Tribes need to consider: Tribal membership, Tribal government services and programs, Tribal community amenities, Tribal businesses and enterprises, and any areas of the Tribe which interact with the outside and surrounding communities and entities.

Reopening

A key component of reopening is to recognize where risks may still be present and adjust appropriate guidelines for limiting exposure to those risks. A best practice is to look to guidance from partners such as the WHO and CDC on infection levels and safety protocols. For Tribal Nations, reopening can have multiple facets and multiple phases.

Tribal governments, programs and services are generally considered simultaneously regarding reopening decisions. In addition to safety concerns for the employees, the government must also weigh the need to ensure that the needs of the Tribal membership, such as housing and social services, will continue to be met. This can be done in phases from limited capacity reopening to full capacity gradually as the health situation improves.

When reopening programs and services which serve the Tribal membership, all departments should consider a phased reopening approach and those services that can function by setting appointments, should do so. For example, instead of having open office hours, health services, social services, and others who can establish an appointment setting system, can see members only by appointment. This will minimize citizen interaction and help with mitigation measures. Or, services may be provided via video to the greatest extent possible. Only when the disease has reached the Elimination Phase, may the Tribe consider returning to pre-outbreak practices.

In addition to providing services to the membership, Tribal governments will also have to make decisions regarding community events. Earlier in this document there were descriptions of various

When looking at recovery activities, there are several aspects Tribes need to consider:

- **Tribal membership**
- **Tribal government services and programs**
- **Tribal community amenities**
- **Tribal businesses**
- **Tribal enterprises**
- **Any areas of the Tribe which interact with the outside and surrounding communities and entities.**

community non-pharmaceutical interventions. Upon consideration of reopening, these same measures may be considered in a flexible phased in approach. For example, community centers, churches, pow wows, may be allowed to gather but with limited capacity e.g., fifty percent. If there is a sudden surge in the positivity rate, the events may be further reduced or prohibited entirely again for a period of time. The key for public health professionals is to make data-driven decisions while safely guiding and leading their communities. The CDC will provide guidance on statistical triggers supporting this decision making.

Reopening Tribal businesses is another complex challenge.

Reopening Tribal businesses is another complex challenge. Public health officials recognize the need to balance risk with the need to allow economic activity to take place so that the Tribe can generate revenue to support government operations and benefit the community. Considerations will need to be made for how to manage reopening at partial capacity and safely operate to meet customer needs. Ongoing monitoring of surveillance data should be a key indicator of the need to move forward and/or retract operations at any point. Thought should be given to making operational plans which are scalable to accommodate changes in the health status of the community and patrons. Both Government services and Tribal business enterprise reopening practices will require development of formalized policies, procedures, protocols and training of all staff prior to implementation.

Considerations will need to be made for how to manage reopening at partial capacity and safely operate to meet customer needs.

Best Practice Infection Control Considerations during Reopening Key Implementation Measures to Consider



Setting	Offer To go Options	Require Masking	Maximize Physical Distancing	Provide proper PPE to public facing staff	Consider alternative service delivery options
Retail	X	X	X	X	X
Restaurants	X	X	X	X	X
Fitness			X	X	
Education		X	X	X	X
Government Offices		X	X	X	
Health care Settings		X	X	X	X
Casinos		X	X	X	

Credit: Baylor Medicine¹⁰

¹⁰ Disclaimer: The purpose of this guidance is to offer you general direction and provide a framework for consideration as you reopen. The information and guidance provided in this document is based on recommendation.

Tribal Leaders may want to begin by enacting an ordinance with overall guidance for recovery. Examples of safety protocols may include employee, patron, and community member health screenings, mask mandates, cleaning and disinfecting, and service delivery with limited contact or interaction. Overall, a significant consideration in reopening will be the ability to make timely and informed decisions should an incident occur, that would warrant re-evaluating reopening phases. Again, looking to guidance from partners such as the WHO and the CDC will provide information on current situations in order to make the best decisions. The Incident Command Structure will most often play a part by providing information in this decision process.

Return to Work



Providing a safe workplace for employees to return to is important. Different types of enterprises will have different criteria. Key considerations include: the ability for employees to social distance, air circulation and ventilation, the amount of direct and close interaction required to perform work depending on whether employees are being asked to return onsite partially and/or eventually at full capacity.

It's important for governments and employers to keep in mind some key points when planning a return to work during the recovery phase of an outbreak. These include:

It's important for governments and employers to keep in mind some key points when planning a return to work during the recovery phase of an outbreak:

- **Mitigate anxiety with short-term goals**
- **Clarify expectations**
- **Develop and distribute policies and procedures**
- **Provide training**

Mitigate Anxiety with Short-Term Goals

Examples include:

- By X date, we will have an announcement regarding returning to work
- Beginning X date, we will begin a hybrid approach to returning to work and adhere to the policies and procedures

Clarify Expectations

There is no such thing as too much communication. Clearly state methods and time frames for communication with all employees

Develop and Distribute Policies and Procedures

Everything should be well thought out in advance and shared with employees. Consider mandatory training for all staff regarding policies and procedures and consider requiring sign off acknowledging receipt of policies and participating in training.

Provide Training

Provide training not just in newly developed policies and procedures but also for management and supervisor staff on how to handle various scenarios which may arise in the new hybrid model of work, how to deal with potential exposures and infection control protocols. Provide training to management and supervisors on how to manage in a remote environment.

The following are several things to consider in Return to Work procedures¹¹:

Phasing-in employees returning to work	<ul style="list-style-type: none"> • Use seniority or other nondiscriminatory factors for selection. • Consider adopting a work share program or SUB plan if bringing employees back on a reduced schedule. • Determine schedule changes to provide the greatest protection to workers.
Creating a plan for employees in high-risk categories for infection to return to work	<ul style="list-style-type: none"> • Consider allowing them to work from home or remain on leave until they feel comfortable to return. • Determine increased measures to protect them when working onsite, including isolated workstations, additional PPE as requested, fewer days in the office, etc.
Notifying the state unemployment agency of employees recalled to work	<ul style="list-style-type: none"> • This is a state requirement and will help save on unemployment taxes for those who choose not to return to work.

¹¹ SHRM. Checklist: Return-to-Work (COVID-19). <https://www.shrm.org/resourcesandtools/tools-and-samples/hr-forms/pages/covid-19-back-to-work-checklist.aspx>.

Determining how to handle employees who are unable or unwilling to return to work	<ul style="list-style-type: none"> • Employees who are fearful of returning to work. • Employees who have family obligations that interfere with the ability to return to work. • Employees who remain under quarantine due to exposure to COVID-19.
Determining if remote work is an option for employees	<ul style="list-style-type: none"> • Continuing to allow remote work where possible to keep employees safe. • Staggering weeks in office and at home among team members, or part-time remote work on alternate weekdays. • Responding to employee requests to continue to work from home, including long-term arrangements. • Updating technology to support virtual workers. • Consider the long-term cost savings or impact of offering permanent remote work.
Distribute and train on updated or new policies that reflect the new normal.	<ul style="list-style-type: none"> • Communication policies • Attendance/Sick Leave policies • Scheduling policies • Travel policies • Paid-Leave policies

Appendices

Acknowledgments

This toolkit was commissioned by the Inter Tribal Council of Arizona: Tribal Epidemiology Center. The toolkit was developed and compiled by Blue Stone Strategy Group.

Inter Tribal Council of Arizona Inc. Tribal Epidemiology Center

The Inter Tribal Council of Arizona was established in 1952 to provide a united voice for Tribal governments in the state of Arizona to address common issues of concerns. On July 9, 1975, the Council established a private, non-profit corporation, Inter Tribal Council of Arizona, Inc. (ITCA), under the laws of the State of Arizona to promote American Indian self-reliance through public policy development. ITCA provides an independent capacity to obtain, analyze, and disseminate information vital to American Indian community self-development.

The mission of ITCA is to *provide its Member Tribes with a united voice and the means for united action on matters that affect them collectively or individually.*



Tribal Epidemiology Center

The Inter Tribal Council of Arizona, Inc. Tribal Epidemiology Center values trust, service, and integrity above all else. We provide responsive, confidential, reliable, practical, high-quality professional epidemiologic services and products that address current and future public health challenges among tribal nations. We do this by promoting tribal self-determination, partnerships, innovation, resourcefulness, accountability, and sustainability. Our goal is to eliminate health inequities among American Indian Nations within three generations.

Our mission is to build Tribally-driven public health and epidemiologic capacity among Tribes in the Phoenix and Tucson Indian Health Service Areas by assisting Tribes with health surveillance, research, prevention, and program evaluation for planning and policy decision making in order to improve community health and wellness.

We envision our group to be a strong, interwoven group of centers working together to develop a National Tribal Epidemiology Center narrative; enhanced data access and stewardship; respected multi-directional public health collaborations; and a diverse sustainable funding base. We work together for the betterment of the health of American Indian and Alaska Native people living in a variety of settings in the United States.

Our mission is to build Tribally-driven public health and epidemiologic capacity among Tribes in the Phoenix and Tucson Indian Health Service Areas by assisting Tribes with health surveillance, research, prevention, and program evaluation for planning and policy decision making in order to improve community health and wellness. The goal of the ITCA TEC is to build independent tribal capacities to collect and use community health information in directing programs, managing resources, and building relations with local, state, and federal public health systems.

The ITCA TEC provides technical assistance in the following areas:

- Improving disease surveillance capabilities through data analyses, interpretation, and dissemination of information;
- Providing communication and education for disease outbreak investigation and response;
- Developing epidemiologic studies; and
- Assisting with disease prevention and health promotion activities.

TEC Service Areas



References

Horgan, J. (2021, September 17). *Justinian's plague (541-542 CE)*. World History Encyclopedia. Retrieved September 22, 2021, from <https://www.worldhistory.org/article/782/justinians-plague-541-542-ce/>.

Larsen CS. In the wake of Columbus: native population biology in the post contact Americas. Yearbook Phys Anthropol 1994;37: 109-154. [Google Scholar] [Ref list]

Ortner DJ, Putschar WGJ. Identification of Pathological Conditions in Human Skeletal Remains. Washington, DC: Smithsonian Institution Press; 1981. [Ref list]

Virgin soil epidemics as a factor in the aboriginal depopulation in America. Crosby AW William Mary Q. 1976 Apr; 33():289-99. [PubMed] [Ref list]

Chavez A. Archives of the Archdioceses of Santa Fe. Publications of the Academy of American Franciscan History Bibliographical Series 8. Washington, DC: Academy of American Franciscan History; 1957. [Ref list]

March 2018 ICS Organizational Structure and Elements EXTRACTED FROM - E/L/G 0300

World Health Organization: Managing Epidemics; key facts about managing deadly diseases

SHRM. Checklist: Return-to-Work (COVID-19). <https://www.shrm.org/resourcesandtools/tools-and-samples/hr-forms/pages/covid-19-back-to-work-checklist.aspx>.

Redd, S., M.D., Kosmost, C., R.N., B.S.N., M.S., & Talbert, T., M.A. (2019). Public health emergency preparedness and response capabilities: National standards for state, local, tribal, and territorial public health. Atlanta, GA: Centers for Disease Control and Prevention, Center for Preparedness and Response.

Visualizing the History of Pandemics. Visual Capitalist 2020; Mar 14. <https://www.visualcapitalist.com/history-of-pandemics-deadliest>.