

! CDC Museum Closed to the Public

The CDC Museum will reopen to self-guided **groups of 10 people or less** on May 2, 2022. Guided tours will not be available.

Museum operations are subject to change without notice. Please check our website on the day you plan to visit and fill out the "Facility Access Tool" at the link below prior to your arrival.

[Important Requirements for Visitors](#)



Teen Newsletter: Emergency Operations

April 2022

The David J. Sencer CDC Museum (CDCM) Public Health Academy Teen Newsletter was created to introduce teens to public health topics. Each newsletter focuses on a different public health topic that CDC studies. Newsletter sections: Introduction, CDC's Work, The Public Health Approach, Out of the CDC Museum Collection, and Teen Talk.

Be sure to join the live Newsletter Teen Talk on April 19, 2022, at 8pm ET. [Register for this free experience](#)!

Introduction – Emergency Operations

A public health emergency is an event that can cause harm to a person's health or to the health of a community. These events can happen at any time, anywhere and include:

- Outbreaks, such as COVID-19, Zika, Ebola and flu
- Accidental releases of industrial chemicals that can harm people's lungs, skin, and overall health
- Intentional acts with biological, chemical, radiological, or nuclear agents
- Natural disasters, such as tornadoes, floods, wildfires, and hurricanes



Our country must be prepared for the next public health emergency. The ability to identify a threat before it poses a significant risk depends on a well-trained public health workforce. State, local, tribal, and territorial health departments must be ready to handle large-scale emergencies and to identify and respond to smaller emergencies and outbreaks. As COVID-19 showed, what starts locally can very quickly become a global emergency.

An Emergency Operations Center (EOC) brings together highly trained experts and state-of-the-art technology to coordinate resources, information, and [crisis and emergency risk communication](#) to strengthen our nation's ability to detect and respond to public health threats.

Watch the video below to learn how an EOC 1) fits within the framework of an Incident Management System, 2) how it functions, 3) the benefits of establishing one, and 4) the importance of routine use in maintaining it.

CDC's Work – Emergency Operations

There are two centers at CDC that are responsible for working on public health emergency operations.

1. The [Center for Preparedness and Response \(CPR\)](#) is America's public health defense hub. CPR staff work alongside CDC peers, other federal partners, and state, local, tribal, and territorial health departments to continuously monitor for risks to the health of communities and the nation. When a concern is identified, they put decades of public health emergency expertise to work to get the right experts and resources in place to address the emergency and protect the health of Americans and people around the globe. Additionally, CPR fosters research and innovation in how to best prepare for and respond to public health emergencies.


There are three divisions under CPR:

- The [Division of State and Local Readiness \(DSLRL\)](#) manages the [Public Health Emergency Preparedness \(PHEP\) Cooperative Agreement](#), which supports preparedness nationwide in state, local, tribal, and territorial public health departments.
- The [Division of Select Agents and Toxins \(DSAT\)](#) oversees the [Federal Select Agent Program](#) [↗](#), which regulates all entities that possess, use, and/or transfer biological agents or toxins that could pose a severe threat to public health and safety.


DIVISION OF SELECT AGENTS & TOXINS PROTECTING AMERICA FROM DANGEROUS BIOLOGICAL AGENTS AND TOXINS

Responsible for regulating the possession, use, and transfer of select agents and the importation of infectious biological agents into the U.S. that could cause disease in humans.


CDC IMPORT PERMIT PROGRAM




Regulates the importation of infectious biological agents into the U.S. that could cause disease in humans, including:




Infectious biological agents capable of causing illness in humans



Materials known to contain an infectious biological agent



Vectors of human disease (such as insects or animals)



More than **2,000** import permits are issued each year by the CDC's Import Permit Program.

BENEFITS

CDC's Import Permit Program ensures that:

- Biological agents imported into the U.S. that could cause disease in humans are monitored.
- Facilities that receive import permits have the appropriate biosafety measures in place to work with the imported agents.

www.cdc.gov/cpr/ipp/


CS303853A

WHAT IS A SELECT AGENT?


Biological agents and toxins that have the potential to pose a severe threat to public health, to animal and plant health, or to animal or plant products.

The list includes
68 select agents & toxins


Common examples include:




Anthrax



Bubonic plague



Smallpox




Ricin


IMPORTANCE OF SELECT AGENT RESEARCH

Research on select agents helps provide a defense against naturally occurring diseases and bioterrorism.

Research on select agents provides:



Bioterrorism detection and prevention resources




Vaccines, drugs, and treatments for deadly diseases

CDC's Division of Select Agents & Toxins (DSAT) helps regulate facilities that use select agents through the Federal Select Agent Program (FSAP).


www.selectagents.gov

FEDERAL SELECT AGENT PROGRAM

FSAP is managed jointly by CDC and the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). CDC provides oversight for the select agents that cause diseases in people, and APHIS provides oversight for select agents that cause diseases in animals and plants. CDC and APHIS share the responsibility for agents that threaten both humans and animals, such as anthrax. In 2020:



244 entities were registered with the Federal Select Agent Program to possess select agents.








86%

The majority of entities, **86** percent, were registered with CDC. The remaining 14 percent were registered with APHIS.

KEY ACTIVITIES

FSAP develops, implements, and enforces the select agent regulations:

-  Provides oversight, conducts inspections, and approves program registrations
-  Approves individual access to select agents and toxins
-  Receives reports of theft, loss, or release
-  Serves as a resource on the regulations



Centers for Disease Control and Prevention
Center for Preparedness and Response

[Download PDF](#)  [1.5 MB, 1 page]

- The Division of Emergency Operations (DEO) coordinates CDC's preparedness, assessment, response, recovery, and evaluation prior to and during public health emergencies. The CDC [Emergency Operations Center \(EOC\)](#) is staffed around the clock and provides worldwide situational awareness of public health emergencies.

The CDC EOC uses the [National Incident Management System](#) [3.3 MB, 133 pages] (IMS) to better manage and coordinate emergency responses. The EOC has responded to more than 60 public health threats, including natural disasters (e.g., hurricanes), foodborne disease outbreaks, environmental emergencies (e.g., Deepwater Horizon Oil Spill), and disease outbreaks (e.g., Ebola, Zika virus, and COVID-19). In addition, the IMS may activate for planned events (e.g., presidential inaugurations and Olympics taking place in the U.S.) to monitor for incidents that may affect the public's health.



2. The [Center for Global Health \(CGH\)](#) works to protect Americans from dangerous and costly public health threats, including COVID-19, vaccine-preventable diseases, HIV, TB, and malaria—responding when and where health threats arise.

DISEASE KNOWS NO BOUNDARIES

A pathogen can travel from a remote village to major cities around the world in as little as 36 hours.



www.cdc.gov/globalhealth/healthprotection

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CGH's *Division of Global Health* (DGHP) supports CDC's broader efforts to strengthen other countries' public health emergency management capacity. DGHP collaborates with partners and other CDC experts to provide high-impact technical assistance to support sustainable public health systems. DGHP strengthens emergency response systems through a variety of programs, including:

- [Field Epidemiology Training Program](#)
- [Global Health Security Agenda](#)
- [Global Noncommunicable Disease Program](#)
- [Global Rapid Response Team](#)
- [Improving Public Health Management for Action Program](#)
- [National Public Health Institutes Program](#)
- [Global Disease Detection Operations Center](#)



Division of Global Health Protection

Global Emergency Alert and Response Service (GEARS)

Detects and Responds to Public Health Threats Worldwide

After Cyclone Idai, a community hygiene promotion educates displaced people in Malawi about cholera prevention, including the importance of using safe water, proper handwashing, and sanitation, as well as what to do if they become ill. Photo: Anagou Ralasingham

When infectious disease outbreaks or other health threats occur, having timely and accurate information and well-trained responders on the ground saves lives. The **Global Emergency Alert and Response Service (GEARS)** in the **Division of Global Health Protection (DGHP)** combines the critical functions of the **Global Disease Detection Operations Center (GDDOC)** and the **Global Rapid Response Team (GRRT)** into a **"one stop shop"** that allows for a seamless transition between disease detection and response activities.

How GEARS Works

GDDOC disease detection specialists work 24/7 using event-based public health surveillance to track health threats across the globe and gather information so public health experts can quickly respond to outbreaks before they become pandemics. On any given day in the GDDOC, a diverse team of CDC staff, including medical epidemiologists, data analysts, and zoonotic disease experts, monitor between 30-40 different public health threats globally.

Drawing from more than 536 rostered responders across the agency, GRRT deploys CDC experts within 72 hours of international and domestic emergencies. GRRT responders receive all trainings, passports, and medical clearances needed to be able to rapidly deploy.

GRRT provides surge capacity through a pool of trained CDC responders with varied expertise including emergency response, partner coordination, epidemiology, field logistics, laboratory, management, rapid assessment, risk communication, and surveillance. GRRT also works with countries to build their disease response capacity by helping to establish in-country rapid response teams and emergency operations centers.



[Download PDF](#) [2.3 MB, 2 pages]

Event-based surveillance (EBS) looks at reports, stories, rumors, and other information about health events that could be a serious risk to public health. The goal of EBS is to detect unusual events that might signal an outbreak. Information obtained through EBS can come from sources like reports in the media or rumors on an internet blog.

The Public Health Approach – Emergency Operations

Public health problems are diverse and can include infectious diseases, chronic diseases, emergencies, injuries, environmental health problems, as well as other health threats. Regardless of the topic, we take the same systematic, science-based approach to a public health problem by following four general steps.

For ease of explaining and understanding the public health approach for emergency operations, let's focus on CDC's [Emergency Operations Center \(EOC\)](#).

1. **Surveillance (What is the problem?).** In public health, we identify the problem by using surveillance systems to monitor health events and behaviors occurring among a population.

The EOC may be notified about potential public health threats through its watch desk, which fields calls from the public, clinicians, and state and local authorities. Notification may also come via public health partner briefings, field operations intelligence, or a worldwide declaration of a [Public Health Emergency of International Concern](#). When CDC's Division of Emergency Operations receives information about a potentially widespread threat, a team of subject matter experts decide whether to activate the [Incident Management System \(IMS\)](#).



2. **Risk Factor Identification (What is the cause?).** After we've identified the problem, the next question is, "What is the cause of the problem?" For example, are there factors that might make certain populations more susceptible to diseases, such as something in the environment or certain behaviors that people are practicing?

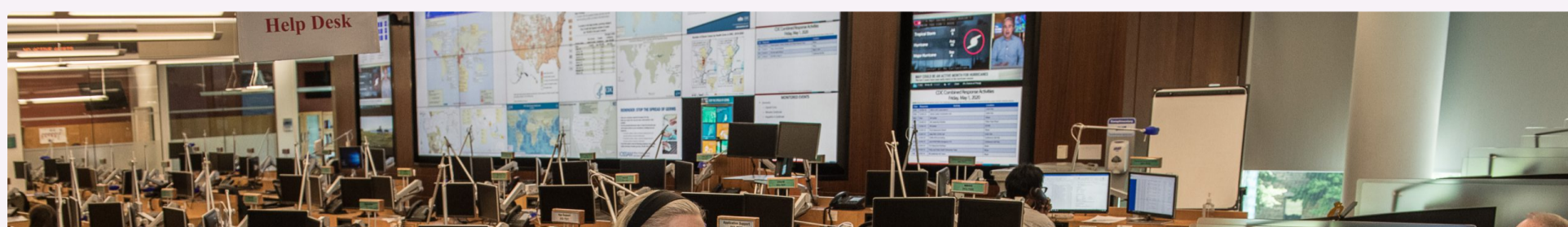
As you learned above in the [CDC's Work](#) section, the EOC can be activated in response to natural or human-made disasters, disease outbreaks, and other public health emergencies. There are three different levels of activation, depending on the scale of the event.

Level 3 is the lowest level of activation. CDC subject matter experts lead the response with their program staff. EOC staff may also assist with the response.

Level 2 involves a large number of staff from the relevant program area and from the EOC. Time-sensitive tasks and needs may extend beyond core business hours.

Level 1 is the highest level, requiring a 24/7 agency-wide effort (i.e., Hurricane Katrina in 2005, the 2009 H1N1 influenza outbreak, the 2014 Ebola outbreak, and the 2016 Zika virus response)

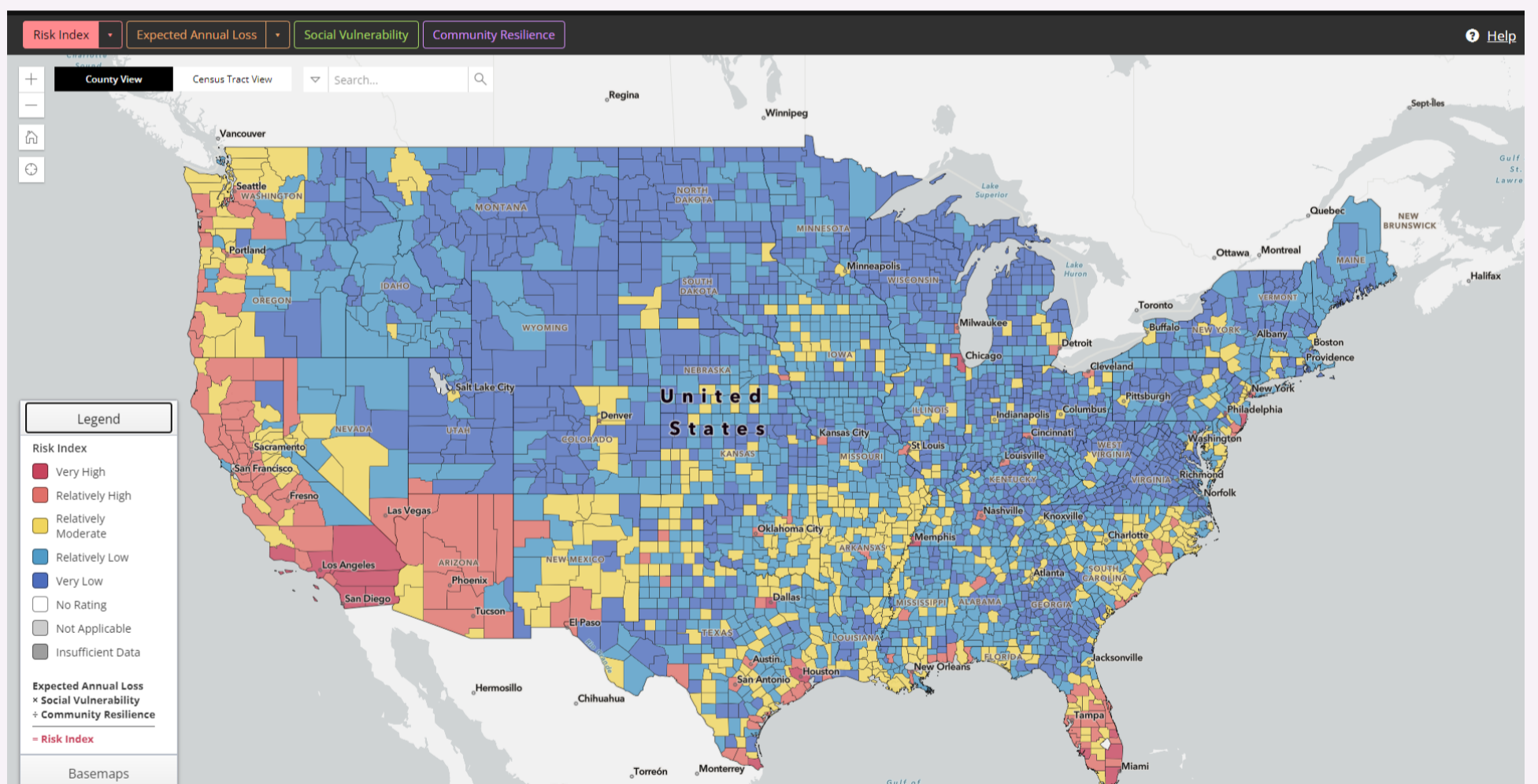
On January 21, 2020, CDC launched its agency-wide emergency response to the COVID-19 pandemic. It has been the largest response to any disease outbreak in CDC's history.





CDC staff working in the EOC during the COVID-19 pandemic response.

Each public health emergency has different risk factors. For [natural hazards](#) (i.e., earthquakes, hurricanes, wildfires) you can better understand what is driving your community's natural hazard risk by using the [National Risk Index](#).

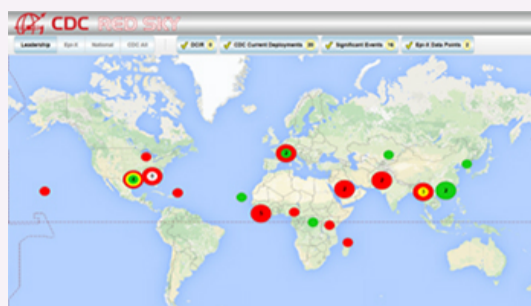



3. **Intervention Evaluation (What works?).** Once we've identified the risk factors related to the problem, we ask, "What intervention works to address the problem?" We look at what has worked in the past in addressing this same problem and if a proposed intervention makes sense with our affected population.

Even when there is no specific public health threat, the EOC has dedicated staff monitoring information, helping to keep us safe 24/7.

The mission of the Situation Awareness (SA) Branch in the EOC is to improve public health emergency planning and response. By analyzing critical information about many kinds of hazards that can affect public health, they turn this information into tools that leaders and responders can use to help people stay safer and healthier.

Red Sky was developed by the SA Branch to provide a simple-to-use and common platform to share critical information securely anytime, anywhere. The Red Sky dashboard has an intuitive interface that displays public health events on a global map, color coding them for severity. By simply clicking on an event, users are given a basic synopsis of the situation and they can access reports, data tables and other information.



[Download PDF](#) 
[129 KB, 3 pages]

4. Implementation (How did we do it?). In the last step, we ask, “How can we implement the intervention? Given the resources we have and what we know about the affected population, will this work?”

When infectious disease outbreaks or other health threats occur, having timely and accurate information and well-trained responders on the ground saves lives.

During public health emergencies, staff in the EOC:

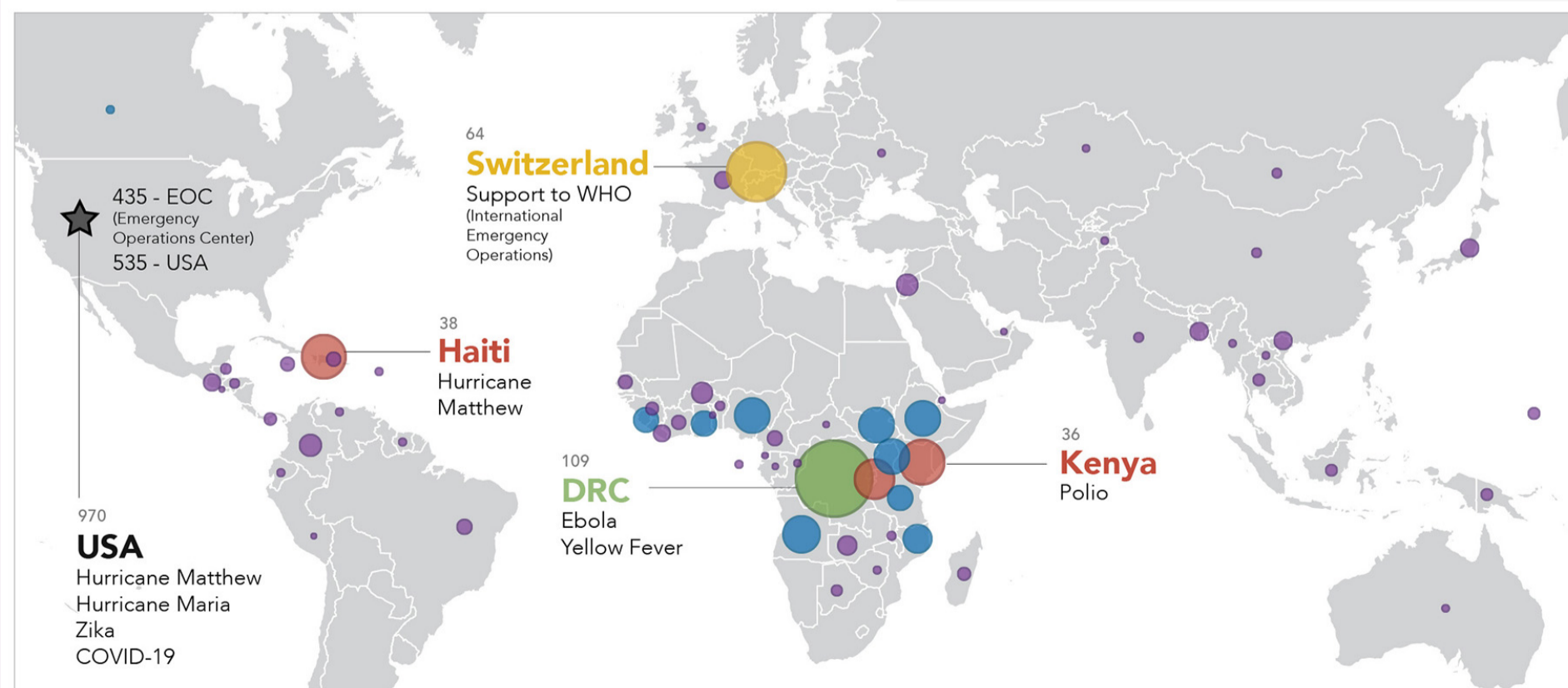
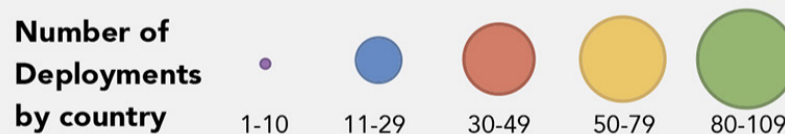
- Deploy scientific experts.
- Coordinate delivery of supplies and equipment to the incident site.
- Monitor response activities.
- Provide resources to state and local public health departments.

One great example is the **Global Emergency Alert and Response Service (GEARS)**, it is a “one stop shop” that allows for a seamless transition between disease detection and response activities.

Drawing from more than 490 responders from across the agency, GEARS deploys CDC experts within 72 hours of international and domestic emergencies.

Global Rapid Response Team Deployments

October 2015-December 2020



Using The Public Health Approach helps public health professionals identify a problem, find out what is causing it, and determine what solutions/interventions work.

Out of the CDC Museum Collection – Emergency Operations

This month's *Out of the CDC Museum Collection* features stops in the permanent exhibition at the David J. Sencer CDC Museum, *The Story of CDC*.



CDC has played a key role in preparing the United States for public health threats that include natural, biological, chemical, radiological, and nuclear incidents. Response to public health emergencies in the late 1970s and early 1980s laid the foundation for the agency's preparedness activities and programs today. How we manage both natural and human-made risks before, during, and after emergencies is part of contemporary society, and is a critical component of CDC's public health mission. Below are examples of CDC's emergency response work that are on display.



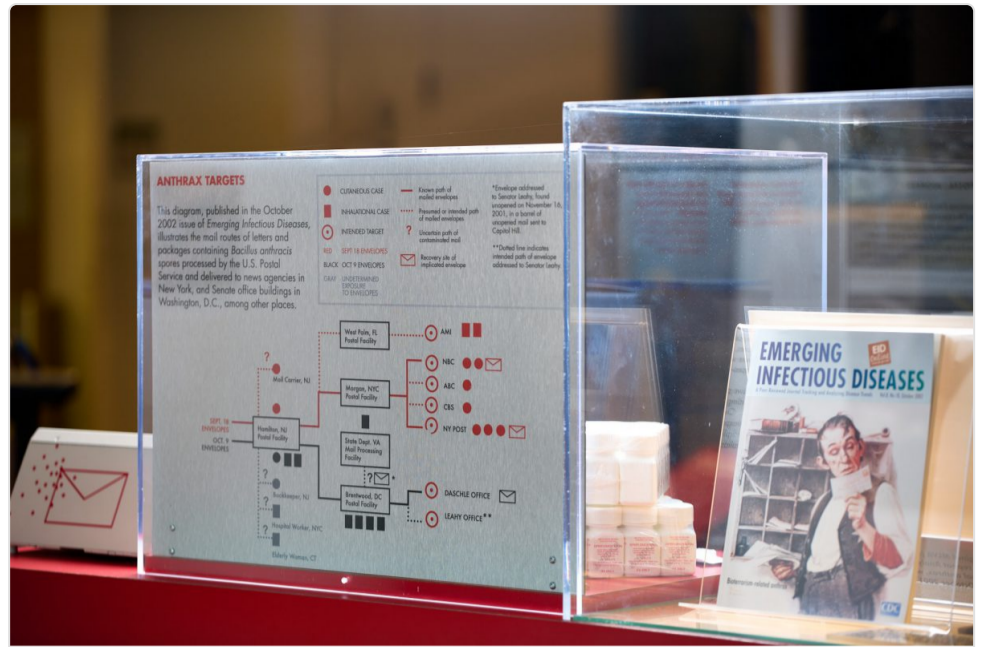
Love Canal
Three Mile Island
Mount St. Helens



Pre-9/11 Bioterrorism Planning



9/11




Anthrax

Did you know that CDC used an old auditorium as a center of operations during the anthrax investigations? This highlighted the need for a state-of-the-art permanent emergency operation center (EOC).

CDC's first EOC, serving as a central control and coordination hub for epidemic outbreaks and other public health emergencies, opened in 2003 with the support of private donors. In 2005, a new, larger EOC was opened in CDC's new headquarters building, where responses to emergencies from Hurricane Katrina to the current COVID-19 pandemic have been coordinated.

Teen Talk

Join us Tuesday, April 19, 2022 at 8:00pm ET for a chance to learn from a CDC expert who works on emergency operations. [Register here](#) .