

Readiness Report

Office of Readiness and Response



2023



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention

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Message from the Director

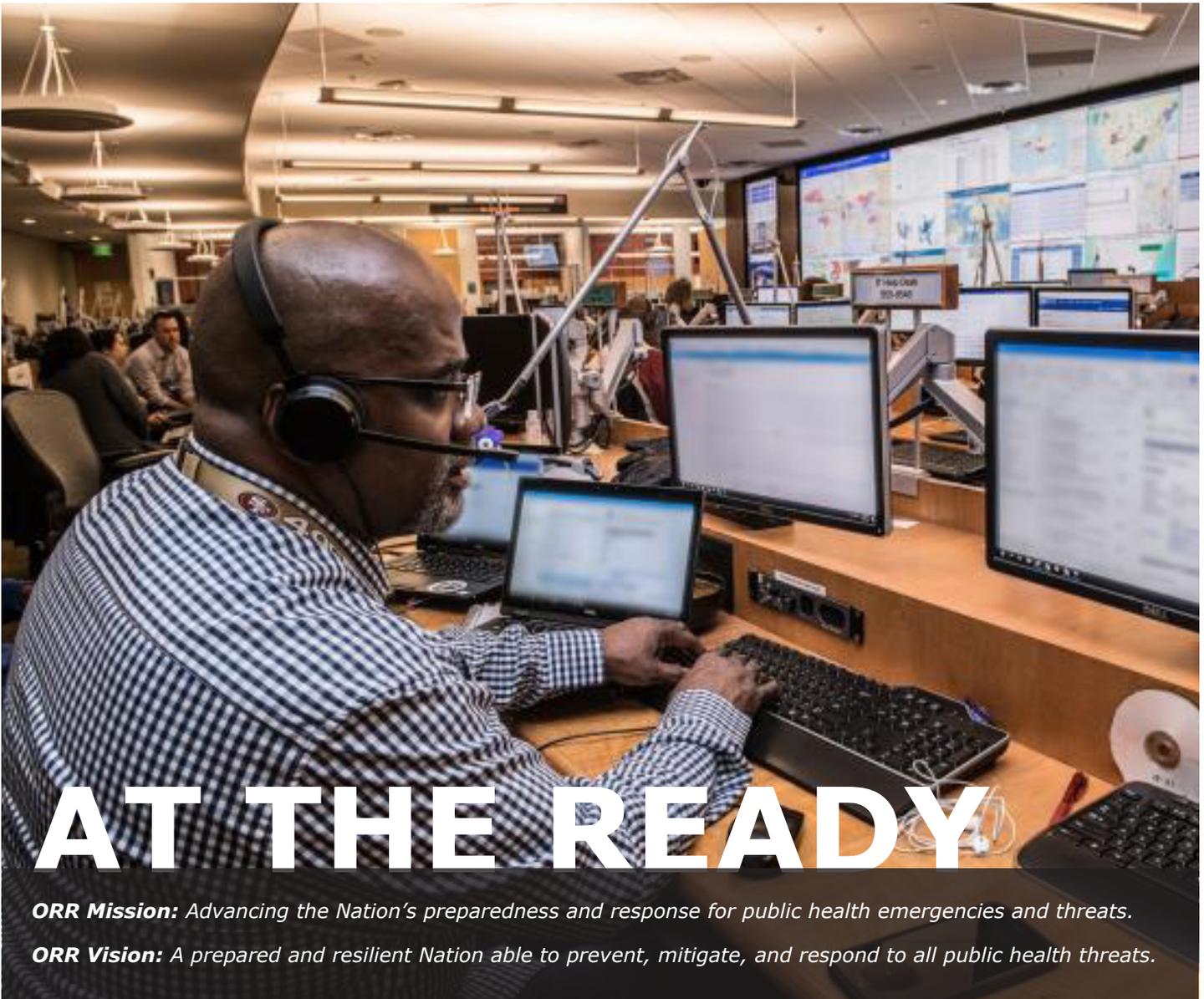
The Centers for Disease Control and Prevention's Center for Preparedness and Response (CPR) became the Office of Readiness and Response (ORR) in early 2023. This report summarizes some of the many achievements of ORR, including COVID-19 and mpox emergency responses, in late 2022 and early 2023.

We envision a prepared and resilient Nation, able to prevent, mitigate, and respond to all public health threats. We will work with partners at CDC, across federal agencies, and in state, local, tribal, and territorial health departments to anticipate and meet the readiness and response challenges of tomorrow.

We look forward to working with you and through the process of advancing the Nation's readiness and response capabilities for public health emergencies and emerging threats.

Henry Walke, MD, MPH

Director, Office of Readiness and Response



AT THE READY

ORR Mission: Advancing the Nation's preparedness and response for public health emergencies and threats.

ORR Vision: A prepared and resilient Nation able to prevent, mitigate, and respond to all public health threats.

Emergency Response

CDC's Office of Readiness and Response (ORR) is the central coordinating body for CDC's preparedness and response efforts. ORR and its Division of Emergency Operations (DEO) coordinate CDC's unified and rapid response to public health emergencies.

ORR facilitates well-coordinated responses to public health emergencies and emerging threats, including natural disasters and disease outbreaks.

CDC used the Graduated Response Framework to manage seven simultaneous emergency responses in 2022. There were three agency-wide responses, three center-led responses, and one program-led response.

Agency-wide responses require CDC to establish a centralized incident management system (IMS) structure with base operations located in the Emergency Operations Center (EOC). In 2023 the COVID-19 Response, the Multinational Mpox Response, and the Global Polio Response were all realigned from an Agency-led to a center-led status.



Answering the Call

The EOC Watch Desk answers calls 24/7/365 from medical professionals; federal, state, and local health authorities; and the public.

COVID-19 Response

- 3,229 inquiries to the Watch Desk in 2022.
- 2,939 (91%) inquiries triaged to CDC subject matter experts for quick response in 2022.

Multinational Mpox Response

- 4,107 inquiries to the Watch Desk in 2022.
- 1,426 (35%) inquiries triaged to CDC subject matter experts for quick response in 2022.

Global Polio Response

- 59 inquiries to the Watch Desk in 2022
- 12 (20%) inquiries to CDC subject matter experts for quick response in 2022.



Responding When Needed

Emergency response workforce coordination and resource support ensure the right people are in the right place at the right time with resources to complete the job safely.

COVID-19 Response

- 3,307 CDC staff worked on the response in 2022.
- 3,825,424 staff hours were worked for the response in 2022.
- 255 CDC staff were prepared, equipped, and dispatched for 432 field deployments to 78 domestic and international locations in 2022.

Multinational Mpox Response

- 1,400 CDC staff worked on the response in 2022.
- 949,322 staff hours were worked for the response in 2022.
- 65 CDC staff were prepared, equipped, and dispatched for 95 field deployments to 39 domestic and international locations in 2022.

Global Polio Response

- 134 CDC staff worked on the response in 2022.
- 78,129.5 staff hours were worked for the response in 2022.
- 92 CDC staff were prepared, equipped, and dispatched for 178 field deployments to 39 domestic and international locations in 2022.



Training Responders at CDC and Globally

The Incident Manager Training Program (IMTDP) and the Public Health Emergency Management (PHEM) Fellowship program strengthen the response capabilities of the customers they serve.

IMTDP prepares CDC senior leaders to serve as incident managers and deputy incident managers during responses. The program has graduated 84 leaders from 16 centers since 2017.

Trainees are primary candidates to serve in IMS leadership positions after graduation. Ninety-eight percent of alumni have served in the COVID-19 response. Of those, 88% served in at least one leadership role. Some graduates, like ORR Deputy Director Ian Williams, have served in multiple leadership roles over many deployments.

The PHEM Fellowship helps countries to prepare for, anticipate, and respond to all forms of public health threats. Since 2013, the PHEM fellowship has graduated more than 177 fellows from more than 45 countries and the African Union. Graduates use what they learn to help manage responses, including COVID-19, in their home countries.

State and Local Readiness



PHEP COOPERATIVE AGREEMENT COMMEMORATES 20TH ANNIVERSARY

In 2022, CDC observed the 20th anniversary of the Public Health Emergency Preparedness (PHEP) program. PHEP was established after the 9/11 attacks and subsequent anthrax attacks.

Over the past two decades, the PHEP program has committed more than \$15 billion in funding, guidance, technical assistance, and workforce support to preparedness activities that advance state, local, and territorial (SLT) response readiness for emergencies. Program investments have helped to



Build capacity and capabilities to rapidly distribute and dispense medical countermeasures.



Establish laboratory and epidemiologic systems that enable early threat detection and identification.



Develop and exercise response plans.



Hire and train public health professionals to manage day-to-day health department operations and provide surge capacity.



Establish a national network of trained preparedness field staff who help their host jurisdictions build and sustain their public health preparedness and response capabilities.

The PHEP program supports more than 5,800 PHEP-funded SLT preparedness and response professionals across the country. They include nurses, laboratorians, epidemiologists, IT specialists, planners, trainers, educators, communications specialists, and others.

CDC worked with PHEP directors to recognize some of these individuals for their work during the COVID-19 response and contributions to PHEP over the past two decades. The agency received the names of 294 [PHEP-funded preparedness professionals](#).



48 PHEP Trailblazers (e.g., public health preparedness directors and other staff) were recognized for lasting contributions made to public health emergency preparedness.



53 PHEP Pathfinders (e.g., early-career preparedness professionals) were recognized for effective leadership, innovation, and a willingness to contribute to the broader preparedness community.



193 PHEP Champions (e.g., behind-the-scenes staff with at least 10 years of experience) were recognized for contributions to their PHEP program.

PREPAREDNESS FIELD STAFF PROGRAMS

Division of State and Local Readiness (DSLRL) Mission: To assure the nation's public health system is prepared to respond to and recover from a public health event or emergency. DSLRL Vision: To be a proactive, credible, and trusted public health partner within the national response system, committed to strengthening all-hazards preparedness among our collaborators, recipients, and the public.

DSLRL provides program support, technical assistance, guidance, technical integration, and capacity building for public health preparedness planning. DSLRL provides fiscal oversight to state, local, and territorial recipients for the development, monitoring, and evaluation of public health capabilities, plans, infrastructure, and systems to prepare for and respond to terrorism, outbreaks of disease, natural disasters, and other public health emergencies.



PHEP EVALUATIONS

CDC uses a rigorous, evidence-based assessment used to evaluate PHEP program planning and operational functions. The overall evaluation strategy is guided by the [Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal, and Territorial Public Health](#).

The COVID-19 pandemic presented DSLRL with an opportunity to conduct a national evaluation of PHEP operational readiness. DSLRL developed new measures to collect data about jurisdictions' ability to respond to a pandemic. DSLRL is using data collected in 2022 to assess lessons learned and identify opportunities for CDC technical assistance.

To address lessons learned in preparation for future emergencies, DSLRL has introduced a Public Health Response Readiness Framework with **10 strategic program priorities**.

- 1 Develop** threat-specific approaches to augment all-hazards planning, address evolving threats, and support medical countermeasure logistics
- 2 Enhance** partnerships with federal and nongovernmental organizations to effectively support community preparedness efforts
- 3 Expand** local support to improve jurisdictional readiness to handle public health emergencies
- 4 Improve** administrative and budget preparedness systems to support timely jurisdictional responses
- 5 Build** workforce capacity to meet jurisdictional surge management needs and support staff recruitment, retention, resilience, and mental health
- 6 Modernize** data collection and systems to improve situational awareness and information sharing with healthcare systems and other partners
- 7 Strengthen** risk communications activities to improve proficiency in disseminating critical public health information and warnings
- 8 Incorporate** practices to enhance preparedness and response support for communities experiencing differences in health status due to structural barriers
- 9 Advance** capacity and capability of public health laboratories to characterize emerging threats through testing and surveillance
- 10 Prioritize** community recovery efforts to support health department reconstitution and incorporate lessons learned from public health emergency responses

DSLRL will incorporate these priorities into the PHEP program's next five-year period of performance beginning in July 2024.

Poliovirus Containment

Poliovirus containment is critical to minimize the risk of the virus getting into the environment and causing harm. The U.S. National Authority for Containment of Poliovirus (NAC) implements World Health Organization's [WHO Global Action Plan for Poliovirus Containment \(GAP IV\)](#) in the United States.

NAC maintains a national poliovirus inventory, which includes managing the poliovirus-essential facilities application process. The application process includes auditing and certifying all poliovirus-essential facilities (PEFs). PEFs are facilities that work with and/or store eradicated poliovirus infectious materials.

In the past year, NAC staff audited facilities in the U.S.

- 3** PEFs withdrew from the certification process, which led to a decrease in the handling and use of poliovirus.
- 2** Certificates of participation were endorsed by WHO's Containment Working Group, the advisory group that endorses applications.



NAC Accomplishments



Advanced biosafety evidence-based research to inform global polio containment guidance.



Continued progress with survey launches led to receiving nearly 3,000 survey responses from U.S. facilities.



Aided the destruction of up to 200,000 containers of poliovirus material by U.S. facilities.



Developed guidance for U.S. facilities on the implementation of poliovirus containment.



Certified three auditors according to WHO requirements.



Established a quality management system and audit program that align with International Organization of Standardization standards (9001, 19011, and 17021).



Made 7 onsite and virtual audits to type 2 PEFs.



Authored 5 presentations related to poliovirus containment at national and international scientific conferences.



Strengthened its emergency preparedness and response capabilities through exercise and real-life experience.

NEW YORK POLIOVIRUS OUTBREAK

The New York State Department of Health (NYSDOH) notified CDC on July 18, 2022, about a case of polio in an unvaccinated patient. The patient presented to an emergency room with lower limb weakness with fever.

NYSDOH, with CDC's support, worked with the affected communities to assess any potential risk and help put in place prevention measures like vaccination clinics to keep people from getting sick.

NAC worked with external laboratory facilities to ensure the safe and secure handling and transport of infectious poliovirus (PV) and polio-infected materials (PIM). NAC also developed interim guidance for laboratory and non-laboratory facilities that collect, store, handle, and transport materials potentially contaminated with PV.

The NAC further supported the response by participating in outreach and engagement activities. Those activities included:



1

Posting guidance on the Association for Biosafety and Biosecurity (ABSA) listserv.

2

Presenting at Association of Public Health Laboratories (APHL) Monthly Public Health Laboratories calls.

3

Presenting at the National Wastewater Surveillance System (NWSS) Community of Practice for utilities.

4

Participating in calls with facilities interested in wastewater surveillance testing.

5

Coordinating strategic partnership and cohesive dialogue with WHO Headquarters, National Containment Committee and Regional Containment Commission.

6

Facilitating discussion with other country national authorities on poliovirus containment to address global concerns.

In 2022, NAC revised [U.S. Poliovirus Inventory and Survey](#) questions to apply to non-laboratory facilities, including utilities and wastewater treatment plants.

Staff also developed a risk-based approach for the classification and containment of vaccine-derived poliovirus (VDPV) PIM and is updating NAC websites with policies, interim guidance, and forms.



MEETING PEOPLE WHERE THEY ARE

Increasing Community Access to Testing (ICATT)

CDC's [Increasing Community Access to Testing \(ICATT\)](#) program provides fair, just, and responsive access to COVID-19 testing.

The ICATT program provides readily accessible, community-based, no-cost COVID-19 testing in all 50 states, Washington DC, and Puerto Rico.

Tests are available to people with or without health insurance who are experiencing [symptoms related to COVID-19](#) or [have been exposed](#) to someone with COVID-19. Select ICATT pharmacy sites also connect patients with related COVID-19 services, such as vaccination, prescription, and medication dispensing.

ICATT supports fair and just COVID-19 diagnostic testing for communities that have limited access to COVID-19 testing. The program prioritizes testing resources for people with medical necessity and people without health insurance.

ICATT supports surge testing in state and local jurisdictions in times of high testing need.

ICATT provides testing to unaccompanied minors at the southern border.

HOW IT WORKS

ICATT locations offer testing at a variety of pharmacies, commercial laboratory sites, community sites, and retail locations. People can search for an ICATT location through the CDC [COVID-19 Testing Locator](#). This website helps people find and contact testing providers and schedule testing appointments on providers' websites.

COVID-19 tests offered vary by location and vendor but include laboratory-based [nucleic acid amplification tests \(NAATs\)](#), including polymerase chain reaction (PCR) tests, and rapid [antigen point-of-care \(POC\) testing](#). Both types of tests can tell if a person has COVID-19. People usually receive a result within 24 to 48 hours after they get tested.

The tests are billed to third-party payers, such as Medicare, Medicaid, and private health insurers. People without health insurance do not have to pay for COVID-19 testing at ICATT locations.

Making a Difference

- More than 48 million tests conducted from 2020-2022
- 40% of test recipients do not have health insurance
- 122,564 tests performed across 65 short-term surge sites during the Omicron surge
- More than 1.2 million tests administered to unaccompanied children, staff, and Afghan guests
- 1,400 ICATT sites are participating in Test-to-Treat Program

TESTING PARTNERSHIPS

The ICATT program prioritizes 15,000+ pharmacy and community sites based on social vulnerability using the CDC/ATSDR [Social Vulnerability Index \(SVI\)](#) and the [Rural-Urban Commuting Area \(RUCA\)](#).

ICATT vendors include [Color Health](#), [CVS](#), [eTrueNorth](#), [LongView International Technology Solutions \(LTS\)](#), [Quest](#), and [Walgreens](#).

ICATT selects pharmacy testing sites, monitors pharmacy testing, and works with states to improve testing activities.

ICATT pharmacy sites will:

- schedule appointments
- register patients for testing
- collect patient samples
- process tests
- report results to individuals and public health entities



The Right Message at the Right Time

The Emergency Risk Communication Branch (ERCB) is part of CDC's Division of Emergency Operations (DEO). ERCB coordinates the agency's communication response to emergencies and public health threats. This includes establishing and maintaining lines of communication with those on the frontlines of emergency preparedness and response.



CLINICIAN OUTREACH COMMUNICATION ACTIVITY

CDC's [Clinician Outreach and Communication Activity \(COCA\)](#) serves the information needs of clinical professionals. They include physicians, pharmacists, and epidemiologists. COCA provides them with timely, accurate, and credible information on topics related to emergency preparedness and response and emerging public health threats.

COCA staff conducted conference calls and webinars in 2022 reaching over 100,000 clinicians, on topics related to Ebola, seasonal influenza, Multisystem Inflammatory Syndrome in Children, and others. Most of last year's calls and webinars focused on the COVID-19 and mpox responses.

Presenters on these calls share guidance with clinicians and answer questions from participants.

HEALTH ALERT NETWORK

CDC's [Health Alert Network \(HAN\)](#) is CDC's primary method of sharing cleared information with public health departments, laboratories, practitioners, and clinicians.

The HAN system reaches more than one million recipients with the help of federal, state, territorial, tribal, and city/county partners. Most [state-based HAN programs](#) have more than 90% of their population covered under the HAN umbrella.

In 2022, CDC sent 23 HAN messages to alert CDC's response partners to imminent and emerging public health threats. There are four types of messages.

1

Health Alert: Provides vital, time-sensitive information for a specific incident or situation; warrants immediate action or attention by health officials, laboratorians, clinicians, and members of the public; and conveys the highest level of importance.

2

Health Advisory: Provides important information for a specific incident or situation; contains recommendations or actionable items to be performed by public health officials, laboratorians, and/or clinicians; may not require immediate action.

3

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

4

Info Service: Provides public health information; unlikely to require immediate action.

CRISIS AND EMERGENCY RISK COMMUNICATION

[CDC's Crisis and Emergency Risk Communication](#) (CERC) program draws on lessons learned during emergency responses and knowledge from the fields of psychology, communication science, and issues management to help communicators share health and safety information in a way that will be better received and understood by people who are experiencing a crisis or emergency.

CDC offers online and in-person training, tools, and other resources to help health communicators, emergency responders, and public officials communicate during all phases of an emergency.



CDC's CERC program worked with partners to



Conduct **46** in-person training events and presentations for **1,765** persons.



Present **2** in-person events from **January 2020–October 2022**.



Conduct **43** online training events and presentations for over **34,484** persons.



Host the live CERC Overview for COVID-19 to **4,876** persons from **33** countries in April 2020.



Provide web-based training for **7,851** persons, most of whom earned Continuing Education Units or Certified Health Education Specialist credit.

ERCB's goals for CERC include updating and expanding CERC content based on recent responses and the most current communication science. Staff will develop a new CERC online training course to improve access to the curriculum. They will also recommend that CDC include CERC as part of its recommended deployer training.

EMERGENCY PARTNERS INFORMATION CONNECTION

CDC's [Emergency Partners Information Connection](#) (EPIC) partners with members of the whole community to exchange information that helps people stay safer and healthier during a public health emergency.

EPIC partners understand the needs of the people they serve. Their insight into what and how to communicate with the communities they serve informs CDC communications.

In 2022, EPIC added four new partners. Three of those focus on meeting the needs of populations most often at higher risk during emergencies. Relationships like these help CDC reach these populations during public health emergencies.

EPIC conducted four webinars in 2022 for a total of 6,475 attendees. Recordings of the webinars garnered 3,079 views as of late December 2022. EPIC added live captioning and real-time ASL and Spanish interpretation to the recordings to improve accessibility to the information.

EPIC developed and disseminated 11 scheduled and two just-in-time newsletters. The newsletters were sent to approximately 69,000 subscribers from the public and private sectors. Subscribers include private individuals and representatives of government, education, commerce and industry, and volunteer organizations.



JOINT INFORMATION CENTER OPERATIONS

CDC's Joint Information Center (JIC) is a 24/7 emergency communication unit that coordinates information during a public health emergency. JIC Operations functions include coordinating rapid clearance of response-related documents, supporting the development and maintenance of response websites, and managing domestic surge staffing and international deployments for the JIC.

IN 2022 AND 2023, CDC'S JIC OPERATIONS UNIT:



Provided emergency communication support for program- and center-led responses, including

- Emergency clearance technical assistance for CDC's response to hurricanes Fiona and Ian.
- Operational support for CDC's communication response to the Ebola outbreak in Uganda.



Facilitated clearance of over 3,000 agency-level response information products, including

- 2,596 COVID-19 response documents.
- 495 mpox response documents.



Managed over 300 communication responder staffing assignments for two agency-level responses, including

- 130 communication staffing assignments for COVID-19.
- 181 communication staffing assignments for mpox.

National Preparedness Month

ORR will release a new toolkit in observance of National Preparedness Month in September. The title of the 2023 toolkit is "Meet People Where They Are."

The content of this toolkit:



describes the impacts that social determinants of health can have on personal health preparedness and response.



suggests ways the whole community can create opportunities for everyone to prepare for and respond to emergencies to their full potential.

SOCIAL DETERMINANTS OF HEALTH

Social determinants of health (SDOH) are non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. Examples include access to health care, including prehospital care, access to transportation, and language and literacy skills.

Social determinants of health affect nearly everyone in one way or another. The website Healthy People 2030 groups them into five key areas:

- Economic stability
- Education access and quality
- Health care access and quality
- Neighborhood and built environment
- Social and community context

The "Meet People Where They Are" toolkit includes ready-to-use social media messages and graphics for each key area.

SDOH create inequities that can limit the usefulness and usability of resources, supplies, and services before, during, and after emergencies. Those limitations contribute to preventable differences in the impacts of emergencies and opportunities to prepare for, respond to, and recover from them.

All #PrepYourHealth toolkits, including "[Meet People Where They Are](#)," are created with our preparedness partners in mind. They are meant to help our partners, including state and local health departments, communicate the importance of and challenges to personal health preparedness.

The toolkits include sample social media messages and graphics that health departments are encouraged to localize. Many might add their agency logo and URL to a graphic or write different messages to pair with the graphics. ORR promotes its toolkits with help from the Division of State and Local Readiness and the National Public Health Information Coalition.

This and past years' toolkits are designed for year-round use by ORR's preparedness partners. Visit CDC's [Prepare Your Health website](#) for links to these resources.





FORWARD THINKING

Keeping Lifesaving Research Safe and Secure

Scientific research is a critical part of our nation's defense against naturally occurring diseases and bioterrorism. ORR's Division of Select Agents and Toxins (DSAT) oversees two programs that make it possible for laboratories to conduct research safely and securely. Those programs are the [Federal Select Agent Program](#) and the [Import Permit Program](#).

Select agents and toxins are biological materials that have the potential to pose a severe threat to public health and safety, to animal and plant health, or animal or plant products. Examples of select agents and toxins include the organisms that cause anthrax, bubonic plague, smallpox, and the toxin ricin.

FEDERAL SELECT AGENT PROGRAM

Work with select agents and toxins has led to improved detection, prevention, diagnostic, and treatment options for diseases. The Federal Select Agent Program (FSAP) helps to allow laboratories to conduct lifesaving research on these materials as safely and securely as possible. FSAP monitors and inspects the laboratories throughout the United States that work with these materials to ensure they're handled safely during research and maintained securely to prevent them from being stolen, lost, or accidentally or intentionally released. The program is managed jointly by DSAT and the Animal and Plant Health Inspection Service (APHIS). APHIS is an agency of the United States Department of Agriculture.

Entities regulated by FSAP are subject to announced and unannounced inspections. The type of inspection scheduled depends on the reason for the inspection, but all inspections focus on compliance with the select agent regulations, such as biosafety and biosecurity of the work with biological select agents and toxins.

FSAP has continued to perform its essential work to help ensure the safety and security of select agents despite the challenges of the COVID-19 response.

The program conducted 206 inspections in 2021. DSAT led 139 of those inspections. The division conducted another 46 in cooperation with APHIS.

FSAP continued to conduct remote and hybrid (i.e., a combination of remote and on-site) inspections in response to changes in program operations resulting from the COVID-19 pandemic. Nineteen of the 206 inspections in 2021 were conducted on-site. FSAP conducted 106 remote and 81 hybrid inspections.



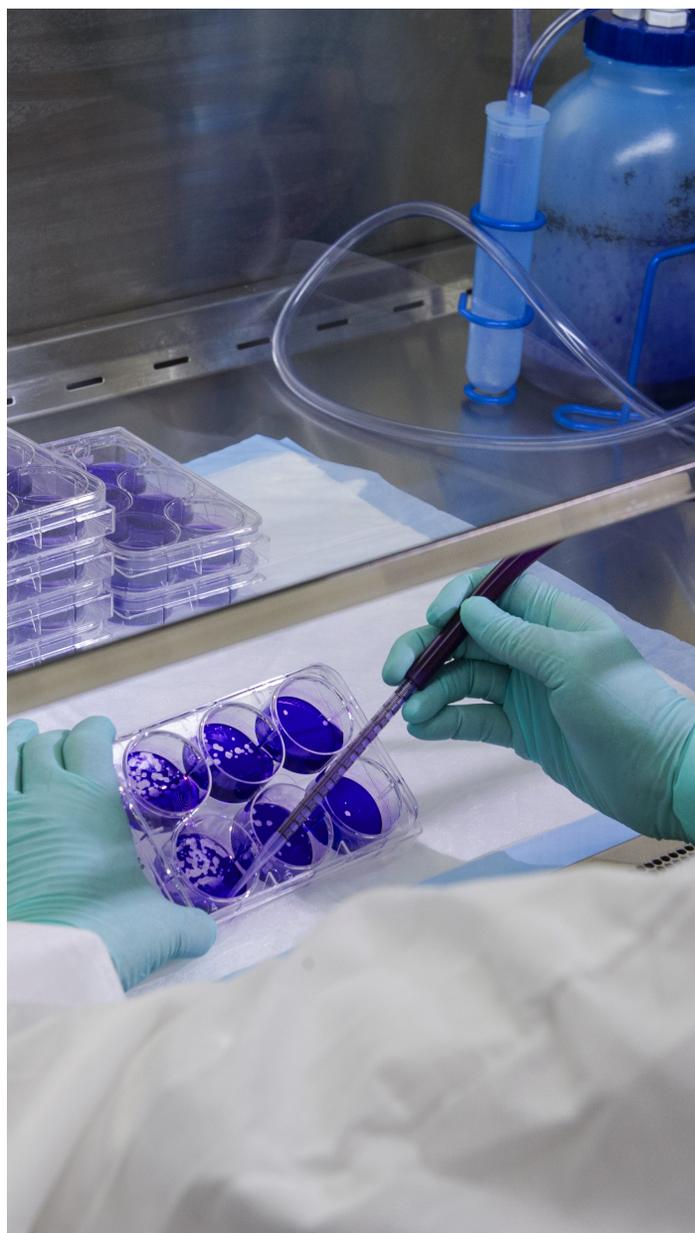
Remote inspections focus primarily on reviewing documentation and interviewing employees.



Hybrid inspections include on-site (laboratory and facility reviews, employee interviews if needed in person) and remote assessments (document review, employee interviews) of the registered entity.

FSAP will continue to refine the hybrid inspection process and expects this will become the primary method of inspecting facilities in the future.

Another improvement to FSAP's ability to conduct oversight is the program's cloud-based eFSAP portal, a secure information system used to submit select agent program information. This two-way portal is accessible by FSAP and the regulated community. It increases efficiency by enhancing information exchange and collaboration. The system also minimizes paperwork, simplifies the process of validating and submitting information, and reduces processing time for requests. It is constantly being updated and refined to better meet the needs of FSAP and the regulated community.



IMPORT PERMIT PROGRAM

DSAT's [Import Permit Program \(IPP\)](#) inspects and issues permits to facilities that import infectious biological materials into the United States. These materials have the potential to cause disease in people. Researchers study these to develop treatments, vaccines, and diagnostics, and to improve understanding of the threats they may pose.

In recent years, IPP has issued more than 2,500 import permits annually. The program issued 3,235 permits in 2021. Most permits are issued to government, university, commercial, and private laboratories where people conduct research studies and diagnostic activities.

Since 2019, IPP has seen a significant increase in permit applications due to SARS-CoV-2. As a result, IPP is working to improve oversight and meet the demands from the increased work.

The program implemented a new electronic system for permit applications, called eIPP, in 2018, and continues to make refinements to this system.

eIPP is a secure, cloud-based system used by applicants to respond to inspection observations. Users can



Apply for permits.



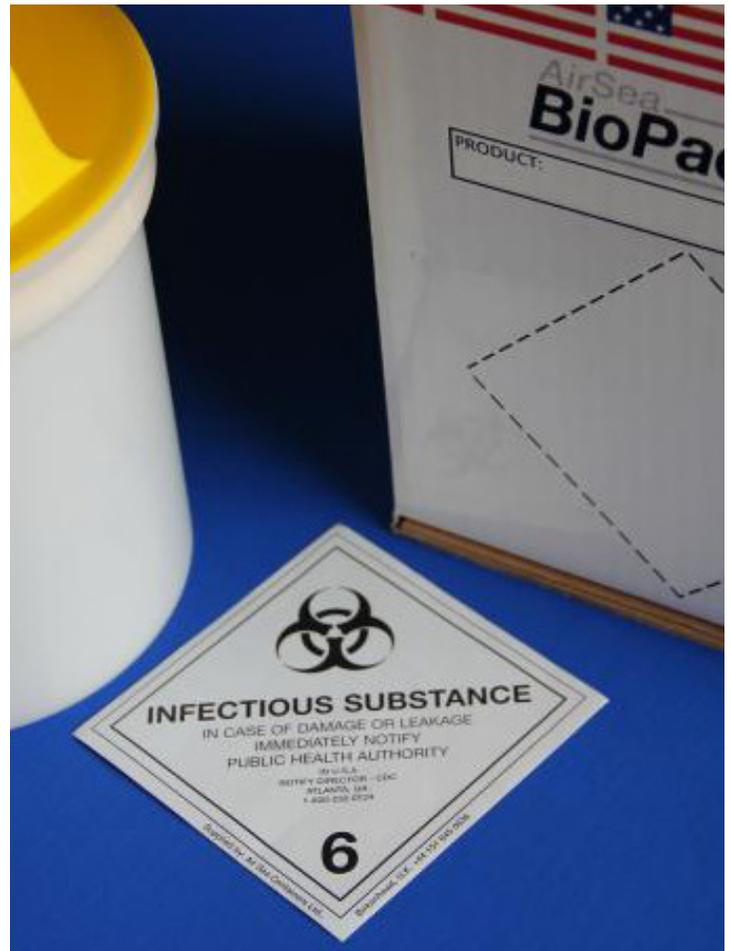
Get updates on the status of their applications.



Access a historical record of their permits and applications.



Communicate with IPP.



Modernizing Response Operations

Managed by ORR's Division of Emergency Operations (DEO), the CDC Emergency Operations Center (EOC) brings together trained experts and state-of-the-art technology to coordinate resources, information, and crisis and emergency risk communication. This strengthens the nation's ability to detect and respond to public health threats.

In December 2022, CDC launched its CDCReady Responder program to improve how the agency identifies and prepares staff to respond to public health emergencies. The goal of the program is to build a diverse workforce of pre-qualified, trained, and available responders to establish and sustain public health emergency responses.

The CDCReady Responder program centralizes the coordination and preparation of staff across the agency for emergency response assignments. This ensures that CDC can rapidly establish and maintain response activities when emergencies occur with staff who are trained and available.

CDCReady Responder will allow responders to focus on their response work—and will make service in responses open to more staff.

In 2022, DEO

1

Launched CDCReady. It is a modernized, cloud-based, integrated IT solution that will support day-to-day operations, background systems, preparedness and response activities, and situational awareness processes.

2

Built a foundational infrastructure that will expand the abilities of EOC IT systems to:

- scale systems according to unique response needs.
- data share and formulate new insights across the agency and with external partners.
- set user permissions based on data and their "need to know."
- reduce implementation and sustainability costs.

3

Updated the EOC Watch Team's call center to a virtual, cloud-based solution. Callers are now automatically:

- routed to the first available Watch Officer.
- placed in a queue, not on hold.
- provided with regular updates about their place in line.
- given a call-back option after two minutes in the queue that saves their place in line.

In 2023, DEO will consolidate a variety of IT systems and applications in CDCReady. This will better enhance emergency operational capabilities and response analytics capacity.

Investing in Science and Innovation

The Office of Science and Public Health Practice (OSPHP) develops, shares, and promotes science to improve public health readiness and response for all. OSPHP leads several activities that increase the readiness and response evidence base, promote science, and foster innovations that enhance state, tribal, local, and territorial (STLT) readiness for public health emergencies.



STRATEGIC CAPACITY BUILDING AND INNOVATION PROGRAM (SCIP)

SCIP invests in core capacity-building programs and new innovative activities to improve CDC readiness and response to public health emergencies and emerging threats. SCIP investments in CDC programs support near real-time surveillance of chemical, biological, radiological, and nuclear threats, development and implementation of laboratory methods and testing protocols, and development of clinical guidelines for medical countermeasures.

Epidemiology and surveillance programs and activities supported by SCIP monitor and assess population trends and patterns. The CDC Public Health Operations for Emergency Information Integration and Exchange System (PHOENIX) is one example. It enables rapid access to spatial datasets, analytic tools, and customized modules in support of emergency readiness, response, and recovery activities. The system was used for data visualization during the Hurricane Fiona and Hurricane Ian responses in 2022. It helped decision-makers answer public health questions and look at risks from hazardous waste sites, impacted health infrastructure, health equity, etc. in support of the Hurricane Ian and Hurricane Fiona responses.

APPLIED RESEARCH PROGRAM

ORR's Applied Research Program directs the strategic investment of an annual appropriation. The appropriation supports the development, evaluation, translation, and dissemination of evidence-based practices that enhance STLT preparedness and response to all-hazards emergencies.

With the fiscal year 2022 appropriation, OSPHP funded 11 applied research projects. They focused on the areas of community resilience, trust in public health during emergencies, laboratory-based early warning, and emergency management.

The Applied Research Program supported an interdisciplinary research and training program in disaster science that has public health implications. This program is coordinated by the University of Colorado's Natural Hazards Center. Now in its third year, the program has helped to develop and support the research of more than 150 scientists, including more than 70 in the US territories.

In 2022, the program held a workshop titled "Building Public Trust in Public Health Emergency Preparedness and Response (PHEPR) Science" coordinated by the National Academies of Science, Engineering, and Medicine. A second workshop titled "The Public Health Infodemic and Trust in Public Health as a National Security Threat" is scheduled for 2023.

To further enhance the evidence-base, the program funded two activities in 2022 aimed at identifying communication approaches that increase trust in public health emergency preparedness.

LABORATORY PREPAREDNESS

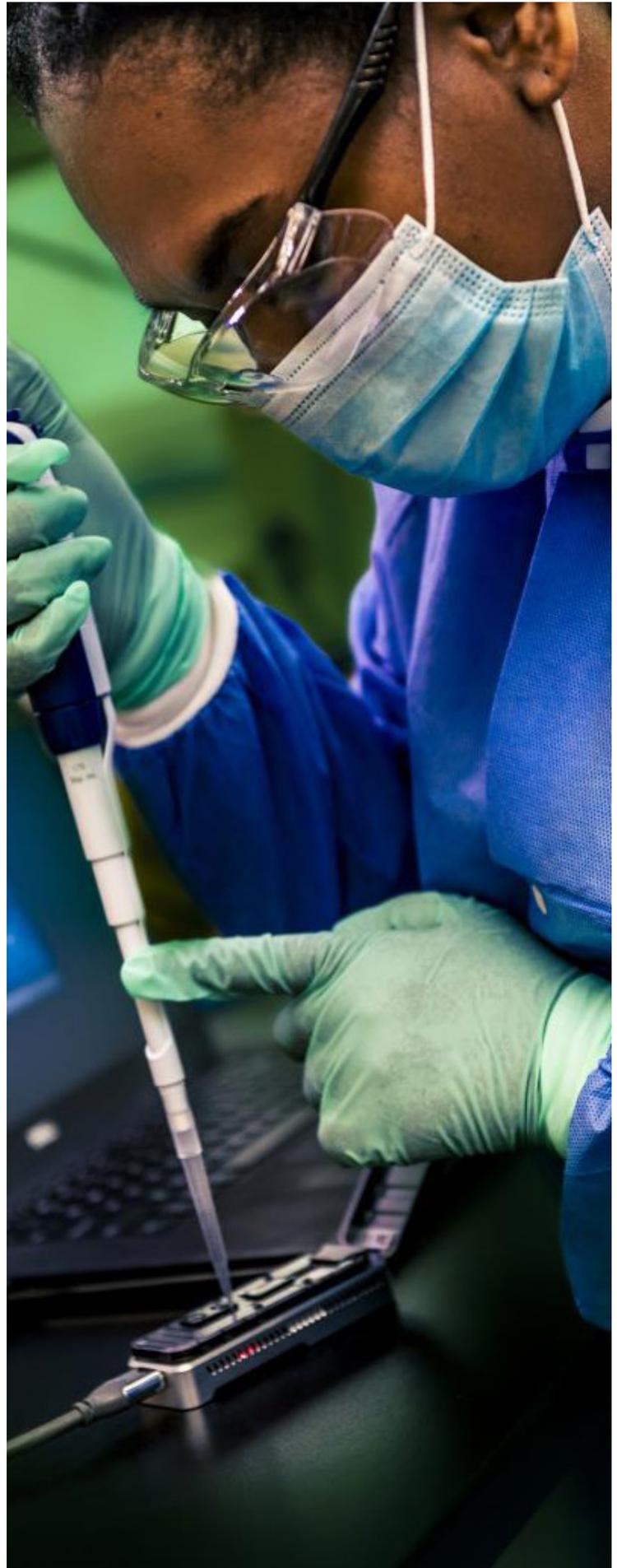
OSPHP provides scientific leadership and coordination for agency and STLT laboratory chemical, biological, radiological, and emerging threat preparedness and response activities conducted across CDC CIOs and by STLT partners. The office fosters cross-sector partnerships across government, nonprofit organizations, businesses, and communities. It supports innovation to explore and implement new products, processes, and services that improve laboratory preparedness and response.

In 2022, OSPHP focused on identifying critical laboratory preparedness response gaps and solution strategies. Emphasis was put on expanding and strengthening OSPHP's network of partners engaged in laboratory readiness. OSPHP held workshops and stakeholder meetings with more than 50 cross-sectoral partners. Their expertise and perspectives were synthesized by ORR and CDC subject matter experts to identify top priorities. This work resulted in the initiation of multiple activities to improve laboratory readiness. They included

- Informing the Interagency Joint Capability Plans.
- Developing strategies to augment public-private manufacturing partnerships to expand surge testing during public health emergencies.
- Piloting the Threat Agnostic Sentinel Surveillance (TASS) project to enhance laboratory-based early warning and detection of threats.

TASS was initiated to evaluate the use of [metagenomic](#) sequencing as a threat-agnostic assay for use as part of an early warning surveillance system in public health laboratories. This project will inform if, where, and how to implement this method for surveillance and clinical use.

Two STLT public health laboratories, the CDC Genomic Sequencing Laboratory, and one academic partner are participating in the pilot. TASS intends to expand and include additional public health and commercial laboratories over the next three years.



DEIAB Action Plan



Since 2007, the Office of Readiness and Response (ORR) has worked to advance Diversity, Equity, Inclusion, Accessibility, and Belonging (DEIAB) in the workplace. Over the years, that work has evolved from offering one-off training to more profound systems-level approaches.

ORR has invested in several DEIAB initiatives geared toward priority areas such as hiring, retention, promotion, mentoring, and data collection. These solutions included the development of ORR's first Employee Fact Sheet and implementation of the ORR Reimagining Candidate Selection Process to build equity into the recruitment, hiring, promotion, and retention process.

ACCOMPLISHMENTS

In 2022, DEIAB program staff made strides in creating a workplace where all employees feel they belong, can be their "authentic selves," and achieve to their full potential.



Developed ORR's first **DEIAB Action Plan**. The plan identifies tactics to improve diversity, hiring, and promotion and to implement data-driven actions to enhance the climate with leadership-driven reforms. ORR's action plan aligns with the CDC and U.S. Department of Health and Human Services plans and complies with [Executive Order 14035 to advance DEIA in the Federal Workforce](#).



Created a **ORR Diversity Dashboard**. The first of its kind at CDC, the dashboard is used by senior leaders and hiring officials to track trends, monitor progress, and identify gaps as we work to increase diversity at ORR.



Launched a quarterly "**DEIAB Difficult Conversations**" series. This series aims to build employees' capacity to understand and communicate the relevance of DEIAB efforts within ORR. The series has included conversations about mental health and resilience and the impact of neurodiversity on the workforce. In 2022, more than 100 participants registered for and attended these events. This series will continue in 2023 with conversations on several relevant topics, such as racism and health.



Implemented the "**Art, Tea, and Diversity**" (**ATD**) program. ATD uses a trauma-informed approach and social and emotional learning strategies to facilitate dialogue around sensitive workplace topics. ATD helps individuals understand emotions, set and achieve goals, establish and maintain positive dialogue and relationships, and make responsible decisions. In 2022, more than 80 attendees from across ORR and CDC participated in these sessions.



Introduced **speed mentoring**. Initial efforts focused on increasing opportunities for General Schedule 9 staff and below to position themselves for career development opportunities. Mentors advise on how to compete better in the job market. ORR hosted quarterly speed mentoring events and implemented **DEIA Musing Sessions** to enhance efforts to share lessons learned, gems, and other career tips with junior staff members. In 2022, 85 participants attended these events.

By the Numbers



\$651 MILLION

The PHEP program provided \$651 million to 62 public health departments in support of emergency readiness and response activities.



206

The Federal Select Agent Program conducted 206 inspections in 2021.



71

As of December 2022, 71 CDC Career Epidemiology Field Officers and Preparedness Field Assignees supported 50 PHEP jurisdictions.



7

ORR monitored and supported 7 simultaneous emergency responses. They included agency-wide, center-led response, and program-led responses.



48 MILLION

More than 48 million tests conducted from April 2020 to December 2022 through the ICATT program.



7,400

The EOC Watch Desk received almost 7,400 inquiries related to the COVID-19, Mpox, and Global Polio responses in 2022.



4.9 MILLION

Hours worked by CDC staff on agency-wide emergency responses in 2022.



100,000

More than 100,000 clinicians attended COCA's 27 conference calls and webinars in 2022. Most of last year's calls and webinars focused on the COVID-19 and Mpox responses.



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention