

Partnership Between a Federal Agency and 4 Tribal Nations to Improve COVID-19 Response Capacities

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Abstract

Upon request from tribal nations, and as part of the Centers for Disease Control and Prevention's (CDC's) emergency response, CDC staff provided both remote and on-site assistance to tribes to plan, prepare, and respond to the COVID-19 pandemic. From April 2, 2020, through June 11, 2021, CDC deployed a total of 275 staff to assist 29 tribal nations. CDC staff typically collaborated in multiple work areas including epidemiology and surveillance (86%), contact tracing (76%), infection prevention control (72%), community mitigation (72%), health communication (66%), incident command structure (55%), emergency preparedness (38%), and worker safety (31%). We describe the activities of CDC staff in collaboration with 4 tribal nations, Northern Cheyenne, Hoopa Valley, Shoshone-Bannock, and Oglala Sioux Tribe, to combat COVID-19 and lessons learned from the engagement.

Keywords

COVID-19, tribal nations, tribes, American Indian or Alaska Native, CDC deployments, coronavirus, emergency preparedness, global health, public health preparedness, public health, prevention

In January 2020, the Centers for Disease Control and Prevention (CDC) activated its Emergency Operations Center to support public health partners in responding to the COVID-19 outbreak. On March 25, 2020, the Emergency Operations Center established the State, Tribal, Local, and Territorial (STLT) Taskforce to maintain situational awareness of jurisdictional activities, needs, and challenges and to provide technical assistance to health departments in these jurisdictions. Within STLT, a Tribal Support Section provides dedicated and tailored technical assistance and expertise to tribal nations and tribal entities, both in the field and remotely. We describe the breadth and nature of CDC's COVID-19 support to tribal nations and lessons learned from such engagement during the COVID-19 response.

Methods

For this case study, we analyzed deployment records from April 2, 2020, through June 11, 2021, using descriptive analysis in

Microsoft Excel. In addition, to capture information on a diversity of missions, we reviewed 4 deployments in depth and presented them as a case report to document examples of promising practices of engagement between tribal nations and CDC. For the case report, we also reviewed the situation reports that field

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Figure 1. Centers for Disease Control and Prevention deployment to 29 tribal nations during the COVID-19 pandemic, United States, April 2, 2020–June 11, 2021.

deployers submitted. After informing participants of the topics and issues intended for discussion, from November 15 through December 26, 2020, researchers conducted unstructured interviews by telephone with deployers who went to the Hoopa Valley, Shoshone-Bannock, Oglala Sioux, and Northern Cheyenne tribes. We did not seek institutional review board approval. However, CDC reviewed this activity consistent with applicable federal law and CDC policy.

Outcomes

From April 2, 2020, through June 11, 2021, CDC deployed 45 teams consisting of 275 staff, including 256 field staff and 38 remote staff (some deployers worked both in the field and remotely), to 29 tribes in 14 states (Alaska, Arizona, California, Idaho, Massachusetts, Montana, Nevada, New Mexico, North Dakota, Ohio, Oregon, Oklahoma, South Dakota, and Washington) (Figure 1). Of the 29 tribes, 10 (34%) had >1 deployment team throughout this period. We provided technical assistance in multiple areas (not mutually exclusive), including epidemiology and surveillance (86%), contact tracing (76%), infection prevention and control (72%), community mitigation (72%), health communications (66%), incident command structure (55%), emergency preparedness (38%), and worker safety (31%).

Field Deployments to 4 Tribes

COVID-19 emergency preparedness and response activities with the Hoopa Valley Tribe during the 2020 California wildfires. The Hoopa Valley Tribe is located on 144 square miles in northwestern California, an area prone to wildfires. The Hoopa

Valley Tribe is the largest land-based tribe in California and has approximately 3600 members. A single health care facility, K'ima:w Medical Center, provides routine medical, dental, behavioral health, pharmacy, and emergency medical services. In early August 2020, the tribe experienced an outbreak of more than 40 COVID-19 cases in a 2-week period after having had only 1 case of COVID-19 several months prior. Challenges in responding to the surge in cases were compounded by the community's rural location, a limited number of staff at the medical facility and in support of critical community services (eg, grocery store, water treatment facility, tribal government), and high rates of comorbidities (personal communication, Eva Smith, MD, K'ima:w Medical Center, August 2020).

On August 23, after CDC received a request from the tribe, a team of 3 CDC staff members with expertise in epidemiology and emergency preparedness began a 30-day deployment to the Hoopa Valley Tribe. On September 7, the tribal council issued an emergency declaration that described the risk and public health threat posed by the Red Salmon Complex wildfire and its associated smoke.¹ In collaboration with the Hoopa Valley Tribal Office of Emergency Services (OES), a Wildfire Evacuation Plan and an Alert Level System that best suited the community's unique needs in the setting of COVID-19 was drafted.² COVID-19 precautions were informed by CDC's "Going to a Public Disaster Shelter During the COVID-19 Pandemic" and "Interim Guidance for General Population Disaster Shelters During the COVID-19 Pandemic."^{3,4} The evacuation plans prioritized staying home if it could be done safely, followed by use of small venues (such as hotels) and then, if necessary, use of the tribe's neighborhood facilities building. CDC worked with

OES to identify facilities, such as campgrounds and universities, to use if mass evacuation became necessary.

Working with K'ima:w Medical Center and OES, the CDC team identified 86 tribal members considered at high risk for complications from COVID-19 infection because of underlying medical conditions. The team received individuals' telephone numbers and locations. With this information, we created a medically vulnerable evacuation map to prepare for an efficient evacuation process. We arranged the map into 12 zones using the Zonehaven Community Evacuation Interface (Zonehaven Inc) emergency management software. We also shared this map with local law enforcement and emergency personnel to pinpoint each person in need during the pre-evacuation process. The CDC deployment team also assisted with plans for relocations and distribution of high-efficiency particulate air (HEPA) filters to households and KN95 face masks to tribal members. The timely response of Hoopa Valley Tribe in collaboration with CDC staff enabled rapid, efficient responses to 2 simultaneous emergencies.

Strengthening health communication in the Shoshone-Bannock Tribes. The Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, in southeastern Idaho, comprise approximately 6000 members residing in 5 districts. They are the largest of the 5 tribes in Idaho, and their tribal land base spans 546 338 acres, lying northwest of Pocatello, Idaho. Three main health care facilities that service the reservation are (1) the Tribal Health and Human Services Department, (2) the Fort Hall Indian Health Service (IHS) Clinic, and (3) the Shoshone-Bannock Community Health Center Annex, funded by the Health Resources and Services Administration. Sixteen CDC staff members were deployed between August 13 and November 7, 2020. We highlight the work of 2 health communications staff members.

At the time of the CDC deployments, the tribal communities were receiving inconsistent messaging about COVID-19. CDC received anecdotal reports of face mask-wearing fatigue among community members and a desire for more COVID-19-related information and updated guidelines from council members. In addition, tribal leaders raised concerns about adolescents and young adults aged 13-24 years in the community not adhering to prevention guidelines. The CDC deployment team worked with tribal colleagues to implement a robust communication strategy to address these challenges. As part of this strategy, we used various communication channels to deliver messages from public health officials and community leaders, including social media (Facebook), television, radio, newsletters, emails, text message alerts, and print materials.

- We developed a health communication plan to organize and implement communications addressing various audiences (eg, community members, local business office employees). We developed the plan working closely with members of the Fort Hall

Business Council, the tribe's COVID-19 public information officer, the Tribal Health Department, and Office of Public Affairs.

- We provided community leaders with COVID-19 training that covered fundamentals such as causative agent, mode of transmission, signs and symptoms, and preventive measures, along with relevant CDC guidelines.
- We developed and deployed a communication survey to members of the tribe to assess gaps in COVID-19 messaging and communication products. Specifically, the survey asked members of the tribe to describe the most recent communication product and their thoughts about it; whether they felt they were receiving correct information; and what they thought about COVID-19 preventive measures such as face mask wearing, social distancing, hand washing, isolation, and quarantine. The survey also collected information on trusted sources of information among community members.
- We revised the Shoshone-Bannock website (<http://www.sbtribes.com>) to prominently feature COVID-19 public service announcements (PSAs) and prevention materials.
- CDC guidelines were integrated into the Fort Hall Business Council virtual Facebook live events, one of the primary channels for community engagement, because many in-person community events were cancelled as a result of COVID-19.
- The tribe released 3 PSAs to the community featuring a young male traditional dancer dancing with a face mask and tribal health officials explaining key COVID-19 prevention messages in English and the Shoshone language. This PSA addressed the lack of preventive measures being taken by adolescents and young adults. It was featured on reservation and off-reservation billboards, in a television commercial, and as a bus wrap for tribal buses used throughout the reservation.

Building capacity for epidemiology in the Northern Cheyenne Tribe. The Northern Cheyenne Tribe is in southeastern Montana. Approximately 5000 residents live on the Northern Cheyenne reservation, which encompasses about 444 000 acres. Of this population, 84% are American Indian. The Northern Cheyenne reservation comprises 5 districts: Ashland, Birney, Busby, Lame Deer, and Muddy. Lame Deer, the largest community, is also the tribal headquarters. Although there is no hospital located on the Northern Cheyenne reservation, an IHS unit in Lame Deer provides primary and acute care.

At the request of the tribe, 2 CDC staff members deployed to Northern Cheyenne on or around September 4, 2020, to support the tribe with data management, epidemiological investigations, and surveillance as part of their COVID-19

outbreak response. The team worked with the tribe to improve COVID-19 data management by enhancing data entry and flow and automating some tasks. More than 20 tribal staff members were trained in data entry and management. CDC staff worked with public health nurses and IHS staff to clean the data in the tribe's COVID-19 database. This data-cleaning process included reviewing all data for accuracy and completeness, inserting missing data (eg, age, sex/gender), and removing duplicate entries. An estimated 95% of the data were organized and completed by the end of the deployment.

We enhanced COVID-19 data analyses and visualization to inform the tribe's response efforts. CDC staff analyzed data and set up dashboards to routinely show COVID-19 test positivity and cumulative test data to tribal leaders. This visualization allowed leadership to understand how COVID-19 was disproportionately affecting tribal elders, with 20% of all COVID-19 cases among those aged ≥ 50 years, and helped reinforce the tribe's public health messaging on protecting people who are at increased risk for COVID-19, especially in *Lame Deer*.

Community-based COVID-19 prevention in Oglala Lakota Nation schools. The Oglala Lakota Nation (official title: Oglala Sioux) is in southwestern South Dakota in Oglala Lakota County, the lowest poverty county in the United States.^{5,6} The Pine Ridge Reservation, an Oglala Lakota Nation Reservation, is the second-largest Native American reservation in the United States.⁶ The Pine Ridge Reservation encompasses 11 000 square miles (approximately 2.7 million acres) and is home to approximately 40 000 people, 35% of whom are aged < 18 years.⁶

Returning safely to in-person learning was important to the Oglala Lakota Tribe, and the tribe sought information and guidance from CDC about safe school reopening. The schools planned to implement a hybrid model when they resumed in-person learning (eg, 2 groups of students would go to school on alternating days). In August and September 2020, CDC staff provided technical assistance by piloting virtual school walk-throughs in 2 schools (kindergarten through 12th grade; 700-900 students) on the Pine Ridge Reservation.

The CDC technical assistance consisted of 3 phases: a pre-walk-through policy and plans meeting, a walk-through of the facility, and a debriefing meeting (Figure 2). Before the process began, a contact person at the school received worksheets that provided an overview of the process and guided the pre-walk-through and walk-through phases. During the pre-walk-through phase, CDC remote staff reviewed responses from a pre-walk-through worksheet and provided technical assistance in addressing identified gaps in procedures and policies. In addition, CDC remote staff answered questions and outlined the walk-through process.

Next, the walk-through of the facility took place with on-site school administrators, CDC field staff, and remote staff.

The school administrator led CDC remote staff through critical areas inside the building (eg, entrances/exits, front office/reception area, hallways, clinic/nurse's office, classrooms, student and staff restrooms, teachers' lounge, kitchens, cafeteria, gymnasium, locker rooms) and outside the building (eg, bus and student drop-off areas, exterior hallways/walkways, playgrounds, parking lots). In the meantime, CDC field staff provided on-site support (eg, operating the camera phone for the walk-through). CDC remote staff made suggestions based on CDC guidance available at the time and used the school walk-through worksheet⁷ to clarify needs and potential improvements (eg, following hand hygiene practices, staying home when sick, practicing physical distancing, wearing face masks, disinfecting frequently touched surfaces).

After the walk-through was complete, CDC remote staff sent a summary report to the school, which included screenshots of areas reviewed, suggestions, and resources. Staff held a debriefing meeting to discuss the summary report, highlight suggestions, and give school administrators an opportunity to ask questions.

Lessons Learned

At the request of tribal nations, CDC deployed staff to assist tribes in their response to COVID-19. Several lessons were learned from these deployments.

1. Government-to-government relations are successful strategies that rely on organization and planning of a broad framework. The intention is to make reasonable efforts to collaborate with and between entities in the development of policies and agreements and in the implementation of programs. These efforts will directly affect issues involving cooperation in the scientific, technological, and health fields among deployment teams, CDC headquarters, and tribes.
2. The epidemiological and response capacity of tribal health departments that was strengthened during the COVID-19 pandemic enabled these departments to be better prepared and equipped to respond more efficiently to future public health emergencies. Maintaining such capacity requires ongoing training and dedicated resources. For example, CDC staff trained the tribal council leaders in Shoshone-Bannock Tribes on COVID-19 fundamentals.
3. The tribal health departments' ability to analyze, interpret, and share data, including through data dashboards, with the tribal council and other leaders may guide public action and decision-making. At Northern Cheyenne reservation, having CDC staff assist in analyzing data and setting up dashboards that presented data routinely to tribal leaders allowed tribal leadership to make key decisions.
4. Culturally tailored health messaging and communication strategies encouraged community members to

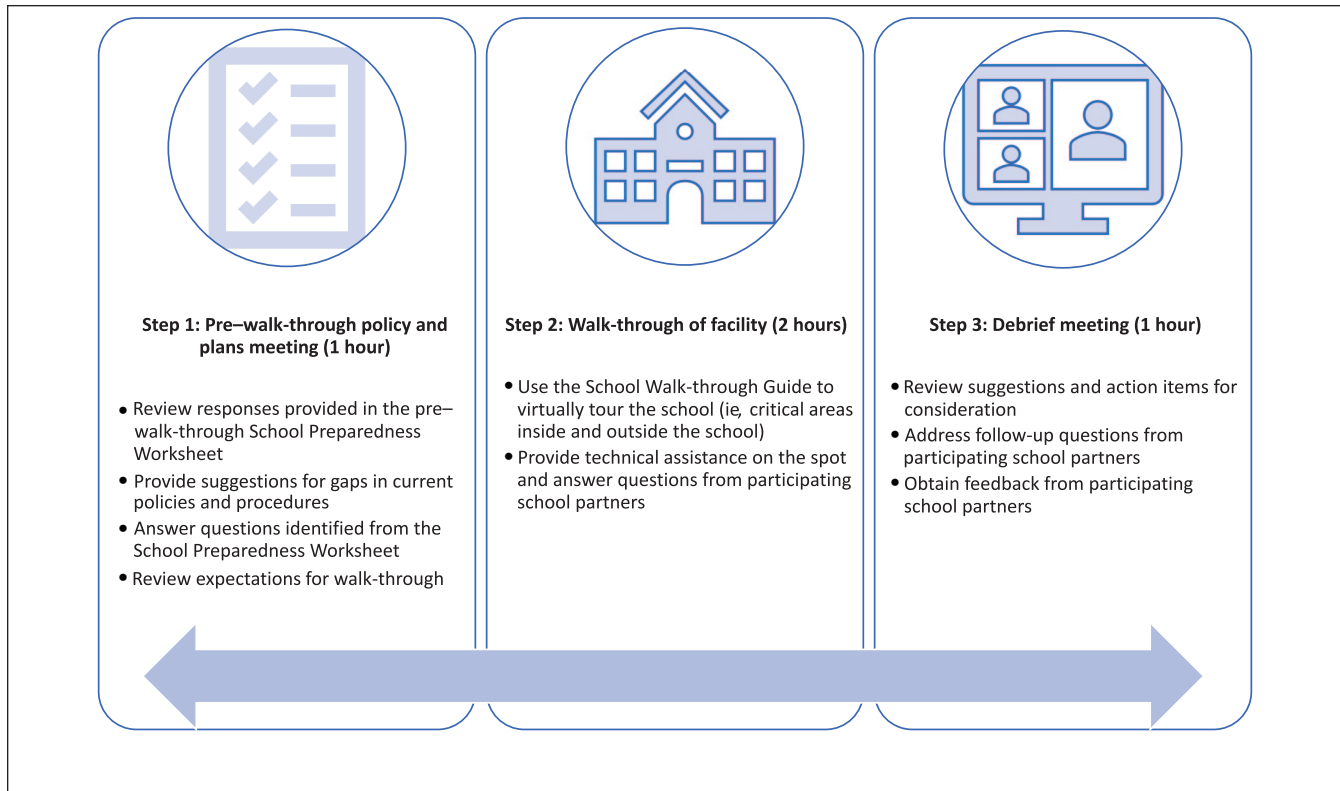


Figure 2. Virtual technical assistance school walk-through steps designed by Centers for Disease Control and Prevention staff for Oglala Lakota Nation schools reopening during the COVID-19 pandemic, South Dakota, August–September 2020.

better adhere to guidelines. Supporting tribal leaders in effective risk communications was a useful approach, especially early in the pandemic. Working closely with community members and leaders was important to build trust and ensure a full understanding of their needs and concerns. CDC staff assisted Shoshone-Bannock Tribes to develop linguistically and culturally appropriate PSAs that tribal leadership found useful and still use.

5. Informal multipartner health diplomacy plays a crucial role in capacity building, effective and efficient communication, and implementation of health strategies in situations where tribal health involves multiple partners. Weekly or biweekly calls brought together all partners to quickly and appropriately meet the rapidly pivoting needs identified by the tribe and deployers. These calls included partners such as the Federal Emergency Management Agency, Assistant Secretary for Preparedness and Response, Bureau of Indian Affairs, Bureau of Indian Education, IHS, and other state, local, and private partnerships.

Although the deployments involved technical assistance within a specified time frame as requested by tribal nations, individual follow-ups suggest that many of these efforts strengthened capacity in the tribes to continue the work on

their own. For example, the Hoopa Valley Tribe has continued to use plans and update the graphs developed with the CDC team depicting the number of COVID-19 cases and distribution of cases to date. Moreover, the CDC technical assistance provided for the implementation of systems, capabilities, and tribe-specific guidelines during the acute phase of the pandemic could be useful for long-term preparedness and response to future public health crises.

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Disclaimer

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