

Published in final edited form as:

Health Secur. 2023; 21(3): 222-232. doi:10.1089/HS.2022.0158.

The Mashpee Wampanoag Tribe COVID-19 Pandemic Response: A Case Study

Betty Wong, DHSc, MPH, CHES, CPO [Health Scientist],

Nelson Andrews Jr,

Allyssa Hathaway [Assistant],

Adam Burpee [Emergency Manager],

Elfriede Agyemang, MD, PhD [Medical Epidemiologist],

Barbara Cooper, MSPH [Public Health Advisor],

Scott Santibañez, MD, DMin, MPHTM [Chief Medical Officer]

Betty Wong, DHSc, MPH, CHES, is a Health Scientist; Elfriede Agyemang, MD, PhD, is a Medical Epidemiologist; Barbara Cooper, MSPH, is a Public Health Advisor; and Scott Santibañez, MD, DMin, MPHTM, is Chief Medical Officer; all on the COVID-19 Response Team, Centers for Disease Control and Prevention, Atlanta, GA. Nelson Andrews Jr, is a Tribal Councilman, Director of the Emergency Management Department, Vice President of Community Development Corporation, and Chairman of the Homeland Security and Emergency Services Committee; and Allyssa Hathaway is an Assistant, Emergency Management Department; both in the Mashpee Wampanoag Tribe, Mashpee, MA. Adam Burpee is an Emergency Manager, Federal Emergency Management Agency, Argyle, TX.

Keywords

COVID-19; Public health preparedness/response; Tribal Nations; CDC deployments; Contact tracing; Vaccination

During the COVID-19 pandemic, the Mashpee Wampanoag Tribe of southeastern Massachusetts requested US federal government assistance. The tribe collaborated successfully with many partners in response to the COVID-19 pandemic. In this case study, the authors describe the tribe's collaboration with a team from the Centers for Disease Control and Prevention who assisted with epidemiology, case investigation and contact tracing, infection prevention and control, community prevention measures, and vaccination. Collaborative efforts resulted in over 200 public service announcements and videos produced, 55 tribal staff trained, 222 people followed up for contact tracing, 80% of tribal members vaccinated, and 5 COVID-19 response plans written. Deployment response teams learned elements essential to partnering with a Native American tribe. This successful partnership during a rapidly evolving pandemic suggests the US federal government and tribal nations can work together effectively to build response capacity for future infectious disease threats.

Introduction

The US Department of Health and Human Services declared COVID-19 a public health emergency on January 31, 2020. On March 11, 2020, the World Health Organization declared COVID-19 a pandemic. COVID-19 cases expanded rapidly across the United States and the world. In the United States, indigenous communities were known early in the pandemic to be disproportionately affected.

The Mashpee Wampanoag Tribe (MWT) in Cape Cod, Massachusetts, includes 2,934 tribal members and their households. With 2 full-time staff and occasional volunteers, the MWT Emergency Management Department (EMD) serves up to 6 million visitors to the historic lands of MWT each year. MWT also hosts an Indian Health Service (IHS) clinic, the Mashpee Wampanoag (MW) Health Service Unit, whose primary role is providing medical and dental services to tribal members. In early 2020, the COVID-19 pandemic led to a greatly expanded scope of work for MWT EMD and the MW Health Service Unit. The MWT community was especially vulnerable to severe outcomes due to the high percentage of community members with comorbidities, limited staff at the tribal EMD and Health Service Unit, and a lack of formal pandemic response training among incident management team members, although they were experienced in mitigating severe weather and maritime emergencies.

MWT EMD collaborated successfully with many partners to expand its COVID-19 response. Two key partnerships were MWT's collaboration with the Centers for Disease Control and Prevention (CDC) and the Federal Emergency Management Agency (FEMA). In this case study, we describe MWT's collaboration with the CDC in response to the COVID-19 pandemic.

Methods

On March 20, 2020, the CDC COVID-19 response team created a State, Tribal, Local, and Territorial Task Force that included a Tribal Support Section to provide technical assistance to tribal nations. The CDC recognizes that tribes are sovereign nations with a government-to-government relationship with the US federal government. In addition, tribal members are residents of the state of Massachusetts as well as local towns, such as Mashpee, Barnstable, and Sandwich, and counties, such as Plymouth and Bristol. Therefore, MWT maintains close working relationships with state and local governments through regular calls, meetings, and emails. Tribal nations have inherent public health jurisdiction and authority to enact measures to manage public health emergencies. Various tribal nations requested and received CDC deployments over the course of the COVID-19 pandemic.⁵

The CDC's Tribal Support Section initially engaged with tribal entities upon request from tribes or tribal organizations, IHS, or outreach based on rising case numbers. If indicated, tribal leadership sends a letter of invitation to the CDC, which initiates a deployment to the field or remote assistance. CDC deployment teams are matched by the subject matter expertise requested by the tribal nations and as necessary for the specific response.

The majority of MWT's 2,934 tribal members and their households live in a 5-county health service delivery area including Barnstable, Plymouth, Bristol, Norfolk, and Suffolk counties in southeastern Massachusetts. Similar to American Indian and Alaska Native populations broadly, many tribal members have medical comorbidities.^{6,7} Approximately 20% of MWT members are considered elders (aged 55 years or older).

MWT EMD collaborated with many partners that provided support (Table 1). On June 2, 2020, the CDC received an invitation letter from MWT to assist in the tribe's COVID-19 response. The CDC deployed staff in June-July 2020, August-September 2020, and November-December 2021 to assist with the tribe's COVID-19 response. At the time of the CDC's initial deployment, MWT EMD and the MW Health Service Unit were already busy implementing COVID-19 disease control measures and caring for the sick. CDC deployers with expertise in clinical medicine, emergency management, infection prevention and control, and communication provided additional technical assistance within an incident command structure, while being cognizant that the tribe possessed limited personnel and data sources. This activity was reviewed by the CDC and was conducted in accordance with applicable federal law and CDC policy.^{8–12}

Results

The CDC supported the following deployment mission and priorities in collaboration with MWT EMD and the MW Health Service Unit: epidemiology, contact tracing and investigation, infection control prevention, community prevention measures, and vaccination (Box 1). Three sets of 2-person teams were deployed in 2020 and 2021, with a returning deployer to provide continuity in 2021. The teams focused on emergency preparedness and response in 2020 and vaccination in 2021 when vaccines were available. They had access to CDC headquarters via liaison officers and subject matter experts through daily and biweekly calls and situational reports. In addition, CDC teams assisted the tribe with the development of scientifically accurate health information and helped in identifying various modes of communications such as multimedia outreach (eg, social media, videos, radio, flyers, tribe website) (Table 2). MWT EMD and the MW Health Service Unit, in turn, helped the CDC understand how to tailor messaging to their community in a way that was culturally appropriate. Health communications activities were embedded in other mission priorities (eg, community prevention measures, vaccination) and are discussed in the context of those activities.

Epidemiology

CDC deployers recognized that tracking basic case counts and coordinating with local, county, and state health departments is critical. In addition, tribes with smaller populations like MWT may face challenges in developing and maintaining advanced epidemiologic capabilities. MW Health Service Unit providers determined the need for testing, collected nasopharyngeal swabs at a drive-through site, and maintained all COVID-19 testing in a separate log in the MW Health Service Unit clinic laboratory. Providers reported positive test results daily to the Massachusetts Department of Public Health (MDPH), which entered the results into a state database.

CDC deployers augmented this activity by creating inexpensive tools for tracking COVID-19 testing (daily counts) and inventory of personal protective equipment (PPE) logs and updating the weekly MWT situation reports with MWT activities of interest, case counts, reported deaths, and test numbers. The team also assisted the MW Health Service Unit in developing and revising data tables for COVID-19 quality improvement project reports for decisionmaking.

Case Investigation and Contact Tracing

In addition to assisting with basic epidemiology, CDC deployers supported the fundamental activities of case investigation and contact tracing. This involved working with and monitoring individuals diagnosed with COVID-19 and identifying and providing support to contacts of infected persons (Table 2). CDC deployers reviewed the tribal contact tracing methodology, provided additional training in contact tracing, and worked to ensure that these efforts were integrated with the MDPH, while maintaining tribal sovereignty. The CDC Text Illness Monitoring system was later used by MWT EMD to monitor illness among tribe members. CDC teams also helped MWT to prepare for scale-up of case investigation and contact tracing should the need for surge capacity arise. This involved specifying job tasks for designated staff and identifying external support resources.

During the initial assessment, CDC deployers identified 3 main issues:

1. MWT did not know if tribal members who tested at a site other than the MW Health Service Unit were positive for COVID-19.—Regina Marotto-Benjamin, FEMA Region 1, Tribal Liaison Officer, explained, "Unless Tribal members are tested at an IHS clinic [...] there is no way of accurately tracking positivity rates among the tribal community." As a way to address this issue, MWT EMD sent the following message to MWT members:

If you have tested positive at a testing site other than the Mashpee Wampanoag Indian Health Service Unit (IHS), then please consider sharing your test results with IHS at [...], so that the tribe is able to better understand the outbreak in our community as it compares to the overall state testing numbers.

The message was disseminated through a digital tribal newsletter, *Nashauonk Mittark*, and partners including the Visiting Nurses Association of Cape Cod (VNA) and the COVID-19 Community Tracing Collaborative (CTC).

To improve the coordination of case ascertainment, the CDC and MWT EMD engaged in calls with numerous implementing partners, working partners, colleagues, and contributors, including the Barnstable County Department of Health and Environment, Massachusetts Emergency Management Agency, MDPH, Town of Mashpee Health Agent, VNA, and Partners In Health. The CDC reviewed provider case reporting via the MDPH Massachusetts Virtual Epidemiologic Network (MAVEN), a statewide database of epidemiological, clinical, laboratory, and case management data for approximately 90 reportable infectious diseases.

Using line lists obtained from MWT, VNA, and CTC, a crosswalk of MWT data was conducted by the CDC and MWT EMD on towns and counties where tribal members live compared with data reported by VNA and CTC. The CDC team found that cases followed by the MW Health Service Unit, VNA, CTC, towns of Mashpee, Barnstable, and Sandwich, and counties of Plymouth and Bristol captured the vast majority of MWT members. This was reassuring as it indicated that cases were not being lost to follow-up, which could have contributed to ongoing transmission. At worst, some individuals might have been contacted twice, by tribal and state channels, which could have reinforced reminders to stay home while sick. If substantial gaps had been identified, more intensive follow-up efforts would likely have been required to ensure that no cases were missed.

2. MW Health Service Unit clinic staff needed to plan for contact tracing surge staffing.—The MW Health Service Unit clinic staff preferred to do their own follow-up with positive cases and possible contacts whenever possible. The MW Health Service Unit clinic staff demonstrated the importance of their extensive familiarity with tribal patients and knowledge of the local culture in contact tracing. CDC deployers provided additional training in contact tracing and a plan for surge staffing. In coordination with MWT, CDC deployers organized and led an initial 2-hour training of trainers in contact tracing with 11 IHS and 2 MWT participants on July 8, 2020. The training was conducted outdoors to set an example of social and physical distancing. The training included didactic and interactive role-playing components. Subsequent CDC deployers updated the training to include new information on case investigation and the importance of prioritizing case investigation and contact tracing. MWT posted the training presentation on its website for other tribes to access. CDC deployers also developed a Microsoft Excel-based contact tracing log for easier tracking and analysis and revised scripts to improve patient confidentiality.

In addition to follow-up of positive cases and possible contacts by the MW Health Service Unit clinic staff, MAVEN notifies the local board of health of positive results from their area residents. The local board of health can then choose to conduct contact tracing themselves, delegate it to VNA, which was contracted to handle contact tracing for 17 nearby communities, or delegate it to CTC. The MDPH had contracted with the nonprofit Partners In Health to create the CTC, which utilized 1,000 staff and volunteer contact tracers from schools of public health, colleges, and universities. ¹⁴ CTC provides surge contact tracing support to the MDPH when needed. In addition, CDC deployers connected both MWT EMD and the MW Health Service Unit with the Learning Collaborative, "an open partnership between PIH [Partners In Health] and US public health entities aimed at sharing lessons, developing custom frameworks, and rapidly mounting contact tracing efforts and effective public health responses to fight the COVID-19 pandemic, focusing on the needs of the most vulnerable." MWT EMD and the MW Health Service Unit also connected with VNA to further improve coordination.

3. MWT EMD needed to assist tribal members who were isolated and quarantined.—The CDC supported MWT EMD to assist with basic needs (eg, groceries, regular medications) for those undergoing isolation and quarantine. "One of the first things

I did was to rent a hotel," the MWT EMD director noted, "and asked the manager, 'Can we use this hotel to quarantine?" ¹³ MWT EMD identified local volunteer and faith-based resources, including the American Red Cross, the Church of Jesus Christ of Latter-day Saints, and Salvation Army volunteers, to support community prevention measures activities and help meet the basic needs of elders and homeless tribe members isolating in noncongregate shelter motels under MWT EMD's FEMA program. The CDC assisted MWT EMD with messaging through the *Nashauonk Mittark* newsletter, VNA, and CTC to inform tribal members where to go if they needed assistance during isolation and quarantine. The CDC team also provided advice and online resources to the IHS chief executive officer and MWT EMD to assist with management of tribal members experiencing homelessness. ¹⁶

Infection Prevention and Control

The FEMA Region 1 warehouse shipped PPE to MWT, which consisted of approximately 13,000 cloth face coverings, 6,000 procedural masks, 26,000 nitrile gloves, 5,000 bottles of hand sanitizer, 8,330 N95 respirator masks, and 5,370 KN95 respirator masks. 13 The CDC supported training of tribal staff in infection prevention strategies, including technical assistance to the MW Health Service Unit regarding specific clinical scenarios and infection prevention control considerations in those instances. The CDC also conducted informal question-and-answer sessions for other healthcare staff, such as dental hygienists. In addition, the CDC worked with the IHS safety officer and Transportation Unit on safety protocols and best practices, such as safe non-EMS medical transport for those with or suspected of having COVID-19, and the proper decontamination of all types of facilities and non-EMS transport vehicles. This training was also provided to MWT Transportation Department staff. The team provided trainings for MWT Indian Child Welfare Act staff on topics such as the use of PPE, meal preparation, and caring for individuals with COVID-19 who are isolating in the household. Planning included infection prevention control for the general tribal community including consultations on the effectiveness of types of face coverings and masks. MWT and the CDC worked together to determine how to safely engage in cultural ceremonies and rituals with the tribe, community, and visitors.

Community Prevention Measures

The CDC team provided technical assistance for community prevention measures within the tribal community, aligning activities with the MDPH efforts while maintaining tribal sovereignty. At the start of the pandemic, MWT EMD closed tribal facilities and paused tribal activities. MWT EMD elected to take a cautious approach in a phased reopening and transition to normal tribal operations. CDC deployers reviewed the MWT EMD phased COVID-19 plan for reopening, which summarized returning to the workplace, and assisted with steps in the implementation process (Table 3). For example, the July 2020 Phase 2C reopening of the MWT Community and Government Center involved several prevention measures including staggering shifts, maximizing remote work, rotating staff schedules to maintain physical distancing, and leveraging technology to minimize in-person contact. Vulnerable employees continued to work remotely, council meetings were held virtually or via conference calls, and nonessential services remained on hold. Key leaders were allowed to designate 2 staff members to reenter by appointment 2 days per week. Essential vendors, such as building and maintenance crew, could also enter by appointment only for a limited

time in buildings, in conjunction with temperature checks, mandatory use of facemasks, facilities being sanitized periodically, and staff distancing at least 6 feet apart. Custodial staff were onsite to clean and disinfect building spaces. The CDC deployment team developed and implemented a COVID-19 screening tool and sticker system for use by the MWT Community and Government Center staff to be used by all staff and visitors, with plans to transition from a paper format to an electronic version. The subsequent CDC deployment team provided technical assistance for the implementation of an electronic version of the screening tool.

Careful consideration was given to the reopening of tribal schools and courts. After discussions with the school and tribal court staff, the CDC team updated the inventory list of items needed for the classroom and courtroom spaces and included instructions for cleaning and disinfecting. CDC deployers assisted MWT EMD with drafting public service announcements (Figure) before the 2020 Labor Day holiday, provided content material and language for the tribal newsletter, and assisted with communications to tribal council members. For example, when an official MWT pow wow event,* originally scheduled for July 4, 2020, was canceled, MWT EMD received word that an unofficial pow wow was being planned. MWT took a proactive approach by rapidly posting a public service announcement on COVID-19 prevention measures through the Nashauonk Mittark newsletter, text messages, e-blasts, and posting on the tribe's Facebook page (Box 2). In addition, an internal document, Tribal Court Reopening Considerations and Recommendations, was developed for use by the MWT EMD director and tribal court staff. The CDC deployment team and MWT EMD also provided technical assistance and discussed reopening with staff of the Wôpanâak Language Reclamation Project. This project is a collaborative effort of the Assonet Band of Wampanoag, MWT, the Wampanoag Tribe of Aquinnah, and the Herring Pond Band of Wampanoag. Students of the language school are immersed in Wampanoag language and culture with the goal of fostering academic excellence, leadership skills, and a strong sense of personal, community, and cultural pride. 18

Rapidly changing guidelines on COVID-19 prevention measures presented challenges. CDC deployers assisted with practical adjustments to regular operations in the Community and Government Center, schools, and community venues. For example, deployers created actionable checklists for rapid response actions, updated data collection and management methods, and implemented new avenues for public health communication. During a tribal elder's funeral, the team set up hand sanitizer stations, supplied masks and hand sanitizer bottles, set up air purifiers, placed retractable belt barriers to limit crowds and keep the traffic flow moving (eg, one direction for incoming and another direction for outgoing), and set up speakers for those who preferred to remain outside the building.

Vaccination

1. The MW Health Service Unit clinic and MWT EMD staff began planning for vaccination before specific information was available.: COVID-19 vaccination required

^{*}The term pow wow derives from Pau Wau, meaning "medicine man" in Narrtick, a language spoken by the Algonquian peoples in Massachusetts. ¹⁷

early planning, prior to the vaccine becoming available. The internal MWT EMD *Pandemic and Disease Outbreak Plan* developed in July 2020 recognized that the success of a vaccination program would be determined in large part by the strength of tribal, local, and state vaccination activities and public information efforts. Tribal Councilman and MWT EMD Director Nelson Andrews Jr. began preparing the tribe for the vaccination effort through public statements even before vaccine was available: "We're at a critical point in this pandemic," Andrews said. "The surge continues to get worse each week. We must continue to follow the basic public health measures and to wear our masks. And not get COVID fatigue. And when the vaccine becomes available, take advantage of it." 19

Prior to vaccine availability, much advance planning was needed. For the large-scale vaccination effort, MWT EMD coordinated with the MW Health Service Unit and other healthcare partners to plan efficient and safe vaccine delivery. Some vaccines must be maintained within a certain temperature range, or they lose their effectiveness and cannot be used. Vaccine temperatures therefore had to be maintained during transport and confirmed upon arrival, with the vaccine properly stored at the receiving site. This process requires well-trained staff, reliable storage and temperature monitoring equipment, and accurate vaccine inventory management. Similarly, a plan for large-scale distribution must be in place, including coordination with local, state, and federal partners. The plan also needs to determine how the tribe would receive the vaccine, the type of storage needed to receive the shipment, the MW Health Service Unit back-up plans for generator power, fuel, and maintenance for vehicles, as well as crowd control and security. Plans for mass vaccination would need to account for priority groups, projected vaccine supplies, timeliness, and availability, and public education to familiarize people with the safety profile and benefits of vaccination. The response also needed a plan to report and investigate adverse events in conjunction with the Vaccine Adverse Event Reporting System²⁰; a call-back system to inform vaccinated persons of the need for a second and booster vaccinations, tracking of vaccine supply and distribution, and data collection.

2. When COVID-19 vaccines became available, MWT addressed vaccine hesitancy and misinformation in the tribal community.: When COVID-19 vaccines became available, vaccine hesitancy and misinformation were important issues to address in the tribal community. Generational distrust and skepticism of the government was one contributing factor. The CDC deployment team met informally with tribal members, who provided insights about vaccine hesitancy. While some were hesitant, others were enthusiastic and proudly proclaimed that they were fully vaccinated per the latest CDC recommendations.

Tribal Councilman Brian Weeden observed that "many tribal members are uncertain about getting the vaccine. They are skeptical, not just because the vaccine is in its early stages of distribution, but also because the federal government has a long history of badly treating Native Americans and other minorities." Councilman Weeden further stated: "Other tribes across the country feel hesitant about taking the vaccines, but at the same time, COVID-19 is hitting them hard. That's why we were one of the first ones to receive it. Because it's affecting minorities and Indian Country."

The CDC and MWT EMD worked together on community COVID-19 vaccine information sessions to dispel misinformation and misunderstandings. One such misconception was that the vaccine would transmit live virus and result in an active infection. Another common misconception was that vaccination would be unnecessary for those who had previously been infected with the virus. Some tribal community members noted that they were waiting to get vaccinated after getting sick with COVID-19. CDC personnel assured them that vaccination is intended to reduce the severity of outcomes for those who do contract the virus, and to slow transmission of the virus throughout the community (Box 3). Many tribal members expressed more concern for the health of family members or friends than for their own health. For them, the primary reason for seeking vaccination was to protect others.

3. COVID-19 vaccination was provided to much of the MWT community.: In Massachusetts over 84% of eligible residents are fully vaccinated and over half of adults boosted.²³ Although MWT vaccination is not directly comparable to vaccination coverage in other tribes because tribal affiliation is not a standard field collected in electronic health records,²⁴ MWT attained comparable vaccination coverage to the rest of

Massachusetts (Nelson Andrews, Jr. MWT Emergency Management Department Director, personal communication, October 20, 2022).

Discussion

With assistance from the CDC and other partners, MWT successfully mitigated many impacts of the COVID-19 pandemic. With the help of MWT EMD, CDC deployers adjusted their procedures after learning about the local culture, which improved the quality and acceptance of their work overall. The CDC collected several lessons learned, which may translate to other tribal settings as well as small nontribal rural towns and municipalities.

First, MWT EMD benefited greatly from having senior tribal personnel with experience in emergency management and public health, including the MWT EMD director who had experience in emergency management with FEMA. Although his job experience was in disaster relief, during the COVID-19 pandemic he was able to pivot to public health matters. As a trusted member of the community, tribal members felt confident reaching out to him. Other tribes might identify opportunities for tribal members to gain experience through training or working with agencies like FEMA or the CDC (eg, Ferguson RISE Fellowship).²⁵

Second, MWT looks for opportunities to share with other tribes, particularly tribes with smaller populations and who are not federally recognized. MWT EMD staff have presented at numerous local, national, and international organizations, such as the Pukúu Wellness Event, BBC World News, National Congress of American Indians, and the United South and Eastern Tribes, on preparedness activities such as setting up an emergency management department, writing grants, and securing COVID-19 supplies. As a result, the tribe's network of peers has expanded. Other tribes with emergency response experience might look for opportunities and forums to share experience and materials with one another.⁵

Third, while adhering to overall mission parameters is essential, there is also a need for CDC deployers to be flexible and able to adapt in the field to an evolving response. The initial CDC mission objectives were limited to community prevention measures, epidemiology and surveillance support, health and risk communications, and protocol review. However, during the deployments, MWT leaders proposed additional activities to prevent the spread of COVID-19. For example, the CDC team assisted MWT EMD in distributing PPE supplies to tribal elders. While distributing PPE was not explicitly stated in mission objectives, it was consistent with public health practice, demonstrated commitment to the wellbeing of tribal members, and was of practical benefit because MWT EMD was very short-staffed. CDC deployment teams maintained close contact with CDC headquarters, typically meeting virtually every day or several times per week. This helped to ensure that activities could be adapted but still aligned with overall mission parameters and CDC goals. While CDC deployers were able to provide technical expertise, it was also essential to have a professional and culturally sensitive attitude and be willing to learn about the tribe's values. It is also important for federal deployers to be onsite with the community, engage and interact with community members, and demonstrate interest in the tribe's work, health, and wellbeing, and how COVID-19 has impacted them. As discussed earlier, a CDC deployer evaluated and advised on modifications to the facility where a tribal elder's funeral was held to reduce the potential for transmission according to CDC guidelines. This helped build rapport and trust with tribal members.

Last, the COVID-19 pandemic has shown that every jurisdiction must be ready and prepared to respond to a new or existing infectious disease threat. The CDC's Division of Preparedness and Emerging Infections, Emergency Preparedness and Response Branch, has proposed a pilot program to work with tribal health departments to strengthen response capacity for future pandemics and infectious disease outbreaks. Activities may involve developing or updating preparedness plans, conducting exercises to test response plans, and increasing collaboration between public health and law enforcement in response to intentional biological threats. As the MWT EMD director, Nelson Andrews Jr., stated: "Having the leaders in public health at our tribe available to assist in our efforts, while in the midst of this very serious and on-going pandemic, has been a major blessing and helps to provide hope and professional guidance." 26

Conclusion

This successful partnership during a rapidly evolving pandemic suggests the US federal government and tribal nations can work together effectively to build response capacity for future infectious disease threats.

Acknowledgments

The authors thank Rita Gonsalvas, Dr. Kelsey Simm, Dr. Jose Molinar, Dr. Neil Borja, Dr. Edward Avant, Talia Landry, Vaira Harik, Rachel Fleck, Liz Foley, Sean O'Brien, Chrystal LaPine, Lesley McKeen, Dr. Nitana Greendeer, Elaine Sargent-Crooks, Dr. Tempestt Evans, Desire Hendricks-Moreno, Glen Harrington, Meg Payne, John Welch, Katie Bollbach, Elissa Lopez, NeKeisha Peters, Darlene Scott, Dr. Paul Park, Brittany Sunshine, LT Amy Pullman, Kay Hogue, Kellie White, Rebecca Albert, Dr. Seh Welch, Pasha Diallo, Courtney Emerson, Jovanni Reyes, Dr. Dawn Satterfield. We would also like to thank the following collaborating partners: Indian Health Service (IHS), Federal Emergency Management Agency (FEMA), AmeriCorps, Barnstable County Department

of Health and Environment, Barnstable County Schools, Massachusetts Department of Public Health, Partners In Health, United South and Eastern Tribes (USET), The Mashpee Wampanoag Emergency Management Department, The Mashpee Wampanoag Health Service Unit, The Mashpee Wampanoag Tribal Court, The Mashpee Wampanoag Food Pantry, The Mashpee Wampanoag Tribal Transportation Program, The Wôpanâak Language (Wampanoag Language) Reclamation Project, The Nashauonk Mittark, MashpeeTV. The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

References

- US Department of Health and Human Services, Administration for Strategic Preparedness and Response. Determination that a public health emergency exists. Accessed April 4, 2023. https://aspr.hhs.gov/legal/PHE/Pages/2019-nCoV.aspx
- World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. Accessed April 4, 2023. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020
- 3. Hatcher SM, Agnew-Brune C, Anderson M, et al. COVID-19 among American Indian and Alaska Native persons—23 states, January 31–July 3, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(34):1166–1169. [PubMed: 32853193]
- US Centers for Disease Control and Prevention. Work Plan for Mashpee Wampanoag Tribe Support for COVID-19, June 2020.
- 5. Kaur H, Welch S, Bhairavabhotla R, et al. Partnership between a federal agency and 4 tribal nations to improve COVID-19 response capacities. Public Health Rep. 2022; 137(5):820–825. [PubMed: 35658738]
- 6. US Centers for Disease Control and Prevention (CDC). National Diabetes Statistics Report 2020: Estimates of Diabetes and Its Burden in the United States. Atlanta, GA: CDC; 2020. Accessed November 21, 2022. https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetesstatistics-report.pdf
- 7. Scarton L, Nelson T, Yao Y, et al. Medication adherence and cardiometabolic control indicators among American Indian adults receiving tribal health services: protocol for a longitudinal electronic health records study. JMIR Res Protoc. 2022;11(10):e39193. [PubMed: 36279173]
- 8. Protection of Human Subjects. 45 CFR §46 (rev 2019).
- 9. Institutional Review Boards. 21 CFR §56 (rev 2017).
- 10. Research and Investigations Generally. 42 USC §241 (rev 2021).
- 11. Records Maintained on Individuals. 5 USC §552a (rev 2022).
- 12. Federal Information Policy: Purposes. 44 USC §3501 (rev 2022).
- Federal Emergency Management Agency. One tribal nation winning against COVID. Published December 2, 2020. Accessed October 18, 2022. https://www.fema.gov/press-release/20220721/ one-tribal-nation-winning-against-covid
- 14. Barlow E How Massachusetts became first in nation to contact trace.

 Harvard Catalyst. Published July 9, 2020. Accessed July 28, 2022. https://
 catalyst.harvard.edu/news/article/how-massachusetts-became-first-in-nation-to-contact-trace/
 #:~:text=Thanks%20in%20part%20to%20behind,virus%20that%20causes%20COVID%2D19
- 15. Partners In Health. PIH to support COVID-19 response across U.S. May 13, 2020. Accessed April 5, 2023. https://www.pih.org/article/pih-support-covid-19-response-across-us
- 16. US Centers for Disease Control and Prevention. Guidance on management of COVID-19 in homeless service sites and in correctional and detention facilities. Updated November 29, 2022. Accessed April 4, 2023. https://www.cdc.gov/coronavirus/2019-ncov/community/homeless-correctional-settings.html
- 17. Hoffmeyer L American Indian powwows: multiplicity and authenticity. Smithsonian Center for Folklife and Cultural Heritage. Accessed August 3, 2022. https://folklife.si.edu/online-exhibitions/american-indian-powwows/smithsonian
- 18. Wôpanâak Language Reclamation Project. Accessed July 28, 2022. https://www.wlrp.org/home

Hill J Mashpee Wampanoag Tribe receives COVID-19 vaccines.
 Cape Cod Times. January 1, 2021. Accessed October 17,
 2022. https://www.capecodtimes.com/story/news/2021/01/01/mashpee-wampanoag-tribe-has-received-its-covid-19-vaccines-key-now-convincing-members-take-them/4078620001/

- 20. US Centers for Disease Control and Prevention. Vaccine Adverse Event Reporting System (VAERS). Reviewed September 8, 2022. Accessed November 23, 2022. https://www.cdc.gov/vaccinesafety/ensuringsafety/monitoring/vaers/index.html
- 21. US Centers for Disease Control and Prevention. Eagle Books. Updated December 30, 2022. Accessed April 19, 2023. https://www.cdc.gov/diabetes/ndwp/eagle-books/index.html
- 22. US Centers for Disease Control and Prevention. The Star Collection. Updated September 20, 2021. Accessed April 19, 2023. https://www.cdc.gov/injury/tribal/starcollection/index.html
- 23. Massachusetts Department of Public Health COVID-19 Dashboard. Weekly COVID-19 vaccination report. Published March 29, 2023. Accessed April 4, 2023. https://www.mass.gov/doc/weekly-covid-19-vaccination-report-march-29-2023/download
- 24. Kriss JL, Hung M-C, Srivastav A, et al. COVID-19 vaccination coverage, by race and ethnicity national immunization survey adult COVID module, United States, December 2020–November 2021. MMWR Morb Mortal Wkly Rep. 2022;71(23):757–763. [PubMed: 35679179]
- 25. Kennedy Krieger Institute. James A Dr. Ferguson Emerging Infectious Diseases Research Initiatives for Student Enhancement (RISE) Fellowship Program. Accessed July 28, 2022. https://www.kennedykrieger.org/training/programs/center-for-diversity-in-public-health-leadership-training/ferguson-rise
- 26. Mashpee Wampanoag Tribe. The Center for Disease Control and Prevention (CDC) visit the Mashpee Wampanoag Tribe Emergency Operations Center (EOC). Published August 1, 2020. Accessed October 14, 2022. https://mashpeewampanoagtribe-nsn.gov/august-2020-mittark-blog/ 2020/8/1/the-center-for-disease-control-and-prevention-cdc-visit-the-mashpee-wampanoag-tribeemergency-operations-center-eoc

Box 1.

At a Glance: Mashpee Wampanoag Tribe Collaborative Activities, COVID-19 Response, 2020–2021

Epidemiology

- The Mashpee Wampanoag Health Service Unit providers determined the need for testing, collected nasopharyngeal swabs at a drive-through site, and reported positive test results to the Massachusetts Department of Public Health.
- The Centers for Disease Control and Prevention (CDC) deployers created tools for tracking COVID-19 testing (daily counts) and inventory of personal protective equipment logs and data tables for COVID-19 quality improvement project reports for decisionmaking.

Case Investigation and Contact Tracing

- CDC deployers reviewed the tribal contact tracing system to ensure these
 efforts were integrated with the Massachusetts Department of Public Health,
 while maintaining tribal sovereignty.
- The CDC Text Illness Monitoring system was introduced to monitor illness among tribe members.

Infection Prevention and Control

- CDC supported training of tribal staff regarding specific clinical scenarios and infection prevention control.
- The Mashpee Wampanoag Tribe helped CDC learn about cultural ceremonies and rituals, and deployers were able to work together to determine how to safely observe these activities.

Community Prevention Measures

- At the start of the pandemic, the Mashpee Wampanoag Tribe closed tribal facilities and paused tribal activities. The tribe elected to take a cautious approach in a phased reopening and transition to normal tribal operations.
- Rapidly changing COVID-19 prevention measures guidelines presented a challenge. CDC deployers assisted in practical adjustments to regular operations in the government center, schools, and community venues.

Vaccination

- CDC recognized that the Mashpee Wampanoag Tribe Emergency
 Management Department would need to plan an efficient and safe delivery
 of vaccines, account for priority groups, project vaccine supplies, ensure
 timeliness and availability, and promote public awareness.
- Vaccine hesitancy and misinformation were important issues in the tribal community. Many tribal members expressed concern for family members or

friends above concerns for their own health. For them, the primary reason for seeking vaccination was to protect others.

Box 2.

Mashpee Wampanoag Tribe Emergency Management Department Public Service Announcement, 2020

"4th of July Safety Guidance During the COVID-19 Pandemic. COVID-19 is still with us and various regions within the U.S. currently have high case counts. It is important to adopt prevention measures to protect yourself, help protect our elders, and to reduce the spread of COVID-19. Interacting with more people, being in a group with people who aren't physically distancing or wearing cloth face coverings and engaging with new people who don't live with you can all raise your risk of infection. If you decide to cook out or celebrate this weekend, we recommend sticking to small groups of family or friends, wearing masks or cloth face coverings, and practicing physical distancing and good hand hygiene. Stay safe and have an enjoyable Holiday Weekend."

Note: Posted on the Mashpee Wampanoag Tribe - Emergency Preparedness Facebook page on July 3, 2020. https://www.facebook.com/mwteprep

Box 3.

Mashpee Wampanoag Tribe Vaccination Event, COVID-19 Response, 2020–2021

The Centers for Disease Control and Prevention (CDC) deployment team and the Mashpee Wampanoag Tribe (MWT) Emergency Management Department (EMD) worked together to plan a virtual community COVID-19 vaccine information session starting on November 29, 2020, followed by a vaccination event on December 1, 2020. Communication with community members required multiple avenues and media. Announcements were made through community newsletters, group email lists, postings in government buildings, and physical signage. The CDC team provided resources for official guidance as well as web resources and videos. The CDC team also secured donated COVID-19 handwashing topic-focused coloring books, crayons, *Eagle Books*, ²¹ and Star Collection Books²² for a CDC story time event, and for handing out to children in the community. In addition to these communications and materials, messages were displayed on the monitors at the MWT Community and Government Center. The center staff volunteered to be featured on the monitors located in the foyer of the building. These staff members provided a photo and brief vaccination testimonial. The CDC team assisted with the development of a school flyer and provided regular event announcements and updates. The flyer was sent to the superintendent of schools for the children to sign up for their pediatric COVID-19 vaccine with the Mashpee Wampanoag Health Service Unit and Indian Health Service.

Prior to the vaccination event, a public COVID-19 fall/winter Q&A meeting was held on Zoom. Discussion topics included booster shots, COVID-19 doses and vaccination options, and recommendations for children and pregnant women. Several participants asked questions and shared their own experiences. Personnel from CDC and the Indian Health Service answered general questions or arranged to discuss personal questions privately.

The vaccination event was staged as a multiple-tent drive-through process where adults received their second dose or booster shot, which took place during the afternoon. Pediatric vaccination took place during the late afternoon and evening inside the clinic after the adult event. The visibility of the event encouraged many others to attend, who may not have known about it. Participants received a customized tribal participation sticker created by CDC staff that stated: "I Got My COVID-19 Vaccine."

A deployer supported the post-vaccination and monitoring of attendees at the Mashpee Wampanoag Health Service Unit/Indian Health Service and distributed donated items to participants. A second virtual COVID-19 informational session took place on January 4, 2021, where CDC personnel were on hand to answer questions. This virtual meeting was intended to encourage children, teens, and adults to get their second COVID-19 vaccine dose and other vaccinations including influenza.



Figure.

Mashpee Wampanoag Tribe Public Service Announcement, COVID-19 Response, 2020–2021. The Centers for Disease Control and Prevention team provided technical assistance to the local public station, MashpeeTV, using principles from the evidence-based stages of change model to inform public service announcements and educational videos. They accompanied Mashpee Wampanoag Health Service Unit Medical Director Dr. Jose Molinar.

Table 1.

Author Manuscript

Author Manuscript

Mashpee Wampanoag Tribe COVID-19 Key Collaborating Partners, 2020-2021

Collaborating Partners	Description and Contributions
Indian Health Service	This agency, within the US Department of Health and Human Services, is responsible for providing federal health services to American Indians and Alaska Natives.
Federal Emergency Management Agency	This government agency supports people before, during, and after disasters. Contributions to the MWT include support and supplies.
AmeriCorps	This organization is an independent agency of the US government dedicated to strengthening communities. Contributions to the MWT EMD include support on safety and public health projects.
Barnstable County Department of Health and Environment	The department provides services that promote public health and environmental protection to its community.
Massachusetts Department of Public Health	The MDPH provides healthcare services and promotes the health and wellbeing of its community.
Partners In Health	This international nonprofit organization provides high-quality healthcare globally to those who need it most. Contributions to the MWT EMD include a Community Tracing Collaborative, COVID-19 training schedule, and Learning Collaborative.
Mashpee Wampanoag Health Service Unit	The mission of the Mashpee Wampanoag Health Service Unit is to provide quality, comprehensive healthcare to the tribal members and their families in a culturally appropriate manner promoting good health, safe lifestyles, wellbeing, and harmony. Contributions include contact tracing, quality improvement project specific to COVID-19, Text Illness Monitoring system, testing processes, vaccination surveys, and vaccination events including town hall meetings.
Mashpee Wampanoag Tribal Court	The Tribal Court serves all tribal members who have a civil or criminal complaint against another tribal person or entity using a judicial process that reflects both tribal traditions and community standards for justice. Contributions include a reopening plan and guidance on cleaning and disinfecting.
Mashpee Wampanoag Community schools	Contributions include flag ceremonies.
The Wôpanâak Language Reclamation Project	The school teaches traditional Wampanoag culture and values through Wôpanâak language immersion for students ages 3 through 10. Contributions include a reopening plan, vaccination survey, guidance on vaccination, and guidance on cleaning and disinfecting.
United South and Eastern Tribes	This nonprofit organization supports the development of Tribal Nations through technical and supportive programmatic services. Contributions include data support and input.
Mashpee Wampanoag Tribe Food Pantry	This unit provides food and supplies to its community members. Contributions include food and supplies to community members, distribution of personal protective equipment, and distribution of information materials.
Mashpee Wampanoag Tribe Public Works Department, Tribal Transportation Program	The Public Works Department provides transportation services to community members. Drivers also transport and deliver supplies to community members as needed. Contributions include transporting community members, transporting supplies, and cleaning, seating, and masking procedures.
Nashauonk Mittark	This is a monthly publication featuring news, culture, events, and programs for the Mashpee Wampanoag Tribe and surrounding community. COVID-19 and public health messages have been included in this newsletter. CDC deployers provided content for these monthly publications.
MashpeeTV	This communication venue is a nonprofit organization that serves as a platform for Mashpee community opinions, events, and information. Early in the pandemic, consistent public service announcements regarding COVID-19, such as masks and physical distancing, were shared on Mashpee TV. A slogan was established: "I wear a mask to protect you, you wear a mask to protect me, we all wear masks to protect our elders."

Abbreviations: CDC: Centers for Disease Control and Prevention; EMD, Emergency Management Department; MDPH, Massachusetts Department of Public Health; MWT, Mashpee Wampanoag Tribe.

Table 2.Mashpee Wampanoag Tribe COVID-19 Response Metrics, 2020–2021

Metric Measured	Number
Number of public service announcement and videos produced	>200
Number of tribal staff trained	55
Number of people followed up through contact tracing	222
Number of plans written (eg, operations plan, tribal court reopening, school reopening)	5

Author Manuscript

Author Manuscript

Table 3.

Mashpee Wampanoag Tribe Phased COVID-19 Plan for Reopening, 2020-2021

Phase 1 Clean and Test	Phase 2A Emergency Essential Employees	Phase 2B Key Leadership	Phase 2C Staggered Shifts	Phase 3 Quarter Staff	Phase 4 New Normal
Disinfect and clean MWT Community and Government Center thoroughly. Emergency essential employees tested in anticipation of Phase 2A.	Center emergency essential employees report to work daily.	Key leaders may reenter Center for 1.5 days per week (by appointment with EMD).	Key leaders may designate 2 staff members to reenter Center for 2 days per week (by appointment with EMD).	Up to 25% of staff may enter Center.	Staffing percentage and staggered dates to be determined by EMD and chairman.
Phase complete when building cleaning is complete and emergency essential employees are COVID-19 negative.	Phase complete when community COVID-19 conditions allow (as determined by EMD and chairman).	Phase complete when community COVID-19 conditions allow (as determined by EMD and chairman).	Phase complete when community COVID-19 conditions allow (as determined by EMD and chairman).	Phase complete when community COVID-19 conditions allow (as determined by EMD and chairman).	Phase continues while COVID-19 case trend stabilizes at very low level.

Abbreviations: EMD, Emergency Management Department; MWT, Mashpee Wampanoag Tribe.