



Inter Tribal Council of Arizona, Inc.

COVID-19 Response and Vaccination Implementation Efforts in the Indian Health Service Phoenix-Tucson Service Area

COVID-19 Vaccination Implementation Efforts in the Indian Health Service Phoenix-Tucson Service Area Report

Prepared in Partnership by:

Inter Tribal Council of Arizona, Inc.

Tribal Epidemiology Center

2214 N. Central Ave.

Phoenix, AZ 85004

Telephone: 602-258-4822

Fax: 602-258-4825

Email: TECinfo@itcaonline.com

Website: www.itcaonline.com/TEC

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Contributions

Publication of this document would not have been possible without the contribution of the following individuals:

Inter Tribal Council of Arizona, Inc. Executive Director

Maria Dadgar, MBA

Inter Tribal Council of Arizona, Inc. Assistant Director

Thomas Throssell, BS

Tribal Epidemiology Center Director

Jamie Ritchey, PhD, MPH

Tribal Epidemiology Center Staff

Melissa Fulton, MPH – *Epidemiologist*

Providence Ishimwe, MPH – *Epidemiologist*

Ehmer Taj, MPH – *Epidemiologist*

Additional Contributors

Cassie Meredith, CHEC-II, AEMT, CNA – Emergency Manager, Paiute Indian Tribe of Utah

Melissa Zito, MS, RN - MZ Consulting

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TO: Tribal Leader and Tribal Health Director

FROM: Inter Tribal Council of Arizona, Inc.
Maria Dadgar, Executive Director

RE: *COVID-19 Vaccination Implementation Efforts in the Indian Health Services
Phoenix-Tucson Service Area Report*

On behalf of the Inter Tribal Council of Arizona, Inc. (ITCA) Tribal Epidemiology Center (TEC), I am pleased to present the *COVID-19 Vaccination Implementation Efforts in the Indian Health Services Phoenix-Tucson Service Area Report*.

This report was prepared in response to the COVID-19 vaccination rollout in Tribal communities within the Phoenix and Tucson Indian Health Service Areas. The TEC utilized publicly available data from the Indian Health Services (IHS) website, PubMed, Google Scholar, and online news outlets to construct the report.

This report highlights the actions taken to distribute and administer the COVID-19 vaccines in the American Indian population within Arizona, Nevada, and Utah.

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Glossary

Abbott ID analyzers – A rapid test machine used to detect infectious disease in a test sample.

Coronavirus Aid, Relief, and Economic Security (CARES) Act (2020) – Federal assistance for American workers, families, small businesses, and industries during the COVID-19 pandemic.

Concept of Operations (CONOPs) – A description of what a project or system will do and why.

Equitable – Fair or impartial.

Families First Coronavirus Response Act (FFCRA) – A law enacted by the United States Congress on March 18, 2020, to address the economic and health impacts of the COVID-19 pandemic. Specifically, it provided small and midsize employers with tax credits for paid leave taken by employees due to a variety of reasons related to COVID-19.

Federal Emergency Management Agency (FEMA) – The agency responsible for organizing the federal government's role in disaster preparation and management.

Hub and Spoke model – A system that has one main place (the hub) that manages and supports several smaller places (the spokes) that are associated to it.

National Immunization Reporting System (NIRS) – A web-based system the IHS used to collect quarterly AI/AN immunization data from health facilities serving AI/AN.

Pandemic – A widespread occurrence of an infectious disease over a whole country or the world at a particular time.

Paycheck Protection Program – A U.S. Small Business Administration (SBA) loan program created by the CARES Act during the COVID-19 pandemic to help small business by covering payroll, rent, utilities, and other eligible expenses.

Provider Relief Fund – A program implemented during the COVID-19 pandemic to support providers in the U.S. to prevent, prepare for, and respond to coronavirus; post-pandemic program activities include overseeing compliance and program integrity.

Surveillance system – A collection of technologies and methods used to monitor and observe something to gather information.

Vaccine Administration Management System (VAMS) – An online tool created by the CDC to manage vaccine administration from the time the vaccine arrives to patient administration.

Veterans Health Administration (VHA) – An integrated health care system for enrolled U.S. military Veterans.

Vaccination Task Force – A global coalition organized to help plan and carry out rapid and equitable vaccine distribution and education.

COVID-19 Response and Vaccination Implementation Efforts in the IHS Phoenix-Tucson Service Areas

Purpose

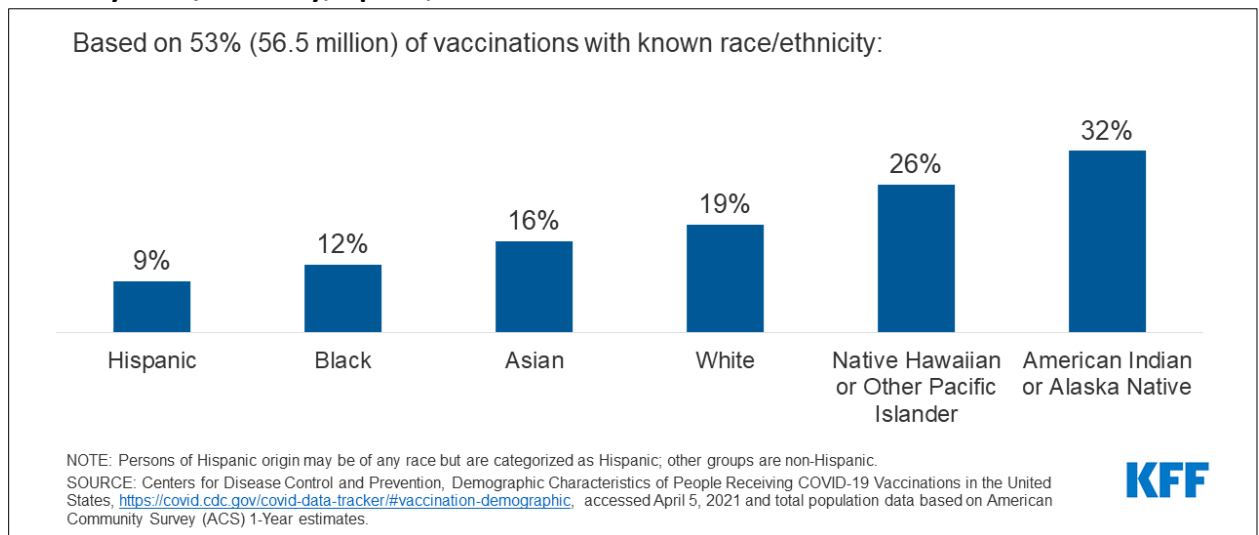
This report reviews the activities, challenges, and outcomes of the COVID-19 response and vaccine implementation in the Indian Health Service (IHS) Phoenix-Tucson Service Area. Publicly available sources were used to gather content for this report. Such sources included IHS reports, local health department dashboards and reports, interviews or email correspondence with Tribal Liaisons, and news outlet interviews from representatives of Tribal health organizations and community members.

Introduction

The COVID-19 pandemic created unique challenges in American Indian and Alaska Native (AI/AN) communities within the IHS Phoenix-Tucson Service Area.¹⁻³ The IHS Phoenix-Tucson Service Area serves numerous Tribes, Colonies, and Bands located in urban, rural, and remote areas across Arizona, Nevada, and Utah.⁴ These communities often experience high rates of underlying health conditions such as diabetes, heart disease, and respiratory illnesses, which make them particularly vulnerable to COVID-19 complications.^{1,2,5} Additionally, the lack of robust healthcare infrastructure, along with geographic isolation, posed further challenges to timely and effective responses.^{1,5-7} The region's success in vaccine deployment was closely linked to Tribal sovereignty, the role of Tribal leaders, and strong coordination between IHS, Tribal health departments, as well as state and federal agencies.^{1,2,8,9}

When the COVID-19 vaccines became available in late 2020 and early 2021, Tribal communities were prioritized for vaccination.^{2,2,10,11} This decision was made due to the higher risks of severe illness and death from COVID-19 faced by AI/AN and the communities' interest in being vaccinated.^{2,5,9,12} A vaccine strategy was developed through a collaborative approach involving the IHS Vaccine Task Force (VTF), the Centers for Disease Control and Prevention (CDC), federal, state, and Tribal partners.^{1,6,9,12} As of early April 2021, significant progress had been made in distributing and administering vaccines to Tribal communities.^{1,9,12} AI/AN vaccination rates surpassed those of other racial and ethnic groups in the U.S. (Figure 1. Percent of Total Population that has Received one or more COVID-19 Vaccination Doses by Race/Ethnicity).^{1,11} IHS and Tribal health authorities coordinated early vaccine distribution to high-risk AI/AN populations.^{1,9,12} These included healthcare workers, elders, and individuals with underlying health conditions.^{1,10} This early prioritization recognized the community's vulnerability and aimed to mitigate the spread and impact of the virus in these high-risk populations.^{10,11}

Figure 1. Percent of Total Population that has Received 1 or More COVID-19 Vaccine Doses by Race/Ethnicity, April 5, 2021



Source: Hill & Artiga, 2021.

COVID-19 PANDEMIC RESPONSE

Plans and Strategies

The pandemic response included interagency operations, preventive measures, treatment strategies, vaccination campaigns, and community engagement in efforts to manage and contain the spread of the virus in these communities.^{1,8,13} IHS played a pivotal role in ensuring the rapid and equitable distribution of COVID-19 vaccines to Tribal communities in the Phoenix-Tucson Service Area.^{9,12,13} Through strategic coordination, IHS distributed \$1.9 billion in funding to IHS, Tribal, and Urban Indian (I/T/U) facilities.^{5,9,12} The funding enabled the facilities to secure, distribute, promote, and administer vaccines.^{5,9,12} IHS leveraged federal resources, such as the Families First Coronavirus Response Act (FFCRA) and the Coronavirus Aid, Relief, and Economic Security (CARES) Act, to ensure a rapid response to the pandemic in Tribal communities.^{5,9,12,13} The focus was on maintaining effective communication, utilizing strategic distribution models, and prioritizing vaccines for the most vulnerable populations.^{9,11,12}

Communication and Coordination

IHS established an Incident Command Structure (ICS) to streamline operations, manage resources, and ensure effective communication.^{9,12} IHS pandemic response plan and disaster plans were implemented in IHS healthcare facilities.^{9,12} IHS COVID-19 Response Concept of Operations (CONOPs) were drafted to coincide with the US COVID-19 Response plan.^{9,12} IHS served as the central point of information for the Indian Health System.^{9,12} Information coordination and sharing between Tribal partners, federal

agencies, and the White House was accomplished through the Indian Health System.^{9,12} A webpage was developed for the surveillance system and COVID-19. It housed vaccine-related information and other pandemic-related resources for public accessibility.^{9,12}

Additionally, IHS worked with the CDC, Federal Emergency Management Agency (FEMA), and other federal agencies to ensure coordination and support for vaccine distribution.^{8,9,12,14,15} They collaborated with Johns Hopkins University and the Veterans Health Administration (VHA) on planning and response efforts, including the deployment of critical resources.^{9,12,15} Extensive efforts were made to raise awareness about COVID-19 through virtual town halls, radio broadcasts, and social media platforms.^{9,12} Local health departments collaborated with Tribal leaders to disseminate accurate information about virus transmission and preventive measures such as mask-wearing, social distancing, and symptoms.^{9,12} IHS used the National Immunization Reporting System (NIRS) to track immunization rates and ensure accountability across participating Tribal and Urban Indian Organizations and other partner facilities.^{9,12} Vaccine administration data was reported to the CDC through the Vaccine Administration Management System (VAMS).¹⁶

Response Activities

IHS

The response to the COVID-19 pandemic focused on prevention, detection, treatment, recovery, and resource management.^{9,12} During the first 100 days of the pandemic, IHS set six goals to accomplish the previously mentioned pandemic response focuses.^{9,12} The critical point was to maintain comprehensive situational awareness across the Indian Health Service (IHS) network.^{9,12} The six goals were: Prevent Spread, Detect Cases, Treat Cases, Support System Recovery, Manage Resources, and Ensure Situational Awareness.^{9,12}

SARS-CoV-2, the virus that causes COVID-19 disease, spread quickly and left devastating results in the lives it infected.¹⁷ Containment was extremely critical in the initial phases of the pandemic response. Guidance was developed on prevention, treatments, and safety protocols, alongside management of payments for quarantine and isolation spaces.^{9,12} Federal funding programs, such as the Provider Relief Fund and the Paycheck Protection Program, were coordinated to support vaccine distribution.^{9,12} Telehealth services were expanded to prioritize in-person visits for critical needs, minimizing exposure risks.^{9,12}

Detection provided insight to the route of disease transmission, prevalence, and response planning and implementation.¹⁸ Detecting cases was accomplished by implementing a surveillance system and dedicated website were deployed to track cases, coordinate testing, and guide vaccine distribution by region. Over 193,000 COVID-

19 tests were administered, and 250 Abbott ID analyzers were distributed to 214 IHS and Tribal locations.

Although testing was a significant factor in curbing the spread of the virus it was a challenge in the early phases of the pandemic due to limited supplies.¹⁷ A Critical Care Response Team was established to provide direct patient care.^{9,12} More than 40 clinical and administrative guidance documents were issued.^{9,19} Additionally, specialized training delivered by the University of New Mexico helped strengthen the capacity of IHS and Tribal healthcare providers.^{9,19}

Measures were taken to support system recovery and ensure routine healthcare operations continued alongside pandemic response.^{9,12} These measures included establishing the Office of Quality, Quality Assurance Risk Management Committee (QARMC), and a national compliance program; allocating funds throughout the IHS system, and addressing workforce, supply, and logistical challenges.²⁰ Additional guidance was provided to healthcare professionals, including culturally specific information to foster community resilience.^{9,12}

Resources systems were created to oversee and coordinate employee safety, logistics, medical supplies, human resources, billing, and financial operations to ensure an organized and effective response.⁹ New workforce guidelines were enacted to offer hazard and environmental pay to retain staff, and closely track deployments, telework, and positive cases.⁹ IHS developed systems to monitor and plan PPE use, partnered with FEMA and the Strategic National Stockpile to secure supplies, and distributed critical equipment and protective gear to areas most in need.⁹ Guidance on billing, grant applications, and IT system updates were created to support pandemic operations.⁹

Situational awareness was maintained through a comprehensive communication system.^{9,12} It was developed to rapidly disseminate information throughout the IHS network.^{9,12} The Incident Command Structure ICS was established to facilitate, manage, and monitor pandemic-related needs, response activities, resource development, and distribution.^{9,12} CONOPS were created to ensure continuity of agency functions and operational alignment with the evolving conditions.^{9,12} Intra- and inter-agency coordination was maintained through regular reporting, meetings, and operational plans.^{9,12}

Arizona

In 2020 the COVID-19 Health Disparities Grant was funded by the US Department of Health and Human Services (DHHS) and Coronavirus Response and Relief Supplemental Appropriations Act of 2021.²¹ The Arizona Department of Health Services (ADHS) received grant funding and allocated a portion of it to the Arizona Advisory Council on Indian Health Care (AACIHC).²¹ The funding supported several materials and activities such as the Tribal Pandemic Toolkit, Statewide Tribal Covid-19 Coalition, conferences,

forums, culturally relevant resources, and future pandemic preparedness activities and materials.²¹ The Tribal Pandemic Toolkit addresses health disparities experienced by Tribes in Arizona.^{21,22} It also serves as a resource of compiled pandemic related materials.^{21,22} Statewide Tribal COVID-19 Coalitions were established to bolster communication, coordination, and resource sharing between Tribal communities.^{21,23} Funding was also used to build or expand pandemic related capacity such as data analysis projects, pandemic preparedness planning, contact tracing, and case investigation.²³

Nevada

The Nevada Tribal Emergency Coordinating Council (NTECC) was created to assist the 28 federally recognized Tribes in Nevada in disaster preparedness, response, and recovery.²⁴ NTECC is responsible for enhancing communication between state emergency management and Tribal governments.²⁴ The Council advises the Nevada Division of Emergency Management / Homeland Security (NDEM) concerning Tribal emergency management matters, funding, policy and compliance, and sovereignty.²⁴ The state mitigated testing delays by facilitating distribution of rapid testing machines to Tribal communities.²⁵ Testing and contact tracing were coordinated and monitored through weekly calls between Tribal leaders, Nevada Indian Commission, and USDHHS.²⁶ USDHHS also awarded \$292,206 to Tribal communities for mental health and substance use treatment amid the pandemic.²⁷ Additional support was provided by state mining companies, which donated an estimated \$5 million to Tribal and rural communities.²⁸ Nevada 2-1-1 was enlisted by the NV DHHS DPBH to assist callers with COVID-19 related services and resources.²⁹ It aided with COVID-19 calls from 2020 until 2022; during that time the service attended to 24,363 COVID-19 related calls.^{30–32}

Utah

The combined efforts of the state and IHS supported the eight federally recognized Tribes in Utah with communications and dissemination of supplies.³³ The Office of AI/AN Health Affairs led the pandemic response in the 8 Tribal communities.³⁴ It was responsible for engaging with the Indian Health System (I/T/U), maintaining consistent and constant communication with the Tribes, and managing testing activities and contract tracing.³⁴ Routine calls occurred with the I/T/U Indian Health System, Tribal Leaders, Association of State and Territorial Health Officials (ASTHO) State Tribal Health Liaison, and Utah Indian Health Advisory Board.^{33,33} Meeting discussions included updates, surveillance information, challenges, vaccine distribution, and other support needs.³⁴ Mobile testing events, testing kits, and rapid testing machine were coordinated or facilitated by the Office of AI/AN Health Affairs.³⁴ Public Health Emergency Preparedness funding was also distributed to the I/T/U EMS and Preparedness

programs.³⁴ The Utah National Guard evaluated locations to serve as Alternate Care Sites, and Quarantine and Isolation Sites at the request of Tribes.³⁴

COVID-19 VACCINATION IMPLEMENTATION EFFORTS

Vaccine Strategies and Distribution

IHS

IHS established the COVID-19 Vaccine Task Force (VTF) in September 2020 to oversee the distribution and administration of vaccines in I/T/U facilities.^{9,12} The organization established a COVID-19 vaccine supply system to manage vaccine allocation and delivery for 340 I/T/U facilities across 11 IHS Areas, which served a population of over 2 million AI/AN individuals.^{1,9,12} Several initiatives were implemented to ensure comprehensive vaccine access, "Every Patient, Every Encounter, Every Recommended Vaccine" (E3) strategy prioritized vaccination across all age groups and healthcare settings.^{15,16} This strategy focused on using trusted messengers, addressing vaccine hesitancy, and ensuring equitable access.^{15,16} Vaccine ambassadors, workplace vaccination programs, and school-placed vaccination efforts provided a wide range of vaccination opportunities.¹⁶

Tribal communities were prioritized in the early stages of vaccination distribution, with IHS directly involved in managing vaccine distribution.^{1,11} Thirty-nine Urban Indian Organizations (UIOs) were awarded funding through the FFCRA and CARES Act to secure, distribute, and administer vaccines, further enhancing vaccine availability in urban settings.^{9,12} By mid-April 2021, IHS had distributed a total of 1,562,837 vaccine doses to 293 I/T/U facilities, utilizing a "hub and spoke" model to ensure remote facilities received vaccines.^{1,5,9,12} According to a Kaiser Family Foundation (KFF) report, many Tribes were able to vaccinate their populations at relatively higher rates than some urban areas.¹ As of mid-2021, vaccination rates were higher than the national average in some tribal communities.^{1,5,9,12} Phoenix distributed 155,500 doses and administered 109,095 doses.^{9,12} Tucson distributed 9,000 doses and administered 6,210 doses (this information was still being validated at the time of writing this report).^{9,12}

Arizona

ADHS was instrumental in the equitable distribution of vaccines to Tribal communities in rural and remote locations.²¹ ADHS assisted Tribes with creating or enhancing vaccination tracking systems.²¹ The organization provided COVID-19 vaccines, boosters, and testing services to remote Tribal location via mobile units.^{21,35} Pop-up vaccination

events occurred during community events to leverage the opportunity for mass vaccination.³⁶

Nevada

The NV DHHS Division of Health Care Financing and Policy (DHCFP) amended the state Medicaid policy for vaccine reimbursement.³⁷ This amendment allowed Tribal clinics to request reimbursement for COVID-19 vaccinations while maintaining the no-cost status for patients.³⁷ FEMA and the NV DHHS partnered to send two mobile vaccination units to ensure vaccination services were available and accessible to Tribal communities in rural and remote locations.^{38,39} The Nevada Vaccine Equity Collaborative (NVEC) was developed in partnership with state, community partners, Immunize Nevada, and the Nevada Minority Health and Equity Coalition.⁴⁰ The NVEC supported equitable distribution of COVID-19 vaccines throughout the state by providing culturally relevant information and materials and accessible vaccination opportunities.⁴⁰

Utah

Some Tribes received vaccines from the Utah Department of Health and Human Services (UT DHHS) while others worked with IHS for vaccine doses.^{33,41,42} Vaccine allocations, delivery, and inventory were managed by Utah DHHS for Tribes opting to receive vaccines from the state.³⁴ The Tribes delegated how the vaccines were administered within their communities.^{13,33,34}

Challenges

Remote and rural communities had slower vaccine uptake compared to urbanized Tribal nations, partly due to logistical constraints and misinformation.^{1–3,10} Drive-through and on-site testing facilities were established at Tribal health centers and mobile units.⁴³ However, logistical challenges related to transportation in remote areas limited access to testing, with some Tribes experiencing delays in results due to supply chain issues.^{9,12} Some Tribal facilities experienced challenges with adequate personal protective equipment (PPE) and medical supplies.^{5,9,12,33,41,42} The large geographical distances between some Tribal communities and healthcare facilities hindered the timely delivery of medical services, including COVID-19 testing and vaccination.^{3,7} Travel for residents to receive vaccinations could be twenty-five minutes to two hours.⁴⁴ Dose matching was a challenge when Pfizer vaccine allotments were reallocated to “state-run PODS in urban Maricopa County.”⁴⁴ In some instances vaccine allocations were in accordance with the census report.⁴⁴

The pandemic put a significant strain on the healthcare infrastructure in the Phoenix-Tucson service area.^{9,12,15,33} Health centers saw increased demand for testing, treatment, and vaccinations.^{9,12,15} Seasonal population increase due to H-2A visa workers and out-of-state residents added to the patient population.⁴⁴ This was further complicated by medical staffing constraints.^{12,15,33} The use of telemedicine became a critical strategy for maintaining healthcare delivery during the pandemic.^{9,12,15} However, limited access to reliable internet and technology in certain areas created disparities in the effective use of telehealth services.⁴²

Data access and quality was another barrier many Tribes faced.^{1,7,45} According to a statement in a CDC report, *“Even during the pandemic, receipt of vital COVID-19 data was delayed by up to 7 months, hindering effective emergency response efforts.”*⁴⁵ Limited and incomplete data made it difficult to accurately assess the effects of the pandemic on AI/AN populations.⁴⁶ Racial misclassification was another issue in data quality as it hinders the accuracy of disease burden, health outcomes, and needs assessments.^{33,42,46}

Vaccine hesitancy is an ongoing challenge.^{1,6} Community leaders and Elders advocated for vaccination, resulting in vaccination increase.¹ Despite efforts to combat misinformation, a segment of the population remained skeptical about the COVID-19 vaccine, particularly due to historical mistrust of government and healthcare systems.^{7,10,47} “Survivor trauma” posed a unique challenge for community members, healthcare personnel, public health workers, and first responders alike.⁴² Individuals that experienced the loss of or witnessed the effects of COVID-19 on someone of significant value may experience emotional distress, intrusive thoughts, and other negative psychological and physiological responses.^{48–50}

Adverse reactions and safety concerns may have had an impact on vaccine uptake.^{51,52} The Urban Indian Health Institute conducted the *National COVID-19 Vaccination Survey: Strengthening Vaccine Efforts in Indian Country* in 2020.⁵¹ The survey included 1,435 eligible respondents and asked 49 questions concerning COVID-19 vaccination willingness.⁵¹ The survey expressed that 75% of respondents were willing to be vaccinated and 25% were unwilling to be vaccinated. In the IHS Phoenix-Tucson Service Area, 80% were willing to be vaccinated and 22% were unwilling to be vaccinated.⁵¹ Overall, 75% of the unwilling believed vaccines are dangerous, 27% did not think the vaccine would be effective, 49% believed AI/AN people were being used as experimental subjects, and 71% were concerned about the speed of the clinical trials.⁵¹ In 2021, The American COVID-19 Vaccine Poll collected responses from over 12,000 individuals across the United States to assess attitude toward COVID-19 vaccination.⁵³

Although the total number of respondents were not categorized by race or ethnicity, vaccine hesitancy was categorized along those lines.⁵³ Among AI/AN respondents, 40% reported being hesitant to receive the vaccination. The survey did not further categorize the underlying reasons for hesitancy by race or ethnicity.⁵³

Successes

By April 5, 2021, over 1 million doses had been administered across Indian Country, with IHS meeting its goal of administering 1 million doses by the end of March 2021.^{1,5,9,12} The successful response and vaccination implementation in Tribal communities was due in large part to Tribal sovereignty.^{1,6,54} In accordance with Public Law 93-638 Indian Self-Determination and Education Assistance Act of 1975, Tribes define how federal programs operate through contracts and grants.⁵⁵ Public Tribal governments determined vaccination strategies that best suited their communities.^{1,2,11,54} Rather than following state rollout plans and priority groups, Tribal leaders and health departments expedited physical protective measures and vaccination administration across their populations.^{1,2,10,11}

Tribal governments were essential in organizing community-level responses and creating culturally appropriate programs for prevention and treatment.^{11,47,54} Tribal health departments collaborated with IHS, local municipalities, and non-profit organizations to ensure services were culturally relevant and accessible.^{1,9,12} The allocation of federal resources directly impacted the testing capacity, medical supplies distribution, and vaccination efforts.^{1,5,9,12,13} Although challenges occurred with allocations, local health departments, state health departments, and federal agencies worked together to reconcile the matter.⁵⁶ Federal funding from the American Rescue Plan and CARES Act bolstered efforts to upgrade healthcare facilities and expand telehealth infrastructure.^{1,5,9,12,13} The most impactful element was the communal and compassionate manner in which Tribal leaders and members managed the resources.^{10,15,42} They combined heritage, culture, and Western medicine to provide the optimal protection and oversight for their communities and relatives.^{10,15,42}

Conclusion

The COVID-19 response and vaccine implementation in IHS Phoenix-Tucson Service Area showcased the importance of collaboration and coordination among Tribal health departments, federal agencies, state, and local leaders.^{6,41,42,54} The COVID-19 response in the IHS Phoenix-Tucson Service Area demonstrated resilience, innovation, and community leadership.^{15,54} Despite significant challenges, including logistical difficulties

in remote areas, the region's efforts were largely successful due to the strong role of Tribal sovereignty and culturally relevant healthcare strategies⁵⁴. The timely distribution of vaccines and targeted outreach to high-risk populations helped mitigate the spread of the virus in AI/AN communities.^{9,12,54}

While challenges remain, particularly in rural and remote areas, the region's high vaccination rates and effective use of Tribal sovereignty for response measures have been critical to mitigating the impact of the pandemic.^{1-3,7,8,15,47,54} The response highlighted the need for continued investment in healthcare infrastructure, telehealth services, and public health education to address future public health crises.^{1,6,9,12,15,44} Ultimately, the experience from this pandemic underscored the value of community-driven, culturally informed responses in improving health outcomes in AI/AN populations.¹⁵ Moving forward, the lessons learned from this experience should guide future preparedness and response efforts for Tribal communities.¹⁵

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