

“Preventing Pandemics through US Wildlife-borne Disease Surveillance”

House Committee on Natural Resources - Subcommittee on Oversight
and Investigations

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Good Morning. My name is Julie Thorstenson. I am Lakota and a citizen of the Cheyenne River Sioux Nation in Northcentral South Dakota. I am glad to be here. I am the Executive Director of the Native American Fish and Wildlife Society, a 501c3 nonprofit with the mission to assist Native American and Alaska Native Tribes with the preservation, conservation and enhancement of their fish and wildlife resources.

Thank you for the opportunity to speak today on the importance of including Tribes in prevention of pandemics through US Wildlife-borne Disease Surveillance. I personally have a unique perspective on this topic having begun my career as Wildlife Biologist for my Tribe and also having served as their Health Department CEO. Unfortunately, many times, I found myself in a state of reaction in both jobs due to severe underfunding and lack of capacity for Tribes.

I’m sure my fellow panelists will speak to the science of wildlife-borne disease and the impacts it has on wildlife. I’m going to focus on the threats to Tribes and the importance of including them in every stage, from prevention and planning to implementation and monitoring.

The Covid-19 Pandemic had devastating impacts to Indian Country. A recent study published by JAMA Network Open (2022) found, “Indigenous populations are believed to be one of the worst affected in the nation. As of November 22, 2021, American Indian and Alaska Native persons were 1.6 times more likely to have SARS-CoV-2 infection, 3.3 times more likely to be hospitalized, and 2.2 times more likely to die as a result of COVID-19 than non-Hispanic White persons.⁴ As of December 15, 2021, a reported 296 967 infections⁵ and 8983 deaths⁶ of American Indian and Alaska Native individuals were attributed to the novel coronavirus in the US.” While the number of deaths is overwhelming, what cannot truly be quantified is the amount of knowledge we have lost, the language speakers and culture experts and unknown amounts of traditional ecological knowledge. On my home on the Cheyenne River Sioux Reservation, we lost 57 people to Covid-

19, many were our cultural leaders and fluent Lakota language speakers. Tribes are dedicated to the health of their people, lands, and fish and wildlife relatives, while preserving language and culture but face many unseen challenges.

At the Native American Fish and Wildlife Society several zoonotic diseases are on our radar as we try to provide technical assistance and overall awareness to the 574 federally recognized Tribes in the US. The recent reports of SARS-CoV-2 in white-tailed deer are especially alarming as many Tribal citizens maintain a subsistence lifestyle and are at higher risks through increased interaction with wildlife. This amplifies the concerns Chronic Wasting Disease already presents for tribal citizens. For example, there are Tribal citizens that use the brain of deer and other big game for hide tanning, presenting a risk of exposure to the prions found primarily in the central nervous system of an infected animal. Tribal Fish and Wildlife professionals must balance the need to educate on risks and safety precautions without impeding important cultural practices.

Highly Pathogenic Avian Influenza (HPAI) is currently spreading across the country. Tribes must consider protecting the wildlife, the backyard poultry flocks necessary for food sovereignty/security and decreasing exposure risks for hunters. Not being able to sell hunting licenses due to concerns with exposing hunters to known diseases has an adverse impact on the limited tribal revenue and can cause other tribal economic losses from lodging and food purchases at tribal establishments. We are seeing HPAI deaths in eagle populations as well. In some instances, eagle carcasses are not being collected or are being incinerated due to the threat of possible exposure to HPAI. These eagle carcasses are lost important resources for Tribes that need them for ceremonies and other cultural practices. A resource that is already extremely limited with the National Eagle Repository reporting long wait times, up to 10 years for a whole immature golden eagle, for Tribal citizens.

Black-footed Ferrets (*Mustela nigripes*) are the most endangered mammal in North America with around 350-400 animals in the wild population. Tribes have been key to Black-footed ferret recovery efforts; serving as some of the most successful reintroduction sites over the years. That is until sylvatic plague decimated thousands of acres of prairie dog towns that serve as the critical habitat for black-footed ferrets. Blackfooted ferret recovery relies on a captive

breeding program. As SARS-CoV-2 virus spread there were known cases in mustelids, including farm-raised mink and domestic ferrets (USGS, 2021) adding yet another risk for black-footed ferret recovery. Tribes often take on the role of endangered species recovery without any funding. The increasing number of zoonotic disease threats to black-footed ferret recovery adds additional financial and personnel strains to Tribal programs.

One of our most common requests for technical assistance at NAFWS is to help Tribes identify funding sources. The inequity in funding for Tribal fish and wildlife programs is perhaps one of the most obvious but least known issues in conservation work. We often see one person responsible for multiple complex issues in Tribal fish and wildlife programs. We cannot expect one person to be an expert in everything that threatens and impacts our fish and wildlife relatives.

Wildlife do not respect our political boundaries. Tribes must be actively engaged in every level of surveillance without compromising Tribal sovereignty. To actively participate in surveillance, Tribes need FUNDING and not grant funding. Grants are incapable of providing a rapid response necessary for disease management, you cannot quickly respond with grant dependent funding nor fund the long-term monitoring necessary from sustained funding. Many Tribes also lack the capacity to apply for grant funding and the reporting and compliance that goes with it.

Adequate funding for Tribes will help build capacity through staffing, training, sampling and testing while ensuring Tribes maintain data sovereignty. Without Tribes involved, there can be pockets of unknowns or outbreaks in the 56.2 Million acres of Tribal lands. The very complicated jurisdiction also must be navigated. For example, if a zoonotic disease originates within a Tribal Reservation, what happens? Who becomes the lead? Tribes may be hesitant to report to a state veterinarian because of threats to Tribal Sovereignty and negative public perception of the disease origination. Adequate funding will allow Tribes to develop plans instead of reacting to situations as they arise. It will allow for these plans to be built in cooperation with Federal, State and local agencies.

In closing, Tribes must be included in **preventing** pandemics through wildlife-borne disease surveillance. This requires dedicated, long-term, programmatic

funding for Tribes to build capacity and the quick response necessary for disease management.

Musshafen, L.A. et al. 2022. *In-Hospital Mortality Disparities Among American Indian and Alaska Native, Black, and White Patients with COVID-19*. JAMA Network Open. JAMA Network Open. 2022;5(3):e224822. doi:10.1001/jamanetworkopen.2022.4822

National Wildlife Health Center. 2021. *Development of SARS-CoV-2 vaccine to support black-footed ferret conservation*. <https://www.usgs.gov/centers/nwhc/science/development-sars-cov-2-vaccine-support-black-footed-ferret-conservation>