



## GUEST OPINION ARTICLE

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### **Smallpox and the American Indian Experience in North Dakota**

Throughout history, smallpox probably killed more people around the world than any other infectious disease. People who survived often were blind or suffered deep, pitted scars, especially on the face. Because of the hard work of public health officials worldwide, no one has been sick with smallpox for almost 30 years. Unfortunately, it now has become a possible terrorist weapon against humanity.

The American Indian experience shows how deadly and devastating smallpox can be. Here in North Dakota, several native groups were almost destroyed by the disease. Their experiences must be considered as the state prepares to respond to the possible use of smallpox as a terrorist weapon.

The disease begins with fever, chills, headache, muscle aches, vomiting and stomach pain. After two or three days of fever, a rash appears and turns into blisters filled with pus. The blisters often are most severe on the face, hands and feet. Death is most likely 10 to 12 days after the rash appears. If the person infected with smallpox survives, a scab eventually forms over each spot and then drops off after about three weeks.

Someone who has smallpox can spread the disease through close contact until all the scabs drop off. Clothing, blankets and other items used by an infected person also can spread the disease.

The first recorded smallpox epidemic occurred in Egypt in 1350 B.C. From then on, smallpox devastated populations and cultures and killed both rich and poor of all races.

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Europeans brought smallpox to the New World, where entire communities of native people died from the disease. Smallpox was such a horrible disease that some American Indians had their own name for it – Rotting Face.

In what is now North Dakota, two major smallpox epidemics were recorded. The first, in 1781 and 1782, killed as many as 13,000 Mandan people and also affected the Sioux, Hidatsa and Arikara. One European fur trader who visited the Arikara in 1795 wrote that they had been “almost entirely destroyed by the smallpox.” Those who survived merged the remains of 32 villages into two.

In 1837, a steamboat carrying several passengers infected with smallpox docked at Fort Clark, located near a Mandan village. The disease spread so quickly that it was hard to keep track of the deaths. By the end of the summer, more than 17,000 native people – including Sioux, Blackfoot, Assiniboine, Ojibwa, Mandan, Hidatsa and Arikara – had died. The Mandan people were almost totally destroyed; in fact, only 134 survived.

Many factors contributed to the severity of these epidemics. The native people had no natural resistance to smallpox. The stationary village lifestyle of many tribes helped the disease spread quickly. Famine and malnourishment meant the people weren't strong enough physically to fight the disease. Trade networks and highly mobile populations spread the disease over large areas. Furthermore, early vaccination projects had failed to reach the tribes of the upper Missouri.

Because smallpox no longer exists naturally as a disease anywhere in the world, epidemics such as those that struck the American Indians in North Dakota should not reappear unless the virus is released intentionally as an act of terrorism. Although the probability of that happening is low, the disease is so deadly that we must be prepared. That's why North Dakota has joined the nation in preparing for such an event.

Smallpox response teams made up of public and private health care professionals across the state currently are receiving the smallpox vaccine. The federal government is not recommending vaccination for the general public at this time because the threat does not equal the risks associated with the vaccine, which will cause some people who receive it to feel sick or develop life-threatening illnesses.

Beginning in 2004, any American who is not at risk for adverse reactions can choose to receive the vaccine, according to President Bush's plan. In the meantime, should an actual outbreak occur, the United States would begin a process to vaccinate the general public. Vaccination of smallpox response teams now will ensure that we will have people ready to care for smallpox patients, to investigate possible cases and to give the vaccine to others.

As we have seen, smallpox is a horrible, deadly disease for which there is no cure. Our preparations today can help to ensure that smallpox will never kill again.

Information about smallpox and North Dakota's Smallpox Vaccination Program can be accessed on the North Dakota Department of Health website at [www.health.state.nd.us](http://www.health.state.nd.us).

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