

# Stopping the Spread: 1837 Smallpox Epidemic

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In 1837 at Fort Pelly in the Swan River district, Hudson Bay Company's Chief Factor Dr. William Todd stopped the spread of the smallpox epidemic by immediately vaccinating sixty Indigenous people living near the Fort<sup>1</sup>, and launching what "appears to be the first extensive vaccination program to the First Nations of Western Canada."<sup>2</sup> Due to the previous Smallpox epidemics in 1779-83 and in 1819-20, HBC was prepared to react.<sup>3</sup> Across the rest of the plains, the epidemic, which originated in the Missouri River valley, was wreaking havoc. Upwards of 17,000 First Nations were killed from the disease and the area was described as "one great graveyard."<sup>4</sup> Some groups were completely decimated. "The fur traders estimated that the (First Nations), chiefly Assiniboiné [Nakota], Blood [Kainai], Sarsée [Tsuut'ina], Piegan [Piikuni], Blackfoot [Nii-tsítapi] [sic], and Gros Ventre [A'aninin], lost up to three-quarters of their population" and Clyde D. Dollar writes, "The Mandan were virtually wiped from the face of the earth".<sup>5,6</sup>

During the 1837 epidemic on North America, the Indigenous people experienced what is known as a virgin soil epidemic. This occurs when "the populations at risk have had no previous contact with the diseases that strike them and are therefore immunologically almost defenseless"<sup>7</sup> thus resulting in a high mortality rate. Smallpox is a highly transmissible virus that is characterized by pain, chills, fever, pus filled blisters, and delirium that may result in death. It can be easily spread from an infected person or clothing they wore or objects they touched, and a patient is infectious from almost immediately after first symptoms appear to several weeks after.<sup>8</sup>

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<sup>1</sup> William Todd, HBC Journal B159/A/17

<sup>2</sup> Arthur J. Ray, "Smallpox: The Epidemic of 1837-38," *The Beaver* (1975): 11.

<sup>3</sup> Paul Hackett. "Averting Disaster: The Hudson's Bay Company and Smallpox in Western Canada during the Late Eighteenth and Early Nineteenth Centuries," *Bulletin of the History of Medicine*, 78, no. 3. (2004): 598. <https://www.jstor.org/stable/44448061>

<sup>4</sup> James W. Daschuk, *Clearing the Plains: Disease, Politics of Starvation, and the Loss of Indigenous Life*, New edition. (Canadian Plains Studies: 65. University of Regina Press, 2019) 67.

<sup>5</sup> Arthur J. Ray, "Diffusion of Diseases in the Western Interior of Canada, 1830-1850," *Geographical Review*, 66, no. 2 (1976): 154. <https://www.jstor.org/stable/213577>

<sup>6</sup> Clyde. D. Dollar, "The High Plains Smallpox Epidemic of 1837-38," *Western Historical Quarterly*, 8, no. 1 (1977): 29. <https://www.jstor.org/stable/967216>

<sup>7</sup> Wikipedia, s.v., "Virgin Soil Epidemic". Accessed on September 26, 2023. [https://en.wikipedia.org/wiki/Virgin\\_soil\\_epidemic](https://en.wikipedia.org/wiki/Virgin_soil_epidemic)

<sup>8</sup> Dollar, 17.

The epidemic found its origins in the spring of 1837 on a riverboat that was contracted by the American Fur Company (AFC) called the *St. Peters*, which was travelling up the Missouri river to Fort Clark and Fort Union. After being notified that a passenger on board was infected with smallpox, Captain Bernard Pratte Jr. “refused to halt or even quarantine the ship.”<sup>9</sup> With the movement of trade up-river in AFC territory, smallpox quickly spread. By winter, in HBC’s Swan River District, the spread was eventually stopped. Given the magnitude of the epidemic and how widespread it became, how did the HBC have more success than the AFC at mitigating it? In the Upper Missouri River valley, the AFC was unable to stop the spread of smallpox because underlying political agenda’s led to the trader’s calls for vaccines to go unheeded, and because of their haphazard attempt to contain the outbreak.<sup>10</sup> Whereas in the Swan River district, the HBC was able to mitigate the spread of smallpox further north because of the swift actions of Dr. William Todd at Fort Pelly and the availability of a viable vaccine.

What occurred in the Upper Missouri River Valley in 1837 was catastrophic to Indigenous nation’s that resided there. “Smallpox nearly exterminated the Mandan’s, with not more than 150 persons surviving” and “reduced the Hidatsa’s to about 500 persons”<sup>11</sup> resulting in the near total devastation of these two nations. Even though it was first acknowledged in 1802 that there was a significant need for smallpox vaccine for the highly susceptible people of North America, by 1837 the indigenous populations residing in the Upper Missouri still remained unvaccinated.<sup>12</sup> In 1832, the federal government passed the Indian Vaccination Act<sup>13</sup> and according to federal reports, by 1833, 17,045 Indigenous people on the American frontier had been successfully vaccinated.<sup>14</sup> However, during that vaccination effort, Secretary of War Lewis Cass gave the order to exclude the Upper Missouri river population.<sup>15</sup> The reason for this exclusion had political and economic roots. Cass thought that the trade in the Upper Missouri was drying out because of increased

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<sup>9</sup> Paul Hackett, “Averting Disaster: The Hudson’s Bay Company and Smallpox in Western Canada during the Late Eighteenth and Early Nineteenth Centuries,” *Bulletin of the History of Medicine*, 78, no. 3. (2004): 596. <https://www.jstor.org/stable/44448061>

<sup>10</sup> Hackett, 597.

<sup>11</sup> Waheenee, Buffalo Bird Woman’s Garden: As Recounted by Maxi’diwiac (Buffalo Bird Woman) of the Hidatsa Indian Tribe. Ed Gilbert Livingstone Wilson, (University of Minnesota, 1917).

<sup>12</sup> David L. Ferch, “Fighting the Smallpox Epidemic of 1837-38: The Response of the American Fur Company Traders,” *Castor Canadenses Newsletter of the Jedediah Smith Society* (2020), 1.

<sup>13</sup> Ferch, 1.

<sup>14</sup> Diane J Pearson, “Lewis Cass and the Politics of Disease: The Indian Vaccination Act of 1832,” *Wicazo Sa Review*, 18, no.2. (2003), 15. <https://www.jstor.org/stable/1409535>.

<sup>15</sup> Pearson, 18.

expenses and hostility.<sup>16</sup> Further to that, in his own words, he just did not like those nations very much, saying "the [indigenous people], in that extensive region, are to this day far beyond the operation of any causes, primary or secondary, which can be traced to civilised [sic] man."<sup>17</sup> As a result, the "Mandan, Hidatsa, Arikara, Assiniboine, Cree, and Niitsitapi in US territory were not vaccinated".<sup>18</sup> Unbeknownst to him, his refusal to vaccinate these indigenous groups led to the worst smallpox outbreak in North American history.

As the *St. Peters* riverboat moved up the Missouri river delivering goods and people for the AFC in June 1837, it was also delivering smallpox. During the journey upriver, several passengers were infected, including three Arikara women. Their trip lasted nearly a month and by the end of their journey, the three women "would have been well into the recuperation period and therefore not apparently ill. However, their ability to infect others still existed."<sup>19</sup> Around June 19, the riverboat docked at Fort Clark. The three Arikara women returned to the Mandan village. A clerk named Francis A. Chardon also arrived at Fort Clark.<sup>20</sup>

Chardon kept a journal that depicted how the AFC handled the outbreak in the Fort Clark area. In his journal, on Friday July 14, Chardon writes, "One of the warmest days that we have had this summer, Weather smoky - A Young Mandan died to day of the Small Pox - several others have caught it, the [indigenous people] all being out making dried meat, has saved several of them."<sup>21</sup> This is the first mention of smallpox in his journal, and the casual matter of fact manner reflects the attitude those at Fort Clark took towards the outbreak. They were without vaccines and had little in the way of resources to help. At this fort, they seemed to have opted to watch it play out and let it ride its course. Chardon accepted the epidemic with resignation, and merely recorded the details of the events around him.<sup>22</sup>

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<sup>16</sup> Pearson, 18

<sup>17</sup> Pearson, 20

<sup>18</sup> James W. Daschuk, *Clearing the Plains: Disease, Politics of Starvation, and the Loss of Indigenous Life, New Edition*. (Canadian Plains Studies:65. University of Regina Press, 2019), 67.

<sup>19</sup> Clyde D. Dollar, "The High Plains Smallpox Epidemic of 1837-38," *Western Historical Quarterly*, 8, no. 1 (1977): 21. <https://www.jstor.org/stable/967216>.

<sup>20</sup> M.M. Quaife, "The Smallpox Epidemic on the Upper Missouri," *The Mississippi Valley Historical Review*, 17, No. 2 (1930): 279. <https://www.jstor.org/stable/1892602>.

<sup>21</sup> Quaife, 282.

<sup>22</sup> Paul Hackett, "Averting Disaster: The Hudson's Bay Company and Smallpox in Western Canada during the Late Eighteenth and Early Nineteenth Centuries," *Bulletin of the History of Medicine*, 78, no. 3. (2004): 597. <https://www.jstor.org/stable/44448061>.

Saturday 29, Several More Mandans died last night. Two Gros- Ventres arrived from their dried Meat camp, it appears that it has Not broke Out Among them as yet-

Sunday 30, An other report from the Gros-Ventres to day say, they are Arrived at their Village, and that 10 or 15 of them have died, two big fish Among them, they threaten Death And Destruction to us all at this Place, saying that I was the Cause of the small pox Making its appearance in this Country - One of Our best friends of the Village (The Four Bears) died today, regretted by all Who Knew him,

Monday 31, Mandans are getting worse Nothing Will do them except revenge. Three of the War party that left here the 26th of last Month Arrived today. With each of them One horse, that they stole from the Yanctons on White River, Killed 61 Rats this Month - total 1778<sup>23</sup>

Through Chardon's journal entries, he shows a fatalist perspective. No effort had been made to prevent contact between Fort Clark and the infected.<sup>24</sup> Knowing that vaccination was the only way to stem the spread, and knowing that he had no vaccine, he instead observed and waited for the sickness to ebb away. He left the Mandan, Arikara, and Hidatsa to fend for themselves, largely unaided, which led to the near utter decimation of these nations. Chardon prioritized the safety and health of the company's men and families at the fort over the indigenous ones. At Fort Union though, the AFC traders took a different approach.

In 1837, around June 24, the *St. Peters* arrived at Fort Union. Onboard was Jacob Halsey who was headed to the fort to take up his post as Chief Trader for the AFC.<sup>25</sup> On the voyage, he had contracted smallpox. Since he had been previously vaccinated, his infection took on a milder form. Upon arrival though, he was worried that it could spread to the indigenous traders and to the indigenous women and children that resided in the fort.<sup>26</sup> Unlike at Fort Clark, those at Fort Union felt responsibility for the welfare of the indigenous traders and prioritized protecting their health alongside the health of the company men.<sup>27</sup> Like Fort Clark, they also did not have any viable vaccinations at the fort. Halsey's subordinate, Charles Larpenteur, kept a journal which was turned

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<sup>23</sup> M.M. Quaife, "The Smallpox Epidemic on the Upper Missouri," *The Mississippi Valley Historical Review*, 17, no. 2 (1930): 283-284. <https://www.jstor.org/stable/1892602>.

<sup>24</sup> David L. Ferch, "Fighting the Smallpox Epidemic of 1837-38: The Response of the American Fur Company Traders," *Castor Canadenses Newsletter of the Jedediah Smith Society*, (2020): 4.

<sup>25</sup> Ferch, 4.

<sup>26</sup> Ferch, 4.

<sup>27</sup> Ferch, 4.

into an autobiography titled *Forty Years a Fur trader*.<sup>28</sup> In it, Larpenteur recounts the actions he and Halsey took to prevent the spread.

Prompt measures were adopted to prevent an epidemic. As we had no vaccine matter we decided to inoculate with the smallpox itself; and after the systems of those who were to be inoculated had been prepared according to Dr. Thomas' medical book, the operation was performed upon about 30 [indigenous women] and a few white men. This was done with the view to have it all over and everything cleaned up before any [indigenous men] should come in, on their fall trade, which commenced early in September. The smallpox matter should have been taken from a very healthy person; but, unfortunately, Mr. Halsey was not sound, and the operation proved fatal to most of our patients<sup>29</sup>

Although intentions were pure, the operation itself served to further spread the disease among the indigenous. After the failure of the inoculation, Halsey took further steps and ordered the fort under quarantine to prevent further spread of the disease to returning traders.<sup>30</sup> However, this too proved to be unsuccessful. Although the doors remained locked for some time, a party of about forty Assiniboiné's led by the chief Co-Han demanded entry to the fort.<sup>31</sup> In his book, Larpentuer details how they showed the group a little boy who was still covered in scabs and puss and convinced the group to leave.<sup>32</sup> He later concludes that "not long afterward we learned that more than one-half of the party had died - some said all of them."<sup>33</sup> The reports are conflicting between Halsey and Larpentuer as to whether the conditions outside the fort, as well as the air itself, led to the spread or that it was due to the exposure of the group to the little boy, nevertheless, the disease spread.<sup>34</sup> Upon coming to the realization that only vaccination can help the indigenous groups, Halsey begged that vaccine be sent in his company report.<sup>35</sup> Despite efforts made by the AFC traders, by the end of June, the outbreak at Fort Union was out of control and no vaccine had been sent.

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<sup>28</sup> Ferch, 4.

<sup>29</sup> Charles Larpentuer, *Forty Years a Fur Trader on the Upper Missouri*. (Lakeside Press Chicago: R. R. Donnelley & Sons Co. Christmas, 1933), 109-110.

<sup>30</sup> Ferch, 5.

<sup>31</sup> Charles Larpentuer, *Forty Years a Fur Trader on the Upper Missouri*. (Lakeside Press Chicago: R. R. Donnelley & Sons Co. Christmas, 1933), 110.

<sup>32</sup> Larpentuer, 111.

<sup>33</sup> Larpentuer, 111.

<sup>34</sup> David L. Ferch, "Fighting the Smallpox Epidemic of 1837-38: The Response of the American Fur Company Traders," *Castor Canadenses Newsletter of the Jedediah Smith Society*, (2020): 5.

<sup>35</sup> Ferch, 5.

The epidemic continued to diffuse further north. A longboat contracted by AFC left Fort Union and traveled up the Marias River to Fort Mackenzie.<sup>36</sup> The boat carried infected goods and people. Warnings from AFC trader Alexander Harvey to stay away were ignored by roughly 5,500 Blackfoot [Niitsitapi] and Piegan [Piikuni] that were camped near by and who were eager to trade.<sup>37</sup> Quarantine efforts were thwarted, and they quickly became victims of the disease. Trying to outrun contamination in the Upper Missouri, Assiniboiné [Nakota], Cree [Nehiyawak], Blood [Kainai], Piegan [Piikuni], Blackfoot [Siksika], and Gros Ventre [A'aninin] fled the American post and went north and carried smallpox into the Northern Department of the Hudson's Bay Company.<sup>38</sup> There, the outbreak was checked.

This was not the first time that smallpox threatened the Northern Department. In 1779-1783 a devastating epidemic swept through the North.<sup>39</sup> In 1796, English doctor Edward Jenner's discovery of using a cowpox virus to vaccinate people against smallpox was widely celebrated. Even though the HBC was a commercial fur-trading company and not a government body, the men quickly recognized the value in protecting their trade interests, and "overall, the Company favored a proactive approach to vaccination, ensuring that viable stocks were kept at the posts."<sup>40</sup> HBC representatives in London encouraged the traders to vaccinate the Indigenous people as a preventive measure, but the traders seemed to have preferred a reactive approach.<sup>41</sup> Another smallpox epidemic swept through the Red River region in 1819, which prompted HBC trader Peter Fidler to react and undertook the "initial vaccination campaign of western Canada."<sup>42</sup> The HBC should have continued the vaccination efforts to the rest of the population, but they became complacent, and only a few haphazard attempts were completed leaving much of the indigenous population still vulnerable.<sup>43</sup> Nevertheless, during the outbreak in 1837, HBC warehouses did have vaccines. This is one thing that the AFC counterparts were lacking in their fight against the disease.

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<sup>36</sup> Arthur J Ray, "Smallpox: The Epidemic of 1837-38", *The Beaver* (1975): 9.

<sup>37</sup> Ray, 9.

<sup>38</sup> Ray, 9.

<sup>39</sup> Paul Hackett, "Averting Disaster: The Hudson's Bay Company and Smallpox in Western Canada during the Late Eighteenth and Early Nineteenth Centuries," *Bulletin of the History of Medicine*, 78, no. 3. (2004): 576. <https://www.jstor.org/stable/44448061>.

<sup>40</sup> Hackett, 592.

<sup>41</sup> Hackett, 592.

<sup>42</sup> Hackett, 594.

<sup>43</sup> Hackett, 595.

During the 1837 epidemic, Dr. William Todd was Chief Factor in charge of Swan River Region for the Northern Department of HBC.<sup>44</sup> Todd joined the company in 1816 as a clerk and a surgeon in Cumberland House. In 1819, he volunteered to help in Fort Wedderburn.<sup>45</sup> Although he was not a very good fur trader, he demonstrated his ability to strengthen relationships with indigenous people. Through his medical care of the Chipewyan [Denesuline] traders, he earned their respect and gave the HBC an advantage in trading with them.<sup>46</sup> He continued to work in several districts, and he had earned himself a reputation as a “clever, attentive doctor who was scrupulous on points of honor and etiquette. He was not, however, considered particularly useful as a trader.”<sup>47</sup> In 1830, Todd was promoted, and in 1834 he was headquartered at Fort Pelly in Swan River Region in the highest rank of the fur trade as Chief Factor.<sup>48</sup> Todd’s dedication to providing medical care to those in need overshadowed his desire to be a lucrative fur trader. In 1837, when smallpox arrived on the plains in HBC territory, he was the right person in the right place at the right time.

On September 20, 1837, Todd makes note in his journal that two Cree [Nehiyawak] arrived from Qu’Appelle and report that “some bad disease has got into the American Fort and in consequence of which their gates are kept constantly shut.”<sup>49</sup> He quickly surmised that the “bad disease” was very likely smallpox. He did not hesitate. The next day, he writes:

Had all the [indigenous] now here called in. Entered in a full explanation with them accepting the reports brought yesterday of the disease of the American establishment which I pointed out to them was likely to be the smallpox, and the danger they incurred if it got out among them. Prepared vaccination as the only prevention, to this they at once agreed. I immediately commenced. I vaccinated sixty [indigenous] including men, women, and children.<sup>50</sup>

Without confirmation of smallpox, he acted swiftly to ward off the potential epidemic. When those that he vaccinated left on September 25<sup>th</sup>, he describes how he sent them with “a lancet and took great pains in instructing them how to use it in vaccinating others.”<sup>51</sup> By vaccinating all

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<sup>44</sup> Arthur J Ray, “Todd, William,” *Dictionary of Canadian Biography*, 8 (1985).  
[http://www.biographi.ca/en/bio/todd\\_william\\_1851\\_8E.html](http://www.biographi.ca/en/bio/todd_william_1851_8E.html).

<sup>45</sup> Ray

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<sup>47</sup> Ray

<sup>48</sup> Ray

<sup>49</sup> William Todd, HBC Journal B159/A/17.

<sup>50</sup> Todd

<sup>51</sup> Todd

those who came to his Fort and by teaching the indigenous people how to vaccinate each other amongst themselves, he bolstered the protection against the spread of smallpox.

Reports were conflicting for the next couple months as to whether it was smallpox or not, but Todd continued his efforts. He put in great effort to reach all of the people in his district.<sup>52</sup> In his journal on October 28<sup>th</sup> Todd writes that he sent vaccinations and instructions to William McKay at Beaver Creek and told him to “waste no time in vaccinating the people of the fort and the [indigenous] as they arrive” even though smallpox has not yet been confirmed.<sup>53</sup> William McKay complied and successfully vaccinated all those in “his vicinity by the end of November, and similar vaccination programs were carried out in other outposts.”<sup>54</sup>

Confirmation of smallpox came on December 20<sup>th</sup> when Todd received a firsthand report from two men from Carlton House who told him that “smallpox is general all over the Saskatchewan”, with high mortality rates for the Plains people, and “it has been present at Carlton House since October.”<sup>55</sup> Thankfully for those living in the district, Todd already had Canada’s first vaccination campaign well underway. There came news that Edmonton House had no vaccine and that the vaccine sent to Carlton House was ineffective.<sup>56</sup> The death rate remained steady in those areas. On January 8<sup>th</sup>, Todd sent instructions, men, and fresh vaccine to the troubled areas in need. By late winter, because of the efforts of Todd and the men of HBC, the further spread of smallpox was halted, and the Eastern Woodlands people into Ontario were spared.<sup>57</sup> In the spring, the returning traders that were all vaccinated by Todd and his men had nothing but praise for them. The crisis was averted in the Swan River District.

Meanwhile, in the Upper Missouri, the epidemic raged on. It was not until around this time, in early 1838, that word of the epidemic reached the American Government. General William Clark requested that vaccination be sent, and finally by March 1838 a vaccination campaign got underway, but it was too late.<sup>58</sup> The AFC was unable to protect most of the indigenous populations because the vaccinations did not arrive on time. Very little was understood about how the contagion

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<sup>52</sup> Arthur J Ray, “Smallpox: The Epidemic of 1837-38”, *The Beaver* (1975): 10.

<sup>53</sup> William Todd, HBC Journal B159/A/17

<sup>54</sup> Arthur J Ray, “Smallpox: The Epidemic of 1837-38”, *The Beaver* (1975): 11.

<sup>55</sup> Todd

<sup>56</sup> Ray, 12

<sup>57</sup> Ray, 13

<sup>58</sup> M J Ables, “Smallpox: The American Fur Company Pox Outbreak of 1837-1838,” *Fairmount Folio: Journal of History*, 12 (2010): 36. <https://journals.wichita.edu/index.php/ff/article/view/128/135>.



would spread so rapidly and destroy all that was in its path. More than 38% of the Upper Missouri indigenous population had died.<sup>59</sup> In the Northern Department of HBC however, the immediate actions of Todd, Chief Factor in charge, who had prioritized the welfare of their indigenous population over the profits from their trade, ended the epidemic. The vaccinations that were on hand at HBC outposts and the medical expertise of Todd, along with the effective communication networks of the company and their quick implementation, greatly assisted them in overcoming the disease and resulted in the first major vaccination campaign in Canada.

In 1870, the Dominion of Canada experienced another smallpox outbreak.<sup>60</sup> Mirroring the epidemic three decades earlier, it began on the Upper Missouri with a steamboat, rather than a riverboat, *The Utah*.<sup>61</sup> Once alerted to the crisis, the HBC quickly tried to mobilize. However,

the coincidence of the outbreak with a political crisis in Red River undermined the HBC's ability to counter the spread of the disease. The chief officer in the infected country, W. J. Christie, requested the immediate delivery of vaccine in August 1869. None came until April 1870. Communication lines across the prairies were so tenuous that even the turmoil at Red River remained only a rumour until travel was facilitated with the spring breakup. Although the company's efforts to counter the spread of the virus were frustrated for at least eight months, some groups were successfully vaccinated.<sup>62</sup>

The HBC, again, due to their mobilization of vaccination efforts, limited the disease from spreading to the inhabitants of Red River and the east, and they successfully vaccinated over 1,700 indigenous people.<sup>63</sup> However, they failed to stop the disease from spreading across the plains and 3,512 indigenous people died.<sup>64</sup> Canadian Government officials were grossly unprepared for the epidemic, and they could not efficiently organize medical assistance across such a large territory.<sup>65</sup> "The response of dominion authorities to the epidemic was a stark and fatal contrast to the measures taken by the HBC against the outbreak a generation earlier. The HBC, the de facto

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<sup>59</sup> David L Ferch, "Fighting the Smallpox Epidemic of 1837-38: The Response of the American Fur Company Traders," *Castor Canadenses Newsletter of the Jedediah Smith Society* (2020): 5.

<sup>60</sup> James W. Daschuk, *Clearing the Plains: Disease, Politics of Starvation, and the Loss of Indigenous Life*. New Edition. (Canadian Plains Studies:65. University of Regina Press, 2019.), 80.

<sup>61</sup> Daschuk, 81.

<sup>62</sup> Daschuk, p.83-84.

<sup>63</sup> Daschuk, p.90.

<sup>64</sup> Daschuk, p.82.

<sup>65</sup> Daschuk, p.88.

government for the previous half-century, used its own supplies and transportation network to check the epidemic in its establishments.”<sup>66</sup>

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<sup>66</sup> Daschuk, p.89.

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