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### NEW MEXICO'S SMALLPOX EPIDEMIC OF 1780-1781

MARC SIMMONS

Anyone who carefully surveys the history of colonial New Mexico must be struck by the frequent references to epidemic disease. Periodic waves of sickness swept over the province carrying off hundreds of citizens, both Indian and Spanish, and seriously disrupting the lives of survivors. If only from the social and economic standpoint, infectious disorders were extremely costly. In evaluating losses, we must go even further and take into account the psychological effects produced by the epidemics which devastated the New Mexico settlements with relentless regularity.

Apparently no decade in the eighteenth century was entirely free from a major plague of one variety or another. And yet the history of epidemiology in New Mexico remains an untapped field. Surprisingly little is known of the extent and virulence of the prevailing illnesses, but if the tragic story could be told in full, it would no doubt reveal much information on such topics as settlement patterns, fluctuations of populations, and mission history. The present paper attempts no such ambitious undertaking. Rather it focuses on a single case—the great smallpox epidemic of 1780 to 1781.

Of the several afflictions plaguing New Mexico in colonial times, none was as constant or as fatal as smallpox. Variola, its technical name, is an acute infectious disease distinguished by high fever and eruptions of the skin which leave severe disfiguring scars. It strikes individuals of all ages, passing by direct contact, but the young, the old, and the undernourished are the most susceptible.

Those surviving an attack of smallpox obtained the gift of lifelong immunity, which explains in part why the disease tended to occur in cycles—after a widespread epidemic, a period of years is needed for an unprotected population to grow up.<sup>2</sup> In the early eighteenth century, inoculation appeared in Europe and within several decades was known in the Viceroyalty of New Spain.<sup>3</sup> This technique involved transplanting pus from the pustules of a smallpox victim into an incision in the skin of a healthy person. The resultant infection was ordinarily mild and chances for survival far greater than in cases of infection through ordinary contact.<sup>4</sup> For various reasons, inoculation never became popular in Central Mexico, and it is doubtful if it was employed at all in New Mexico during colonial times.<sup>5</sup>

In 1799 Edward Jenner published the results of his experiments which demonstrated that a person vaccinated with cowpox material would thereafter be immune from smallpox.<sup>6</sup> His evidence was so conclusive that vaccination rapidly spread around the world and within five years had been introduced even into the remote province of New Mexico.<sup>7</sup> As of 1780, however, the people of the Upper Rio Grande Valley had little or no protection from the ravages of this terrible disease.

Without physicians or precise knowledge of the pathology of smallpox, the afflicted in New Mexico were obliged to fall back upon their own pitifully inadequate home remedies and herbal formulas. They sought the spiritual consolation of the Church as a matter of course. In times of epidemics the clergy did more than administer the last rites and bury the dead; they did their best to alleviate the distress of their congregations by serving as friar-physicians.

That they were largely ineffectual may be attributed, not to lack of zeal, but to inadequate medical knowledge and the scarcity of pharmaceutical supplies. With the meager means at hand, the priests administered simple medicines and practiced phlebotomy, or bleeding, of patients. For a time in the eighteenth century, a kind of hospital was even maintained at San Felipe Pueblo by the

Franciscan fathers, but the relief it provided during a severe epi-

demic must have been negligible.8

Although outbreaks of smallpox occurred regularly during the eighteenth century, the remaining records indicate that the epidemic of 1780-1781 proved most disastrous, causing great loss of life and producing severe dislocations in society and in the missionary program. Unhappily, only a few details of this frightful tragedy survive, although the information which can be gleaned from the records does convey some impression of the impact which smallpox had on colonial life.

The first portent of disaster appeared in late spring of 1780 with a flare-up of smallpox in the larger towns. Albuquerque was among those hardest hit, for thirty-one of its citizens succumbed to the pestilence. Throughout the summer and into autumn, the number of cases steadily declined, and it perhaps seemed as if the disease had spent its fury. But a second and more virulent onrush was just around the corner.

At the beginning of January 1781, Father Juan José Hinojosa at San Felipe Pueblo wrote tersely in the margin of his burial register, "This year smallpox is expected." All too soon the ominous prediction was to prove justified.

Again the larger population centers were to receive the first shocks, as the sickness crept up the Rio Grande Valley. In Santa Fe, 142 victims were claimed in January and February before the epidemic tapered off in early March. The crest was perhaps reached on February 21 when the parish priest gave up trying to list the deceased individually in his register and recorded the woeful toll in numbers only: "On this day I gave ecclesiastical burial to fifteen souls—ten adults and five children." It was proper under ordinary circumstances for persons to be buried the day after death, but under pressure of the epidemic, many had to be consigned to the ground on the same day as their passing.

The presidial garrison in Santa Fe suffered along with the rest of the population. Fortunately, most of the soldiers were absent in the field during the height of the distress, but the gov-

ernor reported on February 1 that twelve of those who remained in Santa Fe had fallen ill. 12 By the end of the month a total of 27 had come down with the disease, and several burial certificates still exist wherein the military chaplain, Father Juan Bermejo, records that he gave ecclesiastical burial in the military chapel, Our Lady of Light, to such and such a soldier, a victim of small-pox. 13 Several other deaths were reported among the troops during the month of March, including that of a soldier who had contracted smallpox and died in Santa Cruz de la Cañada. 14

The mournful tolling of church bells continued to be heard downriver at Albuquerque where nineteen persons, fifteen adults and four children, died between January 9 and February 6.<sup>15</sup> On the latter date, the burial entries abruptly ceased.

In spite of the misery in the Spanish towns, the real brunt of the sickness fell on the Indian pueblos. At Sandia, north of Albuquerque, the priest ticked off the names of the dead as they were carried to their graves, and in the margin of his parish book he recorded the cause of death in each case: De B— (De Viruelas). Then he hurried on to tend the afflicted in the neighboring Spanish communities of Bernalillo, Alameda, and Corrales. 16

At San Felipe, where Father Hinojosa had expressed fear of smallpox at the beginning of the year, 130 deaths were noted for February alone. Tequally appalling were the counts from the pueblos farther north. At Santo Domingo 230 Indians, young and old, died during February and the first week of March. Neighboring Cochiti registered 106 deaths, including those of several Spaniards from nearby farming settlements. At Santa Clara the priest headed his burial register for the year 1781 with the words Abundanzia de Biruelas (Abundance of Smallpox) and then proceeded to fill the pages with the names of the 106 persons, Spanish and Indian, who perished.

By late March or early April, the force of the epidemic began to subside along the Rio Grande, though cases continued to appear through October. Out on the periphery of the province, however, the pestilence gathered new strength with Pecos Pueblo on the east, and the Zuñi and Hopi villages on the west, suffering the ravages of the disease to the end of the year.

Bancroft claims that a total of 5,025 Pueblo Indians died in the terrible sickness.<sup>21</sup> Neither this figure nor those cited above tell us how many people actually contracted smallpox. The fatality rate in an epidemic usually ranged from ten to fifty per cent of those infected.<sup>22</sup> It is known, however, that practically one hundred per cent of persons not immune will acquire the disease when exposed.<sup>23</sup> Therefore we may assume that the mortality statistics represent only a fraction of those afflicted in New Mexico during the period 1780-1781.

Late in the year 1781, Commandant General Teodoro de Croix assessed the damage caused by the pestilence and judged that because of the great reduction of population in many Indian villages, the number of missions should be reduced by consolidation.<sup>24</sup> The friars, always loath to yield ground, protested this directive, but to no effect since practical necessity dictated the retrenchment policy.

The extent to which the epidemic influenced other spheres of provincial life can only be guessed. The loss of many young men and women in their prime certainly caused a drain on the labor force and must have placed a severe strain on numerous households. This was true for both Indians and Spaniards. Lacking immunity, the Pueblo people were particularly susceptible to smallpox, and their mode of living, crowded together in closed, airless rooms, probably hastened the spread of the disease once it appeared. There are indications that the pueblos on the edges of the province suffered even more from the pestilence. This may have been the reason why Pecos, Zuñi, and the Hopi Pueblos were granted special tax exemptions in the years following 1782.<sup>25</sup>

When we examine the outbreak of 1780-1781, the question arises as to the direction from which the disease entered New Mexico. In the summer of 1779 there had been a major epidemic in Central Mexico, which ravaged the cities and countryside for a year.<sup>26</sup> From here smallpox might have been carried northward by travelers to the Rio Grande. Nevertheless, it is

highly possible that the sickness came to New Mexico by way of the tribes of the Southern Plains. As early as 1778, an epidemic which had wrought havoc among the Indians of the Mississippi Valley, was transmitted to peoples living on the Upper Missouri.<sup>27</sup> In the same year the pox swept through Louisiana and into Texas, where a friar reportedly took advantage of the calamity to baptise frightened Indians and save their souls.<sup>28</sup> By 1780 the disease had spread to Lipan Apache of southern and western Texas, and there is good reason to believe that southern bands of the Comanche also were victims of the plague.<sup>29</sup> These tribes easily could have introduced smallpox into the settlements along the Upper Rio Grande.<sup>30</sup>

Thus New Mexico's scourge of smallpox in the early 1780's may have originated either from the south or the east. It is also possible that the epidemic was a spontaneous outburst, which can occur in districts where the disease exists endemically in a mild form. Periodically, as new generations appear, the sickness assumes a sudden virulence and attacks those lacking immunity. The frequency of smallpox in New Mexico suggests that it may have been endemic, although the paucity of specific records precludes a definitive judgment. Whatever its source, the pestilence of 1780-1781 was a major tragedy for colonial New Mexicans.

### **NOTES**

- 1. The incidence of epidemic disease in other parts of North America has been carefully treated by scholars. Notable works include: John Duffy, Epidemics in Colonial America (Baton Rouge, La., 1953), and Donald B. Cooper, Epidemic Disease in Mexico City, 1761-1813 (Austin, 1965). Concentrating on the Indians are E. Wagner Stearn and Allen E. Stearn, The Effects of Smallpox on the Destiny of the Amerindian (Boston, 1945), and P. M. Ashburn, The Ranks of Death, A Medical History of the Conquest of America (New York, 1947). Both of the Spanish provinces to the east and west of New Mexico have been studied. On Texas see Pat Ireland Nixon, The Medical Story of Early Texas, 1528-1853 (Lancaster, Pa., 1946), and on California consult S. F. Cook, "Smallpox in Spanish and Mexican California, 1770-1845," Bulletin of the History of Medicine, vol. 7 (1939), pp. 153-91.
- 2. Benjamin White, Smallpox and Vaccination (Cambridge, Mass., 1925), p. 21.
  - 3. Cooper, p. 63.
  - 4. Duffy, p. 24.
  - 5. Cooper, p. 65.
- 6. Sir George Newman, The Rise of Preventive Medicine (London, 1932), pp. 182-83.
- 7. Information on vaccination quickly spread throughout the Spanish empire. The story is told by S. F. Cook in "Dr. Francisco Xavier Balmis and the Introduction of Vaccination to Latin America," Bulletin of the History of Medicine, vol. 11 (1943), pp. 544-55. On the beginning of an immunization program in New Mexico see Lansing B. Bloom, Early Vaccination in New Mexico (Historical Society of New Mexico Publications, no. 27, Santa Fe, 1924).
- 8. Declaration of Fray Miguel de Menchero, Santa Bárbara, May 10, 1774, in Charles W. Hackett, ed., Historical Documents Relating to New Mexico, Nueva Vizcaya, and Approaches Thereto, 3 vols. (Washington, D.C., 1931-37), vol. 3, pp. 395-413.
- 9. Burial Records in Archives of the Archdiocese of Santa Fe (cited hereinafter as AASF), Bur-3, Albuquerque, Box 2. These records have been calendared by Fray Angelico Chavez, Archives of the Archdiocese of Santa Fe (Washington, D.C., 1957).
- 10. AASF, Bur-25, San Felipe, Box 13, Chavez, p. 235, ascribes the statement to Father Irigoyen, but he now tells us that the error resulted from a misreading of his notes.

- 11. AASF, Bur-49, Santa Fe, Box 27; Bur-51, Santa Fe Castrense, Box 28.
- 12. Spanish Archives of New Mexico (cited hereinafter as SANM), State Records Center and Archives, Santa Fe, no. 817.
  - 13. Company Roster, SANM, no. 818.
  - 14. Company Roster, April 1, 1781, SANM, no. 820.
  - 15. AASF, Bur-3, Albuquerque, Box 2.
  - 16. AASF, Bur-46, Sandia, Box 10.
  - 17. AASF, Bur-25, San Felipe, Box 13.
  - 18. AASF, Bur-37, Santo Domingo, Box 31.
  - 19. AASF, Bur-8, Cochiti, Box 6.
  - 20. AASF, Bur-30, Santa Clara, Box 20.
- 21. H. H. Bancroft, History of Arizona and New Mexico, 1530-1888 (San Francisco, 1889), p. 266.
  - 22. Duffy, p. 24.
- 23. Edward P. Vedder, Medicine, Its Contribution to Civilization (Baltimore, 1929), p. 56.
  - 24. Croix to Anza, Chihuahua, Sept. 15, 1781, SANM, no. 831.
  - 25. Croix to Anza, Chihuahua, Jan. 13, 1783, SANM, no. 850.
  - 26. Cooper, p. 56.
  - 27. Stearn and Stearn, pp. 40-41.
  - 28. Nixon, p. 46.
- 29. Herbert Eugene Bolton, Athanase de Mézières and the Louisiana-Texas Frontier, 1768-1780, 2 vols. (Cleveland, 1914), vol. 1, p. 27. In the early nineteenth century, Miguel Ramos Arizpe noted that smallpox had devastated the ranks of many fierce nations of western Texas. Nettie Lee Benson, ed., Report of Miguel Ramos Arizpe (Austin, 1950), p. 7.
- 30. The area west of New Mexico was spared at this time. In 1781 the disease appeared briefly in Lower California, but it was controlled and did not spread to the north. Cook, "Smallpox," pp. 153-55.
  - 31. White, p. 16.