



Albuquerque, N.M., December 20, 1918

To: P.T.Lonergan, Supt.,

From: D.A.Richardson, M.D.

Subject: Influenza Epidemic at Pueblos of Albuquerque Day School  
Section.

It was with a great deal of pleasure that I responded to the urgent request of the Commissioner of Indian Affairs at Denver on the 25th of October, 1918, and with the kindness of the A.T.& S.F.Railway officials at Topeka I was enabled to reach Albuquerque promptly the following day.

From the Agency I was immediately conveyed to Isleta by Mr. Lonergan in person and the same afternoon I arrived in Albuquerque and was able to size up the situation promptly. The following day the deplorable condition at Isleta presented itself in the death of ten Indians. The Pueblo itself, situated in its better portion northward, was in marked contrast to the southerly portion of the Pueblo which was older and presented a mere mass of low ceilinged adobes, small doors, virtually no windows, one pigeon hole leading into another, sometimes in long sections, and in all these it was absolutely impossible for the sun to shine. In these rooms, were, in all stages of the Flu, Indians lying dead or dying or advancing well to the conditions which followed the Flu.

The Flu itself throughout all the pueblos was a matter of primary importance but where directions were carefully followed out, was seldom followed by pneumonia, pleurisy, nephritis,



empyema or aught else of importance. At Isleta, prior to my reaching there, virtually all of the Indians had passed through what I am pleased to designate as the influenza proper and the course of the disease is such that I believe it wise in this report to define the origin, course and prognosis of the Flu itself.

The beginning of the Flu is prostration, with headache, coryza, more or less running of the nose, but ~~it~~ is marked by ~~the~~ great prostration, the patients, in the case of Indians, literally falling to the floor. You would enter a placito and find all the inmates reclining on thin mattresses with their backs against the cold wall, with hard, racking cough, some sneezing., the children running at the nose, the temperature ranging from 102 to 105, the customary temperature being about 103.5. These patients passed ~~for~~ <sup>in</sup> about five days to what was apparently a normal condition and if they remained within doors, properly cared for, would in a majority of instances escape further sequela. These patients were instructed to maintain a horizontal position, to eat nothing but fluid food, to drink abundantly of hot water and to maintain an open toilet. They were to remain thus quiescent at least ten days. I had very little trouble to get the Indians to follow out my instructions where the death rate had begun. The death rate begins immediately upon the advent of pneumonia or other of the rarer complications, such as nephritis, pulmonary aedema *etc.*: Cases of pulmonary aedema were not uncommon.



The pneumonias began sometimes immediately upon the completion of the influenza proper, generally however, a few days intervening between the cessation of the coryza and the beginning of the pneumonia. Almost without exception throughout all the pueblos the pneumonia began as <sup>Capillary Bronchitis</sup> ~~bronchial pneumonia~~, with profuse secretion.

The first stage of the pneumonia was marked by a peculiar onset and absence of the subcrepitant rale but with symptoms all over the chest resembling the "creaking hinges" of tubercular fibrosis. In many instances a day would elapse between this demonstration and the appearance of the diagnostic subcrepitant rale of bronchial pneumonia. The respiration would be normal and suddenly increase, in minute number, and in many instances for a few days it would appear as though the prognosis was very favorable, when without warning the positive toxicity of the disease would result in cardiac apoplexy. Many patients would pass through a double pneumonia, be apparently convalescent and suddenly die of pulmonary atelectasis.

Throughout all the pueblos the same cause of death appears and it is due to the ingestion during the progress of this disease of solid food or of sitting up in an erect posture at times, producing thereby hypostatic congestions or exhaustion. The element of fear in all instances among Indians is productive of great harm and should be removed by suggestion or actions as early as possible in the case of Indians.

The medication of the Indian was a matter of second-



ary consideration to the maintenance of rest, regimen and diet. Where the combativeness of the Indian was demonstrated by frequent changing of position from horizontal to erect posture, little could be done. Where he maintained an earnestness of purpose and remained prone, frequently changing his position from side to side without raising his shoulders from his mattress, adhering to fluid diet, the majority of cases recovered without very much other than symptomatic medication. It was noticed that patients of a marked tubercular tendency made a better carriage through the disease and through the pneumonia than others of the non-tubercular <sup>type</sup>. This was markedly demonstrated in the case of Maria Venavides at Isleta, a girl of 14 years of age and who is still alive.

The death rate, let me state here, at all the pueblos although large has in the list of those who died, cases of quite different conditions, for instance, - there were three deaths at Santa Clara, all obstetrical cases; one at Jemez; and two at Santa Clara. The case of Reyes Padilla at Isleta was pitiful to say the least. She was thoroughly convalescent the day preceding her death but was placed in a closed room filled with smoke, a wet cloth was laid over her face by the old medicine man, and she relapsed and died in a few hours, of pulmonary aedema.

Such cases were not uncommon. The case of Jose Jaramillo will represent the course of the epidemic in the aged. The strength of the pueblos was not taken with the aged or mark-



edly with the infants but ~~was taken~~ from the young, adult life of the tribe. Jose Jaramillo presented on the 29th day of October ~~wixk~~ a pulse of 90 and temperature 102 with the Flu. ~~Asc~~uscultation and percussion all over chest, back and front, complete abdominal examination and careful attention to condition of the heart which was normal. Both heart sounds sharp and normal. The lungs at 5:00 P.M. presented normal vasicular respiration over the entire chest, front and back. There was normal resonance over the entire chest front and back; palpation, normal fremitus everywhere, bowels had not moved for three days. His skin was moist. His throat was clear of secretion, a little red. His nose was not running and had not. There was no suffusion of the eyes, no sneezing, and he was not deaf. He had taken some salt and water, as he said, to cut the fever.

The only symptom of Flu which he presented was the prostration, which was excessive and well marked, with this fever. His cough was hard and violent but without expectoration. This man lived out from the village at least two miles. No homes immediately about his adobe and it is a perfect quarantine so far as being separated from others, is concerned. I looked upon this case as quarantined to the extent that Indians can be quarantined. It was a fair proposition therefore save for his age, which was 70 or more years. His daughter-in-law is an educated, intelligent woman and did as she was told. I know this to be so.

He was taken sick suddenly on the <sup>27</sup>~~28~~th. He was a well



man October 27th. On the evening of October 27th at 8:00 P.M. he felt sick to his stomach and had a headache. He became very weak and had chilly sensations. He began to have a slight cough, as he said, "from tickling in his throat," and the cough increased in violence until now, Oct. 29th, 5:00 P.M.

With Indian philosophy he had sprained his lung with hard coughing in the expectation probably of getting the 'witches' out of his lungs. He was instructed to be a little more moderate in coughing, with which request he cheerfully complied, was given a little White Pine cough syrup to remove the tickling from his throat, and there was no expectoration whatsoever at this time. He was fed chicken broth every two hours, did not sit up at all, used the bed pan and wore a mask over his mouth. His whole body was oiled with lini. camphorae and <sup>he</sup> did not sleep with his hands over his head. On the morning of the 30th his pulse was 84, temperature 102 and his respiration 32, coughed much less, pulse regular, full and apparently no high blood pressure. The cough still dry. Auscultation: After clearing his throat of a slightly yellow, very tenacious, gelatinous sputa the apex of right upper lobe of lung "groans". No rales in the chest anywhere. The patient does not make any noise with his voice. The groan is therefore of the lung tissue. His bowels have moved freely. At first the small amount of solids, then the Epsom salt serous discharge. The color at first black, then yellowish but no bile. His skin moist. He felt sweaty during the night, the result of a Dovers powder and has had no chill



Note here that this man has been an alcoholic subject. Under the heart in the lower part where the posterior lobe turns towards the right a few sibilant, soft but not moist rales, whistles rather than rales, are heard, indicative of a Capillary Bronchitis. Respiration through the large tubes is still vesicular but the masses of the lung groan with every inspiration and expiration. After coughing this groaning is accentuated but he has no pain in chest. He is still lying level. One thin pillow only under his head and he does not indulge in talking. There is moderate cephalalgia only. At 8:30 P.M. his pulse was 84, his temperature was 101.5. He was not apparently any weaker and was perspiring freely. There are no rales in his chest yet. I feel encouraged but his windows and doors were all closed at this evening's call and there were three Indians in the room.

Note also that this man has a real bed. He is not lying upon the floor; he is in bed. He has no pain in his chest, breathing is not painful, respiration 36 regular. Pulse regular, full and strong. He is using bed pan and is eating lamb broth and has had nothing but fluid food thus far. October 31st, 9:00 A.M. pulse 73, temp. 101.5, respiration 30. Lungs absolutely free of all but vesicular respiration, cough is easier, but little sputum, is being well fed liquid food, and to this time the man has played the game fair.

This shows what can be done with the earnest cooperation <sup>of</sup> his immediate family. He has no headache, His windows



and doors always open days and will be nights I feel sure.

October 31, 5:00 P.M. Pulse 90, temp. 101.5, being fed. He vomited and in his sputum which has now begun there is some blood. Now then, this illustrates the fact that there are always pneumonic areas in the presence of capillary bronchitis. Respiration 24.

November 1st, A.M., pulse 74, temp. 101.2, respiration 28. Lungs clear or clearing. He feeds well. Still remains in bed quiet but wants to get up. Cough is very slight and dry and loose, bowels moving and being fed, headache all gone. A few groans in the lung after a cough. Appears to be to be recessional, - that is, reversal of symptoms as Flu subsides.

November 2nd, pulse 76, temp. 100.6, respiration 36. Right lung absolutely clear. The posterior left lobe under the heart crushes. I hope he will not set up but he has been up and walked about the room.

November 3d, I found him sitting up and walking about.

November 4th. All off. Double pneumonia, with all symptoms suddenly presenting.

November 5th, taken to Isleta in a wagon by his relatives.

November 6th, - dying.

This illustrates the average case with the Indian. It is not perfect in all its particulars but at least to the professional mind, is technically accurate. This man died about noon November 7th.



The average duration of an epidemic of Influenza is six weeks, - two weeks for the Flu- one week for the sequelae - and deaths, - and three weeks for the convalescents.

The conditions existed with great similarity at all the pueblos. There have been no relapses at any pueblo after the cessation of the convalescent period. The losses varied with different pueblos from 89 at Isleta to 9 at Tesuque. Small-pox was epidemic at Jemez when I arrived there Nov. 4th and there were no deaths from small pox, although fully sixty cases presented. A majority of the cases were true varioloid. A small number only of variola.

Complete records of all cases will be delivered at the hands of the various field matrons. Every placita on every pueblo visited was entered, - for instance, at Jemez, 380 individuals were cared for <sup>at</sup> 90 placitas at Jemez. Everywhere all government employes were alive to the situation, earnest of purpose, and extremely efficient and exploited a full, cheerful missionary spirit. The Indians were appreciative of our efforts, although at first it was hard for them to willingly accede to our requests, but with death staring them in the face at every corner, they were driven in their fear to accept of our assistance and as success began, appreciation followed.

I am under obligations to the Department for the cooperation everywhere of the employes. I believe this is a fair report of the influenza epidemic at Isleta, San Domingo, Santa Clara, San Juan, Nambe, San Juan Ildefonso, Santa Ana, Zie, Jemez.

Respectfully submitted,

*Ala P. Richardson*