Public Health Chronicles

PUBLIC HEALTH INITIATIVES IN THE FOUR CORNERS OF COLORADO, 1955–1957

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Following two years of public health service in Nepal, my family and I moved in early 1955 to Durango, Colorado, where I began my assignment as Director of the San Juan Basin Health Department. Dr. Roy L. Cleere, State Health Director of Colorado, was a good friend who had maintained contact with me for several years, but whose letters had been increasingly urgent. The health department for the Four Corners region desperately needed a director. In 1949, Colorado's government had organized a health unit by consolidating the counties of Dolores, Montezuma, La Plata, and Archuleta, but had not been able to secure someone to oversee operations. The health department served a population of 32,350 people in 11,436 square miles, but without leadership, it faced extinction. Three of the counties were already withdrawing from the unit. Cleere was familiar with my work instituting health

programs in the remote country of Nepal and believed that my expertise would similarly invigorate the Four Corners' health department and solve its problems. I accepted the challenge.

The decision to settle in Colorado was actually an easy one, despite Cleere's salary offering of only \$10,000. I had earned my medical degree in 1947 from Temple University and had interned at the University of Colorado Medical Center in Denver in 1948. My experiences in Denver were positive; I fell in love with the rugged beauty of the state and its people. Because my family and I had been subsisting in fairly primitive conditions for two years in Nepal, we believed we were well-prepared to live simply in Durango. My wife, Connie, was a graduate of The Johns Hopkins University School of Nursing and thought that she could find a nursing job to augment our income. We were both grateful to be in the U.S. for our 7-year-old daughter's first year of school. When she declared that she could ride a horse to school, that settled the matter. Accepting the position in Durango meant that I would be locally employed by the San Juan Basin Health Department; my commission in the U.S. Public Health Service (USPHS) was temporarily inactivated, but I would remain in the Reserve Corps.

Pictured: The staff of the San Juan Basin Health Department in front of the entrance of the health department housed in Mercy Hospital, Durango, Colorado, February 1956. (Dr. George Moore is in the back row on the left.)

SETTING THE GROUNDWORK

I arrived for duty on January 1, 1955, confronted with the first problem. The staff of the health department had been held together by Robert W. Balliger, the Chief Sanitarian, but without adequate quarters. They were housed in an old community hospital, which was ready to be torn down. A new hospital had been built with some federal funding under the Roman Catholic Sisters of Mercy, complete with space for the health department on the first floor of one wing. The community was predominantly Protestant, and many were suspicious of Mercy Hospital.

Some believed that if the health department moved in, its staff would find itself under Catholic Church domination. I was Protestant, a Presbyterian, but welcomed the opportunity to work in the hospital and wasted no time moving the entire unit into the wonderful space. My staff unified behind me without a whimper from anyone. The Sisters of the hospital thanked me profusely, and when my youngest child was born there, they erased the hospital charges. In return, I agreed to train student nurses from Denver as they came to Durango. It was a true ecumenical arrangement.

I inherited a staff of seven public health nurses, two sanitarians, a bacteriologist, and three clerks. The men and women already appointed to the supervisory board of health represented the four counties and worked well together and individually. It took some time to visit the four counties, meet with the supervisors, and study the problems to be solved. I took special care in meeting with the entire San Juan Medical Society, which subsequently chose to meet in Mercy Hospital. Several of the physicians, however, were suspicious of the new 33-year-old health officer from the federal government and wondered if “socialized medicine” might be just around the corner. I met with all of the doctors personally and also joined their softball team so I could spend more time with them. My interactions with them in these informal contexts seemed to disarm their fears. A few of the physicians were quite knowledgeable about public health and vocalized strong support for our efforts. Together we filled some challenging vacancies and further trained existing staff. Gradually, we were able to show a well-organized and efficient unit capable of solving problems and serving as an asset to all communities.

MEETING IMMEDIATE NEEDS

Our first tasks covered a variety of locales and their specific needs. Our nurses visited local schools where they initiated fundamental health and hygiene programs. They also provided maternal and child health clinics, administered immunizations, sponsored well-baby clinics,

and managed services for handicapped children and people with respiratory conditions, heart conditions, and venereal diseases (VDs). The sanitarians inspected restaurants, food plants, slaughterhouses, and dairy farms. To be employed, food handlers were required to have official health certificates issued by the department. Fluoride was added to public water supplies to prevent tooth decay. The sanitarians sampled water and milk for contaminants and tested air quality. They discovered that the drinking water at the Mesa Verde cliffs in Montezuma County, a popular tourist site, was collected off the roofs of buildings and was unsanitary. A better water supply was found in the mountains some 30 miles north, and the sanitarians helped to engineer a system of pipes that brought the water to the nearby national park. They also found that public swimming pools used water from the abominable sulfurous hot springs in the area and took measures to halt that practice.

We soon discovered an enormous mound of radioactive tailings on the bank of the Animas River. The Vanadium Corporation of America was processing uranium and dumping the waste material, still radioactive, into the river for disposal. I asked the sanitarians to check the river downstream, as the nearby city of Farmington, New Mexico, was drawing its drinking water from it. The sanitarians brought back dead fish heavy with uranium ore. This was a huge environmental

Mesa Verde National Park in Montezuma County, Colorado, July 1956. After Dr. George Moore's team found a water source in the mountains, the water was piped 30 miles to the park.

problem that exceeded the purview of my health unit, so I contacted the authorities in Washington, DC, for national attention. Within a week, the government sent agents to the area to inspect the problem and then launched a program to correct it. Still, my workers and I kept an eye on the Vanadium Corporation plant and soon observed that the radioactive tailings were being given to the highway departments for disposal on newly asphalted roads. Again we alerted the federal authorities to this problem for correction.

The local sheriffs lacked a basic crime laboratory, so we offered to handle their lab specimens. My initial work at the health department also involved controlling outbreaks of hepatitis A, scarlet fever, diphtheria, typhoid, dysentery, and meningitis. In addition, we administered the then-new Salk polio vaccine to more than 2,000 first- and second-grade children.

CONTROLLING TUBERCULOSIS

As we began addressing the most immediate needs of the area, we discovered that tuberculosis (TB) was a major problem, especially in the mining communities. Rico, a village of 400 people at 8,700 feet elevation in Dolores County, had reopened mines for lead and zinc. At the turn of the century, the town had enticed 8,000 people searching for gold and silver. A local physician reported to us that he had recently found three cases of pulmonary TB among the miners. On investigation, I found that 130 of the miners were Navajo Indians who had been brought from Arizona and New Mexico to help work the mines. Because the cases of TB were among the Indian population, it seemed certain that the Navajos had carried the disease to Rico. In 1953, the reported case rate for TB among Navajos living on reservations was an alarming 1,042 per 100,000. I called for a multiphasic health survey of the entire town, and the state provided a mobile chest X-ray truck with additional personnel. During the survey, 344 inhabitants were screened, including all of the 130 Navajo Indians and their families. We found six more cases of TB, including two among non-Indians, and admitted the active cases to sanatoria. We also found that rheumatic fever was legion in the area.

HELP FROM HOLLYWOOD

Our Durango quarters needed an X-ray unit, but there was not enough money in our budget to purchase one. With the help of the Colorado Tuberculosis Association, we campaigned for funds. At about this time, a Hollywood movie company arrived in Durango for filming. Durango was a favorite location for Westerns,

Movie star Jimmy Stewart (left) met with Dr. George Moore in August 1956 about being a sponsor for the campaign to raise money for an X-ray unit for the San Juan Basin Health Department in Durango, Colorado.

and 32 had already been made in the area. The famous movie star, Jimmy Stewart, was in town to film part of *The Man from Laramie*. I arranged for a meeting with Stewart and asked him to be our sponsor for the campaign. He graciously agreed and allowed us to use his name, which very quickly resulted in enough money for the X-ray unit as well as the installation of a radioactive fallout station for civil defense. Some of my staff used their vacation leave to work as extras for the movie companies. The pay was good, and the men loved acting in the barroom brawls. The narrow gauge railroad from Durango to Silverton was also used in the train scene in *Around the World in Eighty Days*. Ute Indians from the area were employed in the cast to attack the train with rubber-tipped arrows. They told me later that if they had been able to use real arrows, they would have changed the movie.

Our presence in the community was met increasingly with public accolades. Despite our meager budget, we were gradually and visibly improving public health, and people were noticing. While we sought ways of solving problems that our budget could not yet accommodate, our four counties were pleased with the progress. My staff worked selflessly, and I was proud of them. In August 1955, the *Durango Herald News* published a feature article on the San Juan Basin Health Department, praising its accomplishments. Arthur Ballantine, Jr., the editor, was one of our biggest supporters and followed every program with a great news story. At the annual Spanish Trails Fiesta parade, we even exhibited our own float, featuring popular high school athletes in uniform and dress, proclaiming better health.

PROVIDING HEALTH CARE FOR THE UTES

Included in the population for health care by the San Juan Basin Health Department were two tribes of Ute Indians. One tribe occupied a reservation in La Plata County at Ignacio, just south of Durango, and was known as the Southern Utes. The Ute Mountain Indians were located in Montezuma County at Towaoc, somewhat distant from non-Indian settlements. The tribes numbered about 1,200 people.

The Utes had once been a tribe of about 6,000, dominating the southern Rockies. They had been friendly toward the early white settlers, but tolerated little infringement from prairie Indians, who often tried to invade their mountain fastness. The Gold Rush brought thousands of unruly miners in the 1860s, and the Utes fought back. Ultimately defeated, the Utes were herded to the designated reservations. The Utes were hunters, but had increasingly little land on which to hunt. Tillable land was subject to homesteading by white settlers up to 1934, leaving the Indians only the harshest mesas and arid plateaus on which to exist. Renegade Utes raised a war party in 1933 and attacked the unwanted settlers, burning their barns. Years passed and the tribe, poor and disillusioned, dwindled to less than a thousand. Many slept in mud hogans and tents, suffered from alcoholism, and lost hope for existence. Infant mortality was extremely high, with some babies being smothered unwittingly by their intoxicated parents.

Responsibility for maintaining the reservations had been given to the Department of the Interior, but little had been done to sustain the Indians' health. In 1950, a small clinic had been constructed at Ignacio, and the government had requested the services of a public health nurse from the local health unit. It was not enough, however, and in July 1955, the USPHS was

appointed to provide needed health services. USPHS representatives from Albuquerque soon visited me to discuss how we could work together to serve the Ute population. I proposed a multiphasic survey of the 1,200 Utes as a first step in identifying diseases and problems in their environment. The USPHS awarded us \$2,000 to do the survey, which was carried out in September. On January 1, 1956, the USPHS also gave us another sanitarian to work in the Indian program. It appeared the USPHS was depending on us to handle the entire health program for the Ute tribes.

Another event also added to the complexity of the situation. Since World War II, the reservations had been explored for natural gas, oil, and uranium. The Vanadium Corporation had begun mining uranium for power plants and nuclear weapons. Vast quantities of natural gas were also being piped to West Coast cities. Twelve years of legal wrangling over ownership of the land and other claims resulted in a settlement of \$32 million for the Utes. The Indians were no longer poor; in fact, each Indian had become richer by \$10,000 overnight. We soon learned how they would spend this sudden windfall.

We started our work with the Indians by visiting the tribal councils to obtain their understanding and sound advice. The meetings in Ignacio with the Southern Utes were successful. Members offered helpful suggestions, resulting in an agreement that two of their members would work with us at every turn. Our attempt to meet with the tribal council of the Ute Mountain Indians, though, was a failure. Apparently a "white trader" governed the tribe and swayed them against us. The Ute Mountain Indians lived deep in the reservation, at least 40 miles from Cortez, and their only real contact with the outside world was through the trader who bought their jewelry and curios, and sold them staples, tools, and clothing. He became their spokesman as well and insisted that no change should occur. I was not able to meet with the council and finally had to give up. In time, I hoped they would see the positive changes occurring with the Southern Utes and reconsider their position. We decided to concentrate our efforts on the Ignacio tribe near Durango.

The multiphasic survey went well. We screened 486 Utes. Representation by sex was about equal, and 60% were in the 6- to 18-year-old age group. We also examined 175 other Indians, including Navajos who lived with the Utes. We identified serious TB and VD problems, as well as very high neonatal and infant mortality rates. Obesity and alcoholism were also of critical magnitude. Because of their increased incomes from the settlement, many Indians were now driving cars and spending more time with non-Indians. Increased

social disintegration resulted in major outbreaks of VD. In fact, the syphilis rate among females was double that of the males due to the presence of numerous oilmen in the field. More than 15.6% of the Indian women were syphilitic reactors compared with 8.5% of men. TB mortality was 84.0 per 100,000, the death rate from pneumonia was at 189.6 per 100,000, and the mortality rate from gastroenteritis was at 105.0 per 100,000. We estimated that 25% of infants died within a year of birth.

Our new sanitarian worked directly with families to improve their home living conditions. He discovered that as some families hired contractors to build homes to replace their tents and huts, they were being cheated. Without a water supply, faucets and toilets did not work. Septic tanks were not connected. People either bought water in barrels from the town's trading post or scooped it up from the dirty streams. When a family paid to have a well drilled, they would usually have to go to a level of 2,000 feet before striking water, if they were lucky. They had new money to use for the drilling, but the sanitarian was hard-pressed to correct all the problems because of many unscrupulous and unqualified contractors. Gradually, he won the trust of the families to help them deal with legitimate contractors that would ensure them the good things they wanted and needed.

Our medical care facilities and services continued to grow. The tribe had sufficient financial means to buy insurance, so we helped persuade BlueCross BlueShield to support the health costs for all tribal members for the sum of \$50,000 annually. Indians would be welcome to use the hospitals and other medical facilities that non-Indians used. The Utes did not hesitate to use the facilities. Mercy Hospital also joined us in meeting the Utes' medical needs, and soon many Indian women brought their sick babies to the hospital for care. Unfortunately, some mothers would disappear for unusually long periods of time, knowing their infants were in good hands. Some children would be left in the hospital for weeks—another problem for us.

The Utes' propensity for alcoholism was a significant and perplexing problem. I consulted with psychiatrists at the University of Colorado to whom we had referred Indian patients for treatment. They thought that the drinking behavior of the Utes was quite different from that of non-Indians. Two of them visited the reservation with me to determine a standard of Indian behavior that they could use when examining Indian patients. The tribal council was open to the psychiatrists' psychoanalysis of as many Indians as needed to establish a standard toward the control of alcoholism.

BRINGING CULTURES TOGETHER

Amalgamating the Indian and non-Indian cultures seemed to provide the best solutions to the health problems of the area, so I continued to think of ways to make this possible. I had observed Indian youths playing basketball in Ignacio and noted that they were excellent athletes. I conferred with a public high school coach and was able to convince him to try a few Indian boys out. The Indians played so well that the team began winning more games. It was not long before other schools joined the search. Indian families soon visited the stands along with the other families to see their sons play.

A rodeo named the Spanish Trails Fiesta was a major annual event. Indians usually won the horse and pony races, but there had never been an Indian as the rodeo queen. In 1955, I was appointed one of three judges to select the queen. I asked our public health nurse at Ignacio to ask an Indian girl to apply for the position of rodeo queen. As judge, I would spend several weeks with the contestants, observing as each one handled a horse in her official garb and demonstrated proficiency in language, knowledge, and social grace. In the past, every queen had been a rancher's daughter, and it was apparent that most officials expected the judges to select another one of the same.

I found the Indian girl to be perfect. She had attended several schools in the Midwest and knew how to act with complete grace and charm. She could be a winner. As the day of voting approached, I noticed that the two other judges were focusing on a rancher's daughter. I asked them to meet with me to discuss my choice and convinced one of them to vote with me. Needless to say, the Indian girl was magnificent and stole the show. She wore a sombrero, green jacket, pants, and boots as she exhibited perfect horsemanship in leading the procession. Our health-care initiatives were not only meeting the physical needs of the people, but were enhancing the quality of life for Indians and non-Indians alike, as they increasingly shared experiences.

The San Juan Basin Health Department was successful in implementing health-care programs in the Four Corners of southwest Colorado from 1955 until 1957. These programs continued to thrive and benefit the Indian and non-Indian communities for years to come. Today, the department offers 72 public health programs organized in four divisions.

In early 1957, an urgent call from Washington informed me that I was being placed back on active duty by the USPHS. The nation was facing a crisis with the Soviet Union over Cuba, and I was needed in

the Chicago area to develop medical care plans and programs for five states in case of a national attack. My base would be Battlecreek, Michigan, under the Federal Civil Defense Administration. I would have loved to continue the satisfying work in Durango, a

wonderful town, but there was little choice. My last day at the Durango unit was May 1, 1957.

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