NEW MEXICO PUBLIC HEALTH ACHIEVEMENTS DURING THE 20th CENTURY

Office of New Mexico Vital Records and Health Statistics
Public Health Division
New Mexico Department of Health

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Recently, the Centers for Disease Control published a report on the "Ten Great Public Health Achievements" in the United States During the 20th Century (CDC 1999). Among the list of achievements are the following:

- **The eradication or control of infectious diseases.** Through intensive vaccination campaigns, smallpox and poliomyelitis have been eliminated and other diseases such as measles, rubella, tetanus, and diphtheria have been controlled.
- **Cleaner water, improved sanitation, and better hygiene.** Improvements on these fronts have decreased the occurrences of typhoid, cholera, malaria, tuberculosis, and STDs.
- **Healthier babies and mothers.** Through improvements in nutrition, advancements in antibiotics, and increased access to health care, infant mortality has declined 90% and maternal mortality 99% nationwide since 1900.
- **Advances in motor vehicle safety.** With improvements in both highway and vehicle engineering as well as changes in personal behavior (such as increased seatbelt use and public campaigns against driving while intoxicated) motor vehicle safety has dramatically improved since the advent of the auto (CDC 1999).

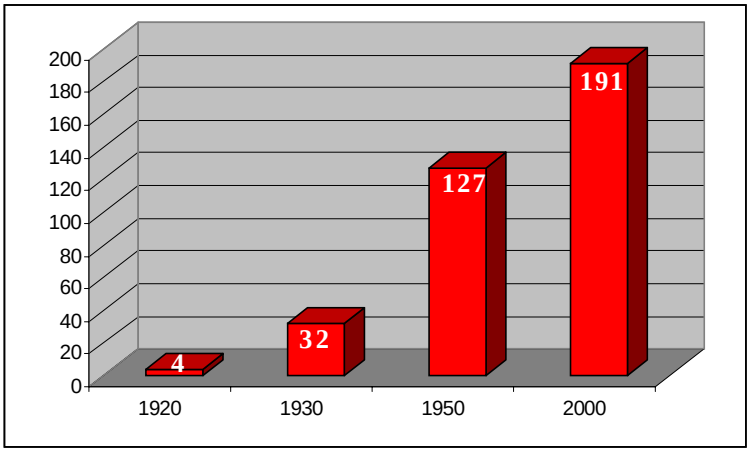
This article examines how these goals were achieved in New Mexico, the public health campaigns behind them, and the sharp decline in the incidence of disease and premature death throughout our state. In 1919, the first meeting of the State Board of Health of New Mexico was held during the Larrazolo administration and the Division of Public Health Nursing was created. The Board's budget for fiscal year 1921 was only $16,700.16, with $2000 allocated to fight infectious diseases. State funding was so limited that the first Chief of the Division of Tuberculosis, Clinton P. Anderson (who later became U.S. Senator and Secretary of Agriculture in the Truman Administration), served without pay (NMHO 1944:2-6).

Figure 1: A New Mexico Public Health Nurse in 1923

From the very beginning, public health nursing with its emphasis on providing health care and health education was seen as the most effective means of lowering the state's high infant mortality rate, improving hygiene, and preventing the spread of communicable diseases (NMHO 1944:6). Due to the sparseness of New Mexico's population and its rural nature, home visitation by public health nurses was considered the most effective means of delivering services and education to the public. In 1925, there were 10,500 home visits by public health nurses in which 3,900 babies were examined. In addition, 24,900 school children were also examined. One-half of these children were found to suffer from health problems. These cases were followed up with either home visits or with written instructions to the parents. In 1925, public health nurses traveled approximately 130,000 miles throughout the state (NMHO 1944:10). In 1920 there were only four public health nurses in the state. By the end of 1930, the number climbed to 32. The number kept increasing reaching a high of 127 by 1950 (NMHO 1938, 1950). Today, there are 191 public health nurses employed by the State.

Figure 2: A New Mexico Public Health Nurse in 1940

Figure 3: Number of New Mexico Public Health Nurses



These numbers help illustrate the humble beginnings of New Mexico's public health effort. Advances in public health were not easy in New Mexico. Limited funding and shortages in the number of public health nurses during early statehood hampered New Mexico's efforts. As a result, health improvements lagged behind the country as a whole. Due to New Mexico's continuing resource shortages, some of the state's health indicators still lag behind the rest of the country. Yet, other indicators are now better than the national average today: infant mortality in New Mexico today is lower than the U.S. average as are State death rates from heart disease and cancer.

CONTROL OF INFECTIOUS DISEASES AND IMPROVEMENTS IN SANITTION

From the beginning, the control and prevention of infectious diseases was seen as one of the most important tasks for public health officials. A review of health related headlines from New Mexico newspapers of the 1918-1925 period illustrates this fact. New Mexico began systematic record keeping of causes of death and disease morbidity in 1929. During the ten-year period 1929-1938, deaths from infectious and parasitic diseases accounted for 17 percent of all deaths in the state. In 2000, they were responsible for only 1.5 percent of all deaths.

Figure 4: New Mexico News Headlines, 1918-1925


SOUTHERN PACIFIC TRAIN HELD UP AT LORDSBURG --- BY THE HEALTH OFFICER

WEAPONS ARE LANCET AND VACCINE TUBES; LOS ANGELES CAPITALIST CAUGHT WITH SMALLPOX.

The perfectly legitimate hold up of a Southern Pacific train at Lordsburg by Dr. C. P. Austin, acting local health officer, armed with a lancet and a handful of vaccine tubes, was reported to the health department today. Doctor Austin made the report.

A Los Angeles capitalist, a passenger on the train, was found to have smallpox. At least trainmen suspected he had and telegraphed Doctor Austin before the train reached Lordsburg. The doctor confirmed their suspicion and had the capitalist taken off the train and placed in isolation in the town.

The capitalist's fellow travelers were vaccinated by the doctor. The number of "contacts" was not given. The Pullman car in which the "case" was found was sidetracked at Lordsburg and fumigated. The "contacts", however, were allowed to continue on their way after being vaccinated. They were transferred to other cars.

The name of the capitalist was withheld, the health department regarding the report as to his identity as confidential. It was said, however, that he was a capitalist and that his home was in Los Aneles. He was returning home from somewhere in North Carolina when his anatomy was selected by the smallpox germs —or whatever they are—as a suitable domicile.

NEW MEXICO PEOPLE AWAKE TO NEED OF A STATE HEALTH DEPARTMENT

16 TYPHOID CASES IN ALBUQUERQUE; MILK BELIEVED CARRIER OF DREAD DISEASE

TUBERCULOSIS BIG SCOURGE

NEW MEXICO'S BABY DEATHS ARE HIGHEST

American babies as a whole have more than twice the chance of living that those have who are born in New Mexico says Miss Kay Parker, statistician of the state health bureau. For every thousand born alive in 1923 in this state, 134 died before they were a year old, while only 52 died in the entire country.

STATE DEPARTMENT OF HEALTH HOLDS INITIAL MEETING

DIPHTHERIA CLAIMS 5 CHILD VICTIMS IN TAOS AND 3 SCHOOLS CLOSE THEIR DOORS

23 TYPHOID CASES TODAY; VACCINATION URGED ON PEOPLE

Chief of Bureau of Preventable Diseases Says Source of Infection Has Not Yet Been Located —Fears Increase in Cases Here.

FLU CAUSED 938 DEATHS IN STATE UP TO OCTOBER 31

SMALLPOX PATIENT WENT TO A DANCE

NOW HIS FRIENDS ARE SUFFERING FROM THE DISEASE; THE WHOLE VILLAGE OF DURAN IS QUARANTINED.

47,000 DEAD FLIES TAKE FIRST PRIZE

Soldier There Safer Than Baby Here

Heavy Casualties Reported in Month's War on Disease Spreaders—Harmon Crawford Again Winner.

Tuberculosis was the leading cause of death in New Mexico from statehood through the early 1940s. New Mexico had the second highest rate of TB infection in the U.S.—only Arizona had a higher rate during the 1930s (Linder and Grove 1943). Tuberculosis sanatoria populated the state due to the New Mexico's reputation for having a healthful climate for recovery. Soon, many TB sufferers began to arrive from the east. During the 1930s, public health officials estimated that one-half of all Tuberculosis deaths in New Mexico were non-residents (NMHO 1936; NMHO 1941), however by 1946 less than one-fourth of Tuberculosis cases orginated within the state (NMHO 1946). While many patients in sanatoria received medical treatment, treatment of New Mexico residents was hampered due to the small number of public health officials, poor roads, and a lack of public education concerning the spread and treatment of Tuberculosis. Morbidity statistics from 1930-1939 indicate that tuberculosis accounted for12 percent of all notable diseases, however public health officials assumed that many cases of the disease contracted by New Mexico residents went unreported (NMHO 1936).

By the 1930s, Tuberculin testing programs received the highest priority in the public health budget. Even so, shortages in staff and the low number of public health nurses limited the effectiveness of state education outreach programs. Yet, in spite of its meager resources, New Mexico made progress in combating the disease. Figure 6 shows that New Mexico tuberculosis deaths were almost 60 percent higher than the U.S.

Figure 5: Doctor examining tuberculosis patient, 1930s

Figure 6: Tuberculosis Crude Death Rate, 1929-1938

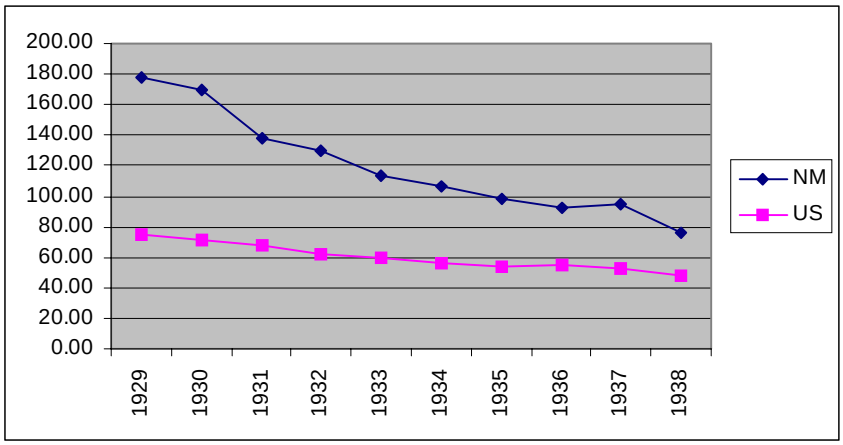


Figure 7: Rural New Mexican Tuberculosis Sufferer and his family, 1930s

Figure 9: Diphtheria Crude Death Rate, 1929-1938

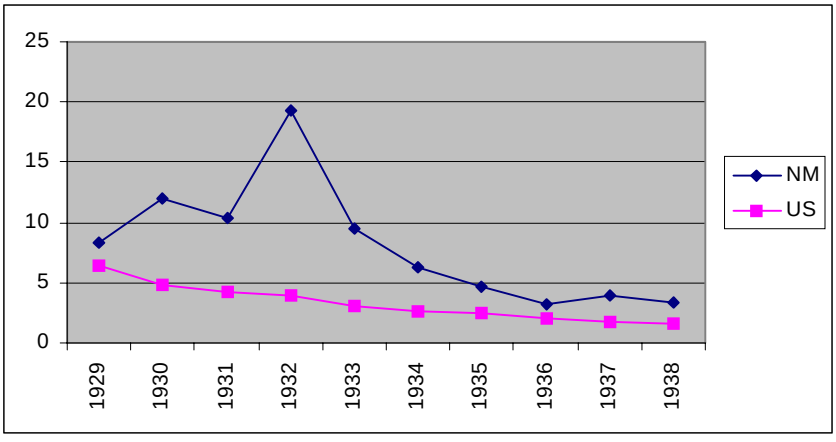
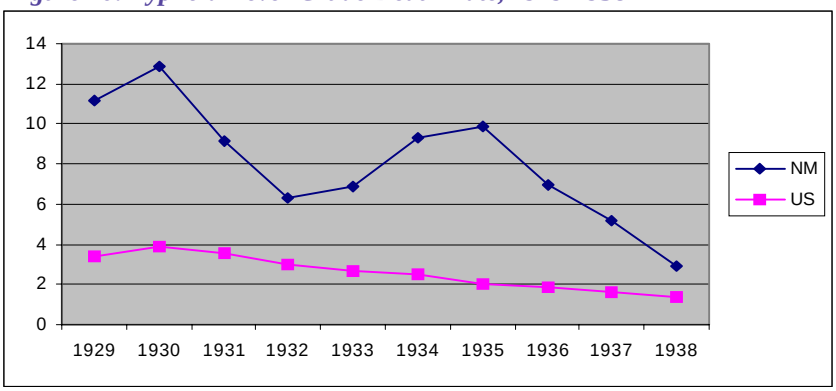
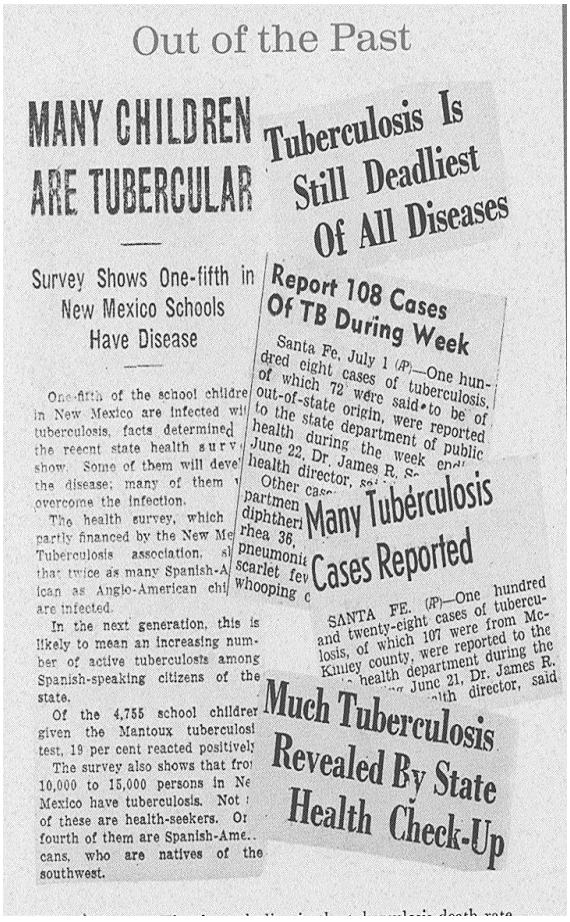


Figure 10: Typhoid Fever Crude Death Rate, 1929-1938



rate in 1929 but by 1938 the state rate declined to 36 percent above the national rate. Tests in 1933 found that 18.9 percent of the school children in Santa Fe County and 7.1 percent in Lea County tested positive for Tuberculosis (Greenfield 1962:294-95). By 1957, Tuberculosis had declined from the first to the tenth leading cause of death (NMDOH 1958). Diphtheria and Typhoid Fever were also very prevalent in the state. In 1929, New Mexico's Diphtheria death rate was 8.3 deaths per 100,000 population, while the national average was 6.4. Despite a surge of cases in 1932, New Mexico's rate was closing in on the U. S. rate by the end of the decade. Health officials cited non-pasteurized milk and poor sanitation as frequent culprits responsible for the spread of Typhoid and Diphtheria. By 1938, New Mexico's death rate from diphtheria had fallen below the 1930 U.S. level. Declines in deaths from Typhoid Fever did not make sufficient progress until the end of the decade. In 1929, the state's Typhoid Fever death rate at 11.2 was considerably higher than the national average. By 1938, New Mexico's rate dipped below 3.0 for the first time.

Figure 8: Tuberculosis Headlines, 1920s-1930s



Out of the Past

MANY CHILDREN ARE TUBERCULAR

Survey Shows One-fifth in New Mexico Schools Have Disease

One-fifth of the school childre in New Mexico are infected wi tuberculosis, facts determined the recent state health surv show. Some of them will deve the disease; many of them overcome the infection.

The health survey, which partly financed by the New Me Tuberculosis association, sl that twice as many Spanish-A ican as Anglo-American chi are infected.

In the next generation, this is likely to mean an increasing num ber of active tuberculosis among Spanish-speaking citizens of the state.

Of the 4,755 school children given the Mantoux tuberculosi test, 19 per cent reacted positively

The survey also shows that fro 10,000 to 15,000 persons in Ne Mexico have tuberculosis. Not of these are health-seekers. Or fourth of them are Spanish-Ame cans, who are natives of the southwest.

Tuberculosis Is Still Deadliest Of All Diseases

Report 108 Cases Of TB During Week

Santa Fe, July 1 (AP)—One hundred eight cases of tuberculosis, of which 72 were said to be of out-of-state origin, were reported to the state department of public health during the week end June 22, Dr. James R. S health director, sa

Other cas partmen diphtheri rhea 36, pneumoni scarlet fe whooping c

Many Tuberculosis Cases Reported

SANTA FE. (AP)—One hundred and twenty-eight cases of tuberculosis, of which 107 were from McKinley county, were reported to the health department during the June 21, Dr. James R. lth director, said

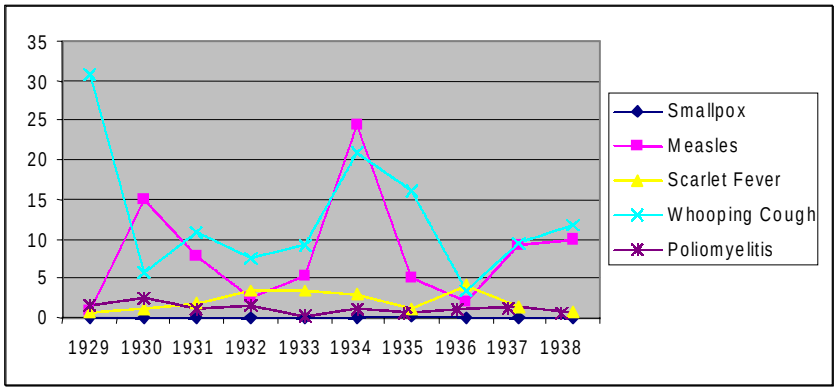
Much Tuberculosis Revealed By State Health Check-Up

Despite its arid climate, Malaria was a problem in New Mexico, especially along the Rio Grande and in wetter areas of the state. Eleven New Mexico counties were known to contain Malaria carrying mosquitoes. Progress against Malaria in New Mexico began to make great strides by draining swampy areas that served as mosquito breeding grounds. These often large-scale projects were made possible by the muscle power of thousands of unemployed men who were enlisted to work for the W.P.A. (Work Projects Administration) during the Great Depression. In 1938, over 142 acres had been filled with nearly 700,000 cubic yards of material through the construction of ninety miles of drainage ditches lined with rock (NMHO 1938).

Rio Arriba, Mora, Santa Fe, Sierra, and Doña Ana Counties were reported as having the largest numbers of malarial mosquitoes along the Rio Grande and most of the draining programs occurred in these counties (NMHO 1934; NMHO 1938). In addition to the eradication campaigns, extensive public education initiatives were launched—including the making of a motion picture entitled "Malaria in New Mexico." The WPA public education poster, below, was also widely distributed throughout the state (NMHO 1936). In 1929, New Mexico recorded 1.2 Malaria deaths per 100,000 population, which was above the U.S. average of 2.1 that year. However, by 1938, the state rate had fallen to 0.2 while the national average held steady at 1.2 deaths per 100,000 population. New Mexico deaths from Smallpox were well below the national average, Scarlet Fever deaths were on par with the U.S. average, while the state's death rates for Measles, Whooping Cough, and Poliomyelitis were above the U.S. rate. Figure 12 charts out New Mexico death rates per 100,000 population for these diseases. Syphilis was also a problem for the state. A survey of the adult population in Mora County in 1933, found that approximately 8 percent of adults had syphilis (Greenfield 1962: 293-94).

Figure 11: This WPA Poster sought to educate New Mexicans about Malaria

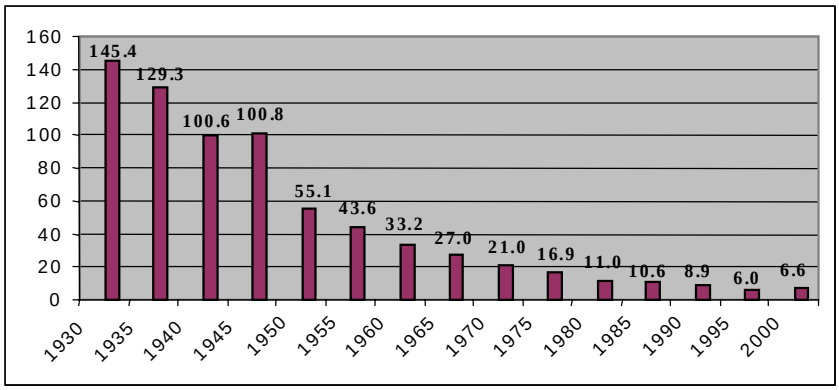
Figure 12: New Mexico Crude Death Rates for Various Diseases, 1929-1938



HEALTHIER BABIES AND MOTHERS

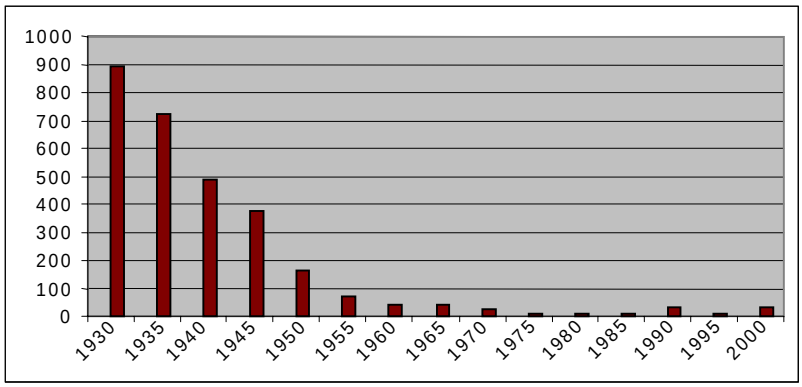
During the first two decades of record keeping (1929-1948), infant and maternal mortality rates were astronomical by U. S. standards of the time. During the 1930s, infant mortality was the highest in the nation, more than twice the national average, and only one of two states that had rates over 100 deaths per 1,000 live births (Linder and Grove 1943). During this period, maternal mortality was 20 percent higher than the U. S. average. Many infants died from easily preventable diseases, such as dysentery and diarrhea, due in part to poor sanitation. Many infant deaths were recorded as "cause unknown" because no doctor was present at death. These deaths occurred largely in the summer months, which led public health officials to suspect that most of these infant deaths were also due to diarrhea. Poor sanitation, including the improper disposal of human

Figure 13: New Mexico Infant Mortality Rate, 1930-2000



waste, was largely responsible for high morbidity and mortality rates for diseases that were largely spread by flies, mosquitoes, and rodents. Only in 1938 did Albuquerque, Santa Fe, and five other New Mexico cities have modern sewage treatment plants (NMHO 1938). In addition a survey of public schools found that over one-half of the schools did not have clean drinking water and most had unhealthy toilet facilities. To complicate matters, in 1936, 74 percent of the population lived in small rural communities, which made correcting the problem more difficult.

Figure 14: New Mexico Maternal Mortality Rate, 1930-2000



New Mexico public health officials did what they could during the 1920s and early 1930s hampered by limited funds. However, an infusion of federal money during the New Deal significantly aided New Mexico's public health efforts. By the late 1930s, Title V funds (after the passage of the Social Security Act in 1935), helped provide additional public health nurses to address infant, child, and maternal health (NMHO 1936). It was in 1936 that the Division of Maternal and Child Health was created within the New Mexico Department of Health (NMHO 1938). As a result, the number of public health nurses dramatically increased, as did the number of home visits. An important W.P.A. project in the state involved the construction of sanitary privies (i.e., "outhouses") in rural areas. In 1936 alone, over 17,000 units had been constructed in New Mexico (NMHO 1941). Figure 12 below is a WPA photo; the top row contains pictures of unsanitary privies before WPA construction and the second row contains pictures of their repacements with new WPA sanitary privies. Public health education campaigns included health displays at the New Mexico State Fair and the airing of health oriented educational radio programs. In addition, two publications, "Keeping the Well Baby Well" and "To the Expectant Mother" were published at this time in English and Spanish and dissemi-

In the mid-1930s, with the help of federal funds, San Miguel County was targeted as a special demonstration project in the attack on infant and maternal mortality. The purpose of the project was to develop uniform nursing techniques and policies that could be applied to the rest of the state. The project also served as a rural field nurse training for students who had completed their college training. The San Miguel Demonstration Center also produced two films to help with nursing training, "An Infant Visit" and "A Visit to an Expectant Mother" (NMHO 1938). In addition a number of Maternal Service Clinics and Well-Child clinics, or conferences, were sponsored and their benefits were soon apparent.

In 1937-38, 900 maternal and child health clinics, or conferences, were conducted statewide for pregnant women and mothers with infants. By 1941, clinics were conducted in 109 locations throughout the state. Maternal service clinics were frequently held at public schools for expectant or recently delivered women who did not have a regular physician either on a weekly or monthly basis. Public health officials report that the majority of the women attending the clinics had never seen a physician before and most likely would be giving birth at home with the assistance of a midwife. During the 1930s,

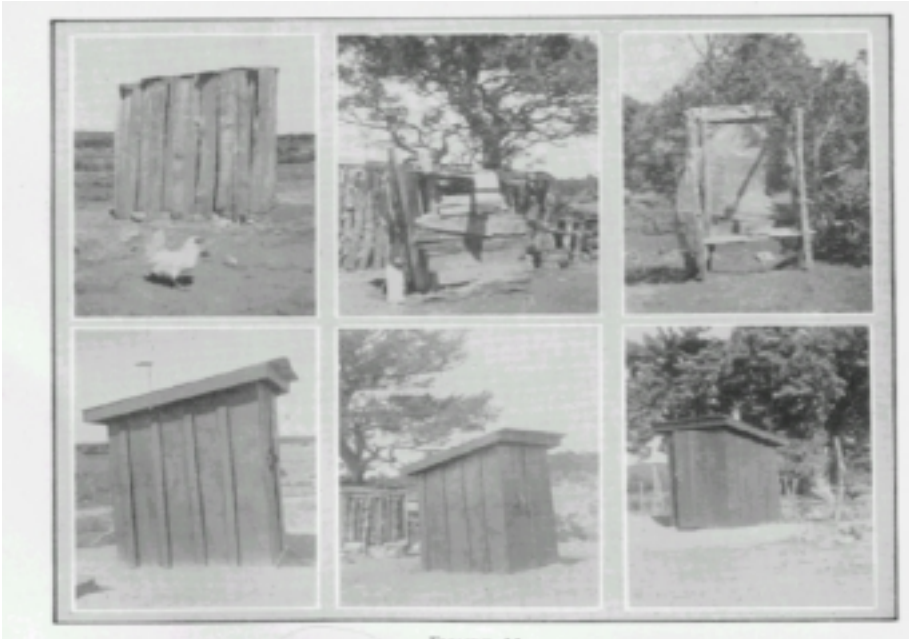


Figure 15: W.P.A. Sanitary Privy Project

Figure 16: San Miguel County Health Department Personnel, 1930s

maternal service clinics grew in popularity, and there were frequent reports of pregnant women walking for miles in order to attend the clinics (NMHO 1941). Well-Child Clinics also grew in popularity during the 1930s. The purpose of these clinics, or conferences, was for parents to be instructed by physicians on everyday care and to provide immunizations. In addition, the Indian Health Service was very active, especially in northwestern New Mexico, providing its own maternal and child health clinics.

Throughout the 1950s, maternal and well child clinics were still numerous and well attended even in very remote locations, such as Pietown, Coyote, and Encino as well as in larger towns and cities throughout the state (NMHO 1950). In 1956 alone nearly 10,000 well child clinics were held and public health nurses made 50,000 home visits (NMDPH 1956). By 1958, these clinics were still seen at the primary means of lowering the state's still high but rapidly declining infant mortality and maternal mortality rates (NMDPH 1958).

Figure 17: Clinic for Expectant Mothers in New Mexico

Figure 18: Maternity Service Clinic

Figure 19: Well Child Medical Clinic in New Mexico, 1930s

Poor roads and long distances prevented many New Mexican mothers and infants from having adequate access to health facilities. As a result, midwives delivered approximately 27 percent of all births during the 1930s. In 1937 a Midwife Consultant Program was started with the goal of providing scientific education to supplement the midwives traditional, folk-based practices. Public Health nurses began training midwives individually and in groups "emphasizing the importance of cleanliness, non-interference, recognition of abnormal condition, the use of silver nitrate [to prevent infant blindness], and filling out the birth certificate" (NMHO 1941:48). By 1938, between 800 and 900 midwives took the training program and were certified by the State (NMHO 1938). In 1940, public health nurses organized nutrition classes for midwives and their clients that emphasized traditional foods in planning a balanced diet with the needs of lactating and pregnant women in mind. Lesson plans were developed by the San Miguel Demonstration Project and disseminated during these nutrition classes (NMHO 1941). By 1950, 9.3 percent of all New Mexico births were delivered by midwives or nurse-midwives, although the number differed by region: 11.8 percent in Rio Arriba County, 12.0 percent in Santa Fe County,

Figure 20: Midwives in Rural New Mexico, 1930s

Figure 21: A New Mexico Midwife, 1930s

20.7 percent in Doña Ana County, and 5.6 percent in Bernalillo County (NMHO 1950).

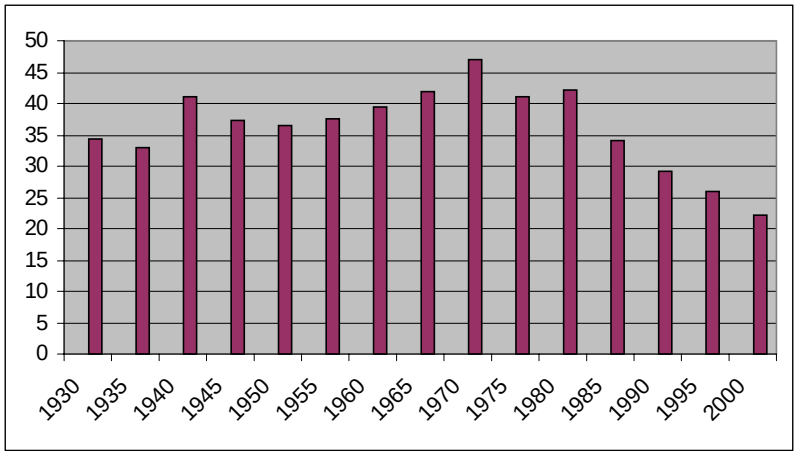
In 1946, cancer prevention clinics were held for the first time and by the mid-1950s, ten percent of public health nursing was devoted to cardiovascular disease prevention programs reflecting the state's decline in infectious diseases cases and the increase of cancer and heart disease cases (NMHO 1946; NMDPH 1958). By 1959, maternal mortality was comparable to the national average, while infant mortality remained slightly above the national average (NMDPH 1960). Nevertheless, New Mexico was beginning to more closely resemble the rest of the country in terms of its mortality structure.

MOTOR VEHICLE SAFETY

Figure 23 shows the New Mexico motor vehicle death rate from 1930 to 2000. One immediately notices the relatively high motor vehicle death rate during the1930s and 1940s, which continued to climb reaching its peak in 1970, followed by a rapid decline during the 1980s and 1990s. The 1930s and 1940s figures are remarkable given the low number of automobiles in use in New Mexico (especially during the Great Depression of the 1930s when many New Mexicans could not afford automobiles and did not drive and the gasoline rationing of the Second World War during the 1940s). Driving was a dangerous activity in the early 20th century due to the paucity of hard surfaced roads in the state and in the U.S. as a whole, and the lack of federal safety standards on highway construction or automobile manufacturing, as well as the lack of motor vehicle safety training or license registration. In 1930, the death rate was 34.3 deaths per 100,000 population.

Figure 22: An interesting New Mexico road sign from the 1920s. Source: New Mexico Highway Journal 1923:1:2.

Figure 23: New Mexico Motor Vehicle Crude Death Rates, 1930-2000



In 1929, the State Highway Bureau reported that 30.0 percent died due to inattention, 23.8% due to speeding, and 6.9% due to intoxication, down from 12.6% the previous year—interesting given that this occurred during the years of Prohibition. In addition, 15.2 percent died due to mechanical defects and 1.8 percent due to defective road NMHJ 1930:51). In 2000, alcohol was involved in 43.8 percent of all fatal crashes (NMSHTD 2002). In 1930, the Highway Bureau announced that it would increase the number of road warning signs. Various road improvement campaigns occurred in the state. However, in 1930, New Mexico had only 1,802 miles of hard surfaced roads. Figure 25 shows New Mexico Route 1 at La Bajada connecting Santa Fe to Albuquerque after recent highway renovations in 1924. The caption in the March 1924 New Mexico Highway Journal (p. 25) reads, "It has 23 hair-pin turns, some on very heavy grade but in spite of this the road is perfectly safe." Continued road improvements combined with the New Mexico Driver's License Law, that was sent to the Legislature in 1937, were two important efforts to improve motor vehicle safety in New Mexico. Under the New Mexico Driver's License

Figure 24: Photo of NM State Highway 1 at La Bajada taken in 1923 after highway renovations. Source: New Mexico Highway Journal 1924:2:25.

Law, residents were required to apply for a New Mexico Driver's License and those deemed suitable would then be given official permission to drive in the state.

Motor Vehicle deaths reached an all time high in 1970, followed by sharp declines during the 1980s and 1990s. Factors that lead to this decline include improved automobile manufacturing safety (including the inclusion of seat belts and airbags), highway improvements, numerous auto safety educational campaigns, and during the 1980s and 90s—stricter enforcement of DWI laws and seat belt laws (CDC 1999).

PUBLIC HEALTH AND NEW MEXICO'S EPIDEMIOLOGICAL TRANSITION

As societies modernize their mortality structure also changes: fewer people die of infectious diseases like Tuberculosis and Typhoid Fever (as sanitation improves and medical services reach more people), more people die from chronic degenerative diseases like heart disease and cancer (as life expectancy increases), and death rates from accidents decrease as the population becomes more educated. Figure 25 illustrates this epidemiological transition.

Figure 25: Crude Death Rates for Major Causes, 1930-2000.

NEW MEXICO CRUDE DEATH RATES FOR MAJOR CAUSES OF DEATH, 1930-2000

	1930*^	1935*^	1940*^	1945*	1950	1955**	1960**	1965**	1970**	1975**	1980	1985	1990	1995	2000
Tuberculosis	171.0	98.1	71.8	90.7	37.1	14.4	8.1	6.7	2.8	2.4	1.1	1.0	0.8	0.4	0.3
Scarlet Fever	1.2	1.3	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Whooping Cough	5.9	16.2	10.0	3.7	3.7	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diphtheria	12.0	4.6	1.3	4.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Measles	15.1	5.1	1.9	0.7	1.2	2.8	0.8	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Typhoid	13.0	9.9	3.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Syphilis	10.9	10.9	12.6	10.6	5.7	2.7	1.2	1.3	0.1	0.3	0.0	0.0	0.0	0.1	0.3
Diarrhea and Dysentery	121.4	71.2	47.0	73.0	29.2	20.5	9.9	7.3	2.7	1.6	0.1	0.0	0.0	0.0	0.4
Cancer	48.0	46.7	60.9	68.9	69.9	82.0	83.4	89.1	104.5	113.5	136.5	133.6	148.9	160.0	161.0
Diabetes Mellitis	5.2	7.4	9.4	9.3	6.2	8.0	8.8	10.3	15.4	11.4	16.3	17.5	21.7	26.3	27.5
Pellagra	10.9	2.1	3.6	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heart Disease	93.8	115.8	117.5	141.0	171.0	148.8	160.4	175.2	191.5	177.5	167.6	187.7	192.1	195.7	175.0
Cerebrovascular Disease	46.1	37.3	41.0	46.2	45.1	54.5	51.5	54.7	63.8	57.2	40.3	40.0	37.1	42.8	43.5
Influenza and Pneumonia	133.5	134.1	74.3	68.5	41.3	32.2	36.8	23.1	32.0	22.6	21.0	18.7	21.9	24.3	16.4
Appendicitis	16.1	17.3	12.6	6.9	1.8	1.7	0.8	1.1	0.7	0.5	0.2	0.1	0.3	0.1	0.2
Nephritis, Nephrotic Syndrome, and Nephrosis	59.3	58.3	48.5	42.6	10.1	11.7	9.5	2.4	3.7	3.3	6.3	7.4	6.9	7.0	8.9
Maternal Deaths	25.3	19.4	13.9	10.4	5.3	2.2	1.4	0.9	0.5	0.2	0.2	0.2	0.6	0.2	0.4
Congenital Anomalies and Early Infancy	94.3	67.8	72.0	94.8	61.1	82.9	71.9	46.8	34.0	20.8	18.0	16.3	12.5	8.7	9.7
--Early Infancy	82.7	60.2	62.2	78.8	45.4	67.3	58.0	36.0	24.6	12.6	10.4	8.5	6.9	3.9	4.9
Accidents	102.1	82.5	90.6	97.8	82.1	82.3	74.4	79.7	89.0	76.1	55.5	59.9	56.2	49.9	52.1
--Motor Vehicle Accidents	34.3	32.8	41.2	37.2	36.6	37.6	39.5	42.0	46.9	41.1	42.2	34.1	29.2	26.0	22.0
Suicide	13.2	10.9	13.5	11.7	9.4	7.9	11.5	11.2	16.3	17.3	17.6	19.1	18.8	17.7	17.9
Homicide	16.1	8.8	6.0	5.0	5.6	4.3	6.1	5.9	9.2	12.6	16.2	11.1	8.8	9.9	9.1

NOTE: Deaths by residence, except where indicated. Source: NMOVRHS, except where indicated.
* Deaths by occurrence
^ Excluding American Indian deaths.
** Source: U.S. DHEW. 1957. *Vital Statistics of the United States, Volume II.*

Figure 25 shows that cancer death rates increased from the1930 low of 48.0 deaths per 100,000 population to 83.4 in 1960 and continued to climb to a rate of 161.0 by 2000. Diabetes Mellitus death rates also follow a similar pattern. In 1930 the death rate was a mere 5.2. However, as life expectancy increased and infectious diseases were brought under control or eradicated, death rates from diabetes began to climb. In 1960, the death rate had increased to 8.8

and by 2000 had reached 27.5 deaths per 100,000 population. These diseases often take years or even decades to build into life threatening diseases for people over 60. In the early part of this century, many people died younger of other diseases before ailments like heart disease or diabetes could kill them.

One of the great achievements of the 20th Century was the sharp decline in infectious diseases. In 1930, Tuberculosis was the leading cause of death in New Mexico and remained in the top five causes of death into the 1950s. By 1960, deaths from the disease had plummeted, and by 2000 there were only 5 reported deaths. Death rates for Scarlet Fever, Typhoid Fever, Whooping Cough, Diphtheria, as well as Diarrhea and Dysentery also sharply declined during the 20th century. Improved access to cleaner water, improved sanitation, better hygiene, and increased access to medical care have contributed to health improvements in New Mexico, including improved maternal and infant health--the 20th Century's second great achievement. In 1930, the maternal death rate was 25.3, but by 2000 it was only 0.4. Likewise, deaths from congenital anomalies and diseases of early infancy dramatically declined from a rate of 94.3 in 1930 to 9.7 in 2000. The third great achievement discussed in this report has been improvements in highway safety. The motor vehicle accident death rate was 34.3 in 1930, then it increased to 46.9 in 1970, then it dramatically declined. by 2000, the rate had fallen to 22.0, the lowest rate ever, due to improved automobile and highway design, increased seat belt use, and crack downs on DWI.

The 21st Century holds new health challenges for New Mexico: the AIDS pandemic, antibiotic-resistant strains of Tuberculosis, Hantavirus, problems associated with the care of the aged, and the specters of bioterrorism and nuclear terrorism. Meeting these challenges will require a level of committment possibly higher than New Mexico witnessed in the 20th Century. Fortunately, New Mexico has a successful health record and a commitment to public health on which to build.

REFERENCES

40 Years of Progress. 1958. Santa Fe: New Mexico Department of Health.

Centers for Disease Control and Prevention. 1999. "Ten Great Public Health Achievements--United States, 1900-1999." *Morbility and Mortality Weekly Repor*t 48:12:241-48.

Greenfield, Myrtle. 1962. *A History of Public Health in New Mexico.* Albuquerque: University of New Mexico Press.

Linder, Forrest E. and Robert D. Grove (eds). 1943. *Vital Statistics Rates in the United States, 1900-1940*. Washington: Government Printing Office.

New Mexico Health Officer. 1934. Santa Fe: Department of Public Health.

New Mexico Health Officer. 1936. Santa Fe: Department of Public Health.

New Mexico Health Officer. 1938. Santa Fe: Department of Public Health.

New Mexico Health Officer. 1941. Santa Fe: Department of Public Health.

New Mexico Health Officer. 1946. Santa Fe: Department of Public Health.

New Mexico Health Officer. 1950. Santa Fe: Department of Public Health.

"New Mexico Highway Accident Study for 1929." 1930. *New Mexico Highway Journal* 8:1.

New Mexico State Highway and Transportation Department. 2002. *New Mexico Traffic Crash Information*. Albuquerque: Division of Government Research.

Ortiz, Tony. 1980. "Special Feature: Public Health in New Mexico, 1919-1979." New Mexico Department of Health.

"The State of New Mexico's Highways. 1924." *New Mexico Highway Journal* 2:25.

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Public Health is credited with adding 25 years to the life expectancy of people in the United States since 1900.