

A HISTORY OF PUBLIC HEALTH IN UTAH  
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## WHAT IS PUBLIC HEALTH?

What is Public Health? Many years ago Dr. M.J. Rosenau, Professor of Public Health at Harvard University said, in answer to this question, "Public Health is the science and art of preventing disease, prolonging life and promoting physical and mental efficiency through organized community effort."

Dr. G. D. Carlyle Thompson, Director of the Utah Department of Health from 1961 to 1970, responded to this same question from a member of the Utah State Legislature by saying that public health is whatever the Legislature wants it to be. His answer reflects the fact that it is the Legislature that determines both the laws and the funding available to the State Health Department to carry out the state's public health responsibilities, thereby, defining what public health will be in Utah. In the Middle Ages public health was ridding Europe of the plague. In recent centuries cholera, diphtheria, typhoid and smallpox have flourished, often in epidemic proportions, but have then been brought under control. To those raised in the 1930s, public health meant the visit of a public health nurse who provided what care and comfort she could, then placed a Measles, Mumps, Chicken Pox or Scarlet Fever sign in the front window of the home. Now the public health plagues are acquired immunodeficiency syndrome (AIDS) and contamination from hazardous wastes.

## UTAH BEGINNINGS

"Public Health" began in Utah in July, 1847 when Brigham Young and his company of 143 pioneers emerged from Emigration Canyon in the Wasatch Mountains and spread out on the site now known as Salt Lake City.

Because of Brigham Young's good judgment and common sense, the first years of residence in the valley were more healthful than they might have been since in that day there was little knowledge of sanitation or hygiene. Brigham Young was constantly advising as to the arrangement of barns, stables and privies in their relationship to the pioneer homes and water supplies. He repeatedly told the people to "boil the water they drank" and sensible eating was often the subject of discussion. He even suggested meals which measured up to an acceptable balanced diet and counseled the people on the need for work, proper sleep, and clothing needs.

An organization for the "teaching of health and control of disease" was created in the spring of 1849. This body was called The Society of Health with a stated objective "To give information to the masses of the people, to lessen their burdens, and to enable them to help themselves." How interesting it is that the first public health organization in Utah saw fit to recognize the need to teach community health and health education to the people. Even today the same priority exists.

Later a Council of Health was organized and met once a week at the home of Willard Richards. The greatest fears of these early pioneers were of cholera, diphtheria and typhoid. These diseases

had for many years been endemic in many parts of the country and were familiar to the pioneers as they made their westward trek. Death rates varied with the kinds of epidemics occurring in different years. In 1880 diphtheria took 749 lives. a death rate of 525 per 100,000 of the population.

In the 1870s and 1880s medical science progressed with research in the prevention and treatment of infectious diseases. With this progress, health departments began to be established in various parts of the country. Mostly, however, these early public health efforts were toward educating the public and campaigning for safe water systems and better sewage disposal. The Deseret News, May 4, 1889, advocated the construction of a sewer for Main and adjacent streets, and a "dry earth system of defecation" for the rest of the city. On May 3, 1890 the same paper published an article "The Water We Drink," which advocated condemning all surface wells and connecting all residences with city water pipe lines. By this time it was generally known that water could contain germs and that cholera and other diseases were spread by contaminated water. Undoubtedly, during that nearly half century, 1847-1890, the pioneers had lost many hundreds of lives from using water from contaminated sources.

The first state to establish a Board of Health was Massachusetts in 1869. Utah became a state in 1896 and the law creating a State Board of Health was enacted in 1898. It was sponsored by Dr. Martha Hughes Cannon, a physician and the first woman elected to serve in a State Senate in the United States. Dr. Theodore Bruce Beatty was Utah's first health officer, being appointed Health Commissioner by Governor Heber M. Wells at a salary of \$1000 a year. Dr. Beatty filled this part-time position until 1915 when the law providing for a full time health officer was enacted. Dr. Beatty served as the State's health officer for 36 years, from 1898 until 1934, and as an advisor and member of the Board of Health until 1947.

## PUBLIC HEALTH LEGISLATION

Utah's health officers, from Dr. Beatty to the present, have endeavored to have sound public health laws enacted. It has never been an easy matter to secure such legislation, as the interests of politicians have not always paralleled the interests of public health officials.

In 1900 Dr. Beatty recommended that the State Board of Health adopt a compulsory vaccination ordinance in order to control the outbreaks of smallpox among school children. Compulsory vaccination laws were in effect in many surrounding states, none of which were having smallpox to the extent found in Utah. There was immediate and statewide opposition to the ordinance, led by the editorial writer of the Deseret News. Support for the Board's action came from the Utah State Medical Association and the Presidency of the Church of Jesus Christ of Latter-day Saints. Finally, a bill to repeal the compulsory vaccination ordinance was passed by the State Legislature, vetoed by Governor Wells, but then passed over the Governor's veto. Thus, Utah was deprived of a life-saving measure for many years.

Other public health legislation was not as controversial. In 1907 there was authorization to teach sanitation and disease prevention in public schools. In 1911 it became possible to conduct physical examinations of pre-school and school children, with found defects being called to the attention of parents. Health education for the prevention of venereal diseases was also begun in

1911 when laws were enacted to require the reporting of all cases of venereal disease to the State Board of Health and treatment. of the eyes of newborn infants to prevent gonorrhea.

The Sheppard-Towner Act passed by Congress in 1922 provided the first financial assistance to states in the area of maternal and child health. Dr. Beatty turned to the Relief Society of the LDS Church as the most suitable organization through which to administer that law. The Relief Society soon had 194 clinics in operation throughout Utah. The Federal money was used to pay the doctors while the local Relief Societies provided the quarters, the necessary equipment, and volunteers to staff the clinics. Significant progress in public health programs also was made possible with Federal funding that came with the advent of the Social Security Law in the 1930s. For the first time a complete preventive and public health. educational program could be implemented statewide.

The 1937 Legislature adopted a law charging the State Board of Health with setting standards on testing before prophylactics (condoms and ointments) could be sold in Utah. The prophylactics were tested at the State Health Laboratory after which the Board issued a list of approved products.

A complete Utah Health Code was established in 1953 setting out the laws and the organization of the State Health Department. Chapters related to vital statistics, the control of communicable diseases, a state health laboratory, public health nursing, sanitation, hospital licensure, and maternal and child health. In 1960s laws were enacted to control air pollution, require testing of all newborns for phenylketonuria (PKU), and establish a statewide Medical Examiner system.

The statutes were recodified in 1981; they had broadened in the intervening 30 years to cover emergency medical services, solid and hazardous waste, radiation, health facility planning, and financial assistance for medical care. Protecting the health of the public was no longer restricted to the traditional areas of infectious diseases and the care of poor pregnant women and children. It included responsibilities for how health care was delivered and how it was financed.

## THE CHALLENGE-PUBLIC HEALTH VS POLITICS

A member of the Utah Legislature once said, "Public Health is the bastard child of State government." This legislator was attempting to justify disinterest of the Legislature in providing adequate public health funding. Dedicated, persistent public health officials have always had a difficult time raising the priority of public health in the eyes of the public and legislators. Funding priorities and passing of needed laws seemingly has always been higher for other government services, even though public health is an indispensable government service, responsible for protecting the people in areas where only community-wide or government-initiated services will work.

In addition to the controversy over vaccination mentioned previously, another incident from the past will serve to illustrate the difficulties experienced by public health officials. Dr. Beatty advocated the construction of a Tuberculosis Sanatorium in 1904. It was finally built in Ogden in 1940 and was filled to capacity from the beginning. The Sanatorium did not come under the

administration of the Health Department because certain interest groups wanted a hospital for patients with silicosis in addition to the one for TB. The State Board of Health opposed the proposal to mix together both classes of patients since such action could possibly expose the victims of silicosis to tuberculosis. The result of this position of the Board of Health was the placement of the TB Sanatorium under the jurisdiction of the Department of Public Welfare. This administrative arrangement continued until the late 1960s when the Health Department engaged in a statewide TB eradication program using health education and the new TB drugs, resulting in a dramatic reduction in TB cases and closure of the Sanatorium a few years later.

The Department had always been underfunded, a fact severely criticized by the Utah State Medical Association. In a report published in 1934, the Medical Association stated that "the State Legislature has always been niggardly in its financial support of this Department, being more interested, apparently, in roads and cows than in the lives and health of human beings." In spite of the lack of funds, Dr. Beatty maintained a high degree of efficiency, initiative, and loyalty by his staff, partly due to his own outstanding capabilities and tenaciousness. After he retired in 1935, the Department was headed by Dr. J.L. Jones and then by Dr. William M. McKay. After Dr. McKay's unexpected death in 1941, great difficulty was experienced in finding a qualified Health Commissioner at the salary being offered. The period from 1941 to 1951 was a particularly low period for the Department of Health. All salaries were extremely low and key officers and employees in all divisions resigned. At the urging of the Utah Public Health Association, a survey of the State Health Department in 1949 by Dr. Ira S. Hiscock, Professor of Public Health at Yale University. Dr. Hiscock's report concluded, "The lack of satisfactory working conditions is alarming... It is doubtful if there is a more acute or critical condition existing in any state."

This condition continued even through the administration of Dr. George Spendlove, who became State Health Commissioner in 1950. In his 1952-1954 Biennium Report he stated that there were 133 resignations out of a total of 115 employees of the Department. Even Dr. Spendlove left in 1955 for a higher salary with the State of Washington. Turmoil continued until 1961, when Dr. G.D. Carlyle Thompson was hired from the State of Montana with a gubernatorial promise of assistance if he would come and reorganize the Department and regain and improve on the stature it had once enjoyed.

However, public health was dealt another political blow in 1961 when the State Health Department was reduced in status with a reorganization of State government. Public health was placed in a new Department of Health and Welfare as the Division of Health. This new department was predominantly a welfare organization and Dr. Thompson retired in 1970 because of philosophical and political differences with the Department's Executive Director. Dr. Lyman Olsen served as Division Director during much of the much of the agency's sojourn in the combined department. This was a difficult time politically for public health since welfare services had a higher priority than public health services.

Another example of politics and public health comes from this time period. Utah has consistently been among states with the lowest percentage of the population served by fluoridated water supplies, a measure known to prevent dental cavities. In the 1960s three

attempts were made to pass, by popular vote, a measure to fluoridate the water in Salt Lake City; all failed. During 1976 the State Board of Health decided to try to remedy the situation by establishing a Board regulation requiring all public water supplies to be fluoridated. An aggressive campaign was launched to educate the citizens and public hearings were held around the State. The regulation was actively opposed by the Libertarian Party and others who petitioned for a ballot initiative. Mandatory fluoridation was narrowly defeated amid complaints of voter fraud and ballot-box stuffing, and since then fluoridation decisions have been left to cities and require initiative votes. Only two small cities in Utah have chosen to fluoridate their water supplies.

In 1979 the political wheel had turned sufficiently to allow consideration for Health again to have department status, which occurred through legislative action in 1981. At the same time the State Board of Health was replaced with a Health Advisory Council, with the Executive Director of Health reporting directly to and serving at the pleasure of the Governor. Also, the State's Medicaid Program was transferred from the Department of Social Services (the new name for the welfare agency) to the Department of Health for cost containment purposes. Replacing the State Board of Health with a Health Advisory Council was a departure from traditional state public health organization and tended, in the opinion of some, to politicize public health since the Executive Director no longer enjoyed a political buffer by serving at the pleasure of the State Board of Health. This trend is one that has been seen nationwide, however.

Beginning in 1979, Or. James Mason became Director of Health and brought a new focus to public health, promoting wellness by having people change their lifestyles and eliminating the risk factors that cause poor health and disease. He left the Department in 1983 to head the Communicable Disease Centers (CDC) in Atlanta, Georgia. After a year during which two Acting Executive Directors served, Or. Suzanne Dandoy was recruited from Arizona. In the 1988 session of the State Legislature a bill was introduced to remove from the statutes the requirement that the Executive Director of the Department of Health be a physician. The bill was defeated through the combined efforts of the Utah Medical Association and the local public health community.

## PUBLIC HEALTH PROGRAMS

Public health programs are designed to mitigate and eliminate health problems of individuals and the community. Health programs are core to the functions of public health and may be undertaken by state or local health departments, school districts, or private or voluntary agencies.

Consistent with Utah's population growth, public health problems and programs to combat those problems have grown. Major programs during the early years dealt principally with sanitation, hygiene and communicable diseases.

Initially, Dr. Beatty did laboratory examinations for tuberculosis, typhoid fever, diphtheria, and glanders in his private medical office. In 1925 a public health laboratory was established in

space at the State Capitol. With the development of vaccines, emphasis in the 1950s and 1960s was on mass immunization programs. Utah was the first state to have a statewide Sabin on Sunday program to distribute oral polio vaccine to the citizens. A Muzzle Measles campaign in 1967 reached an estimated 96 percent of susceptible Utah children; a Rub Out Rubella campaign was held in the 1970s. While making great strides in eliminating these diseases, Utah had the highest 1965 rate for deaths from rheumatic fever and chronic rheumatic heart disease, 55 percent above the national average. In cooperation with the private medical community and the Utah Pharmaceutical Association, a major effort was launched to prevent this disease by treating all cases of streptococcal infection with low cost penicillin. In the mid-1980s rheumatic fever again appeared as a significant problem in Utah.

Early programs in maternal and child health involved well child conferences, dental clinics, and prenatal clinics. In the late 1930s public health nurses demonstrated the value of prenatal *and* postnatal care, and the proper preparation for home deliveries. At the same time the Board of Health strengthened regulations for the 22 maternity homes in Utah. A special maternal and infant care program for enlisted men's wives and children was enacted by Congress and carried out through the use of Federal funds in the 1940s. Identification of crippled children who needed surgery or other types of corrective care was begun in 1936, primarily focused on physical handicaps. Rheumatic heart disease was added to the program in 1952 and cerebral palsy and mental retardation in the 1960s.

As chronic diseases moved into the forefront as causes of morbidity and mortality, public health efforts aimed at prevention and early detection were expanded in the 1970s and 1980s. Cervical cancer and hypertension screening, education on the harmful effects of tobacco, identification of families at high risk for heart disease, and education of physicians regarding cholesterol in diets were emphasized, with support and cooperation from the private medical community.

One of the most significant areas of program growth has been in environmental health. Early efforts were directed at proper sewage disposal, including the supervision of the construction of standardized pit privies throughout the State in the 1930s. While Salt Lake City became the first community in Utah to chlorinate its drinking water in 1915, the first State legislation authorizing regulation of water supplies and wastewater systems was not passed until 1953. What began as concern for sewage disposal and protection of drinking water grew after World War II to include programs involved with air pollution, industrial hygiene, radiological hazards, plumbing codes, food handling, control of pollution in all waters of the State, and disposal of solid wastes. Unique to Utah and adjacent states was the necessity to monitor radiation from the Nevada Atomic Test Site, beginning in the 1950s. Due to contamination of hay and pasture lands, increased levels of radioactive iodine occurred in Utah milk in 1962 and required extensive milk control efforts. All of these environmental activities gave the State Health Department a much greater regulatory role than in the past. The most recent addition to the environmental health arena has been the prevention and clean up of pollution from hazardous substances, such as toxic chemicals and uranium mill tailings.

As communities developed efforts to expand emergency medical services to their citizens,

the State Legislature gave the State Health Department authority in the 1970s to organize these services into a statewide system and to train and certify the persons who were delivering such services in the field. Utah developed one of the premiere emergency medical services programs in the country.

In order to maintain Utah's past accomplishments in citizen health and to establish goals for the future, "A Statement of Health Policy-A Prescription to Improve the Health Status of Utahns" was published by the Utah Department of Health in September, 1984. Another statement of health policy focused on "A Prescription for Health Care Costs in Utah," with emphasis on competitive strategies to control health care costs. The Department also published a document outlining social barriers to the health care system for ethnic minorities. Thus, public health began to focus on the operation of the health care system and citizens. access to health care.

## PUBLIC HEALTH ORGANIZATIONS

As noted earlier, in the early part of this century the LOS Church was involved with the delivery of public health services in the community. Later local health departments were created to bring services to the people in various parts of the State.

While the 1898 statutes provided for every county or district and every city to have a board of health and to appoint a local health officer, areas were slow to act. Salt Lake City appointed its first City Health Commissioner in 1903. Dr. Samuel G. Paul served on a part-time basis and was instrumental in developing well-baby clinics, milk stations, public health nursing, and a laboratory. The compensation for such local health officers was so small that it was frequently impossible to interest capable men and women in the work. In 1912 Dr. Beatty, the State Health Commissioner, summed up the situation in his Annual Report to the Utah State Board of Health: "Local authorities frequently employ as health officers men who are wholly unfit and incompetent, because more capable members of the community refuse to accept the miserable pittance doled out to them as compensation. It is only just to add that there are many competent and faithful health officers who do not consider the question of compensation. They know that lives may be saved by their efforts, and the consciousness of that fact is the reward for the performance of a responsible service which often engenders dislike and hostility of the very people whom they endeavor to protect."

The first fully organized local health department in Utah began in Davis County in 1937. During the next 20 years local health services were organized in most of the major cities and larger counties of the State. After a 30 year effort, the Salt Lake County and Salt Lake City Health Departments were merged in 1969. Still public health services in the rural areas of the State consisted primarily of a public health nurse and a sanitarian who were State employees serving a multi-county area. Local physicians often served as part-time health officers in rural Utah.

In the 1970s a concerted effort was made by the State Health Department to develop multi-county health departments, directed by full-time health officers, for parts of the State where local health services had been only loosely organized. By the end of that decade, there were 12 local

health departments: six served single counties (Davis, Salt Lake, Summit, Tooele, Utah, and Wasatch), while the other six covered combinations of counties (Bear River--Box Elder, Cache, and Rich; Central--Juab, Millard, Piute, Sanpete, Sevier, and Wayne; Southeastern--Carbon, Emery, Grand, and San Juan; Southwest--Beaver, Garfield, Iron, Kane, and Washington; Uintah Basin--Daggett, Duchesne, and Uintah; and Weber-Morgan). In 1988 five of the local health officers were physicians; the others were persons trained in some other aspect of public health.

These local health departments have undertaken a full scope of public health services for the communities they serve, including, for example, restaurant and water supply inspection, maternal and child health clinics, screening for chronic diseases, school health, control of sexually transmitted diseases, immunizations, and distribution of children's protective car seats.

The Utah Public Health Association was organized in 1916, with primary emphasis on tuberculosis control activities and responsibility for the Christmas Seal fund raising campaign. Over time the Association became involved in a wide range of public health service and education. Other voluntary health organizations, such as local chapters of the March of Dimes, American Heart Association, American Cancer Society, and American Lung Association, have taken a leading role in public health efforts in the State. In 1987 a coalition of such organizations, working with the Utah Department of Health, was successful in persuading the State Legislature to increase the tax on cigarettes, with the additional revenues directed in part to an expanded program of prenatal and maternal care. This effort would not have been as successful if launched alone by the State Health Department. More recently the American Red Cross has taken the lead in programs to educate the public about acquired immunodeficiency syndrome (AIDS). Sometimes such organizations are able to sponsor activities that government agencies are politically unable to manage.

## HEALTH STATUS OF UTAH'S CITIZENS

From Utah health data one can see a gratifying improvement over the years in the health status of Utah citizens (Tables 1 and 2). Illness and death from diseases common to the early pioneers are now virtually non-existent. Mortality rates are down and we can expect further declines as modern medical technology and increased attention to changes in lifestyle work together toward improving the health of Utah's citizens. These significant changes have resulted from the combined efforts of the public health and private medical communities in Utah.

## PUBLIC HEALTH FUNDING

Obtaining funding for public health programs has always been an arduous task. It was less so when the Legislature funded State government on a biennium basis. Today, preparing, justifying, and seeking State appropriations and Federal funds consume a considerable amount of time of health professionals and require full time financial staff to handle not only expenditures but the accountability for these monies.

Federal funds have, since the 1930s, played a major role in financing public health activities in Utah. This infusion of Federal dollars, while enhancing the ability of the Department to



promote and conduct worthwhile health programs, has its drawbacks. Federal requirements dictate how these health programs, has its drawbacks. Federal requirements dictate how these funds must be used and determine the type of health program that is to be conducted. Available Federal funds do not always meet the State's needs or health priorities and the Legislature is reluctant to continue a program begun with Federal funds when those funds are reduced or withdrawn.

The following data show the expenditure of Federal, State and local funds for public health in Utah for selected years. (Table 3)

### UTAH HEALTH OFFICERS

Listed below are the names of those who have served the State of Utah in the capacity of State Health Officer for two years or longer. Their job title may have been Health Commissioner, Director of Health, Director of Public Health or Executive Director. Nonetheless, the responsibility was always the same: "To protect and promote the health and well being of every Utah citizen."

NAME	TENURE
Theodore B. Beatty M.D.	1898-1934
J.L. Jones, M.D., Dr.P.H.	1934-1939
William M. McKay, M.D.	1939-1947
Welby W. Bigelow, M.D., Acting	1947-1949
George A. Spendlove, M.D., M.P.H.	1950-1955
Joseph P. Kesler, M.D., M.P.H., Acting	1955-1958
George W. Soffe, M.D., Interim	1958-1960
G.D. Carlyle Thompson, M.D., M.P.H.	1961-1970
Lyman J. Olsen, M.D., M.P.H.	1970-1979
James O. Mason, M.D., Dr.P.H.	1979-1983
Suzanne Dandoy, M.D., M.P.H.	1983-1992
Rod Betit	1992-2003

Note: In addition to those listed above, there were ten health officers who served from one to twelve months in a temporary capacity and one permanent health officer who served less than a year.

### CONCLUSION

There is much more that could be written of Utah's public health and its history. There are things to be said about the changing organization, a description of the health programs and their mission statements, descriptions of the successes, failures and other accomplishments. In addition, there are numerous physicians, nurses, sanitary engineers, and other health workers whose contributions should be identified. However, the responsibility for that documentation must be left to others with more time and more space.

However, one last item needs to be covered. Attention has been given to the poor morale of State Health Department employees who felt that they had insufficient funding, low salaries, and inadequate working conditions during the 1940s and 1950s. In June, 1986 a new State building was dedicated for the sole use of the Utah Department of Health. It was named the Martha Hughes Cannon Building in honor of this early woman physician and legislator who was a strong advocate for public health. Innovative features such as a day care center for employees' children and a physical fitness center were included as examples of the Department's concern for its employees and their work environment. The building was also the first government facility in Utah to be totally "smoke free" with no smoking permitted at any place inside the building. Perhaps the concerns expressed by Dr. Hiscock in his 1949 report have finally been met in providing an environment in which public health can receive the attention it deserves.

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