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# 100 Years of Public Health in Florida

The First and Second Quarters, 1889-1939

William J. Bigler, Ph.D.

EDITOR'S NOTE: Dr. Bigler in his report of 100 Years of Public Health in Florida approaches the subject from a point of view differing from Wilson T. Sowder, M.D., whose article also appears in this issue of The Journal. Dr. Bigler chronicles his presentation as an interested, knowledgeable observer; Dr. Sowder as a participant. Dr. Bigler's article continues beyond that presented in this issue. We hope to publish more in future months.

The 100th anniversary of Florida's public health agency occurred February 20, 1989, and during this span of time the development of public health policies and programs significantly influenced the state's political, social and economic infrastructure as well as the quality of life of its populace.

Historical Background ● Florida's early development was largely oriented toward establishment and maintenance of strategic military fortifications. Many had evolved into substantial commercial centers and seaports by the middle of the 19th century. The largest cities, Jacksonville, Key West, Tampa and Pensacola, were particularly vulnerable to outbreaks of yellow fever, smallpox and cholera introduced from foreign countries. Most municipal governments were empowered to preserve the public health and to cope with these situations. It was apparent by the mid-1800s that local agencies did not have either the inclination or resources necessary to contain the explosive epidemics of yellow fever that originated in Cuba and repeatedly swept through the state.

It is somewhat ironic that the state's first constitution was framed in St. Joseph, now Port St. Joe, in 1838 and Mrs. Duval, the first governor's wife, died of yellow fever while visiting friends there in 1841. Hundreds of lives were lost to "yellow jack" and as an epidemic progressed, entire populations panicked and fled. One outbreak in 1874 at Pensacola caused 354 deaths among the city's 1,400 residents. Another massive epidemic in 1877 felled all but 100 of the 1,600 residents of Fernandina and hundreds of the victims died. It is said that when word of an outbreak of yellow fever at Fernandina reached Tampans they became so panic stricken they fled the city, leaving lamps and stoves burning. A doctor of that era who attempted to visit the

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sick in a county adjoining his own was warned he might be shot because he had been in contact with yellow fever.

The issue of creating an agency to cope with epidemic diseases was ultimately brought to the attention of the state government. The first bill to establish a state health agency was presented to the legislature in 1873, but failed ostensibly because the required appropriation of \$200 was deemed exorbitant. Repeated efforts by the Florida Medical Association (FMA) and others during the next decade also failed. However, in 1881 the legislature passed an act establishing Boards of Health in towns of over 300 inhabitants and four years later the state constitution provided for County Boards of Health "where necessary." Finally, at the constitutional convention of 1885, a Hillsborough County legislator, Dr. John P. Wall, past president of the FMA, inserted a brief article that "provided for an authority to prevent or suppress diseases that threaten the health of the people of the state."<sup>2</sup> The 1887 legislature failed to establish the agency, even though this ordinance, creating a State Board of Health, was adopted and ratified as part of the 1886 constitution.

A gubernatorial candidate, Francis P. Fleming, was personally inconvenienced in August 1888 and otherwise impressed with the general panic, chaotic conditions and quarantine restrictions that disrupted the transportation and commerce of Jacksonville during a yellow fever epidemic. After one doctor died and most others became ill with the disease the mayor and most of his governing council fled the city. Roadblocks were set up and special passes issued for ingress and egress. Refugee camps were established outside the city for people wishing to leave and all mail was fumigated. In an attempt to control the epidemic lime was spread in the streets, houses and shops, bonfires lit the sky at night and cannon and fire arms were discharged each evening. As a result his first official act as governor was to call a special session of the legislature which approved a bill on February 20, 1889, that established a State Board of Health (SBH).

#### The First Quarter (1889–1914)

Thus, Florida's public health authority was established because of the need to "administer protective measures free from extreme fear or unreasonable restrictions." The institution of a public health agency launched an era of disease control and environmental sanitation that dramatically influenced the future development of the state. A three member board chose Joseph Yates Porter, M.D., an officer with the U.S. Marine Hospital Service at Key West, to be the first health officer. He waged a relentless battle against the major infectious diseases in the state's port cities and towns. It is said that during his career "Dr. Porter

encountered fear, ignorance, lethargy and politics, that he sought to assure the fearful, educate the ignorant and inspire the lethargic, but with politics he refused to compromise."<sup>3</sup>

Quarantine, fumigation, vaccination and epidemiology ● Dr. Porter was an experienced health officer and physician who had successfully controlled outbreaks of yellow fever and cholera in Key West. It was not unexpected that he used maritime quarantines and sulphur fumigation procedures to prevent the importation of yellow fever, malaria, dengue fever, smallpox, and cholera into Florida. Other infectious diseases such as "consumption" (tuberculosis), "LaGrippe" (influenza), measles, mumps, pneumonia and typhoid fever were also not uncommon in some counties throughout the 1890s.³

Yellow fever was finally brought under control by quarantine and fumigation around the turn of the century. The last epidemic in the state occurred in 1905 with 572 reported cases and 82 deaths. However, dengue fever was still prevalent in the keys and peninsular Florida. One epidemic in 1894 felled 97 of 115 men at a military barracks in Key West.<sup>4</sup> There was also some alarm in 1892 that cholera would spread throughout the state because the federal government had allowed thousands of Russian immigrants from infected areas to enter the United States.

The discipline of epidemiology was practiced by the SBH long before it was identified as a speciality practice of public health. Epidemiologic observations gave support to the hypothesis that yellow fever was spread by mosquitoes. Smallpox was another major threat at that time as it occurred both as sporadic infections and epidemics as late as 1900. Epidemiologic methods were again used to develop control measures (isolation, disinfection and vaccination) that eventually eradicated this disease. Many people resisted compulsory vaccination on the grounds that it was an infringement on the personal rights of the individual. In 1889 the SBH took the position that when the individual's relations to society were such that he became dangerous to the life and health of others, he should be considered a nuisance and legally treated as such. After much public resistance the SBH eventually modified its strong stance regarding mandatory quarantine and vaccination. The last major epidemic of smallpox in Florida occurred in 1912.

## Vital statistics, disease reporting and investigation

• Shortly after its creation, the SBH issued a regulation requiring all city councils and county boards to provide the state with a monthly report on vital events and a record of prevailing diseases. The response was less than enthusiastic. A vital statistics law enacted in 1899 legalized the SBH regulation but

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reporting did not improve. Then there was a decade of schemes to improve the reporting system including one which paid 10 cents to midwives and physicians for reporting births and deaths. A vital statistician was appointed in 1913 and all cities and towns were encouraged to pass a "model ordinance" requiring the reporting of births and deaths.

Outbreaks of rabies among dogs in 1895 prompted the legislature to adopt a law empowering the president of the SBH and health officers to "investigate all cases of yellow fever, smallpox, cholera and quarantine animals and otherwise protect the community from hydrophobia or rabies." Additional problems with glanders in horses, hog cholera and tick fever and tuberculosis in cattle provided impetus in 1903 for establishment of a Veterinary Division in the SBH which shared responsibility with the University of Florida.

**Public education, health care and laboratory services** ● Dr. Porter strongly advocated education of the public in health matters. He introduced *Florida Health Notes* in 1892 to "stimulate an interest in sanitary matters, not only in the masses, but arouse those who are charged with the protection of the public health in the counties to active measures."<sup>3</sup>

The health of women and children had been a priority commitment of Dr. Porter and the SBH from the outset. Premarital and prenatal examinations were encouraged for women and annual medical examinations, improved seating arrangements and recital posture were recommended for school children. The legislature authorized the SBH to build a hospital to treat indigent crippled children in 1906 but funds were not made available until 1911.

Dr. Porter emphasized the urgent need for a public health laboratory service in 1901 and 1902. He believed a bacteriological laboratory would "aid physicians and local health officers in the diagnosis of certain diseases; to detect tuberculosis; to determine when diphtheria cases may be properly released from quarantine; to examine blood smears for malarial parasites; the examination of water supplies and other investigations connected with public health questions." Within a year "physicians of the larger cities and towns...availed themselves of the privileges of the laboratory which the board generously and gratuitously proffered the profession."

## The Second Quarter (1915-1939)

The first half of the second quarter century has been labeled an "era of retarded growth." A succession of six state health officers attempted to keep the SBH on course during this period of political, social, environmental and economic crises when Dr. Porter retired. Budget cuts, personnel changes and the curtailment or elimination of programs were a constant problem as the state population

continued to grow rapidly. SBH staff, however, initiated a statewide mosquito control campaign, combated epidemics of venereal disease and influenza during World War I, then plague and dengue shortly thereafter. They also served the homeless and helpless during three devastating hurricanes, provided essential health services during the Great Depression and established the legislative foundation for development of county health units. It was not until the mid-1930s, when federal "relief" program initiatives provided essential funds and personnel, that the state's public health programs began to seriously address identified needs.

Nurses, cattle ticks, surveys, education and engineers ● The SBH was authorized to employ "three sociological workers (nurses) for special tuberculosis work" in 1914 since construction of a state sanatorium was not politically expedient at the time. The plan was "to employ a corps of trained nurses to travel the state, hunt out pulmonary consumptives and by advice and continuous assistance, teach the sick individual as well as other family members the rudiments of healthful living." Within two years 13 nurses were providing TB home nursing services and soon this visitation was extended in scope to include all types of nursing services.

Tuberculin testing of cattle was instituted in 1915 and the control of tick fever in cattle became a major economic issue. A SBH tick eradication campaign was not initially accepted by the cattle industry. Shootings and acts of vandalism were reported, but once a few counties were granted permission to ship tick-free cattle to any part of the country, other counties soon complied.

In 1914 an SBH Assistant Health Officer traveled to the Everglades, a three-day trip from Ft. Myers, to assess the medical needs of the Seminole Indians. As a result the SBH began working closely with federal officials to provide necessary health services to the state's Indian population. Private physicians were polled in 1915 on the prevalence of pellagra in the state. Over 500 cases were reported and SBH education campaigns were credited with reducing its incidence during the next decade. By 1916 health education efforts featured a three-car health train exhibit, a film library and medical reference library; the latter used by local physicians. The SBH established a Bureau of Engineering in 1916 underscoring the need for potable water supplies, adequate sewage disposal, mosquito control and other environmental sanitation measures necessary for disease prevention.

Budget cuts, VD control, influenza, and cancer clinics ● Dr. Porter retired in 1917 when Governor Sidney J. Catts took office because "they saw little Vol. 76, No. 8/J. FLORIDA M.A./ August 1989/695

in the same light."<sup>3</sup> The SBH had seven district health officers and nurses at that time who were supplemented by "county agents:" private physicians designated in different counties to serve as representatives of the state health officer.

There were four state health officers in the next decade: W. H. Cox, M.D., 1917-1919; R. N. Greene, M.D., 1919-1921; R. C. Turck, M.D., 1921-1925; and B. L. Arms, M.D., 1925-1929. Despite their best efforts health programs were continually curtailed or eliminated. Budget cuts drastically disrupted and reduced district nursing services, health education, veterinary services, and child welfare. For example, the crippled children's service was moved to Ocala temporarily (1917) then back to Jacksonville, discontinued (1921), revived (1924) and finally, after a needs assessment survey, the 1929 legislature created a Crippled Childrens Commission. However, one highlight was establishment of the first cancer clinic in 1921 in Jacksonville. This pioneering effort provided free physician services and radium treatment for indigent cases with inoperable disease.

The influenza pandemic that ravaged the United States in 1918 hit Florida in late September. It savagely swept through the state's military bases and major metropolitan areas. Over 9,300 cases, with 2,712 deaths were reported in October. By the end of a four-month period, ending in January 1919, 12,944 cases and over 4,000 deaths had been reported. This tragic event created a new demand for public health nurses and underscored the need for local health units.

Mosquito control, plague, privies and hurricanes • An epidemic of dengue fever that began in Miami in 1921 ravaged the state in 1922 with Jacksonville and Tampa/St. Petersburg (2,405 and 1,645 cases, respectively) being the hardest hit.5 However, at that time malaria was viewed as an even larger threat to public health with 900 to 1,900 cases reported annually from 1918 to 1924. High case rates in some panhandle counties made it difficult to recruit and retain workers to cut cypress trees from nearby swamps. As a result, in 1919 Taylor County undertook an intensive ditch and drainage mosquito control operation in collaboration with a local lumber company and the Perry City Council. The success of this project led to a statewide mosquito control campaign and establishment of the Florida Anti-Mosquito Association in 1922. Then in the early 1930s the Rockefeller Foundation established a Malaria Research Station in Tallahassee and the SBH created a Division of Malaria Control Studies.

The infamous black plague was brought to Pensacola in 1920 by a ship harboring infected rats. A SBH eradication campaign effectively controlled the epidemic and prevented its spread to other areas 696/J. FLORIDA M.A./August 1989/Vol. 76, No. 8

of the state. The Bureau of Epidemiology was created shortly thereafter to handle future events of this nature. In 1924, Taylor County again took the initiative in sponsoring a campaign to control hookworm through community education and construction of sanitary privies. Before the campaign 60% of the county population had hookworm and two years later only 47% were infected. The success of the project stimulated other counties to conduct similar programs.

The devastation wreaked by hurricanes striking Florida's southeast coast in 1926, 1928 and 1935 far surpassed any previously recorded. The destruction cost many lives and property losses ran into the millions of dollars. Fortunately SBH and local public health personnel were able to quickly deploy to the scene, administer typhoid and tetanus antitoxin, purify water, inspect foodstuffs and otherwise ensure adequate health care and sanitation. The 1926 hurricane in Miami took 242 lives. In the 1928 disaster, water was swept out of Lake Okeechobee, and an unknown number of agricultural laborers and their families were lost by drowning or buried in the debris: 2,600 bodies were found. The 1935 storm that struck the Keys wreaked havoc with the camps for "relief" program workers and at least 500 were presumed dead. A subsequent SBH health mobilization program facilitated the response to and handling of such catastrophic events as part of the National Civil Defense Program.

Midwives, public health nurses, and county health units ● The federal Sheppard-Towner Act provided matching funds for a maternal and infant health program in 1922. Under direction of a public health nurse the program focused on reducing the maternal death rate through the regulation and improvement of midwifery services. About 500 of the 3,000 women attending births in Florida as midwives at that time withdrew from practice when a SBH Certificate of Fitness was required. A law requiring midwife licensure was passed in 1931.

That same year the SBH created a Division of Public Health Nursing as an organizational unit. Emphasis was placed on training and health education with programs geared toward improving the health of mothers and children. Local committees were organized to support and facilitate nursing clinics and home visits for the sick, elderly and disabled.

One of Dr. Porter's earliest priorities was to provide SBH support for the development of local health units. He attempted to establish a base of state level support for these organizations in 1921 but the depressed economy precluded development. The state legislature, at the urging of the state health officer, Dr. Henry Hanson (1929–1935) finally enacted legislation (Chapter 154, F.S.) that authorized the SBH and County Commissions to establish county health units (CHUs) in 1931. This

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sions to 931. This unique legislation provided for local financing, minimum staffing and made it possible for county governments to consolidate a variety of private and public agency health programs and utilize state and federal resources to meet local needs.

Taylor County established the state's first CHU in 1930 but due to lack of funds it was not in operation from 1933–35. Leon County was the second in 1931 with Escambia County following in 1932. The SBH in 1933 acknowledged "that CHUs render locally the service that would otherwise come from the state, and they render it more completely because the personnel is more nearly adequate for the area and population served." Seventeen counties had established CHUs by the end of 1938.

Allies and federal "relief" initiatives • The SBH worked very closely with a variety of related agencies, professional associations and voluntary organizations to better serve public needs during the latter part of this quarter. The FMA was a very valuable friend to Dr. Porter and the SBH during the early years, and continued providing essential support for subsequent state health officers and their public health policies and programs. The Florida Tuberculosis and Health Association was organized in 1916 and in 1922 collaborated with the SBH on a public health educational program called the "Modern Health Crusade." The Florida Public Health Association (FPHA), an organization for those interested in public health, was formally chartered in 1931 with Dr. Hanson as its first president. The State Federation of Women's Clubs had an active interest in the health and welfare of mothers and children and initial maternal and child health work in this area was started with their support.

The Federal Emergency Relief Administration (FERA) Nursing Project of 1934 made 286 nurses available to the SBH for a variety of public health programs. While FERA dramatically improved public health nursing services throughout the state the Works Progress Administration (WPA) projects supported the dredging of swamps and marshes for mosquito control and the construction of privies, screen doors and windows and water and sewage facilities. Then the Social Security Law, implemented in 1936, while W. A. McPhaul, M.D., (1935–1939) was state health officer, provided federal funds for expansion of local maternal and child health programs. That same year the SBH created a Bureau of Maternal and Child Health with support provided by the federal Children's Bureau. The first TB Control mobile x-ray unit was put into service in 1933 to screen populations with limited access to stationary facilities. Five years later the first TB hospital opened in Orlando.

The 1940s were ushered in with the advent of World War II and were associated with such unique challenges as construction of military bases, health care for dependents of military personnel, and venereal diseases. The next episode continues the chronicle of health care in Florida. It will be delayed, however, for a future issue of *The Journal of the Florida Medical Association*.

## Acknowledgments

This overview of Florida's public health history has been extracted from material compiled for a centennial edition of "Millstones and Milestones." It is dedicated to the efforts of thousands of women and men who contributed to development of Florida's public health system. For those of us who enjoy the fruits of their endeavors, it is also a reminder that past events can influence our understanding and perspective of today's issues as well as tomorrow's challenges.

Greater appreciation for the dedication, sacrifices, and achievements of public health workers during the first 75 years may be gained from a State Board of Health monograph, "Millstones and Milestones" by Albert V. Hardy and May Pynchon.<sup>3</sup> More than a half century of recollections are summarized in the memoirs of two outstanding state health officers, Joseph Y. Porter, M.D (1889–1917) and Wilson T. Sowder, M.D., M.P.H. (1945–1974). <sup>2,7</sup> Detailed accounts of individual program accomplishments are recorded in Florida Health Notes (1904–1976), the SBH and Department of Health and Rehabilitative Services (HRS), Division of Health Annual Reports (1889–1974), and monograph series (1960–1974).

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