Article Information
Journal Title: Journal of the Florida Medical Association
Volume: 76 Issue: 9
Month/Year: September 1989 Pages: 800-805
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Article Title: 100 years of public health in Florida-The third quarter, 1940-1964

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Article Delivery Method: Hold for Pickup
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Electronic Delivery? Yes
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The scope and dimension of public health programs expanded rapidly during the century's third quarter which began with the American Public Health Association's (APHA) grim report on the state's health situation. Then the years during World War II brought unique challenges associated with military construction, venereal diseases in Army and Navy personnel, and health care for their dependents. After the war there were new and urgent demands on the SBH due to the state's exploding population, expanding cities and new industries. Fortunately adequate federal, state and local resources were available. The effectiveness of the SBH had earned it a reputation as one of the best in the nation. The progressive development in large measure can be attributed to the leadership of Wilson T. Sowder, M.D., who served as state health officer from 1945-1974.

Sanitary codes, engineers and sanitarians • A. B. McCreary, M.D. (1939-1940), W. H. Pickett, M.D. (1941-1942), and Henry Hanson, M.D. (second term — 1942-1945) served as state health officers during the critical years before and during World War II. Responsibilities in sanitary engineering expanded to keep pace with the growth of industry and population and the legislature adopted the "State Sanitary Code" in 1939. Based upon this authority, the Bureau of Sanitary Engineering in 1941 drew up the first Code containing chapters on subjects relating to sanitation and quarantine necessary for protection of the public health. Federal funds provided sewage treatment plants and safe water supplies as the population mushroomed during the war.

Despite these efforts, sanitation problems associated with improper handling of sewage and industrial wastes began to emerge after the war. Water supplies were becoming contaminated, recreational facilities for recreation.

Additionally, a problem was the saturation demanded by the war effort with some developers turning to areas where homes were to be sold in a period of "persuasion". The SBH was able to deal with some areas.

Air pollution was a new problem in Florida. Control Code and Ordinance Program enforcement by the Florida Department of Health and Welfare was inadequate local enforcement.

A Division of Sanitary Engineering was formed in the Bureau of Laboratories in 1935. Responsibilities of this Division included water and air pollution control, sewerage and waste disposal, poultry and livestock diseases, and increased emphasis on pest control. Air pollution control was first established by the Sanitary Code and Ordinance Program in 1955 and modified in 1973.

VD, TB, and communicable diseases • A Division of Communicable Diseases was established during the period of the World War II. A group of specialized mobile clinics were set up in 1945-1946 to seek out cases of VD and TB. The Division was divided into Communicable Disease Control Branch and Tuberculosis Control Branch. The Division was instrumental in reducing the spread of communicable diseases.

The TB Branch reduced the number of TB deaths by 50% in the state. The VD Branch reduced the number of cases by 70% in the state. The Division was also responsible for the control of communicable diseases such as polio, measles, mumps, and rubella.

The Division of Communicable Diseases was succeeded by the Division of Health Services in 1968. This division was responsible for the control of communicable diseases, including VD and TB. It was also responsible for the control of communicable diseases, including polio, measles, mumps, and rubella.

The SBH was able to deal with some areas.
facilities fouled and shellfish areas eliminated. Additionally suburbs built in areas that had soil saturation during rainy seasons began having problems with septic tanks. SBH engineers encouraged developers to install sanitary sewage systems, however, the law only allowed “recommendations and persuasion” and the situation became critical in some areas.

Air pollution emerged as a major issue and the SBH was authorized to establish regulations for control in 1955. Two years later an Air Pollution Control Commission was formed. Auto exhausts, burning dumps, power plant and phosphate processing emissions, and dust and smoke from asphalt plants and sawmills were prominent offenders. Air pollution was included in the 1961 Sanitary Code and CHDs were delegated authority to regulate local nuisances.

A Division of Sanitation was created in the SBH Bureau of Local Health Services in 1958. Its responsibilities originally included consultation to CHDs, recruitment and training of sanitarians and food handler training. Within the next few years the Division was assigned responsibility for general sanitation in tourist and trailer parks; migrant labor camps; food processing, abattoirs; rendering plants; certification of common carrier facilities for water; bottled water plants; water and waste disposal for private homes; housing; schools; child care centers; public buildings and facilities; food and waste handling; problems in disposal of solid waste; and sanitary nuisances. Local sanitarians carried out these programs with SBH staff assistance.

VD, TB, communicable disease control and zoonotic diseases • The major public health program during World War II was control of VD associated with large concentrations of military and naval forces stationed at bases and training camps throughout the state. It was particularly disturbing that the VD rate was one of the highest in the country, and the PHS assisted with control by assigning medical officers to problem areas. Wilson T. Sowder, M.D., a PHS officer, initially assigned to close a red light district in Pensacola in 1940, was subsequently appointed state health officer in 1945.

VD treatment was proctred and to better assure continuity of medication, Rapid Treatment Centers were established in 1943. The introduction of penicillin in 1944 dramatically changed the treatment of both syphilis and gonorrhea.

The TB picture changed rapidly in less than two decades. The period began with procurement of mobile radiological units and a vigorous program seeking periodic chest x-rays on all adults. Three more TB hospitals were added, treatment with streptomycin and paraminosaliclyc acid was begun in the late 1940s, and participation in PHS studies of isoniazid in the 1950s. By 1960 the death rate had been reduced to 2 per 100,000 population, the number of new cases continued to decrease, and some hospitals were closed or put to other use.

Most of the serious communicable diseases except smallpox were generally under control by this time. The availability of specific preventive vaccines had made the occurrence of diphtheria, pertussis, tetanus, and typhoid relatively rare. Poliomyelitis was uncommon in the south and in Florida prior to the 1940s. During the next decade, disturbing epidemics occurred with some regularity in major metropolitan areas but after the vaccine became available in the mid-1950s the disease was rare in the state by the mid-1960s. The SBH and CHDs had an active role in the early tests of the efficacy of the Salk (Dade CHD) and then the Sabin vaccines (Dade and Hillsborough CHDs). An Immunization Program was created within the Bureau of Preventable Diseases in 1963 to raise the immunity level of preschool children against polio, diphtheria, pertussis, tetanus and smallpox.

Rabies, an old problem, tended to change; the fox, raccoon, and skunk were found to be important viral reservoirs. Of even greater interest, rabies was found in bats, with the initial identification in the United States being made by the SBH Tampa Laboratory in 1953. A Division of Veterinary Public Health (VPH) was created in 1948 to prevent and control zoonotic diseases. Initial efforts were directed toward establishment of rabies vaccination and stray dog programs through local animal control ordinances. Epidemic rabies in dogs was no longer a problem by 1951; however, outbreaks in fox populations throughout north Florida occurred with some regularity during the late 1950s and racines emerged as a significant public health threat.

A VPH Section added to the Bureau of Laboratories in 1949 to support ongoing rabies studies spawned development of the standard fluorescent rabies antibody (FRA) test and provided a unique opportunity for investigators to study leptospirosis, Q fever, brucellosis, listeriosis, encepalitis, tularemia, psittacosis and cutaneous larva migrans.

Entomology, malaria eradication and arboviral encephalitis • A Division of Entomology was created in the Bureau of Sanitary Engineering in 1946, and three years later the legislature authorized state aid to 12 mosquito control districts. A PHS-funded antityphus campaign directed at controlling rats and their fleas was also conducted during the post-World War II years until 1950. The Division was elevated to Bureau status and an Entomological Research Center was established at Vero Beach in 1953 and the West Florida Arthropod Research Laboratory at Panama City in 1963. Their purpose was to acquire basic knowledge for effective insect control.
control and to apply it in practical operating programs. This Bureau was also assigned responsibility for administration of the Structural Pest Control Law passed in 1947.

After years of battling mosquitoes, malaria still headed the list of diseases to be conquered in 1941. That year the SBH created a Bureau of Malaria Control and the PHS conducted a control program in war areas. With the advent of the newly introduced insecticide DDT, this program proved to be one of the outstanding success stories of public health in Florida, the nation and the world. The rapid decline in mortality and morbidity from malaria continued as the vector was completely eradicated from the state by 1950.

Incidence of many infectious diseases declined but epidemics of St. Louis encephalitis (SLE) were a serious threat in the early 1960s. A small outbreak in the Tampa Bay area in 1959, another in 1961, and a substantial epidemic in 1962 resulted in 315 cases with 15 deaths. This stimulated a need to research mosquito borne disease, control and abatement activities. Albert V. Hardy, M.D., Dr.P.H., acting state health officer (1961–1962), was instrumental in establishing an Encephalitis Research Center in Tampa with support from the National Institutes of Health (NIH) and a special state appropriation.

**Local health services, information, education and training** • The Bureau of County Health Work was renamed Local Health Services in 1944 and CHUs were designated county health departments (CHDs). By then 41 had been organized and counties without coverage were served by four district offices. All but St. Johns County had a CHD by 1952; still, it was not until 1960 that all 67 counties were under the supervision of the SBH. This included 42 CHDs: 26 single county, 7 bi-county and 9 tri-county. "At this time the Bureau was comprised of three Divisions: Public Health Nursing, Sanitation and Nutrition whose staffs provided consultation, technical assistance, training, planning and evaluation services to the CHDs.

Health information and education activities, always a prominent aspect of all SBH programs, expanded considerably during this quarter. In the mid-1940s the Health Education staff provided consultation, guidance and technical assistance for the entire organization, including development and publication of all SBH literary materials. Professional health educators were first employed following World War II and by the early 1960s they were an essential part of the public health team in most of the larger CHDs and special programs. Initially the focus was upon the influence of environment on health and vaccination to prevent communicable diseases, but later promotion of a healthy lifestyle received greater emphasis since the health and well-being of the populace substantially depended upon each individual’s behavior. The SBH also cooperated with the State Department of Education (DOE) and state universities to plan and implement a school program that assured more effective health education for children.

Some organized training for public health personnel was provided by the Florida Anti-Mosquito Association, American Water Works Association and the FPHA in the late 1920s and early 1930s. The SBH Nursing Division developed the first extensive inservice training program in 1934; then with establishment of the CHUs in the late 1930s and 1940s, nursing and sanitation consultants were responsible for orientation and training of new personnel. Initially Social Security Act funds and later other federal funds were available to send some employees to out-of-state universities for intensive public health training. Other training needs were served at a grant-funded center operated by the Alachua CHU and University of Florida (1946–1955) and a Bureau of Laboratories program for advanced training at the masters and doctoral level. Also in 1955 the legislature established scholarships for the study of medicine, dentistry and several disciplines related to mental health so that practitioners could be more readily available to geographic areas of need.

**Maternity and infant care, school health and childspacing** • One wartime program which reached every part of the state was the Emergency Maternity and Infant Care Program. More than 40,000 babies were born in Florida in 1943 and the number increased each year. Many fathers were in the Armed Services and unable to provide maternity medical and hospital care for their wives and infants. Special programs were begun to improve the care of premature babies.

At the beginning of the quarter Florida's maternal death rate was 6.4/1000 live births and by 1963 it had been reduced to 0.3/1000 live births. The decline has been attributed to availability of antibiotics for treatment of postpartum infections and the efforts of the SBH, FMA and other organizations to influence a gradual trend away from midwife deliveries and toward physician-hospital births. Infant mortality also decreased, although not as dramatically, from 54/1000 live births (1940) to 28/1000 (1963). During the 1950s, there was a concerted effort to provide better prenatal care to women who did not have private physicians in order to prevent birth deformities, injuries and chronic disease conditions associated with premature birth. Limited funding, however, precluded the operation of meaningful programs throughout most of the state.

In the summer of 1939, representatives of the DOE, the SBH, and several voluntary health agencies met to develop plans for childspacing over the newly developed state. The year, however, was interrupted by World War II, and plans were abandoned. The problem of having healthy children continues to be of concern to educators, public health officials, and parents. A recent manual published by the American Medical Association, in conjunction with the National Education Association, recommended that all school children be examined for the presence of the disease when entered school and at regular intervals. A similar manual for low-income children was published by the SBH.

In early 1963, an epidemic of chickenpox throughout the state was reported. It was later determined that the SBH had improved their public health services and the epidemic was brought under control. The state health department was able to control the spread of this disease and to recommend healthful practices for the prevention of other diseases.

The Bureau of Public Health Nursing has expanded its program since its inception in 1941. The number of registered nurses employed by the Bureau has increased from 10 in 1941 to 218 in 1963. The Bureau has been instrumental in training nurses to work in public health, and has provided consultation to local health agencies in the development of their nursing programs. The bureau also provides a variety of services to the public, including the operation of a Maternal and Child Health Program, the development of a School Health Program, and the provision of services to persons with communicable diseases.
cies met at the University of Florida to discuss plans for a school health program. The state began a newly developed and coordinated program the next year; however, its full implementation was interrupted by the war effort. By 1946 only a few CHUs were assisting with expansion of the program by having health educators, physicians and nurses provide essential services. Then the next two years recent medical school graduates worked in CHUs throughout the state to provide physical examinations, immunizations and referrals for thousands of school children. In 1949 organic heart disease was detected in 22 of 2600 (0.85%) 4th, 5th, and 6th grade school children from Pensacola surveyed by the SBH and Naval School of Aviation Medicine.

In early 1950 a school health consultant was designated to coordinate the state level program and the SBH and DOE published a development and implementation guide, "A Program of Health Services for Florida Schools." During the late 1950s every school was required to have a faculty appointed school health coordinator; regular statewide conferences were held to improve school health programs, and CHDs were conducting hearing and vision screening in schools. By the end of the quarter all public schools required a complete health appraisal in 1st, 7th and 10th grades and some CHDs were conducting screening surveys for TB, rheumatic fever and mental disabilities in collaboration with other programs, organizations and agencies.

The issue of childspacing or planned parenthood was addressed when the proportion of illegitimate births, particularly in teenagers, increased progressively in the late 1950s. At first SBH policy dictated that promotion of a family planning program should be left to discretion of individual county health officers; however, by the early 1960s, in response to an obvious need, most CHDs were quietly providing family planning services to eligible women upon request.

Preemie care, community mental health and dental health

After World War II the SBH and CHDs continued to explore ways to improve the quality of life by modeling unique and distinctive programs. The Bureau of Maternal and Child Health and Dade CHD established a Premature Demonstration Center at Jackson Memorial Hospital, Miami, in 1950 in order to increase the chances of survival for premature infants [preemies]. After 1958 the Center served also as a training, demonstration and study center. Success in reducing death rates, morbidity and developmental disabilities in "preemies" stimulated other hospitals to organize similar programs.

The mental health of Florida's children was a special interest of Dr. Sorber's and in 1947 he and others supported the governor's designation of the SBH as Florida's mental health authority. The Community Mental Health Program (CMHP) soon became an independent and rapidly growing bureau in the SBH. The program, with the assistance of local organizations and the CHDs, also was recognized as perhaps the best in the south. In response to problems of the mentally handicapped in the Miami area, the Dade CHD in 1958 collaborated with the SBH and the PHS to establish a Developmental Evaluation Center (DEC). This project was concerned with evaluation of children who showed "significant" delay in development and demonstration of methods for assessing levels of functioning in various areas of ability. Its success ultimately stimulated the establishment of a similar project in the Tampa Bay area.

The Bureau of Dental Health, organized in 1936, contributed significantly to the health of children, particularly those of indigent families and to a lesser degree of adults. Health education, dental examinations and treatment services in CHDs were expanded considerably during this period. Fluoridation of public water supplies was begun in 1949 and created much public controversy. Community education programs explained the benefits of fluoridation to overcome local resistance but progress in extending the program to community water supplies was slow during the 1960s. The Florida Dental Preceptorship Plan initiated in 1957 allowed unlicensed, recent graduates in dentistry to be employed by the CHDs while working under the guidance and supervision of local practicing dentists. This experimental initiative was discontinued in 1969.

Migrants, refugees, indigent and Indian health services

- Hoards of people swarmed into Florida in 1941 and 1942 when jobs were readily available on construction projects for military camps and in the fields creating a number of public health problems. Small towns and villages near the building sites and fields were overwhelmed. Whenever there was need to provide emergency services for this population the responsibility fell to public health personnel.

The Bureau of Maternal and Child Health in 1954 provided some services for migrant agricultural workers who "winter" in the state. Shortly thereafter, the SBH, the PHS, Communicable Disease Center (CDC), Florida State University, and the Palm Beach CHD collaborated on an extensive study of migrants and their problems. The CHD conducted an indepth study between 1956 and 1961 of the migrant population of that county to identify health needs and develop appropriate services. This study provided impetus for establishment in 1962 of a PHS funded migrant health project that provided medical, dental and nutrition services for agricultural migrant workers in 13 counties. One innovative aspect of the study design was the assignment of CHD sanitarians to work for improvement in housing and environmental conditions.
The arrival of over 100,000 Cuban refugees in south Florida in early 1960 created a definite emergency. The SBH and Dade CHD responded with a special state-funded hospitalization program that provided both in and outpatient medical services. The Medical Assistance for the Aged (MAA), Public Assistance Recipient (PAR) and the Hospital Service to the Indigent (HSI) programs were established by the legislature to provide health care for the indigent. The HSI (1955) was intended to provide hospitalization, visiting nurse care and outpatient services for ill or injured, medically indigent persons; however, due to insufficient funding only hospitalization was ever provided. The SBH administered the Florida State Department of Public Welfare PAR program (1959) which provided hospitalization services for the indigent. The MAA program (1963) provided essential hospitalization and visiting nurse care services to the indigent elderly.

Beginning in 1961 the SBH and CHDs contracted with the PHS to provide hospital inpatient and outpatient services and medical care to Seminole and Miccosukee Indians living on reservations in Dade, Broward, Glades and Hendry Counties. The program included services not available under the other indigent programs if warranted by the recipient's medical condition.

Chronic disease control, nutrition and services for the aged • The Bureau of Special Health Services created a Division of Chronic Diseases in 1956 that included a variety of organized activities which eventually evolved as substantial programs. Services focused on casefinding, diagnosis, consultation, public and professional education and encouragement of preventive and rehabilitative measures. Considering the magnitude of needs, this was the beginning of public health's role in chronic disease control; yet, through collaboration of official, voluntary, and private health agencies and organizations much had been accomplished by the end of the quarter.


After the decline of pellagra the SBH gave limited attention to nutrition services for more than a decade. Then in 1946 it created a state-funded Nutrition Investigations and Services Unit, the first of its kind in the nation. The investigations of anemia and education, demonstration and consultation services carried out by this pioneer project stimulated interest throughout the country. The first county public health nutritionist was employed by the Hillsborough CHD in 1957 and a Division of Nutrition was established within the SBH the following year.

Dr. Sowder felt very strongly that the SBH was not doing enough to serve the rapidly increasing aged population of the state and near the end of this quarter he lamented: "The lot of the aged is a sad one. We know enough to be doing more than we are. Our generation is deeply in debt to the one that just preceded us. We have the means and we have the obligation to pay this debt by doing all that is within our power to restore dignity and serenity to the declining years of our older citizens." In an attempt to address this issue the SBH and the Pinellas CHD in 1958, used PHS funds to initiate "A Comprehensive Public Health Program for the Aged" in St. Petersburg. The main objectives were to assess the health status and health needs of a concentrated, largely transplanted elderly population and determine the extent, adequacy, acceptability and use of existing health-care resources. It was hoped that the results of this project would provide impetus for reallocation of state and federal public health resources from acute, infectious communicable diseases to chronic diseases.

Industrial hazards and radiation control • A Division of Industrial Hygiene was created in 1947 as occupational health problems generally kept pace with economic growth. Initially the Division focused on unsolicited surveys of environmental working conditions associated with heavy industries such as iron foundries, lead smelters, phosphate plants, and ceramic tile factories. By the late 1950s one third of the investigations related to complaints or requests from the Florida Industrial Commission, such as physical conditions (noise, temperature, humidity), air quality (noxious gases, fumes and odors, carbon monoxide exposure or particular dust), and clinical illness (dermatitis and pesticide poisoning).

The Division became Radiological and Occupational Health in 1960 with the advent of newly assigned responsibilities to reduce hazards associated with use of x-rays. Then in 1961 the SBH included regulations in the Sanitary Code that assured the maximum safety for persons exposed to all sources of ionizing radiation and required the registration of all radiation producing machines. There was also concern in the 1950s that radiological fall-
out from nuclear weapons could cause widespread contamination of the atmosphere and soil. A Radiological Laboratory established at Orlando in 1957 provided support services for statewide surveillance activities. Extensive surveys showed that risk was insignificant when compared to that from exposure to medical and dental x-ray machines. The U.S. Congress amended the Atomic Energy Act in 1964 to provide for the transfer of certain regulatory powers from the Atomic Energy Commission to qualified states. By 1964 the SBH was certified to control certain categories of radioactive materials.

Hospital and nursing home licensing and accident prevention • The legislature passed a Hospital Licensure Law in 1947 and amended it in 1957 to require that all hospitals with ten or more beds be licensed annually and that an advisory council be appointed to assist the SBH with policy development. New rules and regulations were promulgated in cooperation with the FDA and Florida Hospital Association (FHA). Over the years highly qualified SBH inspection teams provided appropriate inspection, consultation and licensure services. By the end of this quarter “a definite improvement in hospital operation and construction was noted.”

The legislature in 1953 enacted the Nursing Home Licensure Statute which provided authority for promulgation of rules, regulations and standards for the licensure of nursing homes. After a statewide survey the SBH delegated responsibility for enforcement to the CHDs. The Bureau of Special Services assumed responsibility in 1956 for issuance of licenses upon recommendation of the CHDs. Standards emphasized fire safety, building construction, sanitation and nursing care. Over the years the Florida Nursing Home Association cooperated in promoting this activity and supporting a self-improvement educational program.

The SBH established an Accident Prevention Program in 1958 in recognition of the increasing importance of accidents as a major cause of disability and death. It initially promoted home, school and off-the-job safety programs and participated in the development and coordination of poison control centers. By the end of the quarter it was investigating snake bite reports, conducting safety courses for health care facilities and studying injuries in children from toys and in the elderly at nursing homes.

References


(The fourth quarter will follow in the October issue.)

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