Florida’s Public Health Heritage

Bill Bigler & Davis D. Janowski
Given the many scientific contributions William J. Bigler made to public health in Florida, it is remarkable that it will likely be his role in telling that profession’s heroic and too often unsung history for which he will likely be most remembered. In fact the updated edition of this book is being published 25 years after the journal article that inspired it was written in 1989. That piece, titled “Public Health in Florida—Yesteryear,” was itself written to celebrate Florida’s Public Health Centennial.

Sadly, Bill, as everyone knew him, did not live quite long enough to see the present edition of this book completed, having passed away far too soon at the age of 75. I know he would have been quite pleased to see it available online and in print and, most importantly, that its contents be easily accessible and freely available to students and young professionals joining the ranks of Florida public health.

The book you are now holding is meant to bring to life the history presented in that earlier article in the *Florida Journal of Public Health*. Bill loved history. As a scientist he also saw great value in its use as a way to link the work of current public health professionals and students to that of their predecessors.

Dr. Bigler himself started out his own career as a young biologist with the then Florida State Board of Health in 1964. As noted above his scientific contributions were numerous; he led or participated in dozens of epidemiologic investigations over the decades and his work was published in hundreds of journal articles. Despite having retired at the dawn of the modern Internet age a quick search in Google Scholar under Bill’s name will pull up a very wide range of research.
From “Seasonal movements and activity patterns of the collared peccary” (his research as a wildlife biology graduate student) to "Anesthesia of raccoons with ketamine hydrochloride" to “Endemic eastern equine encephalomyelitis in Florida: a twenty-year analysis, 1955–1974,” to his later papers devoted to HIV and AIDS prevention.

He worked for the state of Florida for 35 years, all of them for the Department of Health (under its various names and reformulations). Throughout the course of that career he served in many different roles, first as a biologist, but later as a research director, deputy and senior epidemiologist, TB program director and a pioneering administrator, having created the Venezuelan Encephalomyelitis and the HIV programs for the state.

While he was a prolific writer and researcher, his fieldwork was legendary. There was his brush with death from rattlesnake bite while trapping mice in the Florida Everglades (in a quest for evidence of encephalitis in their blood). E. Charlton Prather, M.D., M.P.H., himself a living legend (and Bill’s boss at the time of his bite) recently reminded me of this story, fleshing it out with additional details. One of which I was unaware: how challenging it had been to convince the workers compensation board that the incident had indeed been work-related.

Another often-repeated story tells of Bill’s near-arrest while trapping pigeons with nets in a Jacksonville public park (again, related to encephalitis research). But it was Bill’s mammalian trapping for which he was most famous, including various attempts at trapping bats at the mouth of caves, including two big efforts, one outside Marianna (for rabies research) and another in a cave near Branford related to histoplasmosis (specifically an epidemiologic work-up for a human case). He was also renowned for his expertise and efficiency in the trapping of raccoons for rabies testing and was a sought-after instructor in the practice.

In short Bill was not just a scholar and scientist he was a gentle and patient soul that gave freely of his own personal time, this book being a case in point, it largely having been researched and put together after hours. While he will be greatly missed at least some of what he accomplished will live on in his works.

The Past Has a Way of Repeating Itself

As everyone is aware, Florida is, by and large, a state of immigrants and visitors, waves of them, many from other tropical climes. In the past these visitors and settlers brought with them diseases from wherever it was they originated. This cycle probably began not long after Columbus arrived when, first, shipwreck survivors, and decades thereafter, colonists; hit the shores of what would become Florida. No one knows the size of the pre-Columbus population of native peoples but what is certain is that European diseases like mumps and measles, for which the native peoples had no immunity, died in massive epidemics, largely depopulating the state for centuries to come.

Their was not the end of the suffering though. In the centuries that followed lots of other diseases arrived or returned. And thanks to its geography, diseases carried by mosquitos would prove a scourge until the mid-twentieth century. That’s when pesticides, drainage projects and better sanitation allowed for some measure of mosquito control. Other modern conveniences, perhaps most notably air conditioning, meant that large numbers of people could comfortably spend time indoors. Mosquito-borne diseases could be relegated to memory.

So allow the stories you read herein to stick with you in your own work. As with many aspects of nature, there is ebb and flow in public health but to borrow the motto of the Boy Scouts, Be Prepared. Be aware of what has visited Florida’s shores in the past and you will all the better prepared for what might arrive in the future.

Davis D. Janowski is a former editor for the Bureau of Epidemiology at the Florida Department of Health. He is currently the editor of Wealthfront, Inc., an online automated investment adviser, in New York City. To reach Mr. Janowski, search: @ddjanowski.
Chapter 1: The Impetus for Disease Control, 7
The Tocobaga and Disease from the Old World; Florida During the Revolutionary War; The First United States Medical Journal; An Army Surgeon’s Notes of Frontier Service; A Visit by the Comte de Castelnau; Monograph on Yellow Fever

Chapter 2: Building Public Health Agencies, 21
Medical Practice Regulated in Florida Since Territorial Days; Pensacola and St. Augustine Boards of Health; Dr. John Perry Wall: Father of the State Board of Health; The Yellow Fever Epidemic of 1888; State Board Employs First Public Health Nurses; State Board of Health Reorganization Proposal; County Health Department Origins

Chapter 3: Taking the Message to the People, 35
How to Live 100 Years; Health Train an Information Superhighway in 1915; Their Rightful Heritage; Soft Pedal on Communicable Disease News; Medical Detectives Vintage 1932

Chapter 4: Partnerships for Better Health & Wellness, 43
Miami’s First Physician Gives Community Needs Priority; Private Medicine and Public Health: Getting the Job Done; Women’s Club Adopts Health Agenda; Florida Public Health Association Born Again; Birth of the Florida Anti-Mosquito Association

Chapter 5: Disease Prevention & Control Campaigns, 51
State Board of Health Treatment for Hookworm; Privies, Poop and Pestilence; State Board Targets Unsanitary Public Schools; The Great Trachoma Campaign; Rapid Treatment Centers Battle Wartime VD; Pellagra Retrospective

Chapter 6: Cheerleading, Complaints & Peptalks, 63
Outrage During a Maritime Inspection; Time to Fish or Cut Bait; We Have Met the Enemy and They Is Us; Not Only Informed, But Also Persuaded; Steering a True Course; Don’t Upset the Apple Cart; Research or Stay Behind

Chapter 7: Outbreaks & Investigations, 73
Dr. Porter Calls in the Navy; Jacksonville and the 1918 Influenza Pandemic; Cigars, Expectoration and Cuspidors; Cerebro-spinal Fever: The Epidemic at Madison; Typhoid! Shucks it Was Just an Oyster; Bubonic Plague in Florida?

Chapter 8: Musings, Recollections & Reflections, 85
A Tough Decision That Pays Dividends for Florida; Some Excerpted Musings from Dr. Wilson T. Sowder; Recollections of Dr. Albert V. Hardy; To Quarantine or Not: “The Atlantian Affair”

Chapter 9: Tales, Trivia & News Clippings, 93
Humorous Doings at the Old State Board of Health; Wild Things That Buzz, Bite and Sting; Human Yellow Fever Experiments in Havana, Cuba; “Sleeping Sickness” Found in St. Louis; “It was a Terrifying Night,” The 1935 Hurricane
Chapter 1
The Impetus for Disease Control
Spanish contact with the Tocobaga was thus much more limited during the late sixteenth and seventeenth centuries than it was for the Timucuans or Apalachee. However, the results of contact were the same. Diseases continued to decimate the Tocobaga and by the time of the destruction of the North Florida missions (in 1703–1704 by the English colonial colonel James Moore from South Carolina), the Tocobaga had also been effectively destroyed as an ethnic group.

Villages consisted of a small number of thatch-roofed houses built of posts. Special buildings, such as the chief’s house and temples (which were also perhaps charnel houses) were constructed on flat-topped mounds. . . . Each charnel house was evidently for the storage of cleaned bones which were saved until they were deposited en masse in a burial mound. One of the men from the Narváez expedition lived among the Tocobaga until rescued by de Soto. The individual, Juan Ortiz, related how he was made to guard the bones stored on shelves in a charnel house from hungry animals.

When Narváez landed among the Tocobaga he was shown wooden boxes in which corpses were stored, wrapped in painted deer hides. Apparently, the boxes had originally been filled with goods being transported to or from New Spain (Mexico) and had been salvaged from wrecked Spanish ships. Other items—linen, cloth, feather headdresses, and gold—had evidently been salvaged from ships destined for Spain. . . . We do know that the Tocobaga utilized fish and shellfish as food and that they planted maize, pumpkins, and beans. . . .

Whether or not the Tocobaga had a clan system is not known. However, the Spanish noted three ranks of individuals: chiefs and their families, common people, and slaves. The latter were often shipwrecked Spaniards. . . .

The language of the Tocobaga Indians is also unknown; no written examples have been located in archival materials, and it is quite possible that none ever will. Deriving population figures for the Tocobaga is difficult without better documentary or archaeological data. However, it seems reasonable that at the time of the first contact the Indians living within the Tocobaga region, including the relatively propitious Tampa Bay environs would have numbered 5000–8000. It is possible that even by the time of Narváez, the Tocobaga population had been reduced by diseases transmitted by Spanish sailors.
Influenza

POSSIBLE & DOCUMENTED EPIDEMIC DISEASE EPISODES AMONG NATIVE AMERICANS OF FLORIDA, 1512–1562

1513–1514: Malaria probability likely, mortality unknown
1519–1524: Smallpox probability likely, mortality 50%–70%
1528: Measles or typhoid fever probability likely, mortality about 50%
1535–1539: Unidentified disease probability certain, mortality high
1545–1548: Bubonic plague probability certain, mortality about 12.5%
1549: Typhus probability likely, mortality about 10%
1550: Mumps probability likely, mortality unknown
1559: Influenza probability likely, mortality about 20%

Estimates of the aboriginal population existing in the Americas and specifically Florida prior to contact remain just that—only estimates. Scholars continue to disagree about each others technique for producing these estimates. Estimates range wildly from a few dozen thousand to a few hundred thousand aboriginals living in Florida at first contact in the early 16th century.

Actually, the Native American peoples of Florida suffered perhaps eight major epidemic episodes during the protohistoric half century from A.D. 1512 to 1562. Native American numbers did not merely become thinned; biological disaster struck the inhabitants of the peninsula.

In the course of analyzing the impact of plagues on the peoples of the world, William H. McNeill pointed out that historians have seriously neglected disease in explaining human events (McNeill, Plagues and Peoples, 1976, page 4).

...While it is doubtful whether historians will ever be able to reconstruct the entire record of microbial invasion of Florida’s Native American population prior to 1563, enough clues are available to permit the identification of some major epidemic episodes that struck Florida’s Native Americans before 1565. . . . Shipwrecked Spaniards among the Calusa also evidently taught the natives, intentionally or not, how to nurse patients with contagious diseases. The scarcity of accounts by rescued Spanish captives and the laconic nature of the few that survive from Florida no doubt mean that all of the diseases that shipwrecked Spaniards transmitted to the Calusa will never be identified. Some probable epidemics can nonetheless be listed.

Many folks today fail to realize that during the period of the American Revolution (1775–1781), what is today the state of Florida (and some of Louisiana, Mississippi, Alabama and Georgia) made up two separate colonies of the British Empire (the 14th and 15th colonies respectively). The colonies of East and West Florida were the only two to remain loyal to George III throughout the war. These two colonies were sparsely populated and undeveloped with perhaps 8,000 citizens total (the other 13 colonies had around 2.5 million). Despite this and the harsh conditions, the British used the Floridas as a base of operations, a haven for loyalists and to keep their prisoners of war.

Captured American and French prisoners of war most conspicuously tried to undermine George III’s authority. Prisoners began arriving at the outset of the Revolution, and their numbers swelled in the ensuing years. Whenever Governor Dunmore in Virginia got his hands on rebellious Masons, Lees, Hills, and their seditious colleagues, he quickly packed them off to St. Augustine. Rebel prisoners ranged from the planter-merchant elite to illiterate farmers and seamen. At one point three South Carolinians who had signed the Declaration of Independence—Arthur Middleton, Edward Rutledge, and Thomas Heyward, Jr.—were lodged in St. Augustine. It is impossible to count the precise number of French and American prisoners in the Floridas during the Revolution, but two thousand is a rough estimate, probably a very conservative one. A majority of the prisoners were brought to St. Augustine and incarcerated in the fort or lodged in the state house and private homes. Imprisonment typically lasted for no more than one to eight months because it was in the interest of all parties to effect a speedy exchange. Even so, the local carpenter regularly supplemented his income by making coffins for prisoners who died from recurring diseases and pestilence.
But the ministry’s bellicose instructions to the naval commander of the Jamaica squadron and to Gen. John Campbell at Pensacola, urging an attack on Louisiana, were absurd in light of reality. Riding about in the governor’s chariot and surveying conditions in Pensacola, General Campbell and Governor Chester did not share Whitehall’s optimism. The capital (of the British colony of West Florida, Pensacola) had not recovered from a recent hurricane. Houses, wharves, and fortifications bordering the waterfront had not been or could not be repaired. Labor, scarce enough in the best of times, had to be diverted from essential military projects. Over one thousand regular and provincial troops—a blue-clad German regiment from Waldeck and loyalist regiments from Pennsylvania and Maryland—arrived at Pensacola during the winter of 1778–79, several hundreds of whom were sent on to garrisons at the Mississippi posts. Campbell could not rely on those who had remained partly because they were dead. Fevers, fluxes, and especially smallpox had carried them off soon after they stepped ashore, if not beforehand. The Maryland loyalists, ravaged by smallpox, were forced to stay aboard ship for weeks except to come ashore to a Tartar Point blockhouse hastily converted into a hospital. Fifteen soldiers sent on to Manchac (outpost located on the Mississippi River, then a part of West Florida) died within six weeks. Sick himself, Campbell wanted to leave this pest hole where he could never make his military reputation.

An inordinate amount of querulousness existed among those well enough to muster on parade. German enlisted men, supposedly the most disciplined, regularly deserted to the Spaniards. German Waldeck soldiers, forced to work as carpenters in Pensacola for insufficient pay, almost mutinied, while the provincial regiment of Pennsylvania loyalists stood guard in tatters. The court-martial rate for provincial and enlisted men was extremely high. Sixteen-year-old Ensign William Augustus Bowles of the Maryland loyalists abruptly resigned his commission, discarded his ensign, threw his regimental coat into the Gulf, and went off to live among the Indians; he bobbed defiantly about Pensacola Bay fishing in a homemade boat. Seventeen Maryland provincials, deciding that their enthusiasm had gotten out of hand when they enlisted, deserted and returned home overland. At one point the Pennsylvania and Maryland loyalist regiments, reduced by desertion and sickness, were temporarily combined into one unit, prompting their two colonels, William Allen and James Chalmers, to protest to superiors while at the same time quarreling with one another about who must give up his command. Hugh Gordon, General Campbell’s aide-de-camp and deputy muster general who never completely beat the fine white Florida sand out of his clothes, wrote despairingly: “Regards to my friends but tell them not to come to Pensacola!” Washington had similar problems with sickness, desertion, and low morale, but that was of little consolation to General Campbell as he paced about the West Florida capital.
The journal lasted 27 years, which is not bad as the authors point out, for at the time the average lifespan of a U.S. medical journal was 5.4 years.

July 1997 marked the 200th anniversary of the founding of the Medical Repository, the first medical journal indigenous to the United States.

...The British blockade during the American Revolution (1775 to 1783) created shortages of European medical periodicals and books as well as of drugs and medicines. Physicians who normally relied on Britain for information felt isolated.

...In our present state of information glut, it is hard to imagine the isolation of the 18th century physician faced with a medical quandary.

...Much of the medical information physicians acquired came from sources other than books and medical journals. Letters, one of the main channels of medical communication, often contained the original observations of the writers as well as excerpts from hard-to-find books, laboriously hand-copied.

...Until the appearance of the Medical Repository there was no medical journal in the United States. As a specialized form of publication, the medical journal brought “a new element of timeliness to the dissemination of medical information,” writes historian James Cassidy, “one that invigorated and greatly accelerated the processes of medical change.”

Subscribers...of 1797–1798 (only period this information was available) represented 14 states, with a disproportionately high number, relative to the population, coming from the states associated with the editors (Samuel Latham Mitchell of New York, Elihu Hubbard Smith of Connecticut and Edward Miller of Delaware). Of the 266 subscribers, 73 percent were physicians, 11 percent merchants, 10 percent lawyers or judges, three-percent ministers, and two-percent booksellers.

...The cost, as published in the journal itself in 1800, was “...a dollar to be paid on receipt of the first number, and a half a dollar on delivery of each succeeding number.”

...The content of the Medical Repository...emphasized epidemics, contagious disease, and fevers, as well as climate and meteorology and their effect on disease in America.

...Two hundred nineteen articles, on contagious disease, sepsis, fever, tuberculosis, climate and disease, meteorology, and chemistry were published...between 1797 and 1824.

...Smith’s diary gives scant evidence of true peer review of the Medical Repository, although many entries suggest that the three editors read and discussed papers submitted for publication...
Left Charleston on the 21st of June in a small schooner for St. Augustine, where I arrived on the 23rd. Found on my arrival 2 steamboats with troops, principally 2d Dragoons and some companies of Artillery who had arrived the day before from Forts Mellon and Volusia under command of Col. Harney. These Posts had been abandon’d on account of their unhealthiness at this season of the year and of the whole command at the 2 places amounting to near 400 men, 150 were sick. Reported to Genl. Armistead and was put on duty at the Genl. Hospital No. 1 with about 70 sick, mostly intermittent diarrhea. The evening after my arrival went to a ball at Judge Read’s. Found most of the officers present. Danc’d principally Spanish dances. The party broke up about daylight. These balls are given 2 or 3 times a week during the whole summer, notwithstanding the heat of the weather and rarely concluded before 3 or 4 o’clock in the morning.

July. The 4th was celebrated as usual with a public dinner, procession &c. Did not attend owing to the heat of the weather. . . . A soldier was executed to-day back of the town for shooting his sergeant. . . . address’d some few remarks to his former comrades attributing his crime to drunkenness at the time, expressing regret for its commission, the justice of his sentence and willingness to die . . . when suspended deliberately crossed his hands on his breast and never made a struggle, although apparently alive ½ hour after the drop fell. The St. Augustine Packett S.S. Mills was lost on her way to Charleston during one of the gales we had during a succeeding month. The loss cast a gloom over the town, as nearly all the persons belong’d here and had extensive connections and were highly respected. Only one person, a sailor, escap’d. . . .
Francis de La Porte, Comte de Castelnau, was born in London in 1812 and attained eminence as a naturalist and scientific traveler (Florida Historical Quarterly, page 199). The count made expeditions to North and South America throughout the 1840s and 50s and published his findings in Parisian scientific journals of the day. He eventually was made French consul to Melbourne, Australia in 1862 where he lived the remainder of his life, passing away there in 1880. Some historians theorize that he, along with other French naturalists, undertook their expeditions not only for scientific exploration but the gathering of strategic intelligence for the French government. Whatever his purpose, his observations are insightful and provide a perspective often lacking in similar travel literature. This is valuable because other contemporaries were frequently American or British and took much for granted in assuming their readers were familiar with life in these parts. We can give thanks to our predecessors in public health and to our current efforts that his observations can now be almost entirely relegated to history.
still the great mildness of its winters
makes this region the favorite refuge of
people attacked by pulmonary
tuberculosis so common in the northern
states of the Union and it has been
noticed that those who are in this
condition seem to be immune from the
fevers that too often afflict these regions.

Although yellow fever is not usually
prevalent in Florida, it sometimes
appears with terrible effects. In 1821 it
ravaged St. Augustine, the year following
Pensacola. In 1824 and in 1839 the
population of Key West was almost
totally wiped out by this scourge, and in
1839 it appeared again in Pensacola, but
here as well as almost everywhere else it
spread only a short distance from the
seashore. However, in 1841 all Middle
Florida and West Florida were seriously
attacked by it, and the localities that
suffered most were Pensacola, St. Joseph
and Tallahassee. The disease that is the
most fatal in Middle Florida is bilious
fever, which is almost as serious as its
terrible rival, most doctors even admit
that in certain cases it is almost
impossible to distinguish one from the
other, for a fatal result is quite common
the third day, and black vomit which is
said to be peculiar to yellow fever, quite
often accompanies bilious fever. An
autopsy however shows considerable
difference in the digestive organs.

The most unhealthy season begins at
the end of June and extends into
November, then in many localities
almost certain death awaits the
imprudent stranger who dares to face
this murderous climate, and ten to
twelve years stay here are far from
making one acclimated.

...Calomel is here the only remedy,
and a quack wanted to give me some for
a sprain caused by a fall from a horse.

The city of Tallahassee is especially
unhealthy, and although the legislative
Assembly is held in winter and lasts only
one or two months each year, one or
several of the twenty or thirty members
of it who gather there are victims of its
malevolent influence. They speak of changing
the seat of government to St. Joseph,
which, situated on the seashore on a
sandy barren beach, is comparatively
very healthy, for it is worth noting that
the richer the soil is, the more dangerous
is the climate.

Now we shall take some interesting
details from the reports of military
physicians of the United States stationed
in different forts of Florida, details
gathered by Thomas Lawson, the learned
surgeon general of the army.

If one compares the mortality of the
southern part of the United States with
the northern part, taking the latitude of
Washington as the boundary line he will
find that the average mortality in the
south is 5 3/100 and in the north 2 1/10 and
in Florida 6 percent. It must be noted that
this proportion is enormous, that of the
English army in Ceylon being only 4 8/10,
in the Ile de France 3 5/10, at Good-hope 1
8/10, at Bombay 3 8/10, at Madras 5 2/10, at
New Holland 1 4/10, at Bermuda 2 9/10, at
New Scotland 1 4/10, in Canada 1 5/10, in
Gibraltar 2 1/10, in Malta from 1 1/10 up,
and in the Ionian Islands 2 4/10. The
average of deaths in the French army is
about two percent, and in the Prussian
army only 1 1/10 percent. In 1836 the
mortality in Florida was 11 4/10 percent,
in 1837 it was 6 9/10, in 1838 and 1839 4
7/10. Among the officers the mortality was
the greatest in 1836, it was 13 3/10 percent, in
1837 11 6/10 and in 1838 3 4/10 percent.

The disease that is the most fatal in Middle Florida is bilious fever.
The following was discovered while researching Florida diseases in the special collection of the University of West Florida. By 1842, Dr. Isaac Hulse had been the physician in charge at the Pensacola Navy-yard hospital for over 15 years. He was considered a learned and experienced physician working under wild, frontier conditions. Hence his experiences were seen as valuable enough to be published in a prestigious medical journal of the day. With hindsight and technology, we can see the inaccuracy of the following and find it perhaps amusing and at the same time feel we and the field have come a long way. Interestingly enough, his logic is sound, only the facts are incorrect. All we must do to make him correct is exchange his “effluvia,” or bad air, as the cause of yellow fever for that of the mosquito which reproduces in marshes and alluvial soil, and the standing water of a ship’s bilge.
The numerous treatises which have been given to the world on the yellow fever, might lead many to suppose that any further attempt to throw light upon it would be a work of supererogation, but no work has yet appeared in which the author has shown himself capable of tracing the remote and proximate causes of this destructive malady, or of laying down a successful mode of treatment for it in all its phases.

I cannot presume to be prepared to supply these desiderata, but such remarks as have been suggested by the experience I have had in several epidemics of this disease, are now with great diffidence submitted.

This is admitted to be a disease of hot climates and an alluvial soil—it does not exist in the mountainous districts of the West Indies and of tropical America, but is epidemic in the low parts, in the vicinity of estuaries and marshes. It is also epidemic, in some of the southern states upon an alluvial soil, and particularly at the debouchement of rivers. Nor is it usually epidemic in these localities, except after a summer of excessive heat and drought—during seasons where there is an abundance of rain throughout, the disease does not, as far as I can understand, make its appearance. Hence it has been inferred by other writers that it originates in those effluvia which arise from dead animal and vegetable matter, and the inference appears to be pretty well supported.

...On board the Levant, sloop of war, we have numerous facts to prove that there existed a cause additional to that in the atmosphere, in the foul state of the hold of the ship. This ship was lying opposite to Pensacola during the month of August, and on the last day of that month
four cases of yellow fever were sent from her to the hospital. In three or four days she dropped down to the Navy-yard, was dismantled and her crew were sent on shore at the yard, a portion of them, still communicating with her, and on the last day of September ninety-nine cases of the yellow fever had been admitted at the hospital from her officers and crew. New cases continued to occur among the ship’s company, now located at the Navy-yard, until we received thirty-nine more cases, making in all one hundred and thirty-eight cases from that single ship. The disease did not disappear till the 5th of November, after several severe frosts. . . .

As the fever continues, the thirst becomes insatiable, the patient demands cold drinks, at the same time the intolerance of the stomach precludes the possibility of his indulging in them, except very sparingly.

On those occasions venesection is injurious, and often hastens a fatal termination. Such was the character of the epidemics at Pensacola in 1839, when in private practice, I treated one hundred and forty-six cases almost invariably without bloodletting, with a loss of only six. Such was also the character of the disease which I met with on the west coast of Africa in the United States schooner Grampus, in 1828. The disease usually runs its course in four or five days without any positive remission of the fever. But under proper treatment many cases will be cut short in twenty-four or forty-eight hours, and the patient will convalesce rapidly. As the disease continues, local determinations, or perhaps more properly speaking, congestions, take place in the cerebrum, but more frequently in the cerebellum, in the lungs, liver, stomach and intestines; these are usually announced to the physician in time for him to combat them.

As the fever continues, the thirst becomes insatiable, the patient demands cold drinks, at the same time the intolerance of the stomach precludes the possibility of his indulging in them, except very sparingly. The pulse becomes more feeble, but still increased in frequency, the skin hot and dry, the conjunctiva assumes a yellowish tinge, the skin also, in some cases, as early as the second or third day begins to turn yellow. The stools are liquid, dark colored, and offensive. In the worst cases, about the third day, hiccups come on, the countenance has a wild expression, the skin assumes a tawny hue, the lips blue, black sordes collect in the mouth, the tongue is dry, rough and covered with a dark brown coat, the breath is offensive; the patient sometimes says he is well, insists on getting up, and calls for some hearty dish to eat; these cases prove fatal very speedily. In others copious sweat breaks out and the patient sometimes says he is well, insists on getting up, and calls for some hearty dish to eat; these cases prove fatal very speedily. In others a copious sweat breaks out and the patient sometimes says he is well, insists on getting up, and calls for some hearty dish to eat; these cases prove fatal very speedily. In others a copious sweat breaks out and the patient sometimes says he is well, insists on getting up, and calls for some hearty dish to eat; these cases prove fatal very speedily. In others a copious sweat breaks out and the patient sometimes says he is well, insists on getting up, and calls for some hearty dish to eat; these cases prove fatal very speedily. In others a copious sweat breaks out and the patient sometimes says he is well, insists on getting up, and calls for some hearty dish to eat; these cases prove fatal very speedily. In others a copious sweat breaks out and the patient sometimes says he is well, insists on getting up, and calls for some hearty dish to eat; these cases prove fatal very speedily.
floculi mixed in a slimy looking liquid, these floculi gradually mingle with the liquid, and finally the vomit consists of a dark colored thin fluid, having dirty treacle-like matter in it, which is ejected, sometimes in small, sometimes in incredibly large quantities just before death.

In this disease there is general tendency to hemorrhage. The orifices where venesection was performed reopen, and thin, light colored blood, scarcely coagulable, escapes. Hemorrhages also frequently take place from the nose and mouth, and in some few cases from the intestines; and I have seen two cases in which the conjunctiva became fully injected with red blood. Sometimes diarrhea supervenes which no remedy will arrest, and it quickly puts a period to suffering. Occasionally, the fatal moment takes place in a convulsive fit. Towards the closing scene the saliva becomes thick, and is easily disengaged and ejected to a distance, and the patient seems as if amusing himself spitting against the wall. In some instances the vision is so limited that the patient cannot see objects unless they are placed very near to him: this has in my experience, been always a fatal symptom. Delirium generally accompanies the last stage, although in some, there are many and long lucid intervals, in some there is no apparent aberration of the mind till the agony of death overpowers the senses.

First, the patient should be removed, if possible, to a pure atmosphere. The first indication is answered by bloodletting in a recumbent posture at the time of reaction. In the recumbent position he will bear a greater loss of blood than in any other. Immediately after bloodletting the stomach will retain j. [symbol for a “scruple,” an old apothecary unit of measure] of calomel, which will answer part of the second indication, and if followed by ol. ricini 3j. in two hours, it will in nine cases out of ten operate speedily and freely on the bowels, and thus do much towards both the first and second. Should it fail to operate in five or six hours, common injections, composed of ol. olivar, common salt and warm water should be administered, and repeated every hour till fœcal discharges are produced. If it is asked, will castor oil be retained? I answer, it will almost invariably after bloodletting and calomel, given in a little brandy or spts. lavend. comp. If it be ejected it must be repeated immediately. A mustard poultice to the stomach will frequently allay the irritability and cause medicine to be retained. Great stress is to be laid on the early evacuation of the bowels.

Bloodletting should never be persevered in after an impression is made on the pulse. Sincope is not desirable, indeed I think it generally hurtful. . . I have never had the good fortune to see a patient recover who was bled on the third day.

Local congestions are to be met, with cups as near the part as practicable, and these during the first and second, and even third days, will instantly remove the pain and allay arterial excitement. The patient will bear the loss of more blood taken in this way than he will taken from the arm; in the old way, with tumblers, six or eight ounces may be taken in fifteen or twenty minutes. With a view to the fourth indication, the best drink I have been able to devise has been sugar and water, slightly acidulated with pure, crystallized citric acid, with ice, if preferred; and the best article of nutriment, arrow root.

On the second day, a mixture may be given, composed of camphor, gr. ss. to gr. j. and potassae nitrat.gr.iij. to gr.v. every second or third hour. Ice may be held in the mouth where there is great internal heat and thirst; if vomiting is urgent, bi-carbonat. of soda and tartaric acid in the effervescing state, allowing a slight excess of the acid, but not over two tablespoonsful should be allowed at a time. With this intention also, the sulphat. of morphine is occasionally given with happy effect. . . .

On the appearance of the black vomit, or even before, where it is suspected, ol. terebinth. in doses of thirty to forty drops, every hour, or second hour, may be administered to great advantage. I have seen it stop the black vomit, but have not seen the patient recover where this symptom had been fully declared. Where the vomit has been simply a dark fluid, with dark floculi, I have seen patients recover, but not after the whole matter has become a decomposed mass having no distinct floculi.

As soon as yellow bile is seen in the stools it may for the most part be decided that the disease has run its course, and the patient is only in a state of exhaustion; he must then be supported with light animal broth, generous drinks, and by such a course as will be suggested to every intelligent physician. . . .
Chapter 2

Building Public Health Agencies
During the early 1800s, at the first sign of illness in a family member, housewives administered castor oil, calomel, blue mass, rhubarb, opium and a variety of remedies derived from natural herbs. Turpentine, sulfur, spirits of niter and paregoric were found on nearly every plantation. When home remedies failed, the doctor was summoned. He brought all medicines he thought necessary, and before leaving the bedside, gave particular directions for the administration of every pill, powder or liquid. Unfortunately, Florida had very few educated or trained physicians practicing medicine at that time. The profession also included self-appointed physicians who pretended to be men of wisdom as well as many backwoodsters who “physicked” folks.

“Physician treating patient with consumption,” Florida Health Notes.
Territorial records indicate that the regulation of medical practice in Florida appears to have originated in 1821. At that time, Andrew Jackson, in his brief tenure as Governor, issued an ordinance that conferred upon the Board of Health of Pensacola power to regulate the practice of medicine and grant physicians licenses to practice. Then, in 1824, Governor DuVal and his council passed an act which “required every person desirous of practicing as a physician or surgeon in the territory to file within the office of the clerk of the county court a diploma granted by some college or university and a certificate of moral character, or in lieu of a diploma, a certificate that the applicant had studied the science of physic or surgery for a term of two years in a college or under some reputable physician or surgeon.” Any two judges of the county court could then decide whether the applicant was qualified to practice medicine and could grant a license. By 1828, an act of the council created a 15 member medical board who held an annual examination at Tallahassee “for the convenience of prospective physicians and for the protection of the public.”

An Ordinance

[Signed] by Major General Andrew Jackson, Governor of the provinces of the Floridas, exercising the powers of the Captain General and of the Intendant of the Island of Cuba over the said provinces, and of the Governors of said provinces respectively:

Explanatory of the Ordinance for “the preservation of health in the city of Pensacola.”

Whereas, it is of the first importance to the health and prosperity of the city of Pensacola, that no persons but such as are properly qualified and licensed, should be permitted to practice medicine in the said city, (and such having been the law in these provinces under the late government of Spain) and in order to remove all doubts respecting the powers of the Board of Health, it is therefore—

Ordained and declared, that the Board of Health possess full power to regulate the practice of medicine in the city of Pensacola, and to establish rules and regulations for that purpose, and grant licenses to such persons as may be found qualified to practice.

It is further ordained, that Dr. Voorhees, Health Officer, and Doctors Elliott and Merrill of the United States Army, be added to the Board of Health.

Done at Pensacola, this 6th Day of September 1821.

Una Ordenanza

Andres Jackson, Mayor General y Gobernador de las provincias de las Floridas, exerciendo en ellas la autoridad y poder que existían en el Capitan-General é Intendenté de la Isla de Cuba sobre dichas Provincias, y en los Gobernadores que eran de las mismas.

Para servir de explicacion á la ordenanza para la conservacion de la salud en la ciudad de Panzacola.

Por quanto, es cosa de suma importancia á la salud y al bien de la ciudad de Panzacola, que á ninguna persona, quien no tenga calificacion y licencia correspondiente, se le permíta exercitar la Medicina en dicha ciudad (lo que se halla tambien en conformidad, con la ley que regia estas provincias baxo el gobierno Español que fué), y mas con objeto de evitar todas las dudas que pudieran suscitarse respecto á las facultades de la junta de salud; por tanto.

Sece. 1. Se manda y declara, que posee la junta de salud pleno poder para arreglar la práctica de la medicina en la ciudad de Panzacola, para establecer reglas y reglamentos á ese efecto, y conceder licencias á quants se hallan con suficientes calificaciones para exercitar aquella arte.

Sece. 2. Se manda ademas, que á la junta de salud se unan el Sr. Dr. Voorhees, intendente de salud, y los Sres. Dres. Elliott y Merrill, del exército de los Estados Unidos.

Dada en Panzacola, á 6 de Setiembre, de 1821.
The St. Augustine Board of Health

Spain ceded the Floridas to the United States in a treaty ratified on February 22, 1821. After many months of negotiations, the flags were exchanged in July of that year and President James Monroe appointed Andrew Jackson provisional governor of the Floridas (East and West Provinces) and Cuba. Within a few weeks he crafted several ordinances to establish an effective governing infrastructure in both St. Augustine and Pensacola. Among these were ordinances for establishment of boards of health in both cities. The language for the St. Augustine ordinance is included here.

An Ordinance, for the preservation of health in the City of St. Augustine

by Major-General Andrew Jackson

Governor of the Provinces of the Floridas, exercising the powers of the Captain-General and of the intendant of the Island of Cuba, over the said provinces, and of the governors of said provinces respectively.

Section I  THAT every vessel arriving between the first day of June, and the last day of October, in each year, from any port between the Equator and thirty-three degrees North latitude, shall be brought to at such point as the Board of Health may direct, and there perform a quarantine of twenty-four hours at least, and as much longer as the Health-Officer and Board of Health may deem necessary; not exceeding forty days.

Section II  THAT there shall be established a Lazaretto, at such point as the Board of Health may direct, for the accommodation of the sick, under such regulations as the Board of Health may from time to time establish; and that until the Government of the United States shall establish a public ware-house as such Lazaretto, the cargoes, or such part-thereof, as the Health-officer and Collector of the port of St. Augustine may deem necessary, shall be stored under the direction of such officer as the Board of Health may direct.

Section III  THAT the Quarantine Grounds shall be established within such limits as the Board of Health may direct; and that any person or persons belonging to, or having had communication with any vessel or vessels under quarantine, who shall pass those limits, without permission first had and obtained from the resident physician, or health officer, shall forfeit and pay the sum of one hundred dollars, and be imprisoned in the common jail for a term not exceeding six months.
Section IV  THAT for the more effectually [sic] guarding against the introduction of disease, there shall be established a Board of Health, which for the present shall consist of an officer to be appointed and called the Resident Physician, and the Mayor and Alderman of St. Augustine (over whom the Resident Physician shall preside) who are by this Ordinance authorized to make, and from time to time alter, such laws and regulations as they may deem necessary to ensure the health of the city.

Section V  THAT there shall be a Health-Officer appointed, and stationed at such point as the Board of Health may direct, whose duty it shall be to board every vessel bound inwards, to see that the provisions of this Ordinance, and all such regulations as the Board of Health may make, are strictly complied with; and to report from time to time, as occasion may require, to the Board of Health.

Section IV  THAT such allowances shall be made to the Resident Physician and Health-Officer, (all their services included) as shall not exceed one dollar and one half for each person on board of each vessel, to be regulated and determined by the mayor of St. Augustine, who is authorized to receive from every vessel, the cargo of which it may be necessary to land and store, such other, and further sums, as may be necessary to cover all expenses [sic] incident to the same.

Pensacola, July 19, 1812, Andrew Jackson, Governor of the Floridas

By the Governor: W. G. D. WORTHINGTON, Secretary for East-Florida, St. Augustine, Aug. 20, 1821
Much of the credit for establishment of the State Board of Health must be directed to Dr. John Perry Wall, a medical scholar, practitioner, statesman and city health officer from Tampa. Only after years of dedication, and persistence and personal tragedy did he ultimately see his vision of a state public health agency become a reality.
Certainly the most amusing and perhaps one of the most illustrative examples of Dr. Wall’s ability to address a challenge came during his tenure as editor of the Tampa Tribune. Col. Frank Harris, editor of the Ocala Banner, challenged Wall to a duel over a disputed matter. Wall responded: “that, as the challenged party, he had the right to name the place of meeting and the weapons.” He named a local cattle pen as the place and shovels as the weapons, the purpose being that the combatants would pitch cow dung at each other until one cried hold, enough. Col. Harris rejected the plan and the controversy ended.

Throughout his professional medical career, Wall worked diligently for the establishment of a State Board of Health. Born in Jasper (Hamilton County), raised in Pierceville (Hernando County), and apprenticed to a doctor in Mayo (Lafayette County), he returned to Fernandina (Nassau County) to practice medicine after graduation from the Medical College of South Carolina in 1858. He relocated to Brooksville in 1866 following service in the Confederate Army as a surgeon posted to Florida and Virginia. It was during the war that he married longtime sweetheart Pressie Eubanks and they later had a child together. Shortly after moving his family to Tampa in 1871, he cared for a sailor with yellow fever. His wife and 2-year-old daughter soon became ill and died of the disease. Lacking modern knowledge of its transmission, he feared that his own actions had caused their death and henceforth dedicated much of the remainder of his life to the concerns of public health.

He joined the American Public Health Association and Florida Medical Association in 1875 presenting a paper at the latter entitled “Preventive Medicine.” He also served as Health Officer and Mayor of the City of Tampa, editor of the Tampa Tribune, member of the Hillsborough Board of Education, and was elected as president of the FMA. During his career, Dr. Wall addressed many controversial issues of his time. He “dared to have the courage of his convictions, yet had a kind regard for the opinions different from his own. . . .” In many of his papers on disease and health he spoke out against the ignorance and superstition that lingered among the community of Florida practitioners. His opinions were “generally well-considered. Never. . .intractably dogmatic” still they sometimes resulted in serious altercations. On one occasion he locked horns with the state superintendent of public instruction and was almost removed from the county school board.

While holding the multiple posts of legislator for Hillsborough County, President of the FMA and as a delegate to the Third Constitutional Convention (of Florida), he made his most lasting mark on Florida. Wall successfully amended the new constitution created in 1885 to include provision for a state board of health—no small triumph after years of intractable political opposition. Excerpts from his often quoted speech to the convention follow:

“The duty of preserving the health and lives of its citizens from the causes of disease is as incumbent on the state as that of suppressing rapine and murder. . . .One has no adequate conception of how much sickness and consequently death, are preventable. . . .The time is surely coming when preventative medicine shall have reached such a degree of perfection that the occurrence of epidemic disease will be felt as a gross reproach to the community which it assails.”[Ingram]

This heroic effort was followed by persuading Governor Fleming to take up the cause. Fleming then pushed for creation of the Florida State Board of Health from the state legislature after the 1888 yellow fever epidemic in Jacksonville. Later he continued to support Dr. J. Y. Porter whole-heartedly in his efforts to establish the board of health as the public health authority of the state until his death in 1895. He died suddenly at the annual meeting of the FMA in Gainesville while reading from a paper entitled “Public Hygiene in the Light of Recent Observations and Experiments.”
On July 28, 1888, a Tampa business man checked in at the Grand Union Hotel in Jacksonville, the man felt ill, his diagnosis was yellow fever. The words “yellow fever” struck fear in the hearts of the business leaders as an epidemic could mean bankruptcy. By August 8, four more cases were discovered and undercover of darkness were secretly moved to the St. Luke’s and Sand Hills Hospitals. Despite attempts to prevent word of the impending epidemic from reaching the public, a full fledged panic soon developed. (A History of Duval County)

Within two weeks, Jacksonville was like a city under siege. A mass exodus via drays, carriages, wagons, steamers, trains, horses and even on foot clogged every road, rail path and waterway out of the city. Food became scarce, stores were boarded up, hotels closed, social activities ceased and even mail deliveries discontinued for a time. A “Cordon Sanitaire” was established around the city with men on foot and horseback, armed with rifles and carrying yellow flags preventing anyone...
from leaving or entering without special passes. Even Francis P. Fleming, a gubernatorial candidate, was prevented from campaigning in Jacksonville at that time because of the quarantine. Eventually all mail was fumigated and 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 firearms were discharged each evening.

Nearly 10,000 people were evacuated from Jacksonville during the yellow fever epidemic of 1888. Since a quarantine was declared against the city by almost the entire United States, fleeing inhabitants had great difficulty finding refuge. Several refugee camps were established outside the city for people wishing to leave the city. The U.S. provided $200,000 for relief efforts and the Red Cross sent experienced nurses to manage cases and provide other essential support services. As a coincidence, Joseph Yates Porter, M.D., a medical officer with the U.S. Marine Hospital Service, had just played a major role in quelling an epidemic of yellow fever that swept like wild-fire from a barracks on an army reservation into the City of Key West during 1887. The control measures he used included turning unoccupied buildings on the reservation into emergency hospitals and employing individuals who had previously recovered from the disease, and were therefore immune, to provide essential nursing services. Because of this valuable experience, he was asked to come to Jacksonville from Key West and take command of the situation. Before the epidemic was brought under control shortly after the first hard freeze in mid December of that year, about 5,000 persons who remained in Jacksonville contracted the fever and more than 400 died. (A History of Florida)

The trying times brought to light many heroes and heroines. The Jacksonville Auxiliary Sanitary Association, formed to assist with controlling the epidemic, was staffed by prominent physicians and leading citizens. Lewis I. Fleming, a Jacksonville attorney (brother of Francis P. Fleming, who was elected Governor that year), along with several other members of this Association were honored by the 1889 state legislature because they “died the death of heroes, patriots and Christian gentlemen, while bravely…fighting courageously the battle of humanity. In addition, several women representing St. Mary’s Hospital, St. Luke’s Hospital and the Orphanage and Home of the Friendless and the Surgeon General of the U.S. Marine Hospital Service made extremely valuable contributions.

In recognition of his services to the City of Jacksonville during the epidemic, Dr. Porter was presented an elaborate gold swiss watch and chain encrusted with rubies and diamonds. The inscription inside read, “Presented to Joseph Y. Porter, M.D., Surgeon-in-charge, United States Government Relief Measures, by the Jacksonville Auxiliary Sanitary Association in recognition of valuable services to the citizens of Jacksonville, Florida, during the yellow fever epidemic of 1888.”

In January 1889, Governor Fleming, as his first official act, called a special session of the legislature which approved a bill on February 20, 1889, that established a State Board of Health (SBH). A three member health board appointed by the governor, unanimously chose Dr. J. Y. Porter to be the state’s first health officer. In his letter to the Governor, published in the first Annual Report of the State Board of Health in May 1890, the President of the Board, R. P. Daniels, M.D., wrote, “In making this selection the Board realized that it was not only giving expression to its own preference, but was voicing the almost unanimous sentiment of the people of the state—that Dr. Porter was the one man best fitted, by the qualifications of capacity, experience and popularity, to fill the office.” (A History of Duval County)
State Board Employs 1900s First Public Health Nurses

Today we could not imagine that Florida’s state and county health departments would be able to function without public health nurses. Before the creation of the State Board of Health, it is very likely that the city health departments in Pensacola, Key West and Jacksonville used nurses in a variety of ways, but accounts of their presence have not been well documented. Considering this precedent, it is a bit surprising to learn that at one time the State Board of Health was somewhat reluctant to have nurses on staff. Even though Dr. J. Y. Porter first proposed using nurses to control tuberculosis in 1906, it was not until 1914 that the Board authorized the hiring of three visiting nurses as “sociological workers” to instruct tuberculosis patients and their families in methods of “better hygienic living and home treatment.” Three more nurses were added in 1915, and by 1916, a corps of 13 visiting nurses were operating throughout Florida. The following excerpts from the writings of Dr. Joseph Yates Porter, the first state health officer, and two nurses from the corps, describe the enormity of the undertaking, hardships endured and the satisfaction derived from making a difference.


1914—Dr. Porter The Visiting Nurse for the Western District (Panhandle—17 counties) was appointed in April. . . . In October the other two were appointed and started a survey of their territories known as the Central and (24 counties) and Southern Districts (9 counties). . . . Many times owing to poor railroad facilities in some communities, time is lost in getting about or a too hurried visit to patients and physicians is unavoidably made. These workers even against such odds have made good headway and show what could be accomplished with a full working corps of intelligent women. Many hardships are encountered, such as belated train schedules, poorly prepared food in out of the way places, and uncomfortable sleeping conveniences, but they always find the patient reported, even though it takes a long walk, or drive or row boat combined to reach the destination.

1916—Dr. Porter Of thirteen nurses employed by the board (one colored) nine are graduates, one is an experienced nurse who has had special courses, but who is not a graduate of a general hospital. The remaining three have had little special training, but through extensive reading and study have acquired a comprehensive knowledge of public health subjects. The work of these women was at first confined almost solely to the prosecution of an anti-tuberculosis campaign but has recently been extended in its scope to include all lines of public health activities. . . . The district nurses are under the direct supervision of the district assistants (physicians) to the State Health Officer and their services are available at all times for special assistance in the control of communicable diseases, and in any other branch of work where they may be used to advantage.

1916—Irene Foote I have talked before almost every Woman’s club, on general hygiene. . . . asked . . . assistance . . . in the matter of stimulating city councils in passing health ordinances, particularly screening of outhouses and stores. I find them
the Power behind the throne, in very many instances are laws passed, not from a sense of duty always, but rather to lessen the continued agitation of the club women. . .I am very much pleased that the work has been extended and feel that much better and more results can be obtained in the coming year. Another suggestion although old, . . .at a meeting . . .of the Public Health Workers and the heads of the departments. Even meeting. . .workers in the adjoining territories. . .we gain a great deal, and . . .are able to work in a more uniform way, and gain by the progress of each new idea.

1916—F. A. Scott I have visited all the tuberculosis patients possible, advised and instructed them how to live for their own good, and for the protection and welfare of those around them. Many mothers with young children have been visited, talked with and advised as to general care, diet and so forth, especially in the summer months when so many babies were sick. Some of the newspapers are helpful by giving publicity an kindly comment to the work. Some physicians in each county are interested, report cases to me, and cooperate in practical ways, while others are extremely indifferent and unconcerned. While there are many hardships and discouragement in this work, I find that as people understand what we are trying to do, and that our only object is to help them, they more fully appreciate our services. . .I am more deeply impressed every day with the great need for this work of education for prevention of disease, and what it means to the people of the state.

1992—Ms. Delores Wennlund Wennlund, a former director of nursing for the Florida Department of Health and Rehabilitative Services (1974–1989), summarized the overall impact of these first few years of the Board’s district public health nursing effort very eloquently in her 1992 book entitled Annals of Public Health Nursing in Florida. She writes:

The persistence of these nurses in the face of adversity as well as their passion to promote healthy living are testimonies to public health nurses and especially to these pioneers in Florida. Many of the difficulties they faced continue to confront the public health nurse today. Despite their successes, a newly appointed health officer cut the program when faced with budgetary constraints. However, these nurses demonstrated the benefits that could be derived from a public health nursing program focusing on patient teaching, community involvement, a generalized approach to care and improvement in sanitary conditions.
1916

After being in operation for a quarter century, the State Board of Health had substantially improved the health and well-being of Florida’s residents and visitors. Then as now, the growth process, for better or for worse, depended upon the funding of legislative issues. As a result, even the Board, while recognized as an essential governmental entity, was sporting a few warts, as well as getting a bit gnarley and difficult to control. In an attempt to sort things out and get refocused, Dr. Porter asked the U.S. Public Health Service to review the public health organization and make recommendations to increase efficiency and output. The results of the work of Dr. Carroll Fox, a surgeon with the U.S. Public Health Service, were published in Public Health Administration in Florida, June 2, 1916. A few of the more interesting suggested changes, many of which were not implemented, follow.

Excerpt from: Public Health Administration in Florida, by Dr. Carroll Fox, 1916.

The State Board of Health be renamed the State Department of Health and be divided into seven bureaus each with a full time chief.

That the Chief of the Bureau of Communicable Diseases be responsible for the work of district and local health officers and public health nurses, the collection of morbidity reports, the administration of the laboratories, and in general the activities concerned with the control of preventable diseases.

That district health officers be: a. Responsible for the enforcement of all public health laws; b. Given supervision over. . .public health nurses and the branch laboratory in his district; c. Required to be more active in the field and to carry on more thorough and intensive studies relative to the conditions of their districts and the diseases existing therein; and d. Prohibited from engaging in the practice of medicine or any other business that will interfere with their official duties.

That the public health nurse be started at a salary of $75 a month with a regular increase at stated intervals at the discretion of the State Board of Health, and that she be given a course of instruction before entering upon her duties.

That in cities with a population of 5,000 or less, health inspectors trained in sanitary science be employed and . . .that the State Board of Health provide the means to give training and instruction to those men who are appointed in the above capacity.

That in accordance with the vital statistics act, there be promulgated regulations providing for the reporting of sickness that the prevalence of disease may be known and . . .that the act providing for registration of births and deaths be put into effect without delay.

That a comprehensive law be enacted making it compulsory on the part of all persons interested to have plans for proposed installations of water supplies, sewage, and refuse disposal systems, approved by the State Department of Health.

That the State Department of Health be empowered to require any changes in . . .existing installations . . .to insure safe water supplies or proper sewage or refuse disposal systems and . . .have the power to close, or to prevent the use of water from any well, spring or other source that in its opinion may be dangerous to health and . . .require the filling or draining of places where there is an accumulation of water, breeding of mosquitoes or other condition dangerous to health.

That more comprehensive regulations be promulgated by the State Board of Health for the purpose of controlling the preventable diseases.
County Health Department Origins

Dr. Albert V. Hardy, who served as director of laboratories, acting state health officer and director of research for the State Board of Health, wrote an article entitled “A Look at the Development of County Health Units in Florida” for the Department of Health and Rehabilitative Services magazine ACCESS in September 1977. In this vignette, he details some of the trials and tribulations experienced by the State Board of Health in establishing community health services in every county throughout the state.

Excerpt from: “A Look at the Development of County Health Units in Florida,” by Dr. Albert V. Hardy, ACCESS, Department of Health and Rehabilitative Services, September 1977.

While Florida led in the evolution of public health services in communities, enigmatically, the state was one of the slowest of those in the South to establish full-time county health departments. Shortly after the turn of the century, hookworm infestations were widely prevalent preventing normal physical and mental development. Those most severely affected were the poorer rural families. The first State Health Officer, J. Y. Porter, assigned two physicians to work temporarily in counties to discuss the problem with physicians, teachers and leaders, and to locate infected individuals, treat them and follow them up. The program was widely commended. . .in 1909. . .Florida had a model program. . .[that] served as a guide for similar activities in 11 other states.

In these states. . .it was soon appreciated that continuous rather than itinerant services were indicated. Ten county health departments were established in North Carolina as an experiment. By 1920, about 150, and by 1930, more than 500 county health departments had been established, predominantly in southern states—but none in Florida. . .the Florida State Board of Health had lean years from 1917–1932: and . . .“Plans for the establishment of health units [devised by Dr. George Dame, director of the Bureau of Communicable Diseases and Health Units]. . .[were] . . .temporarily abandoned on account of lack of funds.” [When] Dr. Dame left. . .[in 1922]. . .to reenter private practice. . .his place was taken by F.A. Brink, M.D. Dr. Brink prepared proposed legislation [after] visits to operating units in other states. . .After reporting his observations, Dr. Brink concluded: There is a story of a rooster who called his hen-folk together, showed them an ostrich egg and said, “I do not wish to discredit your attainments but I thought you should know what others are doing.”

Initial efforts were not successful to have this enabling act passed by the legislature. In October 1929, Henry Hanson, M.D., became state health officer and promoted interest in this legislation. In mid-1930, Governor Doyle E. Carlton convened a statewide health conference “to inform the people as of the importance of securing full-time health service in every county within the state to the end that the enormous economic losses now sustained by reason of preventable diseases could be curtailed . . . .” Governor Carlton presided, and. . .stressed that the people’s health was their greatest asset and that his aim was to make Florida the healthiest state in the union. . .In the following nine months there were objections due to the additional taxes required. . .The bill introduced at the 1931 legislative session passed.

Counties rapidly joined the health unit program. At the end of 1941, some 32 of them had organized units, and by 1947, all but seven were so organized. Seventeen years later at a meeting of the Florida Public Health Association, Wilson T. Sowder, M.D., state health officer, replied to the question, “How has it worked?” in reference to the county health unit system: I can hardly see how any one could answer this question in any way except—very, very well. In the organization of overall community health services, Florida is well ahead.
“How To Live 100 Years,” a cartoon reprinted from Florida Health Notes, an official bulletin that was published monthly by the State Board of Health (Volume 14, October 1922, Number 6).

Now, your editor apologizes to the fairer, brighter, stronger sex—though I’m certain that the advice contained therein was and is innate for you and only needed to be spelled out to the denser male of the species.
Chapter 3
Taking the Message to the People
Throughout 1914, exhibits similar to those later to be found on the train were freighted all over the state and picked up locally, unpacked and set up by local health officials. This method was time-consuming, expensive and generally burdensome. In 1915, Dr. Porter, with the unanimous support of the state’s railroad lines, persuaded the state legislature to approve a State Board of Health proposal to expand public education efforts via a health train exhibit that would travel throughout the state.

That year, in the Board’s 27th annual report, Dr. Porter noted that “correspondence was opened with the Pullman Company at Chicago. . .[and they] promptly complied with the request for purchase of cars of wooden construction, but in thorough repair. The wooden cars were suitably adapted to the service in Florida, for steel cars would be too hot in this climate, especially during the summer season.”

Dr. Porter goes on to describe how “heartily” supportive the Pullman Company was in assisting with the idea and even went so far as to send down one of its “construction mechanics” to review the re-modeling plans with the Board. The following paragraphs detail the train’s configurations.

Excerpt from: “Educational Health Exhibit Train,” State Board of Health Annual Reports, 1915.
One car is used principally for living purposes of the employees and has been made comfortable for that purpose. There are no luxurious fittings but plain, every day furnishings have been provided because it must be the home for those in constant daily attendance upon the exhibit and its teachings. The living car thoroughly equipped in every particular has cost less than a moderate priced automobile.

When it is considered that this train will visit every station and settlement in the State which can be reached by railroad it cannot fail to be understood and must be appreciated the value which the information will be to a class which probably cannot be reached in any other way, except by a direct visit to their homes.

It is estimated that the cost of maintaining this division less any repairs which may have to be made to the train itself will not exceed $6,000 a year (which includes upkeep, food and salaries of the employees).

When it is considered that the SBH under authority and mandate of the legislature representing the people of Florida expends $30,000 a year in its Veterinary division and the greater part of this amount to enhance the swine industry of the State, $6,000 is a very meager proportion of the board’s income to be given for measures designed to elevate and better the health of the people of Florida.

In 1916, a three-car train of health exhibits, including moving pictures, models, electric devices, panel texts, other instructional devices and printed informational materials were being transported free of charge by state railroad companies to most every station and settlement in the state. The result was that essential health information began reaching rural populations probably unreachable any other way as the train stopped at 25 to 30 communities a month. Dr. J. Y. Porter, the state health officer for a quarter century at that time, was quite proud of this achievement. The following excerpt is from his Annual Report to the President of the State Board of Health dated December 31, 1916.

It can be said without any undue boast or immoderate brag, that the Educational Health Exhibit Train has been the crowning feature of the health administration of the past four years... The Train affords the means of bringing the subjects which the State Board of Health believes to be of prime importance to the welfare of the people of Florida in their health and happiness...along the lines of rail communication. [This] moving school of instruction...represents a striking effort towards the sole object of improving the human health...and the State...hopes through this means to impress the people...with useful lessons of not only how to live healthily and therefore happily, but also how to live long and monetarily profitably. The...fruitful benefit resulting from the visit of these cars equipped with an exhibit purely educational in character of a sanitary and hygienic nature...is clearly shown by requests from the people...for literature giving additional information on disease prevention and improved manner of keeping in health.

In 1916, a three-car train of health exhibits, including moving pictures, models, electric devices, panel texts, other instructional devices and printed informational materials were being transported free of charge by state railroad companies to most every station and settlement in the state.
In the March 1936 issue of *Florida Health Notes*, Dr. W. A McPhaul, state health officer, took the opportunity to speak out on the many “disasters that overtake young people.” The cartoon stimulated his interest in the subject.

The picture on the back cover on this issue of our bulletin tells a story all its own, but innumerable stories of the lowest type can be conceived from this drawing which is, we regret to say, too true to life in thousands of cases. Excessive indulgence in the use of alcohol, long hours at dancing, loss of sleep, emotional excitement mean “burning the candle at both ends.”

In condemning the riotous living of the younger generation, let us not indict the entire youth of the country, for there are thousands of high-minded, clean young men and women who abhor the excesses indulged in by some of their young friends as well as their elders. The ridiculous and eternal seeking for excitement—seeking what? Certainly not peace of mind and contentment which mean happiness. What does it all lead to? Leaving out the moral issue, how does cigarette smoking and drinking affect the mental and physical development of the adolescent? It is not necessary to dwell on the absolute necessity of breathing into our lungs pure and fresh air. This cannot be done when one inhales smoke that permeates every cell of the body by being mixed with the oxygen of the air which we inhale at each breath. Every breath of this is poison to our bodies and dwarfs the growth of our cells in the body. This is a proven fact.

Alcohol is the greater of the two evils. There is no question but that its excessive use is most dangerous not only to the tissues of the body but also to the mind. The excessive use of alcohol will dim the intelligence, dull the judgement and affect muscular action. It will poison the entire system. Its excessive use affects the tissues and organs directly and indirectly. Especially this is true of the stomach, liver and kidneys, which in turn affect the circulating system, causing high blood pressure, diseases of the heart, the brain and the nervous system.

Knowing these facts, should not everyone emphasize moderation thereby helping to protect our splendid young Americans from this so called popular way of living, this popularity that is sapping their young vitality, and emphasize further the true and right way of building up a greater and finer young manhood and womanhood, a strong and clean brain? This is their rightful heritage. Let there be moderation in all things.
Whenever and wherever a communicable disease makes its appearance much talk and discussion goes around by word of mouth about all phases of the situation which menaces the health and perhaps the lives of many. It is quite natural and proper at such times for people to want accurate information, not only as to the extent of the “epidemic,” as it is often called, but as to what they can do to retard the spread of disease and especially to protect themselves. It is quite natural too, though not so proper, for gross misinformation to go around. Wild rumors are soon started and the gravity and danger greatly overdrawn if the facts are not promptly given out from an authoritative source. In fact, the lack of definite information promotes the spread of most enlarged reports.

Both methods have been tried—that of giving full publicity to communicable disease outbreaks and that of withholding the truth from publication for fear of “hurting business,” and experience has taught that the former method—taking the public into confidence, so to speak—forestalls the broadcasting of exaggerated accounts, allays the fears of the people and serves the interests of the community better than the method of repressing news.

For a long time the writer has clung to this policy of forestalling Dame Rumor by giving out statements through local papers after investigating communicable diseases and starting control measures. This has seemed to bring about the most friendly understanding and cooperation of the public. Now and then an editor fails to see the advantage of this sort of publicity but the majority are glad to publish health news as submitted and this sort of cooperation always imparts deep and lasting feeling of gratitude. The editor who refuses to publish timely health news fails in his full duty to the public he serves.
Detective stories written with greater or less skill seem to be very popular. Some of the greatest stories of all time have been written about murder and the fancy of the reading public seems to center on this crime and in the details of the method used in the detection of the criminal or criminals.

The detective of fiction (and sometimes of fact) calls to his aid the microscope to identify bloodstains and certain minute structure such as wool, cotton, and silk fibers; markings on bullets and the like. He uses serologic methods to distinguish human blood from the blood of certain animals. He uses changes in blood pressure as indices for the psychological states as, for example, the lie detector, plaster casts of foot prints and ink impressions or ridges on the skin of thumbs and fingers, and photography in many and various ways, some of which strain our credulity. And he holds our interest because the life or liberty of some human being may hang on his findings.

The medical detective uses the microscope to count blood cells; determine the presence of certain disease organisms in the body or in the secretions or excretions. He uses thermometry for temperature, the blood-pressure to find out the condition of the circulatory system, serologic methods for the identification of certain bacteria or for help in the recognition of certain diseases and chemical methods to determine departures from the normal in certain secretions and excretions.

He uses photography of both the outside and the inside of the body to aid in determining the identity of certain criminals (diseases), and finally, just as does the detector of criminals, the medical detective sums up all his evidence and arrives at a conclusion by the use of the intellect. No instrument has ever been invented that will take the place of the human intellect.

The detector of crimes sometimes makes mistakes, but he is right oftener than wrong. Were it not so, we would cast him out. Likewise does the medical detective make mistakes sometimes. Some of these can be blamed on false or misleading reports from his assistants (scientific methods of diagnosis). Some of them cannot.

And sometimes a man who will swallow a detective yarn, lock, stock and barrel, will be skeptical of the laboratory methods used by intelligent and up-to-date physicians. Which is funny.
Chapter 4

Partnerships for Better Health & Wellness
Dr. James Jackson was a most notable physician who, in addition to working for the East Coast Railway, maintained a private practice, served as local agent for the State Board of Health, helped establish one of Miami’s most notable hospitals and founded the Dade County Medical Association.

In April 1896 Dr. James M Jackson Jr. left a practice with his father in Bronson, Levy County, after a catastrophic freeze devastated the citrus industry there, and traveled south to become the East Coast Railway Surgeon stationed at Miami. At that time Henry Flagler’s rail line only went to Ft. Lauderdale, and Jackson had to board a small steamer to reach the Miami River. The town had dirt streets, a few wooden stores, two hotels, and a mix of residential cottages, frame houses and tents. The people were friendly and enthusiastic about the potential of the community and he decided to move his family there and set up a practice.

In May of 1896, he was appointed local agent for the Florida State Board of Health. In this capacity he inspected all ships that stopped at Miami, organized the fight against epidemics such as measles, dengue fever, smallpox and yellow fever, and he periodically issued health directives to the citizenry. In the *Miami Metropolis*, June 19, 1896, page 1, we find, “...all householders and tenters must use galvanized iron slop buckets in all closets, pour all kitchen slops and refuse in buckets—all of which must be carried and thrown into the river...” Later that year Miami city ordinances were drawn up prohibiting the throwing of dead animals, filth, or garbage into the river, bay or any watercourse on pain of a “fine not exceeding twenty-five dollars, or be imprisoned in the common jail or calaboose not exceeding twenty days.” It was also Jackson who organized the Miami City Board of Health in 1914.

Professionally he was clearly the leader of the local medical profession. ...and took an active interest in organized medicine as a way to upgrade the medical care of the people of Florida. He was founder of the Dade County Medical Association and its President in 1905, 1912 and 1923, inaugurated President of the Florida Medical Association in 1905. ...and elected President of the Southern Medical Association in 1911. Outbreaks of yellow fever in 1899 and smallpox in 1903 caused the community to hastily construct pest houses for the isolation of infectious patients, still there was a need to care for tourists and indigents that became ill. Henry Flagler erected a frame hospital building. ...but the city was not able to raise the needed funds to... equip, staff or administer the hospital. ...so it was converted to an apartment house. Jackson played little role in the establishment of the Friendly society Hospital in 1909. ...However, during the years 1916 to 1918 he was an active planning committee member and consultant for the building of the present Jackson Memorial Hospital.
The ever-present hookworm problem has received its share of attention. The service of the laboratories has been augmented by the number of specimens for diagnosis submitted by the field men and the number of infestations found in certain schools found to be 100 percent, including the teacher. Contrary to our wishes and the general policy of the bureau, a considerable number of treatments have been given by the District Health Officers. This has been authorized only when the children could not be gotten to the local doctor and the procedure had been approved by him. Our experience confirms the belief of the State Health Officer that this is one of our major problems deserving much greater attention. Always in this connection, the preventive value of sanitation is stressed with results that are not too satisfactory.

The cooperation of practicing physicians in carrying out the communicable disease control program of the bureau is gratefully acknowledged. The members of the staff have frequently referred to their cordiality and ready response to all requests for assistance, advice, information and moral support. By calling on local physicians as frequently as possible, the bureau members have endeavored to merit their confidence and good will and to benefit by their knowledge of local conditions.

Much poverty has been occasioned by the depression and unusual calls have been made on the District Health Officers for medical and financial aid. It is difficult at times to convince applicants that the state health doctor cannot take care of them, but the policy to restrict activities to public health has been adhered to most creditably. Our aim is to avoid encroachment into the field of medical practice and, though there may have been deviations, they have usually been made in order to render first aid or temporary medical relief and have been commendable.

In 1932, Dr. F. A. Brink, director of the Board’s Bureau of Communicable Diseases, supervised a cadre of five physician district health officers stationed at strategic locations throughout the state. At this time only three counties—Taylor, Leon and Escambia—had full-time county health units. Most disease prevention and control problems were handled by a county health officer with the assistance of the local medical society and social organizations. Each district health officer served nine to 17 counties promoting disease prevention and control through education, immunization, investigation, isolation (quarantine) and treatment. Dr. Brink, in his work summary published in the 1923 to 1932 State Board of Health Annual Report, declared,

**It is our policy to have the personnel of the bureau identify itself with organized medicine, attend the meetings of local societies, and maintain cordial relations with individual doctors all for the promotion of mutual understanding, exchange of ideas and improvement of public health.**

---

Excerpt from: *State Board of Health Annual Report, 1923–1932.*

Private physician Dr. P. L. Goss making house calls, circa 1920s, State Archives of Florida.
In 1941, the Board was scrambling to address a variety of new disease prevention and control challenges brought on by a booming economy, rapidly growing population, influx of military recruits and tourists. Still, the myriad major public health problems recognized by the American Public Health Association survey conducted in 1939 begged resolution. The dilemma confronting public health authorities reminds one of the alligator allegory:

**When you’re up to your neck in alligators, it’s easy to forget that the initial objective was to drain the swamp.**

There is ample evidence throughout the history of the State Board of Health, its successors and the county health departments (units), that community organizations have been instrumental in influencing these agencies to recognize and address a variety of local public health issues. On the other hand, it was also not unusual for these same groups, along with other allies such as important civic, industrial and professional organizations, to support the Board and county health departments in a time of need. One such example was when the Tallahassee Woman’s Club adopted a slate of health objectives for their membership.
The Welfare Department of the Tallahassee Woman’s Club has adopted a set of objectives for 1941 designed to give concrete assistance to the promotion of “healthy babies and happy children.” They have issued a bulletin describing the objectives as:

I. Every member of the Woman’s Club cooperating with the Public Health and Welfare Departments of the County on three Particular points.
   A. Control of venereal diseases,
   B. Prevention and cure of tuberculosis, and
   C. Support of under-nourished pre-school children.

   1. What each person can do:
      (a) Require domestic servants to have examination for venereal diseases. If test is positive, see that treatments are kept up until cure is effective.
      (b) Influence friends to do as suggested in (a)
      (c) Give information regarding local health conferences and the possibility of pre-venting and controlling certain disease. Try to discourage fear and criticism; emphasize a constructive attitude.
      (d) Use all possible influence to bring indigent expectant mothers to the prenatal clinics of the Health Unit.

   2. (a) Require domestic servants to have X-ray examinations for tuberculosis.
      (b) Disseminate information regarding free examination for tuberculosis.
      (c) Influence the County School Board to require that all teachers have X-ray examinations for tuberculosis.
      (d) Influence the State Hotel Commission to require that all food handlers have X-ray examination for tuberculosis.
      (e) Try to help provide facilities for segregating tuberculosis patients.

   3. (a) Contribute clothing and shoes, especially for children.
      (b) Keep the welfare workers supplied with a few layettes.
      (c) Each Division or Department of the Club adopt a baby for a stated period—say three months—to supply all nourishment and medicine recommended by the doctors.

II. Arouse interest in the overcrowded conditions existing in our grammar schools.

III. Help the City and other organizations in an endeavor to provide a recreation center and a program of wholesome recreation for the trainees at the U.S. Air Base, as well as a community recreation center.

IV. Cooperate in every way possible with the County Probation Officer in the excellent work she is doing. Miss Love will always be glad to see you and suggest ways in which you may be of service.

V. Let this Club be the inspiring factor in establishing a Day Nursery for pre-school children, where they may be taken care of while the mothers are at work, given proper food and training, and the mothers given some instruction in the care of their children. This cannot be done by the Woman’s Club alone, but it can be done with the cooperation of other civic organizations of the city. Won’t you give your wholehearted support on this project?

Excerpt from: Florida Health Notes, March 1941.
There is no way of knowing who first suggested the formation of a state organization of public health personnel. The idea...was not new, for the American Public Health Association had been formed in 1872...It is known, however, that Dr. B. L. Arms, when State Health Officer, 1925–1929,...began serious efforts...[to]...create...an organization which would bring together persons engaged in public health in Florida.

Dr. Arms was succeeded as State Health Officer in 1929 by Dr. Henry Hanson...[who]...took up where Dr. Arms had left off. Employees of the State Board of Health were...the nucleus of membership...but workers from other public health organizations were eligible...However, [at that time] the name “Florida Public Health Association” was borne by a statewide voluntary agency affiliated with the National Tuberculosis Association [that originated in 1916 and was]...chartered in 1921. This organization conducted a state-wide program of school health education; worked diligently for the establishment of county health departments and in cooperation with the Bureau of Communicable Diseases, State Board of Health, conducted itinerant clinics for the discovery of tuberculosis. The Association successfully sponsored legislation which called for the employment of a supervisor of health education on the staff of the State Department of Education. It also successfully promoted legislation creating the State Tuberculosis Board and called for...an appropriation of $500,000 to...establish a tuberculosis hospital.

Although its purpose encompassed a general health program, the original Florida Public Health Association’s chief interest was directed at the control of tuberculosis. After 11 years of progress in the promotion of public health, it agreed to relinquish its name to the new group...on the 10th day of November, A.D. 1930, the said Florida Public Health Association adopted a resolution in manner and form as provided in the by-laws of said corporation from FPHA to Florida Tuberculosis and Health Association...

Subsequently, FPHA, as it is constituted today, had its charter duly recorded in the Circuit Court of Duval County on March 9, 1931. The first informal gatherings of individuals associated in Public Health were called by Dr. Hanson. In May 1929, he arranged a state-wide meeting at Gainesville. It was called the “First Annual Meeting of the State Public Health Conference.” This was an organizational meeting but, unfortunately, there is no record of a program or minutes...it is clear, however, that a two or three day meeting was held, during which professional papers were given and a Constitution and By-laws adopted as the basis for petition for a non-profit corporation charter. In that original Constitution, the purpose of FPHA was “to assist in protecting and promoting public Health, provide for scientific advancement of members, and to extend and develop the public health movement in the State of Florida.” Members were to be “active, associate, honorary and corporate” enabling any board of health or corporate health organization” to become a member ” if approved by the Executive Committee.” The Executive Committee was composed of the officers and three active members appointed by the President.
Occasionally, we need to be reminded that most of the state at one time was uninhabitable. Many areas along our coastal shoreline, salt marshes, swamps, fresh water marshes, ponds, lakes, streams and rivers all produced massive numbers of dogflies, mosquitoes, sandflies and yellow flies. These insects were either annoying pests or dangerous vectors of epidemic diseases such as malaria, dengue fever and yellow fever. At that time, other arthropod-borne diseases caused by the St. Louis Encephalitis, Eastern Equine Encephalitis, Everglades and Keystone viruses had not yet been identified.

Today, the Florida Mosquito Control Association (FMCA) still follows the original founding objectives: (1) to promote the control of disease transmitting and pestiferous mosquitoes and other arthropods of public health importance; (2) to provide for scientific advancement of members; and (3) to develop and extend public interest and support for the control of mosquitoes and other arthropods.

Occasionally, as early as 1842, the Count of Castlenau... described the area around Tallahassee as a beautiful spot marred with tragedy. He wrote, “...in opposition to the numerous advantages there are the greatest plagues that can afflict a new settlement... every bilious fevers of a most dangerous nature spread consternation in the whole region. Then when congress was debating statehood in 1845, John Randolph of Virginia declared that Florida could never be developed, nor would it ever be a fit place to live. [Even at the turn of the century, governmental efforts to attract new industry, settlers and tourists to the state were being overshadowed by warnings in northern newspapers about epidemic mosquito borne diseases.] However, it was not until WWI that the State Board of Health joined with the Army, and the U.S. Public Health Service in an organized effort to control mosquitoes and dengue fever by introducing drainage and larvical measures at Camp Johnston near Jacksonville. Success at this venture led to another collaborative project with the City of Perry in Taylor County and the Burton Swartz Cypress Company during 1920–21. This effort to cut drainage canals and ditches in the swamps to improve the health of loggers working the area was hailed as “one of the most beneficial pieces of mosquito control work ever done in Florida” by George W. Simons, Chief Sanitary Engineer for the Board.

Simons went on to say that “During the summer of 1922 dengue reappeared, this time over the whole state... [and put the people in a mood receptive to constructive plans that would control mosquito-borne infections...the time was ripe...to make an issue of community mosquito control... During August...mosquito control talks were given to citizen’s mass meetings and civic organizations... The public meetings...were widely reported by the press, which served to develop...a community consciousness... [Then] the State Health Officer [Colonel Raymond C. Turck] trained all guns on the State-wide antimosquito conference held in Daytona during December.

The success of the Daytona Conference was due largely to the intensive educational publicity campaign...[by] the press. In addition...letters were sent out to city officials, civic organizations, clubs and individuals...fully 150 representative citizens from all sections of Florida answered...It was a serious minded, conscientious group, gathered together to discuss a monumental problem of Florida development. The final outcome...was the organization of the Florida Anti-mosquito Association, with [former State Health Officer] Dr. Joseph Y. Porter of Key West as President. This association will endeavor, through the years to come, to keep the public alive to the work of mosquito control and annually will hold meetings...”

In the 1954 Annual Report of the State Board of Health, John A. Mulrennan, Director of the Bureau of Entomology, and Wilson T. Sowder, State Health Officer, recall that, “A great forward step in the control of mosquitoes in the State was the organization of the Florida Anti-Mosquito Control Association...[and that]...This organization has been primarily responsible for the promotion of legislation for the creation of mosquito control districts and of legislation making State aid possible to mosquito control districts and counties.”

Excerpts from Florida Health Notes and the State Board of Health Annual Report, 1954.
Chapter 5

Disease Prevention & Control Campaigns
State Board of Health
Hookworm Treatment, 1914

Hookworms were a problem of epidemic proportions in Florida for decades into the current century. They took their heaviest toll on children, frequently causing stunted growth and other developmental problems.

The following instructions were excerpted from the “Conjoined Report of Assistant Health Officers, Dr. C.T. Young & Dr. E.W. Diggett” included in the Twenty-Fourth Annual Report (1914) to the State Board of Health. The report detailed an anti-hookworm campaign. During the campaign, temporary mobile dispensaries were opened around the state and free treatments distributed in “enameled paste-board boxes.”

Directions:

READ OVER UNTIL YOU UNDERSTAND, THEN FOLLOW TO THE LETTER.

On the morning of the day on which the treatment is to be taken, eat a light breakfast. For dinner take only a bowl of soup, glass of milk or tea.

At 1:30 p.m., take one of the doses of salts dissolved in a tumbler of tepid water. This should be sufficient to thoroughly evacuate the bowels and permit the medicine to come in contact with the worms.

Do not eat any supper, nor take any fluids, except an amount of water necessary to facilitate the swallowing of the medicine. Don’t take anything to eat or drink between meals.

At 6 p.m., take two of the white disks (cachets). First dip in water to soften it; then put it on the back of the tongue and swallow without chewing, as you would an oyster.

At 7 p.m., take two more disks.

And at 8 p.m., the last two disks or cachets.

Patient should then retire for night; resting preferrably on the right side for the first hour or so.

The next morning, as soon as awake—say 5 or 6 a.m.—take the remaining dose of salts. In the stools following, the worms are passed. They can be observed by allowing the bowels to pass into the chamber, jar or vessel; then add water, stir and permit to settle; then the top water or fluid is poured off. After this process has been repeated three or four times, the small pink thready worms can be seen on the bottom of the vessel.

All alcohol, milk, butter, soups, fats, oils and greasy foods are to be withheld during the treatment; it is dangerous: In short, allow nothing to pass the lips other than that mentioned in the directions.
One of the most difficult problems facing the State Board of Health in the early years was convincing public officials and the citizenry that the sanitary disposal of human waste was an essential element of disease control. In 1915, the Florida Legislature passed a law pertaining to privies that read as follows: “That any person, firm or corporation, keeping or maintaining surface closets and privies used for the deposit of human excreta within incorporated limits, unincorporated towns, suburbs and thickly settled communities which are not in conformity with plans recommended or approved by the State Board of Health, shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not exceeding ten dollars (10.00).”

Since the state had varying soil formations and topographic peculiarities that precluded the use of one standard type of privy for all situations, the State Board of Health issued a descriptive bulletin in 1923 entitled The Sanitary Privy—Its Construction and Operation, by George W. Simions, Jr., B.S., chief sanitary engineer. This comprehensive document outlined the detailed plans for a variety of tank and pit privies and chemical toilets that were recommended and approved for use in Florida by the Board of Health in 1920.

Included in the bulletin was a piece entitled “The Community Attitude” that attempted to explain why “a recognition and observance of the suggestions and conclusions given. . .will result in a more healthful Florida.”

The amount of preventable disease within a community reflects that community’s general healthfulness, also reflects, in a definite manner, the intensity, enthusiasm and amount of funds put into health work.

One of the best barometers of a community’s health is the prevalence of intestinal infections. . .Intestinal infections are prevalent largely because the majority of the people maintain an indifferent attitude towards the general improvement of the community’s health, and are unwilling or at least reluctant, to pay the price of better health until some scourge has been in their midst. . .Such people never evaluate the tremendous returns for healthy people. Further infections prevail because people continue to disregard modern health teachings and eat little “seeds” of disease—those living poisons (or germs) that leave the body in the bowel discharges and return to the mouths of individuals through various media. The eggs and larvae of hookworms and other intestinal worms also leave the body in a similar manner.

Among the most important diseases caused by living poisons, or germs, contained in and spread by human excreta, are typhoid fever, dysentery, Asiatic cholera, tuberculosis, hookworm disease and roundworm, eelworm and tapeworm diseases. To eliminate or minimize the incidence of intestinal diseases and control these parasites, it is only necessary to dispose of all human excreta (human wastes) in a sanitary manner, prevent it from getting into the drinking water, onto the food that is eaten, or onto the skin of the body, or have access to flies—those filthy, foul insects which frequently convey germs of infection from infected.”

Unsanitary Public Schools

Over the years, the State Board of Health, through institution of policies and programs that were generally accepted by the public and by increased legislative power to regulate environmental health hazards, was used to making recommendations and overseeing their implementation. When sanitation problems found in public schools throughout the state were not being satisfactorily corrected by local and state school authorities, the Board brought the issue to the attention of the Governor in its annual report. This was a time when the nation was still trying to recover from the Great Depression, and the State Board of Health had meager local support or representation in most areas outside the major cities. In the following excerpt from his narrative summary in 1934, Louva G. Lenert, director of the Bureau of Engineering, vents frustration, candidly presents the results of a survey and proposes a viable solution to a school sanitation issue that had been smoldering for a long time.

Buckhorn school with pupils in front, circa 1930, State Archives of Florida.
During 1933 in cooperation with the State Department of Public Instruction plans were made available to all county school superintendents for sanitary toilets. If one was built there is no record of it. During the CWA (Civilian Work Authority) an effort was made to have schools take advantage of that opportunity to improve their sanitary facilities. Less than 20 percent of the counties replied to the letter offering assistance in securing such a project and many of these replies came too late to permit a survey of requirements, leaving no time to do the work.

In June 1934, a complete pamphlet, covering water supplies, their protection and distribution, and sanitary toilets and their construction, was prepared and distributed to every county superintendent. This followed a letter from the State Health Officer, approved by the President of the State Board of Health, to the State Superintendent of Public Instruction, a copy of which was sent to each county superintendent, advising that schools not properly equipped with water supply and sanitary toilets would not be permitted to continue during the 1934–35 session.

Some cooperation has been received under this program. To obtain a picture of the needs of the schools a brief survey form was adopted, covering only water supply and sewage disposal, and the services of all district sanitary officers of the Board, the assistant state directors and district supervisors furnished by the Service, and the field engineer furnished by the Rockefeller Foundation (17 in All), were used in gathering data. . . (a detailed tabulation is omitted in the interest of space considerations). . .

More than one half of all (2,179) schools (inspected) get their water from unprotected springs and dug wells, are equipped with common pitcher pumps, or have no water supply at all. In most of the schools having flush toilet systems, urinals, of some sort, were provided, but in practically all other cases none have been installed, a condition which makes it impossible to maintain any toilet system in a reasonable sanitary condition. In one school with an enrollment of more than 200 pupils had no water supply or toilets of any description. 279 (13%) schools had no toilet facilities and 933 privies were of the open back illegal type. . .

Recommendations were prepared for every school requiring improvements, setting forth what was needed. A copy of this was also furnished to the State Planning Board. Since then, every assistance possible had been extended to the counties in securing aid from the FERA (Federal Emergency Relief Administration) for labor involved. A second survey of the accomplishments has been started, but the data is still incomplete. It definitely indicates a considerable number of swivel chair officials unwilling to exert themselves, who prefer to respond by pleading a lack of finances. This problem is being met in many counties by a little ingenuity and effort.

Though the State Health Officer has approved summarily closing those schools not complying with sanitary provisions, this step as a general thing does not seem advisable just now. . . . In view of the known shortage of finances some leniency is being granted to permit the installation of facilities with the least possible embarrassment to school authorities.

The State Board of Health should maintain a full time supervisor of sanitation for schools, who is fully informed on water supply installations, plumbing and general construction methods, to advise local school authorities on details of construction which would conform to public health principles and at the same time conserve the funds of the school board as much as possible. . . .

More than one half of all (2,179) schools (inspected) get their water from unprotected springs and dug wells, are equipped with common pitcher pumps, or have no water supply at all.
In 1917, as now, when the State Board of Health ran into a problem that had national implications or required technical expertise beyond the scope of the agency, it requested assistance from the U.S. Public Health Service. When district health officers identified clusters of trachoma cases in children in several communities throughout the state, State Health Officer Dr. W. H. Cox wired the surgeon general for assistance.

Dr. John McMullen, at that time one of the leading authorities in the country, was dispatched to make an investigation. While he was in Florida, he helped diagnose cases, and trained private physicians in diagnostic, operative and remedial techniques, in addition to making recommendations to the State Board of Health for prevention and control of the disease. One of the unique intervention strategies to arise from his visit was a plan to convert the Board’s Health Education Train into a hospital that would be used in a statewide Trachoma Eradication Campaign. Excerpts from Dr. McMullen’s letter to the surgeon general following this visit and Dr. Cox’s summary of the project in the annual report that year follow.

Dr. McMullen’s Letter

Sir: Pursuant to bureau letter of October 3rd and telegram of October 8th, I left Lexington on the morning of October 9th for Jacksonville, Florida, and arrived there the following morning.

I immediately called on Dr. W. H. Cox, the State Health Officer, and conferred with him relative to the trachoma situation in the State of Florida. At the request of Dr. Cox, I proceeded, that night, to Sanford, Florida. . . On October 11th I examined about one hundred and thirty-seven people, most of whom were school children, and found forty-four cases. . . The local doctors had examined all of the school children in Sanford...about eight hundred. . .This would, therefore, represent about five and one-half percent. . .infection. I also examined a rural school at Oveida, of forty-six pupils, and found eight cases of trachoma among them. I returned to Jacksonville...the same evening.

On October 12th it had been arranged that all of the eye specialists of Jacksonville have in their offices. . .all cases, which in their opinion, were trachoma or. . .considered suspicious. I . . .found among those present about fifteen cases. . .

On. . .October 13th I gave a clinic at the State Board of Health Building [for] about twenty physicians. . .[then] we proceeded to St. Luke’s Hospital, Jacksonville, and operated on one case of trachoma. . .demonstrating . . .the Service method of treating this disease.

On. . .October 14th I proceeded to Sanford Florida, in company with Dr. Cox...the next three days. . .were spent in examining cases and operating on trachoma patients. . .Since no hospital was available in Sanford they arranged to use the entire floor of the largest hotel. . .about ninety rooms. . .for clinical purposes. The. . .number [I] examined. . .was five hundred and twenty-seven, [from] a total of twenty-three hundred which had been examined by the local
physicians in advance of my visit, and one hundred and sixty-five cases. . .were found . . .

During the three-day clinic one hundred and twenty-five operations were performed, all of which were done under general anesthesia, and treatment for various eye conditions was recommended in two hundred cases. . . .

. . .at Plant City, [I] found twenty-four cases of trachoma out of the three hundred and eighty that had been previously examined. . . . The representative of the State Board examined five hundred and twelve children in Tampa schools and found forty-eight (48) cases of trachoma. I subsequently examined a number of these children and found them to be suffering from this disease.

Owing to a lack of time it was not possible to make examinations further south in the State, but I was informed by the representative of the State Board of Health from that District that much trachoma existed in that section. . . .

It is evident that trachoma is unduly prevalent in the state of Florida, and the State Board of Health and the local physicians are alive to the situation and desire to take immediate action to control the further spread of this disease and also to cure the existing cases.

At a conference in Tampa between the President of the State Board of Health and Dr. Cox. . .I was informed that the State owned a health train. . .and it was suggested that this train, consisting of three cars, formerly Pullmans, be equipped as a trachoma hospital and used throughout the state for the eradication and prevention of the further spread of this disease. . .”

**Dr. Cox’s Summary**

In the plan. . .for the relief of the trochomatous children it was proposed to convert the Exhibit train into a hospital and offer it to the government (federal). . .so that expert attention could be brought to the door of all places located upon the different railroads. The District Health Officers in the meanwhile were to examine the schools and find out those whose eyes were infected. . .so that they could be notified. . .when the train came to town. The government, because of multitudinous and more pressing duties, was unable to accept the offer of the train. It is hoped that at some later and more peaceable date it will be possible for them to take up and energetically pursue the campaign for the control of trachoma in Florida in conjunction with the State Board of Health.

In the absence of being able to offer those affected any relief the Executive Office advised that only children suffering from this disease in the acute stage or whose eyes were mattering or discharging be excluded from school. Those in the chronic stage whose eyes were not mattering were allowed to complete the present term of school. A supply of reprints of one of Dr. McMullen’s articles on trachoma which gave very thorough information as to how to avoid the disease were secured and given wide distribution. In addition, the District Health Officers visited schools and made talks on trachoma, laying stress on the essentials necessary for the prevention of that disease.
In 1940, Florida was impacted with a large number of military personnel stationed in many training areas throughout the state. The largest concentrations were near Jacksonville, Tampa and Pensacola. Positive results of syphilis blood tests from draft selectees in 1941 showed Florida to be second highest in the nation with a rate of 158.6 per 1,000 men examined. Over the next few years, the State Board of Health, United States Public Health Service, the Army, Navy and local health departments developed several unique programs to control venereal disease in military training camps as well as the civilian areas surrounding them. In all instances, the focus was on “repression of prostitution.”

By 1942, cooperative efforts by various federal, state and local governmental entities were considered quite effective. Dr. Wilson T. Sowder, director of the Board’s Venereal Disease Control Program that year, noted that “so far as is known, there are no openly tolerated houses of prostitution...in the state... While...there remains the enormous problem of the clandestine or occasional prostitute, who is just as dangerous.”

In early 1943, the Board and Army established three quarantine hospitals—“Rapid Treatment Centers”—to address the problem.

**Hospitalization of infectious cases of gonorrhea and syphilis, especially as it pertains to prostitutes, infected delinquent women and sources mentioned by infected enlisted men has been provided for by the establishment of State Board of Health Hospitals designated as Rapid Treatment Centers.**

During...1942, an application was submitted to the Federal Works Agency for funds to maintain and operate these treatment centers, but the funds were not received until January, 1943. It was then necessary to renovate and equip the CCC (Civilian Conservation Corps) camps at Ocala and Wakulla. (The third center was located at Duval County Hospital in Jacksonville.) [The]...centers, were opened during March and have expanded considerably during nine months of operation. Prior to the opening of these treatment facilities, jails throughout the state were reportedly overcrowded and officials petitioned the opening of these hospitals.

[These facilities]...were established for the specific purpose of quarantining and treating persons infected with venereal diseases and it was necessary to take most drastic steps to protect the military personnel and reduce to an absolute minimum the number of manpower days lost from venereal diseases. Florida’s laws against prostitution, as provided in the state statutes, were found inadequate and thus seriously impeded in the admittance of those infected with syphilis and gonorrhea. ... [When] the State Legislature was in session...the enactment of laws to effectively deal with prostitution and venereal disease control was strongly recommended by public health committees, the Army, Navy and the U. S. Public Health Service, as well as other interest organizations. This receptive and alert Legislature provided the necessary laws...[and]... Soon after...the flow of infected women into the quarantine hospitals was accelerated and in a relatively short time, the hospitals were filled to capacity.

During the first nine months of operation...a total of 1,077 patients were released from the quarantine hospitals at Wakulla and Ocala...448 patients (41.5%) were below the age of nineteen, and 825 patients (76.6%) were below the age of twenty-four... It can be definitely stated that comparatively few professional prostitutes were admitted to the quarantine hospitals.
This does not mean that the professional prostitute has been completely eliminated, but certainly her activities have been obscured by the amateur, who through misguided patriotism, has become promiscuous and subsequently infected with syphilis or gonorrhea, or both. . .355 patients (33%) were single and 683 patients (63.4%) were either married or had been married.

It is interesting to note that 28% . . . had a combination of venereal diseases, 0.6% had granuloma, lymphogranuloma, or chancroid alone: 16% had syphilis alone, and 42% had gonorrhea alone. . . . When we consider that place of residence, it is noted that 802 girls (74%) gave Florida as their . . . residence. . . . [and] girls were admitted from every state in the Union except fifteen. . . .

Of the 1,077 patients treated in the hospitals at Ocala and Wakulla and released through December, 74% were discharged as cured, the remaining percentage being accounted for by runaways, transfers to other institutions or recommitments to jail. During the first nine months of operation there were only 28 re-admissions or (2.6%). [These] hospitals . . . used an intensive form of treatment for syphilis; either the so called five-day drip, which consists of giving 240 milligrams of an arsenical preparation in a suitable solution daily for five days, or the Eagle method, which consists of giving an ordinary dose of an arsenical preparation three times a week, plus an injection of bismuth for eight, nine or ten weeks. Gonorrhea, as a rule, and the other venereal diseases were treated in the usual manner.

[The] rapid treatment center. . . . in Jacksonville offers a different type or intensive treatment. This method consists of raising the patient’s temperature to 106 degrees for a period of five hours by placing the patient in a heat cabinet. At the conclusion of the fever, a single calculated dose of a arsenical is given, after which the patient is removed from the cabinet and shortly thereafter allowed to go home. . . . since this center opened in June 1942, 788 patients have ben admitted for diagnosis and treatment . . . .

The results of this method are most encouraging and are being carefully evaluated by those in charge of the research project.

The concerted effort by state and federal authorities, including the project described above and the availability of the new drug penicillin early in 1944, helped decrease the number of reported syphilis cases in Florida from 33,540 in 1943 to 16,067 by 1946.
During the past few years the increasing prevalence of pellagra, or the more widespread recognition of its existence, has called for extended investigation into its distribution, cause and mode of transmission, and its character and treatment. The disease in this country appears to occur principally in the Southern states, though it is by no means confined to them. . . .

. . . Quite an extensive study of the disease was undertaken during the past spring and summer, an Assistant to the State Health Officer being detailed to Bay County, where “dispensaries” were established for the examination of suspected cases and the instruction of patients in the proper methods of treatment and prevention. During this investigation, of which a full account will be found in the report of Dr. J. E. Taylor, 117 patients were under observation. In all of these cases the line of treatment advised was that suggested by the results of recent studies conducted by the United States Public Health Service, particularly in Mississippi, which seem to show rather conclusively that pellagra is due to a deficiency in the proteid element of the diet. We have, therefore, advised in all cases a more varied diet, including milk, eggs, fresh meats and the leguminous plants, especially beans, which because of their proteid composition are believed to be of unusual value in the diet of pellagrins. This line of treatment seems to have brought forth very satisfactory results, practically every case coming under our observation having been considerably benefited, though whether or not this improvement will be permanent can, of course, be determined only by a careful observation of the future developments in these cases.

It is to be hoped that further studies will reveal more definite information regarding the causation and treatment of this disease. For the present, however, the theory outlined above would seem to have brought forth more satisfactory results than any other of the many widely differing views which have been advanced concerning this malady.
Pellagra Retrospective, 1915

Enjoying food at a picnic, circa 1915, State Archives of Florida.
Chapter 6

Cheerleading, Complaints & Peptalks
On November 7, 1890 Morris Cochran, the State Board of Health’s maritime inspector encountered trouble checking a foreign vessel near Boca Grand Pass. In a letter to Dr. Porter days later he described the incident.

I boarded a Spanish schooner and demanded of the captain to look at his papers; I was answered by an order to leave the boat at once; I replied that it was my duty to see that vessels direct from Cuba and other Southern ports had no communications with anyone in this harbour: He said he was from Key West. I asked again from the captain to see his papers; then he exhibited them and they were in Spanish, and he hailed from Havana; I told him so, and they at once set upon me and threw me overboard, and then cut loose my boat and sailed on into the harbour, leaving me to find my boat as best I could, which I fortunately found and got back to the island. This was about 8 p.m. The next day I found them at anchor off La Costa Key and saw boats coming and going from the vessel to the land.

The vessel had a Spanish name which I could not make out; but I will know her and can give you a detailed description of her. He threatened me and also said he would return when he pleased. I verily believe they landed fifty demijohns of rum, from information I have since received from fishermen.

Please instruct me what to do, as the vessels from Cuba invariably threaten me or refuse to let me board them. Can you put a man with me so I can use my Sloop? She is five ton and fast and I can overhaul any of them, and if you order I will board them with my Winchester, and use it if actually necessary.

I would suggest to the United States authorities to put an armed patrol under some sharp man, and it will certainly meet with several successful captures at this point, and break up this smuggling that is carried on with impunity.

When will my duty here cease? Please Advise.

Excerpt from: State Board of Health Archives, 1891.
Full time cooperative county health work was begun twenty-five years ago. At the present time there are more than 500 county health departments in the United States. Three such departments are functioning in Florida. Some sister southern states have as many as fifty organizations of this kind. The Florida State Board of Health for many years has been looked upon by public health men throughout the country as a strong central department, compared with similar departments in other states, while as regards adequate local health service, this state is generally regarded as being less well provided for. The state is a loser as a result of the latter condition. Not alone has the commonwealth failed to obtain valuable financial aid because of this condition, but the loss of life as reflected in the high death rates from tuberculosis, infant mortality, malaria and the high maternal death rate (the highest in the United States) has been appalling. Under the cooperative county health unit, or department plan, financial assistance from the United States Public Health Service, Rockefeller Foundation, the Commonwealth Fund, Milbank Fund and other outside agencies may be obtained. Such aid has gone in abundance to Alabama, Georgia, South Carolina, Mississippi, and other states. Florida has, because of not being organized to receive this cooperative assistance, lost thousands of dollars.

Since Florida was one of the last eastern states to create a system of local health services, the State Board of Health campaigned heavily in many arenas to establish viable county health departments. During the early 1930s it was not unusual to read articles, many directed to the public at large, extolling the need for development of local health programs throughout the state.

Activities of local health departments include the following:

Health bookkeeping by counties.

Control and prevention of preventable diseases, both acute and chronic, including such diseases as diphtheria, smallpox, scarlet fever, malaria, infantile paralysis, meningitis, etc., and tuberculosis, pellagra and the venereal diseases.

Teaching health and providing health promotional machinery to expectant mothers, infant and pre-school-children, and school children.

Sanitation of the environment. The latter general activity includes screening, safeguarding water and milk, protecting food supplies, control of fly and mosquito breeding, and lastly and probably most important of all, providing for the sanitary disposal of human waste.

This state is looked upon by people from other sections of the country as a playground and health resort. The climate, the abundance of vitality giving sunshine, citrus fruit, and fish in abundance providing for this leisurely sport, are natural factors that rightfully place the state well in the forefront as a place where people may not only remain well, but where those who are ill from many causes may regain good health. The state has taken the opportunity to acquaint all sections of the country with these facts.

To further bolster the state’s claim to her rightful place as the most healthful of all the states, every county alone, or in cooperation with other counties, should provide for adequate local health promotion and protection. The State Board of Health is now in a position to assist the counties in this connection.

Results of such activities should include a reduction in certain morbidity figures, notably those of malaria, hookworm, diphtheria, and tuberculosis; and in death rates of tuberculosis, malaria, maternal and infant causes. Florida should lead the way in local health work.

In the early 1980s, federal, state and local health departments and related agencies throughout the country felt a lot like “Pogo,” the title and central character of the long-running daily comic strip by Walt Kelly. During that time, they were all getting berated by environmental action groups for not doing enough to protect the public from exposure to toxic substances in air, water, soil and food. In Florida, there was increasing public concern about chemical, radiologic and heavy metal contamination of drinking water supplies. In early 1983, the Florida Department of Health and Rehabilitative Services (HRS) expanded the Epidemiology Program to include Chronic Disease and Environmental Hazards Units. Within a few months, crisis issues in several counties focused on agricultural chemicals such as aldicarb and ethylene dibromide (EDB) that had contaminated private and community drinking water wells. With new state funding in 1985, state laboratory testing capabilities were enhanced and a Toxicology Unit was formed.

HRS and County Public Health Unit staff worked tirelessly with other state and local agencies during the next few years to calm public fears, conduct appropriate tests, provide alternate sources of drinking water and seek long-term solutions to new challenges as they arose. An editorial by David Harris in the American Journal of Public Health entitled “Health Department: Enemy or Champion of the People?” provides some insight into the conflict between the public and state and local health officials at that time. His commentary was stimulated by an article written by N. Freudenberg entitled “Citizen Action for Environmental Health: Report on a Survey of Community Organizations” which was published in that same issue.

In some quarters at least, when it comes to environmental issues, the health department appears to be viewed as the enemy of the people. . .Public health officials are no strangers to controversy. Progress in public health has never come easily and has often been marked by prolonged and bitter struggle. Health departments have faced many adversaries, ignorance and apathy, businessmen who put their profits above the general welfare, uncaring or corrupt politicians, even organized medicine itself. However, in their battles for better sanitation, decent housing, milk pasteurization, and maternal and child health services, health departments have generally enjoyed the support of citizen reform groups. To find themselves now labeled by environmental activists of the 1980s as the enemy is a stunning reversal of history and a shattering blow to their self-perception as the champions of the public interest. . .

Why? Are environmental groups unfair? Have health departments betrayed their public trust? How can natural allies be at such odds? There is no simple answer. Blame cannot be laid solely on one side or the other. Underlying much of the problem is the public’s intolerance of ambiguity, their yearning for simple declarations. Unfortunately, complex environmental issues rarely admit of such certainty. . . .

To a frightened and impatient public, health officials’ punctilious concern about the thinness of scientific evidence and their disinclination to draw conclusions from insufficient data are easily mistaken for lack of resolve or abdication of the responsibility to act. . . . Sometimes we are our own worst enemies. Environmental problems are usually multi-agency problems, involving health, environmental, planning, and other regulatory agencies at local, state and federal levels. All too often, the public is treated to the unedifying spectacle of experts in conflict over different and contradictory standards, risk assessments, and risk management plans. These. . . .may be explicable, even reasonable. . . .but to the general public they look more like governmental ineptitude at best, or a plot to mislead and coverup the truth at worst. . . . The clamor over environmental issues is testing the public health official as never before. As public servant, he must respond to the needs of the people and be sensitive to the political world with which he deals, and in which he must survive if he is to do any good, as physician, engineer or scientist. . . . To the virtues of patience, openness and humility recommended by Freudenberg, public health workers must also bring fortitude and an unwavering allegiance to the pursuit of truth and the rigorous application of the scientific method. They must somehow rise above the clamor, and demand the solid evidence on which sound public policy must be founded. They must somehow find the strength in the face of criticism and false accusations to continue to be the voices of reason and to help keep our health priorities straight.

During the past decade, the functions and responsibilities of the Department related to environmental epidemiology and toxicology have expanded considerably. Today, staff are involved in a wide variety of environmental contamination issues, including but not limited to: investigation of indoor air contamination; investigation of food and waterborne outbreaks; studying birth defects; participating in investigations of cancer clusters; conducting risk assessments at toxic waste sites; enforcing the Florida Clean Indoor Air act; and conducting surveillance on marine and food toxins, and human exposure to pesticides, and lead and heavy metal poisonings.
Since before the turn of the century, Dr. J. Y. Porter had stressed that health education should be a vital role of the State Board of Health. Even though every health officer that followed Porter agreed with this view, the advent of county health departments suggested an opposing approach. In May of 1936, Dr. W.A. McPhaul, the newly appointed state health officer and past director of the Escambia County Health Unit, used an article from the American Journal of Public Health to support his stance on health education published in Florida Health Notes.

Excerpt from: “Health Education,” Dr. W. A. McPhaul, Florida Health Notes, 1936.

The great epoch in public health whose end we have recently witnessed was characterized by the elimination of many heretofore dominant diseases by the agencies of public legislation, and the employment of vaccines, sera, immunizing and sterilizing agents. During this period great things were done unto and for the people, who themselves contributed little or nothing. What had the population at large to do with the blotting out of smallpox, or of cholera, or of bubonic plague?

But now those diseases which were subject to such mastery have already so been mastered. Today we find dominant the degenerative diseases, and those diseases which affect the emotional and psychological aspects of human life. If we are to succeed in conquering these diseases, it will only be with the conscious cooperation of the individual in the community. We cannot hope for a vaccine to eradicate the various dementias, or for an antitoxin that will immunize an individual against unhygienic and irrational living habits.

Public health education must therefore prove an important agent in the armamentarium of the public health doctor of today and tomorrow. It is and will evermore be the task of health education to impart basic knowledge relative to the prevention of diseases and the conservation of well-being. It will also be our task so to fashion our instruction that men will not only be informed, but also persuaded.


Dr. W. A. McPhaul

The foregoing quotation is an expression of the newer idea in public health work; that we must make the people health-conscious, must educate them in proper principles of hygiene so that they may be able to live lives of the fullest measure of healthfulness. The great advances in preventive medicine and hygiene have made it possible for man to live his entire span without contracting any of the diseases such as diphtheria, typhoid, smallpox, and tuberculosis, which formerly took inevitable toll of life. Many other ills are almost equally avoidable, if people knew the means of prevention. As the author quoted says, we must not only inform, but persuade through health education that a large measure of good health is possible to all people.
Steering a True Course—Simple Rules for the Road

Sanitary laws to be effective and to accomplish the good for which enacted—namely, the protection of human life and the promotion of human happiness—must have the moral support of the people. They must be in the line of human reason, practicable of execution and not excessively oppressive. It is therefore no easy task which confronts the health officer in steering between the Scylla of those who want to do “too much” in the way of restrictions and the Charybdis of those who are striving to abolish all protective measures and allow a “go as you please” policy in health matters. The conservative health official must adopt a middle course else he [or she] will soon find himself [or herself] involved in numerous controversies and finally be stranded on the rocks of popular opposition, if not in open public warfare. A vigorous, manly [aggressive] and determined stand against those agencies which experience has demonstrated to be injurious to health, will always command respect, and honest convictions and consistent acts must in the end invite the esteem and confidence of even the skeptical.

Excerpt from: “A Disquisition,” Florida Health Notes, 1894.

DON’T UPSET THE APPLE CART!

Greetings to My Fellow County Health Officer “Buddies.”

This is just a message from a “misplaced” county health officer who no longer has the joy of heading an intensive program in one of Florida’s choice counties, but one who has bit off a huge “bite” which may choke him to death. Let’s hope not!

You can do as much or more to prevent my choking by continuing to carry on your fine intensive county programs if you stay put until you and your programs are sold. And “selling your program” also means that at the same time you must sell yourself. You and your program are one entity.

You are pioneering in your county’s health work and because of the need as well as increasing public demand you will experience a very great expansion in the establishment of correct county health programs in Florida in a very few years. Threatening war or even war itself does not lessen the necessity for health programs at home. On the contrary, war or the preparation for war will greatly increase the demands on our health programs.

The county you are now serving has shown, by appropriating the hard cash, that they need and appreciate you and your staff. The State Board of Health and allied agencies, State and Federal, need and want you and your program to get results but please do not become discouraged if you cannot show great results after one or even two years of diligent effort and hard work. By the end of the third year the results will begin to show for themselves in the form of lower morbidity and mortality rates.

It is a mistake for any health officer to leave any county until he has successfully served a minimum of three years in his original county. A change of directors or other personnel, who are doing good work where located, may upset the “apple cart” before the benefits of the programs have a chance to become self evident.

There is no reason why promotion cannot take place as a result of work in one county as well as in any other. After all, we first of all want to render the greatest service possible where it is needed most and certainly many of our more or less rural counties fill this order exactly.

Excerpt from: Florida Health Notes, Dr. William H. Pickett, 1940.
Broadly defined research has been a part of public health efforts in Florida since the establishment of the State Board of Health. Early activities focused on yellow fever and malaria vector studies. The major interest following WWII was infectious diseases such as enteric infections, rabies, typhus fever, pulmonary disease simulating tuberculosis and viral encephalitis. Insect vector and natural history studies began in the early 1950s at the Florida Medical Entomology Laboratory in Vero Beach. The Board formally coordinated research activities within the agency in 1956, but a Bureau of Research was not established until 1964. Most research conducted during the 1960s and 1970s was supported by federal grants supplemented by funds and other resources from the Board, county health departments and state universities. The Encephalitis Research Center in Tampa produced new information on St. Louis encephalitis and other pathogenic arboviruses. When this facility was renamed the Epidemiology Research Center in 1969, its scope was expanded to include environmental studies; most notably those related to viruses in wastewater.

Dr. Albert V. Hardy, research coordinator for the Board from 1956 to 1971, had very definite ideas on how important research was to the vitality and growth of public health programs in Florida.
Recent decades have seen a transfusion of organized public health in this country. The communicable diseases have declined from their place of first importance as a cause of death. The high significance of cardiovascular diseases, neoplasms, mental illness and other chronic diseases to the health and welfare of the community has become increasingly evident. Environmental problems, once limited to food, water and sewage, now extend to air pollution, insect control, housing and radiation. There is an awareness that there is need for an effective program for the building of optimal health in the aged—as also in those of younger years—for which at present there is no program of proved worth. The need for organized action to assure that indigent and medically indigent persons receive appropriate medical care and the administrative role of health departments in attaining this end are recognized. . . but today the spirit of investigation is not clearly evident in the public health approach to these new problems.

...the future of public health research. . . [and] its development will be determined largely by those of us serving in state and local health departments. . . .the true importance of research in health departments must be fully appreciated by public health administrators. The place of field studies in the investigation of communicable diseases is recognized; that a similar approach has a place of comparable importance in chronic diseases in not generally recognized. The recent observations on differences in the occurrence of lung cancer in cigarette smokers and nonsmokers has directed attention to the promise of this investigative procedure. Relatively basic information may be expected from a variety of studies of individuals in their natural environment. The public health worker should be expected to provide leadership in such epidemiologic and other field studies just as the clinician takes leadership in clinical studies. . .

If community-centered research is to thrive, it must be accepted as an essential part of activities of our health departments. When it is so accepted, there must be a budgetary planning for research. . . then and only then is it appropriate to begin to think of supplementary support through research grants. If public health is to compete successfully with universities and other institutions for research funds, it must be able to attract and retain personnel equal in training and ability to those in senior positions in medical schools, hospitals and research institutions. A greater flexibility in salary provisions probably will be needed to enable Health Departments to attract these essential persons of high ability.

In conclusion, it can be emphasized that the Florida State Board of Health and the larger county health departments have accepted research as an essential part of their activities and are being guided by the conclusion, “We don’t get ahead if we don’t do research.”

By the early 1970s, nearly every bureau of the Board and most of the larger county health departments were conducting some type of research on an ongoing basis with findings published in annual reports as well as professional journals. Many were published in the Monograph series (1962–1974), Special Studies (1917–1937) or as special departmental reports. Public health research was not encouraged by the Department of Health and Rehabilitative Services. The Florida Medical Entomology Laboratory was transferred to the University of Florida in 1979, the State Health Office’s Research Unit was deleted in 1982 and the Encephalitis Research Center was closed in 1991. Still, public health research activities, including those supported by federal grants, have continued as an essential element of many innovative and productive programs at the state and local level.
Chapter 7
Outbreaks & Investigations
1896

Excerpt from: State Board of Health Annual Report, 1886.

Arrived at Key West, on the evening of June 23rd...was unaware of...any contagious disease on the island...The next morning the agent for the State Board of Health reported...a case with a suspicious eruption, and requested assistance in forming a diagnosis.

With the representative of the Marine Hospital Service...there was unanimous opinion that the woman was suffering from smallpox, and in a most virulent form [later it was determined that this woman was sick sometime in early May and was misdiagnosed as having chickenpox]. Questioning and careful investigation discovered five more cases within the next three days all of whom were in the negro quarter...As soon as cases were discovered they were isolated and guarded at their homes, until a hospital was constructed by the State, to which they were afterward removed.

When an attempt was made by the City Health Officer to remove the patients from their homes to a comfortably constructed camp on an...isolated, portion of the island...A riot almost ensued...which instead of being restrained and subdued by the civic power, was rather encouraged and sympathized in. Requests for the city commission to co-operate with [me] met with positive refusal...coupled with abusive and libelous resolutions from that body. To prevent a transmission of smallpox from Key West...to points elsewhere in the state...it became necessary to put a quarantine of surveillance over the ingress and egress of that traveling public, that none might go from, or come to the island who had not been recently and properly vaccinated. The Governor was requested to invoke the co-operation of the navy and revenue cutter service...The battleships Maine and Montgomery were each...directed to assist in...harbor surveillance, that no vessel should leave that port whose crew and passengers had not been properly vaccinated or protected against smallpox. The State patrol steamer Germ was placed at the other harbor entrance to...guard an exit used exclusively by the small and light draft craft that sail the shallow waters between...the keys.

An urgent request for the passage of an [city] ordinance making vaccination compulsory...[had] much opposition...[was passed]...then rendered almost inoperative because no funds were appropriated to carry out its provisions...However, the State Board of Health provided the virus...and members of the medical profession...assisted in the work...and a goodly number of the city’s population were vaccinated. A house to house inspection, made after cessation of this trouble, shows that out of a population of 16,933, 11,811 were vaccinated successfully.

It is to be regretted that the city authorities of Key West, under a misapprehension of their duties and obligations, should have made it necessary for the State health authorities to intervene, in behalf of the city and the State of Florida, by enforcing stringent measures. But when the city and county authorities, through the police force of each, failed to render cooperation in needful measures to protect the lives of the people of Key West, and the health of the citizens elsewhere in the State was menaced, it became necessary to take a firm and decided stand for the supremacy of law and principle.
In the year 1346, the Tartars laid siege to the Port of Azov, using the plague-killed bodies of their people as weapons tossed over the ramparts. The fleeing, but infected survivors, carried the deadly disease to Italy and from there it burned and smoldered its way across Europe for four centuries, wiping out, at times, a quarter to half a given region’s population. Even with the understanding that rats were associated in some way with the disease in the 17th century, epidemics still occurred throughout the world until the advent of modern antibiotics in the 1940s. With this in mind, it is easy to understand the swiftness of response by the State Board of Health when it appeared that rats escaping from ships had caused plague to erupt in Pensacola.

State Health Officer Ralph N. Greene, M.D.: Bubonic plague was reported in the City of Pensacola on June 5th, 1920. Immediately upon receipt of telegraphic notification of the existence of suspected bubonic plague, the State Health Officer and the Senior Bacteriologist of the State Board of Health immediately proceeded to Pensacola where it was found that Doctor F.A. Brink, bacteriologist in charge of the Pensacola Laboratory; Doctor S.R. Mallory Kennedy, of the United States Public Health Service; and Doctor H.L. Bryans had correctly diagnosed the condition and official announcement was made that plague existed in Pensacola.

The United States Public Health Service was promptly notified, with a request that they send a representative to confirm the diagnosis.

Doctor Charles L. Williams, of the United States Public Health Service, a bubonic plague expert, was detailed from New Orleans to Pensacola to investigate the case and upon arrival confirmed the diagnosis.

Shortly thereafter, the United States Public Health Service assumed charge of the situation in cooperation with the State Board of Health. The City of Pensacola appropriated a sum of five thousand dollars to meet the emergency. The State Board of Health agreed to finance the proposition as far as was necessary and had done so, as will be noted in financial report herewith attached.

The United States Public Health Service, for a time, bore a monthly expense of approximately ten thousand dollars, same having been gradually reduced until at the present time they are bearing a major part of the expense at about five thousand dollars monthly outlay.

Suffice to say, bubonic plague was promptly controlled with the result that up to date, ten cases have occurred, six deaths have occurred, approximately twenty thousand rats have been examined, extensive rat-proofing has been put into effect and it is believed that the situation is absolutely under control.

Sporadic cases may occur from time to time as this appears to be the history of all plague epidemics.
On September 18, 1918, influenza, or grippe as it is sometimes called, was first brought to our attention as occurring in prisoners at the city farm. The disease gained a momentum all over the city, so that by October 1st it was reported to the City Commission as being epidemic in Jacksonville. Warning notices were inserted in the newspapers with directions as to symptoms and what to do if taken sick. On October 4, a call was issued for volunteer nurses. On the 7th, cases and deaths had become so numerous that the schools were closed by the Superintendent of Public Instruction, after conference with the City Health Officer. The motion picture shows closed their doors voluntarily upon the informal request of this department. The City Commission, on October 8, by order, closed all amusement places and soft drink parlors, and placed a ban on indoor public gatherings; and on October 10 ordered all retail stores opened at nine a.m. and closed at four p.m., so as to limit street-car congestion. A soup kitchen, for those unable to secure nourishment, was opened on October 10, in the basement of the Union Congregational Church. . . Deliveries were then made by citizens in automobiles, and over one hundred cases were served the first day. . . On October 12, General Duvall, commander of Camp Johnston, tendered the use of four army portable soup kitchens, which were accepted. This relief organization served 5,709 white and 11,084 colored cases from October 10 to Oct. 22. . . .

The peak of the epidemic was reached about the 13th of the month (October), on which day there were 39 deaths. New cases apparently ceased to develop by the 22nd (October), and at the end of the month there had been 464 deaths from influenza or complicating pneumonia. The disease ran through all the susceptible material before it died down. It is estimated that there were nearly 30,000 persons infected with the disease and that none of our published precautions had any effect on the disease.

In January, 1919, there were 471 additional cases reported, and for the year 1919 there were 621 cases with 64 deaths.

In 1920, during February and March, there were 2,541 cases, with 79 deaths. A large number of physicians reported in 1920 that about one-quarter of their cases had had a previous infection, in 1918.
Jacksonville telephone operators during 1918 influenza epidemic, State Archives of Florida.
You will please go to Tampa and remain there several days and see that all of the cigar factories are put in first-class sanitary condition; and that at least one cuspidor to every two operatives be furnished; and furthermore, that those cuspidors shall be used.

The State Health Officer is determined that a high standard of excellence in the sanitary condition of these industries shall be maintained. You will probably not have any trouble in bringing this about when you show the owners that it will brand their goods for them to have to be dragged into the courts for such a charge.

Kindly inform the office of the condition that you find things in, as well as the progress made in correcting the evils.
I proceeded to Tampa to take up these matters as requested. Arriving there, I found that Dr. C. W. Bartlett, County Health Officer, had, a few days before, acting on advice of Dr. Porter, sent a notice to the factories giving them warning that in all rooms where tobacco was handled they would be required to furnish a cuspidor to every two operatives. These were to be cleaned once a day and supplied with disinfectant solution. Promiscuous expectoration about the floor, stairways and elsewhere in the buildings would be held an offense punishable by law. . . .

On visiting the manufactories, I found all those in authority thoroughly in accord with the endeavors of the Board and appreciative of the necessity for the crusade. Examining the rooms where the cigarmakers were at work, the immediate need of the inspection was quite apparent.

Seated in a superheated room, amidst an atmosphere heavy with the odor of tobacco, smoke of cigars and exhalations of the inmates, and peculiarly depressing and irritating on account of its lack of ventilation, were one to 650 persons all jabbering away while ostensibly engaged in the manufacture of cigars. . . .

The floors were dirty, sandy and covered here and there by scraps of tobacco. Some of the operatives were chewing, and their expectoration had accumulated by the side of their chairs in small pools. Others, especially those about the isles, had covered the surface of the space limited by their projective ability, with spittle. In finishing the cigars, I noticed that they were accustomed to bite off the tapering end preparatory to putting the final touches on the wrapper. . . . At the close of the day, the tobacco that has fallen on the floor, trodden under foot for hours and mixed in varying degrees with spittle, is swept up and in some instances sent off to smaller shops where it is used as filler for both cigars and cigarettes. . . .

In company with Dr. Bartlett, some three weeks later, I again inspected the factories. In almost all of them the promiscuous expectoration had decreased from 25 percent to from 3 to 5 percent. In a few, however, the old condition was still apparent. Our threats of an indictment were met by pleas for more time and protests that arrests for violation among the cigarmakers would bring about confusion among the labor and perhaps a strike. They were advised to comply at once with the regulations and extra inspections ordered of their premises. . . .

During my service on roll-call quarantine, I again inspected all of the factories. . . .

The larger factories were found to be in the same condition as formerly, but some of the smaller ones, as a result of enforced neglect, appeared to have sunken farther than formerly in the mire of sanitary disregard. A personal plea was made to every offender to restrain from the above, with a promise of severe measures in the future, should they persist in the abuse of regulations. The subject was again gone over in detail with the "reader," who at our request spoke at some length in Spanish to the cigarmakers. . . .

The State Health Officer was advised that in our opinion it would be well to have the regulations on the subject printed in both English and Spanish and posted in conspicuous places about the building.

Furthermore, we recommended that the sanitary patrolman be directed to make weekly inspection of all factories, and in those where a violation was found, arrest at least two of the offenders and have them placed under bond—this for its sanitary effect upon the others. All this we considered absolutely essential for the future successful conduction of the work.
Cerebro-Spinal Fever: The Epidemic at Madison

Excerpts from: State Board of Health Annual Report, 1905.

During the past century, we have seen amazing medical and scientific advances in the prevention and control of many communicable diseases. Still, despite our best efforts, a few of the more common diseases continue to exist and occasionally cause outbreaks. What was once known as “cerebro-spinal fever” caused by *Diplococcus intracellularis* is now meningococcal disease and the causative agent has been renamed *Neisseria meningitidis*.

Dr. Hiram Byrd, one of the more articulate and prolific contributors to the written records of the State Board of Health, was serving as a special agent for the board out of Jacksonville when he was called to investigate an unusual outbreak of cerebral-spinal fever that devastated a small community near the Georgia border during February and March in 1904. His account of the events is fascinating both in the descriptive detail of the signs and symptoms of the disease and the conclusions drawn about the origin and distribution of the agent. A few of his most interesting comments and insightful observations follow.

*I have endeavored to give an accurate report of the outbreak, unbiased by any erratic notions previously acquired. I am free to confess that in many instances it came far short of my conception of cerebro-spinal, but I am forced to think that it was the conception at fault and not the disease. I have interpreted freely the phenomena observed without antagonism to any one. My conclusions are my own only so far as they are different from others. . . .

Cerebro-spinal fever, as encountered at Madison, usually began with a rise of temperature, accompanied in about half of the cases by a chill. In some . . .[it] was severe and repeated. In some . . .severe, but not repeated. In others . . .less severe. And in still others . . .[only] a chilly sensation . . .there was febrile temperature in every instance. But it did not conform to any special type. Nor was its height any index to the patient’s condition. . . . But as a rule the temperature was not very high. Perhaps 100 to 102 was the most common. . . .

Headache, like fever, was a certain symptom. In the worst cases it was severe and accompanied by retraction of the head and rigidity of the cervical muscles. In such cases, delirium soon supervened, lasting a variable time and giving place to coma on the one hand and stupor on the other. In milder cases headache was correspondingly mild. In some well defined cases it was hardly complained of at all. . . . Backache was noted in the worst cases. Opisthotonos was reported in some of the fatal ones. From that degree of severity, it too could be traced through cases less severe till it finally faded out and was not present at all in some of the endoubted [sic] cases. Arthritis was noted as an occasional symptom. The wrists, ankles and knees were most affected. . . . Constipation was the rule . . . . Catarhal symptoms were present in a few cases but so seldom that I feel inclined to regard it as coincidental.

The eruption was present in about seventy-five percent of the cases. It was two distinct types: petechial and herpetic. The petechial eruption appeared usually in twelve to thirty-six hours after the onset of disease. . . . As ordinarily encountered, it resembled flea-bites, consisting of red splotches, varying in size from a pinhead to a dime, the edges not well defined and shading off into the color of the skin. . . . The eruption was usually confined to the forearms and legs, but the distribution was by no means constant. In some cases it was not only abundant in these places, but well sprinkled over the body and face, while in others it was either sparsely localized or altogether wanting. . . . The herpetic eruption was about as constant as the petechial. It had a predilection for the face—especially the lips and chin.

The mental state of those suffering from cerebro-spinal fever is worth noting. In some cases delirium came on shortly after onset and lasted from a few to several hours. . . . Finally after varying intervals the patient would pass into a coma or stuper [sic] according as the symptoms were growing worse or better. . . . Eye symptoms were noted in eight cases. In seven of these it was strabismus and in the eighth ptosis. . . . Only one of the eight recovered, and he is still slightly
affected with strabismus.

The duration, like other phases of the disease was variable. Ten of the fatal cases only lived thirty hours to one week. The fifteen mildest cases recovered in the same time. But between these there was [sic] two that died after several weeks, and three in which convalescence was long and draw out, lasting three weeks to more than a month. . . .

The exact mortality rate is difficult if not impossible to determine. Just how many cases there were is not known, for the reason that there were many that were so mild that it was impossible to make a diagnosis. . . . Such doubtful cases are not included in this report. . . .[it includes] only those cases which were seen by a physician and in which a diagnosis was established with a reasonable degree of certainty.

The first case reported developed on February 3rd and from that time till the 17th, the disease was at its height. During these two weeks, fifteen of the thirty cases (50%) developed, and seven of the twelve deaths (58%) occurred. During the next two weeks, from February 17 to March 2nd, nine cases developed and one death. During the three weeks, dating from March 2nd, four cases were reported, and two deaths. Two that were reported convalescing subsequently died. This makes a total of thirty cases and twelve deaths, or forty percent mortality.

It is the consensus of medical opinion that cerebro-spinal fever is, if contagious at all, very mildly so; in any event not exceeding tuberculosis. I see nothing against that opinion. Certain

features of it did at first look as if it might be contracted one from another. . . . But on the other hand . . . of the eighteen families that it invaded, there was twelve in which it originated without any traceable history of exposure. And fourteen of the eighteen had only a single case, while only four had multiple cases. . . . this is a systemic infection . . . the specific cause [Diplococcus intracellularis] has been recovered not only from the cerebro-spinal fluid, but from the blood, the spleen, effusion into the joints, pneumonic areas of the lungs and from catarrhal mucous membrane of the nose and throat. . . . This organism is evidently widely distributed in nature, for the disease has appeared from time to time all over the world . . . it is not uncommon to find the pneumococcus in the sputa of a healthy individual. . . . Upon such grounds as these there is nothing preposterous in assuming universal distribution of the Diplococcus intracellularis. . . .

Now whether it is distributed through man’s environment, or is harbored by his economy, is not quite clear. The preponderance of evidence is that it is in his environment. That the disease is of such a local nature, bears strong testimony to this. But on the other hand it has been sought for (by culture and isolation) in fifty healthy individuals and found. . . . one. . . . It is a striking coincidence also that the number of cases in the vicinity of Madison was to be the whole population as one to fifty, there being a population of about 1,500. . . . The next question to answer is that if we accept universal distribution of the organism why don’t we encounter these more frequently? The answer is to be found in the laboratory . . . it is the attenuated state of the Diplococcus intracellularis and not its absence that accounts for the rarity [sic] of the disease . . . attenuated organisms may be grown in successive cultures under optimus [sic] conditions, and their virulence increases. And that is why we so frequently encounter sporadic cases of diphtheria. The organism exists in the healthy throat which is not a good environment for it. But let the individual become weakened from exhaustion, cold, bronchitis, and he at once becomes a good culture medium for the germ . . . . Why may it not be true of cerebro-spinal fever?

CONCLUSIONS

That cerebro-spinal meningitis is caused by the Diplococcus intracellularis and that only.

That this organism has a preference for the cerebral membranes, but does not necessarily attack them.

That the organism is widely distributed in nature but in an attenuated state.

That under certain combinations of environments, its virulence [increases] till it is capable of causing a sporadic case of cerebro-spinal fever.

That as this combination of events extend to a whole community, the result is an epidemic which may be regarded as so many sporadic cases.

That it is not contagious, and when several cases occur in the same family or community, they all come from the same cause and not from one another.

That in our present state of knowledge we have no effective means of preventing it, but there is no doubt that wholesome hygienic living will increase our vital resistance [sic] and render us less easy prey to this fell disease.
Around the turn of the century, typhoid fever outbreaks throughout the state were usually traced to local situations where sewage had contaminated a water supply or a carrier serving food. Later, as environmental improvements for assuring the purity of community water supplies became common place, the source of typhoid outbreaks shifted to the contamination of oyster beds by raw sewage. One such investigation was reported in the *State Board of Health Annual Report* for 1942 by E. F. Hoffman, M.D., acting director of the Bureau of Epidemiology. In the process of trying to link cases to carriers, investigators traced 66 cases in 14 counties to a single oyster shucking house in Crystal River along the Gulf Coast.
The first case to come to the attention of this Bureau was investigated by Dr. E.F. Hoffman on January 30, 1942 in Putnam County. This case had its onset on January 16, 1942. Three other cases investigated in the latter part of February were found to have developed the fever about a week prior to the date of this patient’s onset (January 12, 1942). Following these investigations, more cases were reported, which on investigation, also gave histories of having eaten oysters coming from a Crystal River packing house. Therefore, on February 28, 1942, at a conference of the directors of the Bureaus of Local Health Service, Engineering and Epidemiology it was decided to revoke this oyster house’s license to distribute oysters, and stop the distribution and sale of oysters. This was done and a thorough investigation made of the plant.

Because of the sprinkling of cases over the more or less extensive distribution area of this plant, it was felt that a typhoid carrier must have been employed in the plant. It was thought that we were correct in our suspicions when it was discovered that one of the oyster packers, a woman who had typhoid in July of 1941 was working three weeks prior to the onset of the first case. . . . She was requested to submit stool specimens, all of which proved negative. A gall-bladder drainage on her also produced no typhoid bacilli. Attention was then given to another woman packer, a male. . . helper and a young man who distributed the oysters by truck. All tests proved negative.

There was considerable suspicion and misunderstanding at these first attempts to get authentic specimens and several individuals evaded submitting proper specimens. Among them was a male. . . 69 years old who had lived in this community all his life as a fisherman and oyster gatherer. He, at the time of the outbreak and just prior to it, was gathering oysters and occasionally helping with the shucking. Certain other employees stated that he also occasionally entered the packing room to assist in the loading of oysters onto the distribution truck. When the house was closed to oyster packing and distributing, several of the former employees dispersed throughout the state, so as to make it impossible to get specimens on all the persons employed just prior and at the time of the outbreak.

It was then felt that to prevent a reoccurrence of the situation, the specific oyster house, as well as the other oyster distributing house in Crystal River, should be required to have their employees submit authentic stool specimens for examination prior to certification of physical fitness for employment. This was done before the specific oyster house manager was allowed to reopen his plant. It was through this procedure that the carrier was discovered and subsequent laboratory reports confirmed our suspicions.

At one time, in the course of the investigation, attention was directed to the oyster bed areas because of a “false lead” as to the possible source of the infection. A special pollution survey of certain waters in the Crystal River area was made by personnel of the Bureau of Sanitary Engineering, and the report on the survey will be found in that Bureau.

It is the belief of this Bureau of Epidemiology that the carrier in question was responsible for this outbreak, and in view of his long residence and occupation as a fisherman and oyster gatherer, may have in time past been the cause of one or more similar outbreaks in this same area. Just how he contaminated some of the oysters and not others cannot be explained. He has been asked to refrain from going out on the water and from handling food in any way. This he has agreed to do and it is understood that he is keeping his word. The oyster house in question has been permitted to reopen. . . . However, we have advised the Crystal River oyster dealers that if any case of typhoid is traceable to any oyster packing house. . . in Florida. . . [it] will be closed until the source of infection can be determined.

Excerpts from: State Board of Health Annual Report, 1942.
Chapter 8
Musings, Recollections & Reflections
By some fortunate legislation an arrangement of the four-year terms of the state health officer extended nine months beyond the beginning of the terms of governors. My appointment by Dan McCarty extended through the term of Charlie Johns and into the first two years of the Collins administration to September 1957. I was a commissioned officer in the Regular Corps of the U.S. Public Health Service (USPHS) but on leave of absence without pay. In January 1956 Surgeon General Leonard A. Schelle wrote to Governor Collins saying that he wished to recall me to active duty, that “We will have a vacant position of major importance as Regional Medical Director effective July 1, 1956.” I wanted to stay in Florida, and Governor Collins assured me that he wanted me to stay. Dr. Schelle seemed not to press very hard for my recall but his successor...did. I received a telegram the evening of August 17, 1956, from...the...USPHS: “Orders being issued assigning you as Chief Medical Officer Communicable Disease Center, Atlanta, Georgia effective September 20, 1956, in accordance with previous communications. Wire acknowledgement by September 20, 1956 of intent of compliance with above orders or advise effective date of resignation...”

This forced me to make a tough decision. I was credited with 22 years in the USPHS but that was not sufficient for retirement eligibility, although Congress was considering a 20 year retirement bill and did pass it but too late to help me. I don’t remember mulling over the problem very much. I loved Florida, enjoyed what I was doing, and Governor Collins wanted me to stay on the job, so I bit the bullet and resigned from the U.S. Public Health Service.

It was a pleasure to work under Governor Collins in 1955–60. These were the halcyon days for public health. The list of good laws passed in 1955, 1957 and 1959 is a long one. An important one was the revision of all health laws passed since 1889 which clarified them and eliminated obsolete, contradictory and confusing features.

A Mental Health Council on training and research was established, and a scholarship program begun for worthy and needy persons to study dentistry and medicine. The State Board of Health was made responsible for Air Pollution Control. Funds for county health departments were increased from $2.5 to $3.5 million and for community mental health from $320,000 to $1,002,000. A plan prepared and sponsored by the Florida Medical Association and the State Board of Health for hospitalization of acutely ill and medically indigent persons with a $2 million appropriation was adopted. Florida was a pioneer in this area and continued this program until the advent of Medicaid and Medicare.
When I was younger I thought 100 years was a long time; now I know better. A little reflection reminds me that I began public health work in Florida only a year or so shy of 50 years ago. And I remember working side by side with those who had labored in the vineyard of health 72 years ago.

My secretary, when I became state health officer, had also been the secretary of all those who preceded me except Drs. Porter and Cox. I became acquainted with two granddaughters and a grandson of Dr. J.Y. Porter, the first state health officer, and was once a guest of the grandson, J.Y. Porter III. From them I heard anecdotes about their grandfather. I have read the minutes of early State Board of Health meetings, annual reports, and issues of Health Notes, all eloquently written by Dr. Porter. For a dozen years after his retirement in 1917 the records are misty, fragmented or entirely lacking, and no wonder. The legislature cut the State Board of Health’s appropriation in half in 1921 or thereabouts and in consequence public health efforts took a sharp nosedive.

In any case the first 50 years of public health efforts in Florida seem to have passed very rapidly in spite of many exciting events. And I can personally testify as to most of the second 50 years.

Dr. Sowder was dispatched to Florida on a “special assignment” from the U.S. Public Health Service in 1940. It seems the Secretary of the Navy at the time was quite disturbed at the high venereal disease rates among personnel at the Naval Air Station in Pensacola. He along with local health officer Dr. Al Stebbins (Escambia County) soon began the difficult task of “closing the numerous houses of prostitution which had operated openly on West Zaragossa [Liberty] Street and Baylen Avenue and elsewhere for nearly 400 years.”

Local authorities were not enthusiastic and took the position that if the federal government wanted the job done it could do it. Dr. Stebbins, knowing that state law authorized quarantine of persons with communicable diseases, had signs printed with large red letters, “Syphilis, Keep Out” and “Gonorrhea, Keep Out.” Then he and I, with a policeman reluctantly assigned to protect us, nailed these signs on the doors of 15 houses and passed the word that we were having more printed. The operation was a great success. It was national news, reported by the March of Time and even the Saturday Evening Post. Dr. Stebbins got less than the credit he deserved because he wanted it that way. His wife objected strongly to him being so closely connected with prostitution and to the numerous phone calls, many at home, connected with it. My wife did not seem to mind my first-name relationship with several dozen madams and “girls of the line” who called me at home or the office.

Only one prostitute ever said a harsh word about the closure. A “madam” watching us nail the quarantine sign on her door asked indignantly how we expected her to carry on her business. We told her the plan was to close her business. She threatened to leave town but never did.

In any case, the houses of prostitution were closed and with public support and pressure city police and the county sheriff became diligent in the suppression of prostitution. The venereal disease rates at the Naval Air Station dropped precipitously.
The position in Iowa to which I was going was quite unique in Public Health. Iowa, at that time, had a very limited Public Health organization. Responsibilities ordinarily carried by a State Health Department were assigned to the Medical School in its Department of Preventive Medicine. In that one department, they had responsibility for the state laboratories and also for the state epidemiological work. As the Assistant state Epidemiologist during the early months outbreaks of smallpox were not uncommon and the State Epidemiologist was frequently requested to confirm the diagnosis of smallpox to differentiate it from chickenpox. Trips for this purpose were the first ones which took me into the countryside.

What proved to be a very significant, though simple event, occurred within two or three months after I arrived in Iowa. A letter came from a practitioner in the northern part of the state relating that he had been at a medical meeting in Chicago and had seen a case which was diagnosed as “Malta fever”, due, it was believed, to the consumption of raw milk from cows with infectious or contagious abortion. This was the first indication to me or others in the laboratory that there was any possibility of human infections from this common disease in cattle. My reaction was...to write him and advise that we would be glad to have a specimen for examination. Both blood and organism arrived and to our disbelief the first specimen examined proved to be positive for this disease which no one knew occurred in Iowa. As a result of this finding, the procedure was established to examine for Brucella infection all specimens submitted for typhoid fever testing. We naturally expected additional positives, but six months went by and no further positive was found.

However, at that time, the question was raised as to whether the specimens...
being examined for Brucella infection were incubated long enough. The readings in typhoid fever could be made within two hours and the same time span was. . .used for Brucella infection. . .we modified procedures holding [specimens] in the water bath for . . . . Reading on the following morning. With that change additional positives for this infection began to be found. It was soon apparent that of the prolonged fevers, typhoid and. . .brucellosis, the most common in Iowa was brucellosis. This new finding led me into a most fascinating study which continued for a three year period. It was my first experience with research in the Public Health environment and the satisfaction from this study had a great deal to do with establishing me firmly in Public Health as a career.

When this study started these [brucella] infections were designated Malta fever. . . . The only difference was thought. . .that. . .in this country cattle,. . .not goats were involved. . .but it was still confidently held that the infections in cattle could not be transmitted to man. . . . In the study of the few scattered [human] cases. . . . recognized throughout the country, the approach was to find the source in cattle and the means of spread by milk.

The findings from the very earliest of the studies in Iowa raised questions as to whether this could be a milk-borne infection. Children were not involved. . .for every case diagnosed in a woman there were. . . . eight or nine cases in men. Furthermore, there were clusters of cases in urban centers where pasteurized milk was available and among people who reported drinking little or no milk. This was the state of knowledge when I was able to begin the individual investigation of these cases. They were scattered throughout the state and. . .there were few paved roads and. . .the stickiest mud that you can imagine.

From the beginning it was my purpose to collect detailed clinical histories as well as epidemiological observation. The former was particularly valuable since. . .it was rare for anyone [physicians] to have more than one or at most two cases over a period of two or three years. . . . seeing all the cases I did, I soon had a clinical experience which surpassed that of any other physician in the state. The epidemiological observations brought unexpected findings. Approaching this study, I had no knowledge whatsoever of brucella infection in swine. I did not even know it occurred. However, on. . . . farms where hog raising is one of the important industries I began to encounter farmers reporting the occurrence of economically disastrous abortion among their swine. . . . where there would be an expected two or three hundred or more young swine. . . . due to abortion the farmer might have a scattering of only twenty or thirty pigs. Furthermore, there were,. . . . in the cities, a number of men with severe infections who had no contact with cattle. . . . these men were occupied in meat packing plants and the only ones involved were those handling hogs.

At this stage, I sought to obtain the interest of the livestock people. However, in this early stage they took the position that medical people did not know of what they spoke and that there was no possibility of infection being transmitted from livestock to man. Hence,. . . . if I could not obtain the help of veterinarians, I would obtain permission to draw blood from animals. Being brought up on a farm, I found it easy to collect specimens from cattle,. . . . using the same venipuncture practice used for humans. . . . In my ignorance, I approached it in the same way and had a disastrous experience attempting to draw blood from the neck of a squealing hog. . . . the farmer obviously disgusted at my lack of success. . . . took out his jack knife, sniffed off a half inch of the pig’s tail, took the test tube and from the spurting vessel obtained the blood which was desired. [This] technique was used. . . . for a substantial time until eventually the veterinarians agreed that there was a problem and that they would provide every assistance.

The infections in packing house workers. . . . were very severe. . . . more so than the average seen on the farm. . . . [and] among these men infection was not acquired by ingestion but by contact. Thus by accumulated evidence,. . . . it was evident that in Iowa the common source of this infection was hogs not cattle, though the infection might come from either. . . . It was also apparent that from hogs, the infection was acquired by the farmers caring for herds,. . . . or workers in the packing plants handling the freshly killed hogs. The infection is acquired. . . . also by contact with cows and particularly with the care of an animal after calving and especially if this is a premature or aborted fetus. . . . Hazardous also is the hand milking of infected cattle. . . . Infection from the use of unpasteurized milk obviously occurs though this is or appears to be of minor rather than major importance.

The results of the three year study were presented at a meeting of the American Medical Association in Portland, Oregon and also in publications of the National Institutes of Health. One satisfying memory is the favorable reception of an exhibit at the American Medical Association which visually depicted the clinical and epidemiological findings of this infection. A medal was presented for high credit for this exhibit.
The Atlantian Affair

Sometimes decisions made by Dr. J. Y. Porter, the state health officer, were challenged by officials in cities like Key West and Pensacola where county health departments and quarantine stations had handled public health affairs long before the creation of the State Board of Health. In the Atlantian Affair, Dr. Porter rightfully ordered the detention of a British steamship that came to Pensacola from a plague infected port in South Africa. There was local resistance based on commercial considerations, but with support of the surgeon general in Washington, D.C., Dr. Porter insisted that the order be carried out. When the vessel proceeded on to New Orleans and was not quarantined there, questions were raised by the Pensacola city fathers, newspapers fanned the flames and the New Orleans Chamber of Commerce called for an investigation. After suffering a thorough roasting in the press and eventually being “cleared of all charges,” Dr. Porter took the opportunity to justify his action in the 1903 State Board of Health Annual Report.

“...The Atlantian Affair”... was an event of quarantine management... illustrating many of the unpleasant happenings which a Medical Officer of Quarantine encounters in complying with instructions and when obeying laws and regulations of superior authority... the British steamship “Atlantian” was expected to arrive at Pensacola from some point in South Africa, and the Acting Assistant Surgeon White in charge of the Pensacola Quarantine Station, wired me asking what disposition to make of the steamer... I had seen it in the public press that cases [of plague] had been reported [from Africa], but at what point was not stated. I deemed it advisable to the safety of the state to order that the steamship should be fumigated with sulphur to kill the vermin, and then to be released. On the 16th of January, 1902, I received another telegram from [Dr. White]... saying that the Atlantian had arrived, and that the bill of health was from Cape Town, showing 91 cases of plague with 41 deaths... and that enroute one person had died from reported consumption and that another was sick on the vessel from heart disease...

The authority... given in the first telegram to Dr. White was immediately revoked and the vessel ordered through him to be thoroughly fumigated and detained at least ten days, and while undergoing detention the crew to be daily examined for plague infection. This last order to Dr. White provoked a spirit of opposition on the part of the steamer’s agents, and others at Pensacola, and a vigorous correspondence was at once commenced by wire with Surgeon General Wyman [U. S. Marine Hospital Service in Washington, D.C.] to have my instructions rescinded... no interference with given orders was made [by Dr. Wyman], detention being insisted on at Pensacola. [Rather then face quarantine at Pensacola] the Atlantian sailed from Pensacola to New Orleans and was admitted by the quarantine official at that port without detention in open violation of the United States Quarantine Regulations and amended circulars respecting vessels from plague infested ports, although she had arrived from a pest infected port of South Africa.
I shall always believe that there was an understanding or agreement to the effect before the Atlantian left Pensacola quarantine. This particular case...would have scarcely acquired notice...had it not been for free entrance obtained at New Orleans after being denied at Pensacola and for the amount of vituperative abuse and undeserved censure and charges of unlawful discrimination against the port of Pensacola, which two newspapers of Pensacola assailed the motives of the State Health Officer and the quarantine control of the Pensacola Station. An opportunity afforded to coin defamatory epithets and scribble scurrilous editorials which an old time enmity to the State Board of Health would not permit to pass unnoticed or neglected, was seized upon with a degree of delight scarcely ever equalled in newspaper lampooning. With inflammatory [sic] headlines these writers incited the people of Pensacola to the belief that a great wrong had been done the commercial interests of that city by the Quarantine Authority and that I had illegally and unjustly used my office to purposely injure the trade of the city.

So insistent were these denunciatory allegations that the Chamber of Commerce and Young Men’s Business League of Pensacola appeared to have been forced by public feeling, aroused by these papers, to hold special meetings and institute committees of investigation to inquire into the matter. After many meetings and many requests from the State Board of Health for evidence...of misconduct of the State Health officer and after many months of delay in summarizing conclusions deducted from the investigations made, the Committee of the Chamber of Commerce [reported] the following: “Dr. Porter Not Blamed...From the facts stated, we are of the opinion that no blame attached to Dr. J.Y. Porter in the matter of the detention of the Atlantian, and it gives us pleasure so to state”. . .

I believe from comments of estimable citizens of Pensacola made to me and from remarks of the chairman of the the Investigation Committee of the Chamber of Commerce in letters to the President of the State Board of Health...that if injustice had been done to Pensacola’s commerce by the departure of the Atlantian, the blame and censure did not rest with the administration of quarantine methods at Pensacola. It seems to have been, however, an open secret, that when the agitation was first inspired by the newspapers, that the motive, as expressed by a Pensacolian, was to possibly free the port of any future supervision from the State Health Officer or the State Board of Health, and that the Atlantian matter offered an opportunity to stir up a contention which remained dormant since the abolishment by the legislature of the Escambia County Board of Health [in 1897]. . .

The censure should have been placed where it properly belonged and not on officials who performed an instructed duty, and the protest should have been directed against the Louisiana State Board of Health for disobeying a published and direct injunction of the United States Treasury Department in regard to vessels from plague infected ports. . .

Bubonic Plague first appeared in the United States in San Francisco in 1900 and became endemic there for many years. The disease has since only invaded Florida on one occasion. That was on June 5, 1920, at the port of Pensacola, three years after Dr. Porter retired. The U.S. Public Health Service, State Board of Health and City of Pensacola spent several months and thousands of dollars on control efforts resulting in over 20,000 rats exterminated. Before the outbreak ended, over ten human cases with six deaths were recorded.
Chapter 9

Tales, Trivia & News Clippings
In the 50s at the Yerkes Primate Laboratory in Orange Park where pioneering work about the relative intellectual capacities of these animals was being done. . .[the State Board of Health was repeatedly] called in because pinworm infection among the animals was becoming overwhelming. No one really wanted to work on it after the first visit since the chimps would sit with a mouthful of water and unerringly spray any newcomer with an accuracy that was unbelievable, all this just an amusement for the chimps when the poor victim jumped and yelled. . . .

. . .In the 50s when we began driving Volkswagen beetles, the sanitarian in Escambia County got one and immediately began bragging about his fine gas mileage. His colleagues began adding gas to his tank daily in increasing amounts and of course he bragged all the more. Then they began adding less and less each day until he took the car to the dealer complaining about the mileage falling off. The dealer did the usual testing and found the car to be in good shape. Then it got to the place where the colleagues began siphoning just a bit of gas daily. The gentleman got so morose about the whole thing that they told him what they were doing. . . .

. . .The SBH got complaints about the drinking water on interstate planes. The root of the trouble was that the canisters were being used for orange juice then rinsed and later used for drinking water except that occasionally pulp remained behind in the canisters and came out in the drinking water. I was assigned to investigate and this led to a monthly sampling of the drinking water aboard the planes. I would walk up the ramp to the plane, introduce myself as a representative of the SBH [the State Board of Health], show my several water sample bottles and explain that I was surveying the drinking water. Fact is, some of the girl flight attendants recognized me and I became known as the “state water man.” One day I began boarding a Constellation [a large turboprop airliner used in the 50s and 60s], the flight attendant looked quizzically at me, so I said I was from the SBH and came to get a water sample. The young lady knitted her brow, blushed and said, “Here?”
At the turn of the century, Florida was being extolled by numerous proponents and entrepreneurs as a tropical wonderland. The marketing pitch for most articles run in major northern magazines usually focused on the mild climate, natural attractions, sporting adventures, convenient rail and steamer access, and upscale accommodations. It was relatively rare for these pieces to mention health hazards or environmental risks that a vacationer might encounter on a trip to the Sunshine State. One that risked mentioning some of the above was “Florida: A Winter Wonderland,” originally written by Kirk Monroe in 1909 and reprinted in Tales of Old Florida, edited by Frank Oppel and Tony Miesel, 1987. The suggested advice provided for the more adventurous travelers who sought to experience the natural wonders up close and personal, though meant to be informative, was also quite intimidating.

The Florida cruiser...must learn, probably from experience, for he is not likely to profit by written advice, especially if he be young and self confident, that many biting and stinging insects abound in certain parts of Florida at all seasons. To meet these he should provide himself with netting for mosquitoes, and with dope for sand flies; or, better still a fine cheesecloth bar for both; with ammonia for all insect stings, though salt water is nearly as efficacious; and with a hypodermic syringe and a solution of potash permanganate for venomous snake bites; though the chances are ten to one that he will not see a snake of any kind during his entire cruise. He must learn that the ubiquitous, but microscopic redbug has colonized every bunch of grass and moss and dry seaweed in Florida, as well as every log and bit of dead wood, and that given the opportunity, they will promptly incorporate themselves with him until he has good cause to imagine that he has been set on fire. To war with the redbug, the cruiser’s most convenient weapons will be kerosene, a salve of lard and sulphur, spirits of ammonia, or a saturated solution of salt.

He will furthermore learn that scorpions are no more to be dreaded than spiders, that if a centipede crawls over his bare skin it will leave a painfully inflammed trail; that when bathing in salt water, if he touches the long, streaming tentacles of a purple physalia, or Portugese Man-o-War, he will fancy that he has run afoul of a bunch of particularly vicious stinging nettles, and that if he comes into contact with a whipray he will probably receive a wound that will be acutely painful and a long time in healing. But, as an old Floridian says:

“What’s the use in naming all them biting an’ stinging critters, when I’ve lived here all my life an’ haint run up again nary one of ’em, ’ceptin, of cose, redbugs an’ moskitters, an’ scorpionions, an’ sich trash that don’t count, only to make a feller scratch and cuss?”

The following was excerpted from Dr. J. Y. Porter’s official State Board of Health scrapbook of 1901. This is the first scrapbook kept following the disastrous fire that destroyed all of the Board’s prior records. It is a newspaper clipping referring to experiments conducted in Cuba. A pen and ink drawing opens the scrapbook. In the drawing, a human hand reaches into a box containing mosquitoes, the intention being for the subject to receive a mosquito bite in order to test an anti-yellow fever serum. It is not certain whether the subjects mentioned contracted yellow fever from the serum or the mosquitoes or both. The fact remains however that several died or became ill and the “theory” regarding mosquito transmission of the disease had been proven. No longer was the dread illness to be blamed on “bad air” or the “vapors of decaying vegetable matter” as had been the suggestion for centuries.

**Excerpts from: State Archives of Florida, Series 45, Volume 3, page 3.**

---

**YELLOW FEVER SERUM FAILS—**
**MOSQUITO BITE SUBJECT IS STRICKEN**

One of the Non-Immunes Inoculated by Dr. Caldas the Brazilian Expert, Down with the Disease.

Startling Results of the Cuban Tests.

**Special Cable to the New York Journal and Advertiser.**

Havana, Aug. 27—It is now definitely known that the man who was bitten by an infected mosquito after inoculation with serum of Dr. Caldas [now has the disease]. Dr. Caldas has not yet seen the patient.

**MOSQUITO THEORY TOO WELL PROVED**

No Doubt Now that the Little Pests Spread Yellow Fever.

---

**Special Correspondence to the New York Journal and Advertiser.**

Havana, Aug. 23 [1901]—Two deaths, two probably fatal cases, three serious attacks from which the patients have not yet even partially recovered and one escape out of a total of eight inoculations.

That is the record for the month of the American authorities experimentations with the “Mosquito Theory,” and incidentally the discovery of an immunity serum.

A bride of five months, homeless and friendless, almost penniless in a foreign land; a widowed mother in far off Spain, watching and praying for her boy in distant Cuba; a sweetheart waiting for a lover who will never come; mothers and fathers, loved ones and friends in America, in England, in the Canaries, in Spain, waiting and trembling for the news.

This is also incidentally the record of the experiments. But heartaches and heart sorrows, the wild fierce agony of sweethearts, the dull throbbing sorrows of mothers don’t count. Science has won a victory. The authorities, when asked as to the result, answer with a smile, “Look at the record. There is no doubt now. It is no longer a theory. Yellow Fever is transmitted by the mosquito.” As to the sorrow of dear ones! Oh! That will be measured and weighed and paid for in the current coin of the realm. The widowed bride will receive $300; the widowed mother $500. That squares the balance and all is well. And all this from eleven mosquitoes.
“Sleeping Sickness” Found in St. Louis

1933

The first identification of St. Louis encephalitis (SLE) virus in Florida was made in Miami in 1952. SLE was first recognized in the United States during an epidemic in the St. Louis, Missouri area in 1933 (although retrospectively the first known outbreak of the disease was found to have occurred in 1932 in Paris, Illinois).

Unique Malady Costs 6 Lives; Many Affected

ST. LOUIS, Aug. 14 (AP)—The spread of a strange type of “sleeping sickness” which has taken six lives since it began July 23, tonight challenged the resources of city, State, and Federal health officials.

Physicians have pronounced thirty-seven patients at the isolation hospital as suffering from the disease, which they say is encephalitis of the epidemic type.

The disease first made its appearance in St. Louis County, particularly in the suburbs, and first cases originated in widely separated districts. The mode of transmission is unknown and physicians are inclined to doubt that it is contagious, as in only one case have they found two patients in a family.

The first symptoms were headaches, drowsiness, and stiffness of the neck. As the malady progressed the patients went into a coma.

With the death of two more patients, State and Federal epidemiologists and health authorities of St. Louis and its suburbs met late today to confer on methods and join forces in an effort to block the spread of the disease.

Most of the stricken at the beginning of the epidemic were recovering tonight, although two were still in grave condition.
From September 2–4, 1935, a large violent hurricane lashed the Florida Keys, virtually leveling a ten-mile stretch from Tavernier to Vaca Key. Throughout this stretch following the storm, “hardly a man-made structure remained.” A group of 700 World War I veterans were encamped on the Keys and were engaged in a road construction project when the storm hit.

Everywhere the eye could see was a litter of uprooted trees, overturned telephone poles, splintered bits of houses, battered boats and here and there a smashed body protruding from under the debris, floating in an inlet or half buried in the sand. The extraordinary havoc was wreaked by both wind and water. Giant wind fingers traveling at more than 200 miles an hour . . . rolled up a monstrous tidal wave . . . nearly 20 feet high . . . that . . . crashed on the hapless keys.

A reporter riding the train across the keys recounted his experience with the storm. Rising water had slowed the train, finally stopping it completely:

“Finally, just south of Islamorada, the water forced a stop. It was then well over the rail bed. We had been stopped but ten or fifteen minutes when a wall of water from fifteen to twenty feet high picked up our coaches and swirled them about like straws. We felt them going and I imagine everyone thought it was the end, I know I did. . . . Miraculously, none was hurt severely.

It was a terrifying night. Our greatest worry was that another tidal wave would come. The wind seemed tame in comparison to the fear of drowning. But outside of the shelter the wind was a killer.”

Indeed, the wind was a killer for it hurled uprooted trees and timbers at tremendous speeds that battered those who survived the wave. Charles Van Vechten, not a veteran but a visitor at Camp #1, describes the carnage: “I saw bodies with tree stumps smashed through their chests—heads blown off—twisted arms and legs, torn off by flying timber that cut like big knives.”

The first doctor to get down in a boat to ravaged Camp Five was Dr. G.C. Franklin of Coconut Grove. He found the bodies of 39 men in a window, just as the last waves had left them. A man sat against a broken wall with a piece of two-by-four run completely through him, under his ribs, out over the kidneys. He refused the shot of morphine the doctor offered him, before he pulled it out. The man said that when it was pulled out he would die. He asked for two beers, drank them and said, “Now pull.”

Dr. Franklin pulled, and he died.
One hundred twenty-one veterans and 165 Keys people were killed, virtually all the survivors were injured to some extent and in all, 400 of the approximately 700 people who were known to have been in the path of that storm were known dead or missing.