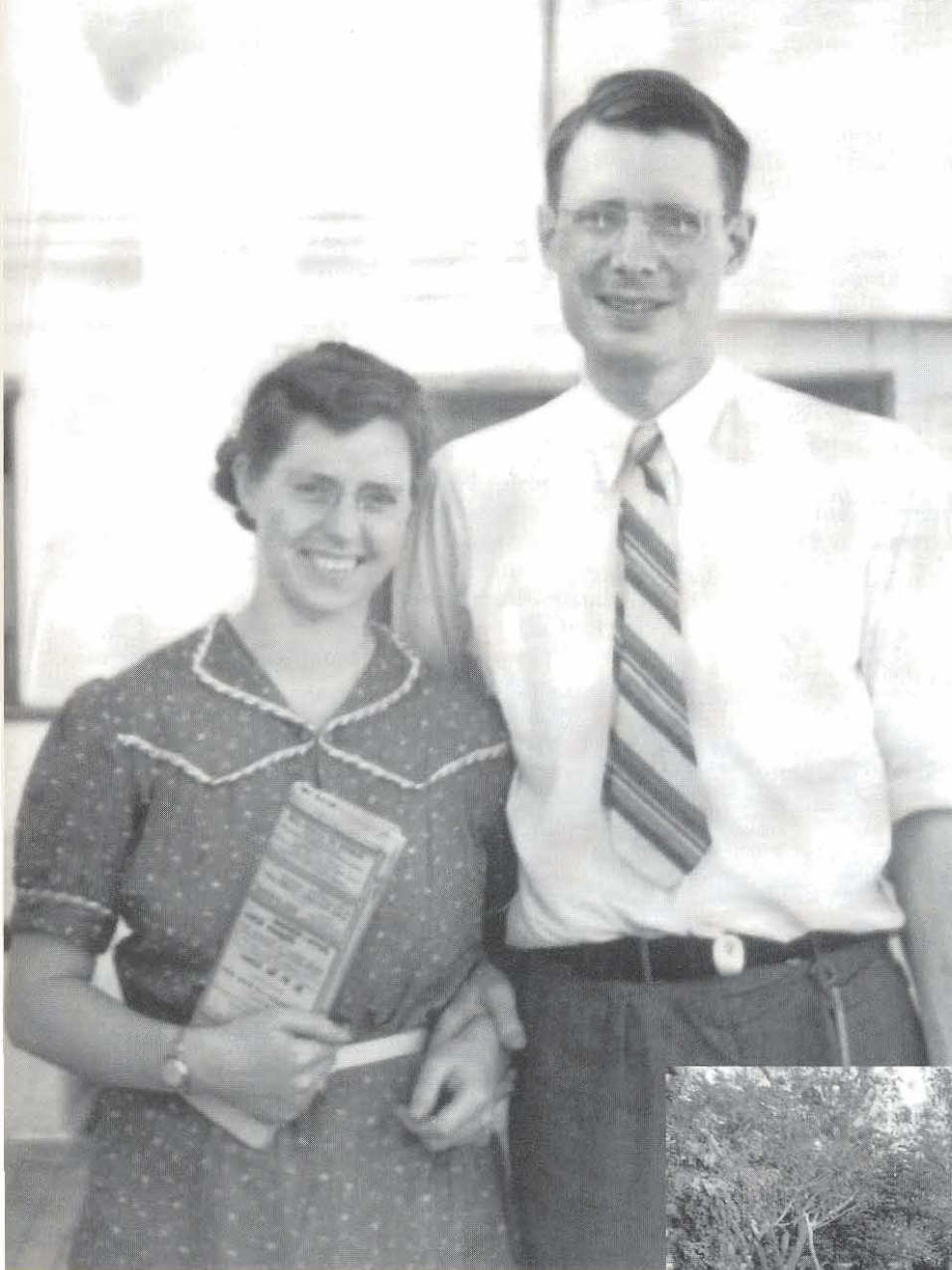
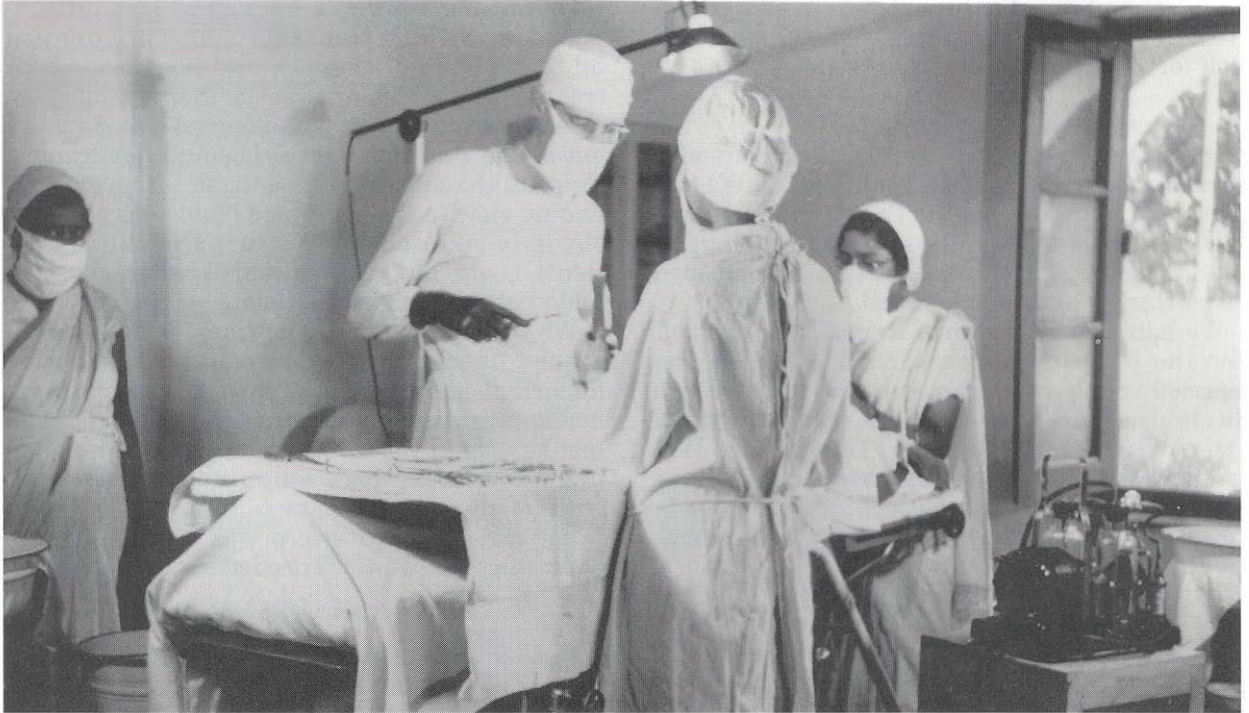


1940-1984:

# Two lifetimes of medical adventure

*by Charles V. Perrill,  
MSc, MD, FACS,  
Penney Farms, FL*





Major abdominal surgery, circa 1941-1954: Dr. Perrill and his nurse assistant. The anesthetist is using an electric ENT suction-pressure machine connected to a Levine tube and aspirators. Overhead shadowless illumination shines down from a polished aluminum washbasin. A spotlight, just over the shoulder, uses an automobile headlight reflector.

The large corner room used for surgery was dimly lighted by a single bulb dangling from the 20-foot-high ceiling. For the urgently needed shadowless operating light I made a parabolic reflector from a large aluminum washbasin beaten out and highly polished by a local blacksmith. My first surgical spotlights had brass reflectors taken from car headlights with the bulb mounted in a bedspring coil projecting behind.

Whitewashing and screening was a help. The charge-nurse happily sterilized my re-shined instruments in our large pressure canner while I showed the senior pharmacist, now my anesthetist, how to use tightly fitting ether masks loaned from my metabolism machines. We were lucky that our wide assortment of pots and pans and reconditioned "wastebasket" instruments had come through intact. Also, there was an operat-

ing table resurrected from the old Wesley Memorial Hospital in Chicago, and a set of ENT instruments donated from the estate of a doctor relative.

One of my first patients was a young Indian preacher with a very large hernia. Soon after his successful operation, he briskly rode a bicycle around his circuit on the Ganges plain. A few weeks later, I opened a barrel and fished out a glasses frame to outfit an elderly preacher, after my first solo cataract operation.

Our touring public health doctor and nurses quickly circulated the news that I could remove infected tonsils and that I would visit the sick rooms of the large mission boarding schools. Thus I removed hundreds of ailing tonsils and also treated the serious mastoid-bone complications due to throat infections. I gave my ENT instruments an extended workout in the era before the advent of antibiotics.



Clara Swain Hospital obstetrics department, circa 1941-1945: Cook's wife with newborn infant. The drink is poured from above and expertly swallowed from below.

Meanwhile Dr. Wilma encountered obstetrical and gynecological problems hardly mentioned in the textbooks. She was also trying to console a number of childless and rejected women.

The sharp distinctions between the men's and women's departments faded when the two doctors in charge were husband and wife. At first, women patients were afraid to ask for me to operate on them and then make postoperative rounds. But after some weeks, several were willing to have their abdomens and legs and arms examined and their blood pressures taken, but only when their faces were carefully covered. Whenever I went through the women's wards, flanked on each side by a senior nurse, each patient still hid her face under the sheet. Since I spoke and wrote Hindi fluently, the stories about this tall, thin "Doctor Sahib's" wisdom and skills,

suitably documented and embellished, or entirely imaginary, spread quickly.

#### *Effects of war*

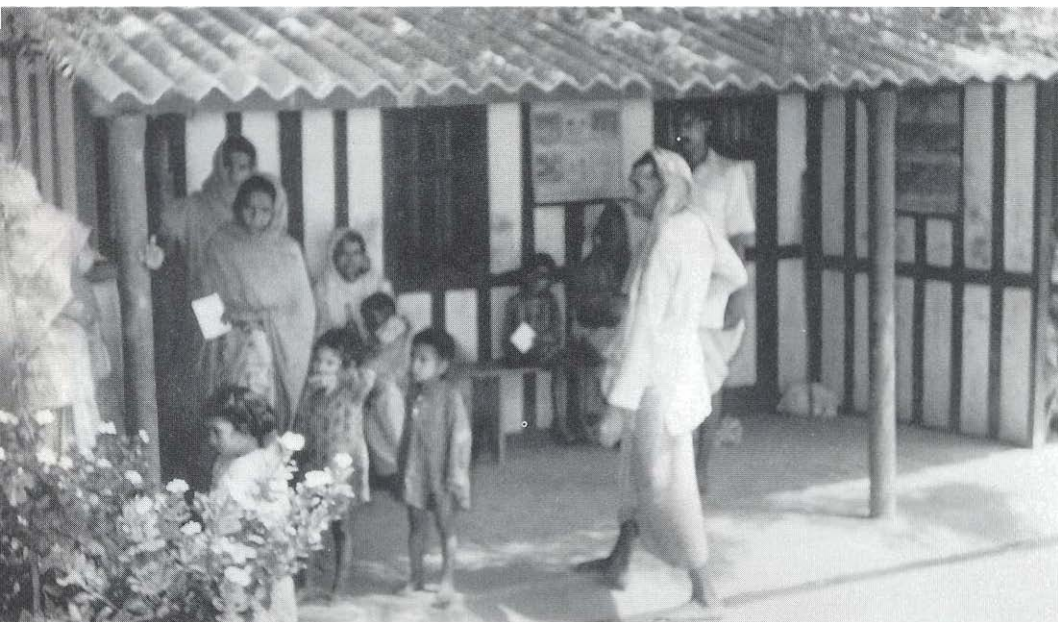
After the British fleet was sunk off Singapore, World War II in the Pacific (1942-1945) became a pressing reality in India. The Japanese cut off commerce to Bombay and Calcutta, and shipments up-country ceased. Consequently we were thrown back upon our own ingenuity.

When catgut disappeared, we found that No. 30 (000) sewing-cotton worked just as well when each stitch was sewn in pairs—figure-of-eights on-edge. For the missing plaster of paris, a crude wheat-flour paste, when dried in the hot sun, did the job. We added a little boric acid to repel the bugs, and the casts stayed stiff when protected by a coat of shellac. After supplies of ether dwindled, we kept on operating, using doses of chloral-hydrate to sedate, and great gentleness so as to conserve our precious local anesthetics. Meanwhile someone scoured the bazaars for a bottle of ether or chloroform hidden on some high shelf. Quinine and other specifics disappeared.

There were some local remedies. One was called *Serpina*. Two elderly ladies, lucky refugees from Burma, demonstrated that this crude mixture brought down their high blood pressures. Actually it contained *Rauwolfia*, developed many years later as an early antihypertensive drug. After calcium tablets disappeared, finely-ground marble chips (calcium carbonate) were found to dissolve promptly in gastric juice. We packaged this powdered calcium supplement in little square powder-papers.

We mounted our new Meyers pump and pressure tank in a bomb shelter and screwed them into a plumbing network with more than 60 faucets to supply pure water to the 40-acre hospital community. Each ward got a water heater made from a 50-gallon drum laid inside a brickwork oven next to its new service room and diet kitchen. We drained simple pour-flush porcelain toilets into earthenware septic tanks connected with bored holes. The quarters for hospital workers were rebuilt or much improved.

For battling infections, careful attention to gentle aseptic technique proved to be quite sufficient, and sterile mechanics-waste pressure-dressings controlled the initial swelling and



Mobile "village-extension" clinic. Pre-fabricated units, constructed from army surplus, were serviced by the Clara Swain Hospital ambulance. The pipe posts were salvaged from the lightweight Burma Pipe Line (1949).

shock of patients badly burned in the large match factory on the edge of Bareilly.\* These remarkable results were noted by two large military hospitals, three miles to our east. The new but now-forgotten sulfonamides were of some help; penicillin did not reach India until after the war.

#### *Important interchange*

As the front wave of the Japanese invasion struck India's borders, unrest mounted and we experienced staff shortages when our young doctors and nurses joined the armed forces.

With the severe rationing of fuels, the hospital turned over its immobilized ambulance to the Red Cross and our staff made do with bicycles. Good relations quickly developed with the newly activated Fourteenth British General Hospital whose 2,200 beds overflowed the old Scottish Regiment Barracks at the Bareilly Cantonments three miles to the east. We did not mind sharing

\*Allen HS, Koch SL: The treatment of patients with severe burns. *SG&O*, 74:914, 1942; and Christopher F: *Minor Surgery*, 5th ed. WB Saunders Co, 1944.

dwindling supplies of vegetables, eggs, chickens, and milk with them.

They invited us to make weekly rounds with the officer specialists, a full and distinguished roster from the faculty of the University of Birmingham. They enjoyed the American contacts and asked for our guidance in dealing with local customs and diseases. In turn, we Americans were much impressed by the expert treatment provided for men sickened or injured in Burma. These fortunate casualties were being flown directly to the newly completed cement landing strips at the Bareilly airfield.

Our interchange was important. Dr. Wilma was asked to care for pregnant members of these medical units and to deliver their babies in the Clara Swain Hospital. I involved their specialists in operating upon my more difficult cases, particularly in orthopaedics. Also, we provided 60 emergency beds for refugees from Burma. Regrettably, these beds lay vacant because very few refugees lived to reach the borders of India.

World War II came to an end in 1945, and two

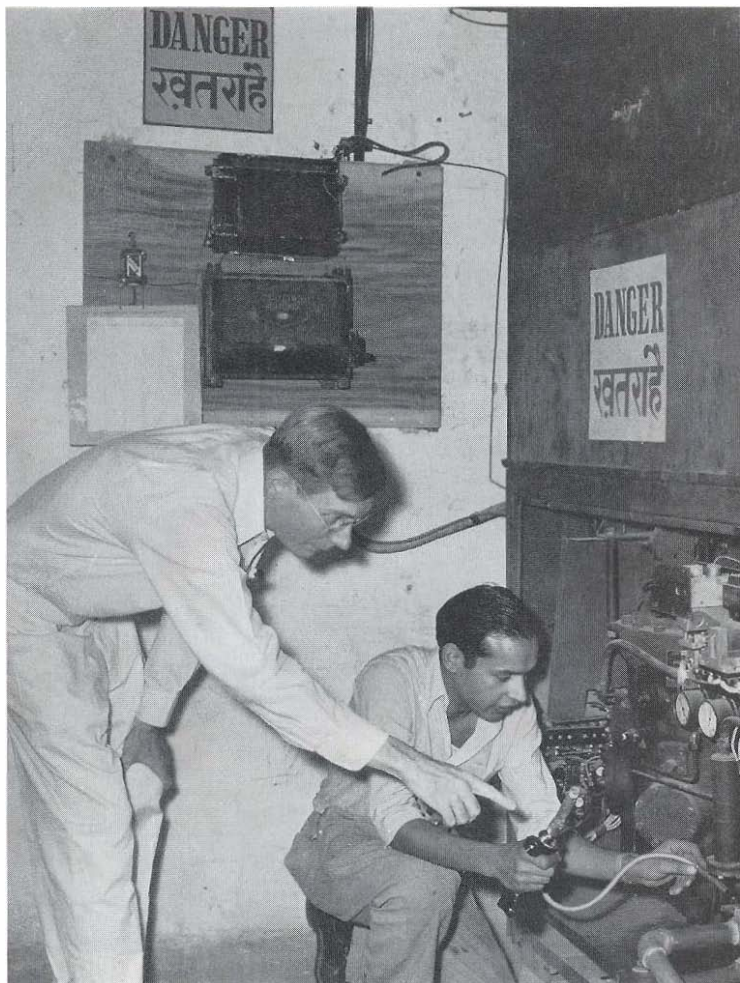
years later a divided India gained its blood-stained independence. Sixty-five thousand displaced Hindus from the Punjab miserably descended upon the Bareilly district. My wife and I, now back in the U.S. on our first furlough, were touring medical centers in search of overseas volunteers. Also, we were gathering equipment and supplies as well as mustering funds.

In March 1948, along with Teddy, our newly adopted son, we boarded a tramp freighter (Isbrandtsen Line) with our precious cargo—three tons of hospital equipment. Once again war touched us. In the eastern Mediterranean we endured a sudden halt while we and our ship were impounded for a week for running contraband half-track weapons carriers, crudely disguised as agricultural machinery for the Israelis. Isolated by British gunboats in the Haifa harbor, by day we were buffeted by terrorist explosions in the city across the bay, and by night by the blasts of depth charges.

#### *Peace and expansion*

Once back in Bareilly, we set to work expanding the hospital from 50 to 300 beds. Army surplus was a big help. First we finished a new three-story brick and concrete medical building to divide the old hospital quadrangle. Upstairs we housed the vigorous school of nursing, and, down under the long line of basement X ray and storage rooms, the new building was air-conditioned by a tunnel that provided a constant supply of clean cool air—literally lifesaving. A year later we added a wing of four air-conditioned operating rooms, like those in the “new” Wesley Hospital in Chicago, as the appropriate memorial to my father, Rev. Fred M. Perrill. (He had died from heat-stroke in the hot summer of 1948.) We placed on the upper floor of the memorial wing a school for laboratory technicians, equipped with an unheard-of blood bank.

Since funds for the much-needed outpatient clinic were lacking, a list of the leading citizens of Bareilly was compiled. To start off the campaign, Bishop J.W. Pickett and I called upon Murli Manohar, the owner of two sugar factories. He



Dr. Perrill (left) with Indian engineer, inspecting the hospital air conditioner—an army surplus Chrysler Airtemp (1946).

looked with interest at the building plans, which showed offices for nine doctors, two separate waiting rooms, a big basement, and an air-conditioning plant connected to a tunnel.

Rather abruptly, Murli Manohar declared that he would donate the whole building as a memorial to his father. My own joy was badly mixed with a feeling of chagrin because the first donor on the list had spoiled the whole campaign! Murli Manohar's generosity included furnishing and equipping the outpatient clinic and also extended



The office secretary welcomes a Muslim purdah woman bringing her sick infant in cloth-covered three-wheeled "Bareilly push-cart," with an older sibling visible (1942).

to the new 50-bed pediatrics ward, also in honor of his father.

By 1960 we had built and paid for the new 60-bed thoracic surgery unit, using that list of the leading citizens of Bareilly. With ample supplies of the new antituberculosis INH (isonicotinyl-acid-hydrazine) drug, this project was effective against a disease that was killing a million sufferers each year in India.

#### *Sustained dedication*

In 1963, while on furlough and studying at the University of Pennsylvania, I summarized our accomplishments:

"Over the past 20 years, what a privilege it has been, working at the Clara Swain Hospital! People say that we must have sacrificed a lot in order to go there and do all we have done. We answer, as would our missionary colleagues, 'What sacrifice?' Certainly, we lived simply and were subject to hardships but not to the extent encountered by our predecessors, such as the Rev. Dr. J.L. Humphrey, a minister and doctor."

In Dr. Humphrey's day, back in the 1860s,

drugs were few and modern surgery was in its infancy. There was an awful immensity to India's health problems. For example, the religious fairs or "melas" converging on the Ganges River each year were followed by severe epidemics, which infected the pilgrims who took cholera and other diseases with them back to their villages. In one such epidemic, 175,000 deaths were recorded. No one was safe. Every year several missionaries or their children died of typhoid fever while others succumbed to cholera or smallpox.

By contrast, in 1955, a century later, we experienced a severe cholera epidemic, in which there were 11,682 cases with 3,444 deaths. In our quickly organized intensive care ward, we treated 74 of these victims and saved all but two of them. Inoculations helped to terminate the general epidemic.

But like the pioneers, and as late as the 1960s, we were often reminded that the *career* missionary was still called to a life of sustained dedication and to work at jobs and in places that brought little public regard, personal security, or professional advancement. This sustained dedi-



Dr. Wilma Conger Perrill with charge (senior) nurse, at a ward desk in the Clara Swain Hospital (1955).

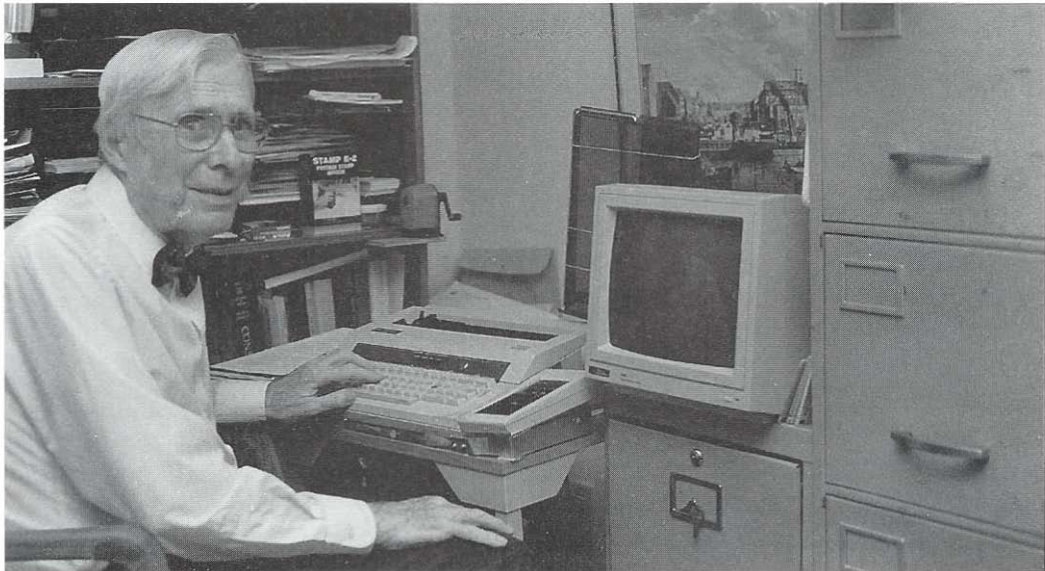
cation was actually a protest against the worldwide view that the really important thing was to be successful and comfortable.

#### *Uncertain world*

In Philadelphia in 1963, we took time for study leave. Dr. Wilma attended the pediatric surgery sessions led by Dr. C. Everett Koop while I completed my senior residency and passed the surgical board examinations. A year later, soon after I was recommended by my India surgical colleagues, I was made a Fellow of the American College of Surgeons.

By 1965, once again Dr. Wilma and I were deeply involved in getting back to "the foreign field," in a rapidly changing and uncertain world. India granted us our long-term visas. Thus, we had six years more (1965-1971) as lifetime medical missionaries in north India.

We built up a new hospital complex and its 20-acre community near Mathura, on the famous high bank of the Jamuna River between Delhi and Agra, 35 miles upriver from the Agra Fort and the Taj Mahal. This project received help from USAID, running into many millions of rupees (a million U.S. dollars) before Dr. Wilma's



Dr. Perrill today.

failing heart compelled us to come to the Cleveland Clinic for her cardiac bypass operation in 1971.

Back in the states, even though technically retired, I was still active, practicing two days a week out of my Lakeside, OH, office and delivering lectures. (This generated a financial loss for me that seemed to puzzle the IRS.) For nine years (1972-1981), I also functioned as an employee of the state of Ohio, making my living, four days a week, as professor of surgery and physiology in the Medical College of Ohio at Toledo. I greatly enjoyed teaching surgical residents and medical students, and actually showing them the simplified but strenuous skills that I had perfected while serving abroad.

Although the career of lifetime foreign missionary doctor has gone into history, there are still important opportunities for resourceful young surgeons to serve for shorter periods in developing countries.

In the U.S. the outreach or missionary physician still performs a crucial role in needy com-

munities. This may not be an easy service, but it is challenging and brings its own rewards. Many more of these physicians are needed. Ω

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### *Postscript*

In 1981, on retiring for the second time and after Dr. Wilma's death that same year, Dr. Charles added his name to the list of physicians who have practiced at Penney Farms, FL. Here he served for three years as the medical director of the Penney Retirement Community.

In 1992, Dr. Perrill published an autobiography, *Life Line*.

In 1997, he still functions as an emeritus professor of surgery and physiology at the College of Medicine of the University of Florida. He attends the weekly morbidity and mortality conferences. He also shows his videotape, *Glimpses of Surgical History*, to each new batch of surgical clerks. (Copies of this videotape as well as his autobiography, *Life Line*, and his writings on hospital construction and climate-oriented buildings are available on request: Dr. C.V. Perrill, P.O. Box 423, Penney Farms, FL 32079.)