A Different Medical Pathway

Eugene J. Gangarosa, M.D.

Eugene Gangarosa was born in Rochester, NY, and after military service in WWII, he received his Bachelor's degree from the University of Rochester. Following graduation from medical school, he obtained a Master of Science degree in Microbiology in the Department of Microbiology. He then entered internship and medical residency at Walter Reed Army Hospital and Walter Reed Army Institute of Research. Dr. Gangarosa has had a distinguished career in international public health, first studying the pathophysiology of cholera in southeast Asia, then serving as Internist in Infectious Diseases at the University of Maryland School of Medicine, as a member of the Epidemic Intelligence Service of the Centers for Disease Control and Prevention where he conducted surveillance and investigations of food and waterborne diseases, and as Consultant to the World Health Organization and World Bank. He subsequently served as Dean of the School of Public Health at the American University of Beirut, and Professor of Medicine and Public Health at Emory University, where he directed a public health program that subsequently evolved into the university's School of Public Health. Although officially retired in 2003, he continues to participate in teaching courses, mentoring students, and collaborating with CDC scientists in developing low-cost water purification technology for use throughout the world.

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I -
I took the one less traveled by,
And that has made all the difference.

Robert Frost
The Road Not Taken

Serendipity played the role of choreographer on the stage of my career -- a career that led to a crossroad and an eventful choice on a road "less traveled". It all started on the traditional medical pathway -- premedical school, medical school, rotating internship, residency in internal medicine, and then the crossroad and the career choice. I chose a career in public health.

I have been asked on many occasions why I did not choose to practice medicine. My answer is that I have always practiced medicine, but I have chosen a path "less traveled" and that this path has for me "made all the difference". Those who ask often convey a vague sense, a deep-rooted belief, that the only real physicians are those who practice clinical medicine. Some even hint that physicians who do not see patients are squandering their careers and have wasted the considerable investments made in their medical training. Surprisingly, physician's friends and colleagues express some of these doubts. The reason for this, I believe, is that students' exposure to public health and international medicine is so limited in the medical school curriculum although there is a gratifying improvement in this situation in recent years. The fact is that even now, clinical practitioners, the primary role models for medical students, have only a vague understanding of what public health practice is all about. There is even a suspicion that public health professionals represent "socialized medicine," people who are opposed to clinical practice. Slowly, these perceptions are changing, but there is a long way to go before public

health practitioners are seen on a par with other medical specialties. The picture is changing because of striking progress sparked by public health breakthroughs, often in collaboration with clinical practitioners and researchers. Recent examples are our understanding of the transmission of AIDS, *E.Coli* 0157:H7, smoking-related illnesses, and cost-effectiveness studies demonstrating the limitations of such traditional practices as radical mastectomies and coronary angioplasty.

What led me into public health was an awareness of the leverage available to practitioners in this field to affect the lives of people. Leverage comes from disease prevention rather than disease treatment. These are the essential differences -- public health practitioners have communities as their patients, whereas clinical practitioners treat individual patients. Public health practitioners focus more or less exclusively on prevention, whereas clinical practices deal largely with disease treatment. Opportunities in clinical disciplines are readily learned by medical students because physicians practicing these disciplines surround them. Public health practitioners pursue their work in the proverbial trenches, in the field, outside of the hallowed walls of the medical school. The relatively limited access of medical students to public health practice deprives me of the opportunity to tell my story of the difficult decision I had in choosing between a traditional clinical career and the career I have experienced. My greatest satisfaction is looking back on nearly forty years of public health practice and saying there was hardly a day or two that I can remember regretting my decision. It has been a wonderful career, "this path less traveled."

The story goes back to the World War II era. In the patriotic fervor of the times, I accelerated my high school program to participate in a special program to train pilots for military service. Because I had learned an Italian dialect from my immigrant parents, I chose a curriculum that included three years of Italian in a truncated high school curriculum that enabled me to complete high school in two and a half years. I succeeded in qualifying for these special programs by graduating before age eighteen. At eighteen I was in basic training. At eighteen and a half, I was in Europe, and imagine my surprise being assigned to the occupation army in Italy.

It was there, in Naples, that I got my first taste of public health. It was quite by chance. Before retreating, the German army destroyed the city's reservoir. The city was left without its water supply. The combination of cold weather, not enough water to bathe, and crowded conditions in improvised homes led to an epidemic of typhus. My training in Italian provide me a role -- only a peripheral role in the control of this problem, but the experience was exhilarating.

The end of the war was followed by rapid demobilization. The GI Bill made it possible for me to enter college. From the very beginning, I knew I wanted to pursue a medical career. I pursued the traditional rigid premedical curriculum prescribed by all medical schools. How different from the flexibility students now enjoy in preparing for careers in medicine!

Medical school was one of the most enjoyable experiences of my life thanks to the ambiance created by Dean George Whipple. How fortunate we, the class of '54, were to have him as our pathology course instructor. I felt a special kinship through a common interest, international health. He added spark to that interest. Close to graduation, I felt a need for a background in microbiology. Dr. Whipple often encouraged students to take an extra year out of the curriculum for special study. I did not have the financial support to elect that option. Instead, I applied for and received a fellowship that made it possible for me to pursue a master's degree in microbiology. After receiving the MD and MS degrees, I made another fateful choice,

an army internship and residency program that provided both quality training and financial means to support my family of four.

At the time the decision was made to pursue military-sponsored graduate training in medicine, I looked upon the payback provision as an onerous but necessary part of the package. Payback meant a year for each year of training. How fortunate that I was assigned to the Walter Reed Army Institute of Research to work in the areas of my special interest -- the international arena and infectious diseases. In the first month of my assignment, I was selected as the junior member of a multi-disciplinary team to go to Bangkok to study cholera, a disease that had just broken out of its endemic focus and started its rapid move through south Asia. I visited George H. Whipple, Dean Emeritus, after this experience, and I recall his encouragement and advice to pursue a career studying cholera and the related diarrheal diseases.

This advice made sense because the work I did on the pathophysiology of cholera, and the years that followed working in this arena, provided a strong incentive to move in that direction. However, I was torn in another direction, an inclination to practice clinical medicine along a traditional pathway pursued by most residents who completed residency training. In fact, I had accepted a job in a group family practice setting. After sending my acceptance letter, I called to withdraw my acceptance because I was not sure I had made the right decision. I continued to agonize over this dilemma as the completion of my payback service neared. It was still unresolved through another chapter of my life, a two-year experience working in Pakistan in a program sponsored by the University of Maryland, serving as director of the Pakistan Medical Research Program located in Lahore. I continued to hesitate at this crossroad, the two divergent career pathways -- public health or clinical practice.

Public health did not have the prestige, nor did it offer the financial incentive of clinical practice. There were fewer choices, fewer opportunities and yet deep in my heart, I knew that the seeds that had been sown by my earlier experiences had conditioned me to move in that direction. It was 1964. I had just returned from Pakistan. I remember making a phone call that proved to be the critical event in making this decision.

I called a classmate, D.A. Henderson, whose career in public health was already well known. I recall interrupting his vacation, that fateful day in late July of 1964. He was supportive, arranged an invitation for me to visit the Centers for Disease Control and its Epidemic Intelligence Service (EIS), a unique program to train epidemiologists, in Atlanta.

The timing was not propitious; the EIS class had already been selected and their basic training course completed. My wife was less than enthusiastic about living in the south. The focus of my visit to Atlanta was an interview for a laboratory-oriented position about which I was ambivalent. During my visit, I was surprised and thrilled by an offer to join the EIS. My enthusiasm persuaded my wife. The time had come. We made the decision. I had chosen the "path less traveled."

The opportunity provided more than I had ever anticipated. My career was nurtured by activities relating to infectious food and waterborne diseases in the global arena, which included cholera, typhoid fever, bacillary dysentery, and a host of domestic pathogens. I was able to contribute to the literature in these subjects in ways that influenced decisions that have had a profound impact on the lives of many people. This has been the thrust of my public health practice. But this was only the beginning.

I decided to take an early retirement from the Public Health Service in 1978 to accept a position as Dean of the School of Public Health at the American University of Beirut (AUB). As cholera swept through the Middle East in the early seventies, I learned a great deal about the area through numerous consultations with the World Health Organization, the World Bank, and countries of the region. I came to realize the impact that AUB had in the growth of this region. The appointment provided many gratifying experiences and a good grounding in the operations and management of an academic institution. The experience was marred by civil war that came close to our home and that affected the lives of all the American faculty and families. We were late in leaving the turbulent scene in 1981, but fortunately left just in time. But, my second retirement was short-lived.

Within a few months of my departure from Beirut, I began what I believe has been the most productive chapter of my career – directing Emory University's graduate program in public health. I had to prove that a small provincial program with only 16 part-time students could be operated and indeed could grow without the financial drain that had plagued this program in its early years. I welcomed this challenge. The combination of my CDC and AUB experiences convinced me what had to be done -- to expand the academic menu to give applicants interested in careers in public health a compelling reason to choose Emory for their graduate training. This required adding new courses, new academic concentrations and new opportunities for students. Contacts with CDC's preeminent scientists were successful in recruiting adjunct faculty to teach and to supervise students in projects that were mutually supportive. The program grew rapidly through tuition income and new initiatives, which generated grants and contracts and provided the resources to recruit an outstanding faculty. After 10 years and a student body of international students in the hundreds, university authorities were impressed enough to provide the bricks and mortar for a new building. The recognition of this expanded academic program as a School of Public Health was the culmination of this experience and of my career. I chose this time to begin my third retirement and the private practice of public health.

My private practice of public health consists of a continuing role in teaching, research, and student advisement balanced with cashing those "someday chits" -- the things my wife and I have wanted to do but never got around to. What has been particularly gratifying is reflecting on a career spanning over forty years that has provided so many exciting opportunities and has helped, in a very small way, make this world a better place for those who follow.