

1844-1994



Our

Medical

Heritage

1844-1994



Our Medical Heritage



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Lancaster City & County Medical Society

Section 1

The History of the Lancaster City & County Medical Society



LANCASTER, PENNSYLVANIA, 1844

Chapter 17

Changes In Delivery, Health Care, Technology, and Economics Over The Past 50 Years

From approximately 1944 to 1994, the health care system of the United States has undergone a profound transformation. Indeed, at the beginning of this era America could truly have been considered to have had a "non-system." In 1994, we now appear poised to enter an era in which there will be a consolidation and reorganization so that our system will be more like what is found in other industries.

In 1944, as World War II was ending, most of those American physicians who were not engaged in the military effort were involved in solo, fee-for-service practice. Family practitioners vastly outnumbered specialists. The specialties of pediatrics, internal medicine, and obstetrics/gynecology (today considered to be part of primary care) were still generally regarded as consultative ones. The end of the war brought home a cadre of physicians anxious to pursue civilian clinical careers. Many entered residency training, and the era of specialization was launched. The availability of the GI Bill supporting residency training made this possible for many.

Practice gradually changed in the 1950s and 1960s such that most medical school graduates entered specialty training programs. Physicians also began to associate themselves in groups. These trends have continued and in



1994, solo physicians of any specialty are a rarity. In 1969, family practice established itself as a true specialty. Since that time family practice has continued to grow, and in 1994 family practice and the other primary care

specialties appear to be re-establishing themselves in the medical care delivery system. It is interesting that despite all that has changed



in medicine, the essential need for the well trained generalist has not diminished.

During the 1970s, Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs) and other organized entities gradually took on more prominence. It appears to many observers that this trend will continue and probably will result in the "corporatization" of American medicine.

Thus, during this period the system has changed much but appears to be peering back in time, searching its roots for a solution to some of the present difficulties. The result is the rediscovery of the value of the general physician.

TECHNOLOGY

If the organization of the health care delivery system has evolved greatly during the past 50 years, the transformation in technology has been of astronomical proportions. The developments in diagnosis and treatment have been staggering in their effect. In 1994, scientific medicine is the norm, but in 1944, art was still at the basis of healing.



Magnetic Resonance Imaging

In 1994, the imaging specialties (radiology, cardiology) play an essential role in both diagnosis and treatment. In 1944, radiology was basically limited to routine diagnostic x-rays (called plain films today), and a few procedures, such as upper gastro-intestinals, intravenous pyelograms (IVPs), and barium enemas. From that crude beginning, we have evolved to the routine use of ultrasound, computerized tomography (CT) scans, magnetic resonance imaging (MRIs), angiography, nuclear medicine and intervention radiology. The impact

of these advances extends to every specialty. It is almost impossible to imagine what the neuro-sciences would be like without CT and MRI. In 1994, the "diagnostic laparotomy" so common during the 50s and 60s is now unheard of except for trauma. This is basically because of enhanced imaging modalities.

Cardiology in 1944 was basically a specialty relying almost exclusively on the routine electrocardiogram (EKG) along with the history and physical exam. Since that time, the advances in technology have enabled this field to evolve into an interventional one. Echocardiology, cardiac catheterization, nuclear imaging, cardiac monitoring, angioplasty and



Computerized Tomography Scan



Patient Ward, early 1900's

electrophysiologic studies are only a few of the technological advances that have occurred.

Cardiothoracic surgery in its present form was non-existent in 1944. There was no cardiac surgery at that point. Surgeons performed procedures on the lungs and other thoracic structures, but avoided the heart. Researchers were still working on the heart-lung machine which made

cardiac surgery a possibility. General surgeons often did everything such as fractures, hysterectomies, tonsillectomies, etc.

Laboratory medicine has also been forever reshaped by technology. The 1950s were a time of traditional bench method laboratory analysis, all of which was done by hand. In 1994, the autoanalyzer, genetic testing, recombinant deoxyribonucleic acid (DNA) technology and the advances in immunology have all drastically changed the modern diagnostic laboratory. This has also extended to office practice. In 1994, we can easily make a diagnosis of pregnancy before a woman has missed a menstrual period. This can be done with an inexpensive, reliable, office test, something that could not have been contemplated in 1944.

Pharmacological advances and the explosion of biotechnology have altered our therapeutic armamentarium profoundly. The array of antibiotic choices is but one example. Around the time of World War II, physicians were ecstatic that they had penicillin and sulfonamides to offer their patients for treatment of infections. We now have progressed to cephalosporins of multiple generations, aminoglycosides, fluoroquinolones, macrolides and combinations such as amoxicillin-clavulanate.

Antihypertensive therapy evolved from reserpine as the primary drug (once it was decided that hypertension required any treatment at all) to the myriad of choices available in 1994. Cardiac glycosides were virtually the only cardiac medications available at the beginning of this era. Pulmonary edema was treated with rotating tourniquets and morphine.

Childhood immunizations were new in 1944. Recombinant DNA technology has given us the hepatitis B immunization. Most current practitioners have never seen polio, diphtheria, measles, or tetanus. Public health measures have enabled mankind to declare a historic first: a disease we have dispatched into oblivion. Once the remaining



Birthing Room, 1995

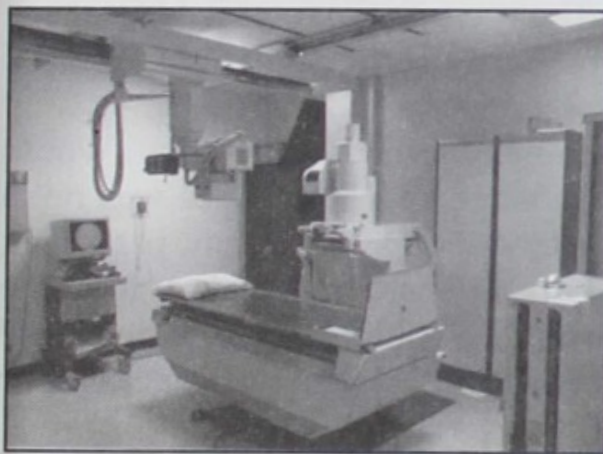
vials of smallpox virus are destroyed, smallpox will have vanished from the planet.

In 1944, infectious diseases were still a major scourge. Immunizations and antibiotic therapy have changed that. But, just as the family practitioner is now coming back, so are the microbes. Infectious diseases now appear to be much more of a serious problem because of antibiotic resistance. Multiple drug resistant tubercle bacilli (TB) which we now find so fearful are in essence what was the norm in 1944.

Thus, the changes in technology have been overwhelming. Technology has both shaped and been shaped by medicine during this era, and this can only be expected to continue in the future, provided the funding is available. Many observers fear that the pace of the advancements during the past fifty years will not be continued during the next fifty because of cost issues.

ECONOMICS

The economics of medicine have also changed a great deal in the last 50 years. In 1944, most physicians were still paid directly by their patients. Phy-



X-ray Room, 1995

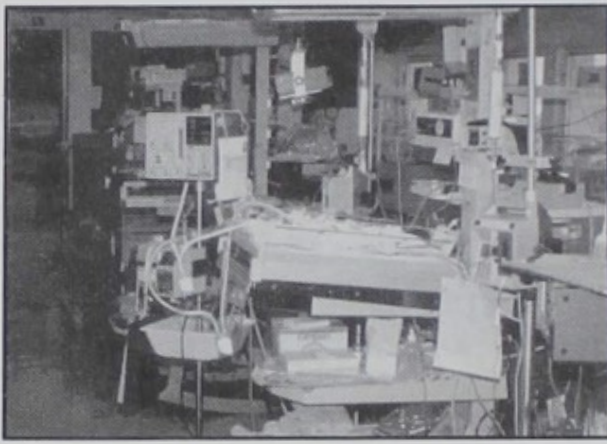
sicians of that era generally considered a good year to have been one in which they collected 50% of their charges. Health insurance was just starting. Although physicians have always enjoyed good incomes when compared to the average citizen, during the past 50 years the income of many physicians has increased much more than inflation. The reason for this has been the development of specialization with its higher reimbursement, and health care

insurance which gave the patient the ability to pay for the physician's services. It also mitigated any concern about high cost because patients did not pay directly.

In 1944, virtually no one was concerned about the cost of medical care as a national issue. In 1994, we now spend approximately 17% of our gross national product on health care, and the numbers continue to increase each year. Our health care "industry" is now the 7th largest in the world. There are many explanations for this; technology, increased expectations, administrative costs, malpractice, etc. What is unique about the last 50 years



Modern Operating Room, 1995



Neo-natal Intensive Care Unit, 1995

is the change in the public attitude between 1944 and 1994. The availability of high quality medical care is now generally considered to be a right to which all citizens are entitled. The debate now is about how we are going to finance this right.

Economic concern has fostered the development of the various managed care systems which are presently available; HMOs, PPOs, and Integrated Delivery Systems. All of these

organizations desire to maintain quality of care yet control costs. What appears to be daunting is how this is to be accomplished. Physicians have gradually, although grudgingly, accepted the fact of these changes.

The economic issues appear to be forcing the imbalance in the specialist/generalist ratio to reverse itself. Most likely the fee for service system, as it has been known in the past, will simply disappear in the future. At least one third of the people in Lancaster County presently participate in some sort of a managed care system, and this is likely to increase.

Any discussion about the fiscal evolution over the last fifty years would be remiss for not mentioning the malpractice issue. Malpractice was not a major problem in 1944. Now it is a substantial concern of any practicing clinician. The effect this has on the cost of medical care is legendary, from the simple pass through of the malpractice insurance premium to the defensive diagnostic testing in which physicians are forced to engage at one time or another.

In summary, the health care system has changed so tremendously in the last 50 years, that physicians of 1944 would scarcely recognize the practice of medicine in 1994. The good news is that with the era of modern scientific medicine, we now have much more to offer to our patients. The bad news is that they do not seem to be as well satisfied with our efforts as they have been in the past, and there is a serious national concern about our ability to provide all of this expensive medical care. The challenge of the future is to continue the advances, but manage the cost and to provide this care to everyone.