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Developments in Federal, State and Civilian Hospitals *

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Our hospitals today reflect the total struggles of man to survive. In the organization of the hospital, its operation, its achievements, and its failures we find the story of our civilization. Perhaps no other public service facility more nearly portrays the rise and fall of mere man as he has traversed the paths of time.

It is pertinent here to look back through the years to the very beginning of what we know about the practice of medicine. From the ancient civilization of Egypt, Babylon, Persia, India, and Greece comes our earliest heritage of the practice of medicine, and it was closely allied with religion. Medical care was provided through the temples. The teachings of the Christian religion pointed out the need and desire of man to help his fellow. This promoted great advances in the care of the sick as a humane and charitable activity. It was in the Fourth Century that we first had specialized hospitals. In 375, the 300 bed charity hospital at Edessa was established by St. Ephraim. Others were founded at Alexandria, Ephesus, Constantine, Bagdad, Cairo, and in Spain. St. Augustine of Canterbury led the religious in England in 596 to accept the sick and poor as responsibilities according to the teachings of Christ. The bishop of Paris established Hotel Dieu of Paris in 660. Hotel Dieu of Lyons had been started in 542. It must be recognized that the early hospitals served mostly as resting places for travelers and the weary rather than the purposes they serve today. The beginning of several Sisterhoods and Brotherhoods are traced back to the Sixth Century and are directly related to salvation through good works. In fact, during

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the years of the great religious crusades (1196 to 1291) many hospitals were established to care for persons travelling to Jerusalem.

At the time of the 13th Century about 19,000 hospitals were in existence in Europe. These usually were infirmary-almshouses caring for the aged, infirm, and sick, along with places for pilgrims to rest, and then houses for lepers beyond the gates.

It was in the 14th and 15th Centuries that the decrees of the Church forbade bloodletting by the monasteries. As a result a new profession of tonsors-barbers and bloodletters came into existence. This group was not trained and undoubtedly accounted for many of those who passed on.

The Renaissance saw the new science of Botany and Anatomy while the knowledge of physics and chemistry expanded.

During the Reformation the decline of papal authority also saw the decline of hospitals. It soon became apparent that the hospitals were needed and again we see the cycle begin to swing up again.

The 16th Century was fraught with wars. Hospitals were established as municipal in authority and were typical of politically controlled institutions with all the abuses and disadvantages.

In 1519 when Cortez came to Mexico he was impressed by the Aztec Civilization and partially as an avenue of his own salvation he built the Hospital of Immaculate Conception in Mexico City. In 1633 the name of this hospital was changed to the Hospital of Jesus of Nazareth. It is still in existence today and is the first hospital in North America. The second hospital in North America was founded in 1639 by three nurses of the Sisters of St. Augustine and three Ursiline nuns in Quebec. It is the Hotel Dieu in Quebec and still serves mankind. Hotel Dieu of Montreal came into existence in 1644.

The Seventeenth Century was not a productive one as far as hospitals were concerned in North America. In fact, in Europe hospitals were at a new low as far as sanitary conditions and management were concerned.

In the Eighteenth Century we saw the instruments of precision - stethescope, pulse watch, and percussion - come to the front along with greater knowledge in physiology, surgery, midwifery, chemistry, and applied sciences.

Bellevue in New York and Charity in New Orleans were started in 1736. These latter two, along with the Philadelphia in 1713, and Charleston in 1734, were really almshouses and did not really fill the need as we know it today for a hospital. As a result, Pennsylvania Hospital in 1751, the first voluntary hospital, came into being. Massachusetts General came along in 1812, and also New York Hospital in 1769. The first Protestant Church Hospital in the country was established in 1849 in Pittsburgh by Pastor Theodore Fliedner and Reverend William A. Passavant of Pittsburgh First English Lutheran Church. Later the Episcopal, Methodist, and Baptist Church groups founded hospitals throughout the country. Later, the Jewish, Mormon, Seventh Day Adventist, and other religious groups followed. As a result, we have today the three basic types of hospitals: (a) governmental; (b) voluntary-nonprofit; and (c) proprietary.

We currently have about 7,000 hospitals in the United States, exclusive of the Federal hospitals. We have nearly 1,100,000 acceptable beds and about 160,000 nonacceptable beds, according to the Hill-Burton standards. Our national hospital bed deficit has been estimated to be in excess of 800,000 beds.

The Federal agencies operating hospitals are the Army, Navy, Air Force, Public Health Service, Indian Service, and Veterans Administration. The latter three Federal agencies serve civilian population and in the aggregate have about 117,000 beds in operation today.

Now I have taken considerable time describing the developments of hospitals for a specific reason. I hope I have indicated that the hospital is the answer to a need for a service as seen and responded to by the hospital worker and by those who plan and build hospitals. The hospitals are rearranged, rebuilt, or even replaced because of a need for a new and frequently different type of "vehicle" to provide better patient care.

The modern hospital provides more facilities for the treatment and care of the patient than ever before. New and improved tools are placed at the disposal of the physician for the treatment of the patient and the patient is cared for under greatly improved conditions. The modern hospital is a better place to work in than its predecessors for everyone from the chief surgeon to the orderly, and if you must be sick, it's a better place to be sick in.

The physician has for his use larger and more complete adjunct facilities. For example: (1) larger x-ray suites, including therapy and built-in x-ray units have made their appearance in operating rooms; (2) larger pharmacies with space for manufacturing and storage; (3) more physical therapy; (4) radioisotope laboratories; (5) blood banks; and (6) electroencephalography. Recovery rooms are being provided more frequently for the observation of the patients during the critical period after surgery.

There is a definite movement toward the provision of rehabilitation facilities on varying scales for the treatment of many formerly considered beyond rehabilitation.

After a very slow start, more hospitals today are providing outpatient departments.

Psychiatric units for the early care of mentally disturbed patients are appearing in some of the larger hospitals. Many smaller hospitals provide facilities for mental patients where they can be held pending transportation to a mental hospital. This eliminates the local jail as the unfortunate first stop for many patients.

Hospital collaboration with public health centers do broaden patient care.

Nursing units have become somewhat larger although operating experience has not been long enough to say whether this is good or bad with surety.

Almost without exception, toilets adjacent to bedrooms are being provided.

Use of color throughout the hospital has become general resulting in more attractive patients' rooms, lounges and solaria. Its use in non-patient areas

contributes to the efficiency of the staff and employees.

For the visitors we find on-site parking, gift shops, fathers' rooms and frequently a snack bar.

Fire-safe planning and construction are now to be found in all new hospitals.

Where ventilation was provided for OB and surgery to provide comfort for personnel and reduce hazards there is now a definite swing to the inclusion of cooling for summer even in the northern-most states.

Although they comprise only a relatively small percentage of total installations, there are appearing here and there designs which provide a measure of air conditioning throughout the hospital. An air duct system supplements the normal heating system in winter and serves as the conductor for cooled air during the summer months. Such systems are not designed for extreme summer conditions but under average conditions do help maintain a more effective comfort level by a measure of cooling and the addition of some fresh air.

Nurseries, central supply and x-ray departments are receiving greater attention by air conditioning designers. Sound control features are seen through the use of sound-proofing of rooms, corridors, and many other areas. Inter-com systems between patients and the nurses' desk are effective features. Recovery rooms for surgical patients are common, and, for obstetrical patients are frequently found.

Piped oxygen systems have become a standard of design. This provides oxygen where and when needed with no delay, reduces hazards of storage and transportation within the hospital and conserves space at the point of administration.

Garbage grinders for kitchen use are eliminating a large part of the drudgery and unsanitary conditions which result from garbage collection, storage and disposal, as well as conserving space normally allotted to can wash and garbage refrigeration. The sewage system is being changed due to garbage grinding.

New developments in hospitals come about as the result of someone's forward-looking thinking. Such thinking considers not only present requirements but looks into the future to try to gauge what developing medical advances will mean to the hospital as the result of modern patient care. Home care programs and programs for chronic patients each influence hospital facilities.

To assure a modern up-to-date hospital where modern medicine can be practiced this thinking must be developed into a building program. This is as important a step as you'll take in the construction of a hospital plant.

A building program contains all the information the architect will need to design a hospital. It is the product of a team consisting of physicians, administrators, nurse, architect, engineer, dietitian, and others who will, in exhaustive detail, consider the services to be offered, the staff required to operate the services, the method of operation and the physical facilities required. It is axiomatic that form follows function.

Such a program assures your getting the building you want, promotes smooth flow of work during the planning and on construction stages.

It would be an error to conclude without mentioning several hospital programs currently being carried on which have an impact on hospital care and our total economy, the fullest extent of which has not been fully realized or as yet felt in this nation.

We have the hospital program of the Veterans Administration; the hospital program of the United Mine Workers in Kentucky, West Virginia, and Virginia; the Permanents Plan in California; and the Hospital Survey and Construction (Hill-Burton) Program.

Since my assignment in the U. S. Public Health Service is the administration of the Federal aspects of the Hill-Burton Program, I wish to cite the important facts of this Federal, State and community cooperative endeavor.

1. As of September 30, 1954, 2336 projects have been approved, which will add 111,903 beds. These projects also include 493 health centers. Total cost of these projects represents one billion eight hundred ninety-seven million dollars, of which the Federal Government is contributing over 631 million and the sponsors more than one billion two hundred sixty-six million.

2. Seventy-three (73) percent of all the projects (with 91,468 beds) are for general hospitals and general hospitals in combination with public health centers; 18 percent are public health centers; the remaining 9 percent (with 20,435 beds) are mental, tuberculosis, and chronic disease hospitals.

3. There are 1,709 of these projects (or 73 percent), adding 75,115 beds, which are open and in operation; 527 (23 percent), which will provide 31,060 more beds, are under construction; the remaining projects with 5,728 beds are in pre-construction stages.

Of the projects which have been opened and are in operation, 1,254, or 73 percent, are general hospitals. These projects have added over 61,300 beds to our hospital resources. About 148 other hospital projects are open for use; these have added over 13,700 beds in tuberculosis, mental, and chronic disease categories.

4. New facilities now approved amount to 1,351 or fifty-nine percent of the total number of projects; additions or alterations to existing facilities comprise the remaining 41 percent.

5. Of the new general hospitals approved, the majority (58 percent) are located in communities of less than 5,000. Only 8 percent are in cities of 50,000 or more people. Additions and alterations to existing general hospitals tend to occur in the larger communities: 20 percent are in communities of less than 5,000 people; 31 percent are in communities of over 50,000.

6. Of the 907 completely new general hospital projects, 505 (56 percent) are located in areas which had no hospitals prior to the Hospital Survey and Construction Program; 193 (21 percent) are located in areas which had only non-

acceptable facilities; the remaining new facilities are being built in areas which were deficient in facilities prior to the program.

7. The majority of approved projects are located in the Southern States. This census region has 1207 projects, or 53 percent. The remainder are distributed as follows: 500 (22 percent) in the North Central States; 315 (14 percent) in the North East States; and 269 (11 percent) in the Western States.

8. New hospitals are relatively small in bed capacity: 57 percent have fewer than 50 beds, 22 percent have from 50 to 99 beds, only 21 percent have 100 beds or more. Hospitals to which alterations or additions are being made are larger - 65 percent of these projects are hospitals with 100 or more beds.

9. The bed deficit of the nation is still great. Estimates by the States, reflected in current State plan revisions, indicate that over 812,000 additional beds in all categories of hospitals are still required to meet the nation's total peacetime needs.

The Medical Facilities Survey and Construction Act of 1954 (Public Law 482, 83rd Congress) amended the Hospital Survey and Construction Act to provide a greater inducement to the States and local communities to plan for and construct facilities for the care of the chronically ill and impaired. This Act authorized $2,000,000 and it was subsequently appropriated, to assist the States, on a dollar for dollar matching basis, to survey and plan four specific types of facilities. These types are (1) chronic disease facilities; (2) diagnostic centers or diagnostic and treatment centers; (3) nursing homes; and (4) rehabilitation facilities. These facilities, like those general, tuberculosis, chronic, mental hospitals, public health centers authorized by the original Act, must be nonprofit in character, render a community service and not discriminate against race, creed, or color.

The 1954 amendments also authorized 60 million dollars for appropriation to assist in paying part of the construction of the approved facilities. Amounts authorized annually through 1957 fiscal year are: (a) $20 million for chronic

disease facilities; (b) $20 million for diagnostic centers or diagnostic and treatment centers; (c) $10 million for nursing homes; (d) $10 million for rehabilitation facilities.

For fiscal year 1955 the Congress made available $21 million for the new amendments and $75 million for the older program.

In order to be approved for construction grants the project must be in accordance with the State plan, of high priority, and meet the minimum requirements as provided by law and the Federal and State regulations.

The Hospital Survey and Construction Program has provided a nation-wide program of planning for and the construction of hospitals and related health facilities through a cooperative relationship of local community, and State and Federal authorities to acquire better facilities and better patient care. In addition, the program has helped rural communities to attract and retain physicians; emphasized coordination and integration of hospitals on a State-wide basis; created an interest among the citizens of this and other countries in their health resources and facilities; stimulated construction of hospitals outside the program; stimulated a fusion between curative, preventive and restorative medicine to promote health maintenance for our people and, established the State agency as the administrative authority to which applicants must first go for approval in order to acquire subsequent Federal approval and financial assistance.

The developmental trends in relationship to the technical details of the hospital in serving the public are also outstanding. These trends are the direct result of the changes in medical care and the application of an ever-growing body of knowledge concerning man and his relationship to his fellowman, to all other living and nonliving elements of our world and maybe of other worlds about which we may be in the process of learning. So at best the trends reflect our efforts to meet a state of flux which does not appear to show any inclination to stabilize.

The hospital of today is truly the health center of the community. As health maintenance programs develop the public health center and the hospital come closer together. In times of national or local emergency of a catastrophic or near catastrophic nature it is frequently the hospital and its laboratory which is called upon for health protective services in addition to its routine contribution to the health of the community.

In conclusion, the hospital is our health university and as such affects the lives of all of us in direct proportion to the way we use it.