The selection of a subject of general interest for an oration to this Society is not easy since many diverse specialties as well as general practitioners, are represented by the membership. However, it seems to me that there are some problems confronting the medical profession of this community and, I believe, that they are of paramount importance to all of us and urgently in need of our attention.

These problems, to a great extent, are related to the existing facilities for medical care. As our population expands rapidly and the distribution of physicians seems to be more uneven, the need for a change in our system for the provision of medical care seems to be more urgent.

This situation is not unique in Worcester County and is one that has already become a major problem in many cities and rural areas throughout the country.

I plan, therefore, to discuss some of the more important reasons why changes in our program for the delivery of medical care appear to be inevitable. This review will outline briefly what is being done in low income areas to provide better medical care, also changes in medical care that seem likely to occur in many rural areas and, finally, what we, as physicians in the Worcester area, might do to improve the medical care available to all sections of our community.

If a map of Massachusetts was marked to show the distribution of doctors and the population densities of various communities, it would be apparent at once that many suburban and low income areas have few, if any, physicians, while in some cities there are a large number of doctors out of proportion to the population of the area. Because of the shortage of doctors in many low income and rural areas, a serious deficiency in health care services has resulted. For example, in some communities about Boston there are few, if any, young physicians settling there to practice. When the older physicians retire, some communities are left without doctors or facilities for medical care. In fact, in some of these areas, there has been no one to give children their usual pre-school immunizations. These and other examples of inadequate medical care dramatize the rapidly increasing need for a health care plan in many low income and rural areas. As already mentioned, such problems exist not only in Massachusetts but in many other states.

The reasons for uneven distribution of doctors, with a high concentration in cities and insufficient numbers in low income and rural areas, are not understood by the average layman. Some believe that the problem can be solved merely by training more doctors. Unfortunately, the solution is not that simple.

This is an era of specialization. The reason for this is quite apparent when one considers the explosion of scientific and medical knowledge during the last twenty years. This has brought about a change in the whole format of medical education. It has been said that if all medical information learned from the time of Hippocrates to World War II was classified as a unit of one, that during the last twenty-five years twice this amount of additional medical information has been discovered. The flood of information has made it impossible for even the most brilliant of medical students to acquire more than a foundation of medical knowledge during their four years of medical school training. The curriculum, therefore, in many medical schools has been
redesigned with the objective of providing, during the first two years, only subjects that are considered to be core knowledge. Then if a student wishes, he can elect to take subjects during the last two years that will prepare him either for a career in research or an internship and residency in some specialty. Even the specialties are being fragmented because of the development of special techniques and knowledge. Internal medicine has been subdivided into cardiology, hematology, nephrology and many others. Surgery has been subdivided into so many specialties that the general surgeon is now largely limited to abdominal surgery and some so-called "surface surgery."

The majority of young physicians, therefore, specialize and naturally when they are ready to start in practice will go to the community where facilities exist for the utilization of their specialty training. Because of this trend toward specialization, there are few remaining rotating internship programs and few young physicians who are preparing themselves for general practice.

However, a new breed of clinic based family doctor is coming into being. It now seems apparent that health care in many suburban areas, particularly those in low income or ghetto areas, will be provided by groups of physicians based in regional health clinics. Efficiently operated clinics will permit physicians to see and treat many more patients per hour or per day and to treat them better, according to some, than in the average private office.

Physicians working in such clinics in the future, will probably be trained in special programs such as the Harvard Plan for Training in Community Health Care. The Children's Hospital Medical Center in Boston has developed such a program.

A medical student electing this training, can take a straight internship and residency in either pediatrics or internal medicine and be certified by the New Board of Family Medicine. He would also qualify for the Board of Pediatrics or the Board of Internal Medicine. Graduates of this program are trained in the management of health care clinics. Many such clinics are already being incorporated in model cities programs that are now being established throughout the country.

A few months ago, a contract was signed between the City of Boston and the Model Cities Family Life Center in Jamaica Plain. This Center expects to provide health services to adults in a population of about 10,000 people. This Center was planned by and between the Model Cities Administrators, the Health Advisory Council of the area, the Children's Hospital Medical Center and other nearby hospitals. In addition, the Harvard Medical School has sponsored a similar service. This is called the Harvard Community Health Plan and represents the nation's first University-sponsored prepaid group practice. This Health Center is located in the Kenmore Square section of Boston and is designed to provide ambulatory health services to a population of about 30,000. The health plan was formulated by the joint efforts of the Harvard Medical School, the Peter Bent Brigham Hospital, Beth Israel Hospital, Boston Hospital for Women, the Children's Hospital Medical Center, Massachusetts Blue Cross, private insurance companies and State and Federal health agencies. The objective of the plan is to provide high-quality health services to all sections of the community, particularly low income families. When low income families are unable to participate in the prepaid plan, coverage is arranged for the recipients of Medicaid by a contract with the Massachusetts Department of Public Welfare. Some cities are building in low income and ghetto areas, a series of health clinics which are strategically located so as to act as satellites for major health centers. The centers consist of hospitals that are well-staffed and equipped to provide high-quality medical care.

These centers and other pilot clinics, some of which are designed for special services, such as drug rehabilitation, seem to offer the best programs by providing high-quality medical care at
predictable costs to city and suburban communities. Just how medical care will be provided to large rural areas remains to be established. However, already some rural areas without doctors have provided ambulance service to take patients to the nearest medical center. Since many rural communities cannot afford to provide such ambulance service, the regional health centers often will do so and will send an ambulance to transport acutely ill patients to the regional hospital.

Thus, specialization, centralization and mechanization of medical services seems to be the trend, particularly where modern high-quality medical care is expected by all.

As a result, the family physician, in the traditional sense will disappear from the scene. The familiar picture of the long-haired family doctor sitting at the bedside watching the labored breathing of an acutely ill child, with his one hand on the pulse, and the distressed parents watching in the background, will soon disappear. Instead, the picture now might be a younger doctor, probably with longer hair, sitting at the bedside of an acutely ill child with a large syringe in one hand, and a tray containing tubes with multi-colored caps in the other!

Now that we have reviewed some of the major forces that are bringing about changes in the existing pattern of medical care and have mentioned a few pilot health care programs that have been started elsewhere, we might look at the health care facilities provided in Worcester and discuss our ample needs in the future.

The three basic ingredients of a first-rate modern medical center are generally recognized as being medical education, patient care, and research. These three activities are, obviously, just as important to the growth and development of a strong medical community as research, education and efficient production are to any other type of business. Modern automobiles, air planes, computers and countless other products of contemporary technology would not be in existence without them. Without research, education becomes stagnant and certainly without both of them, the inspiration and incentive for better patient care is lost.

Thus, as we focus down on the facilities that are available in Worcester, we see that the three basic ingredients, research, education and patient care facilities are already present. Although research programs are well-established in several of the Worcester hospitals and at the Worcester Foundation for Experimental Biology, the advent of the Medical School could well provide a stimulus for a closer relationship and exchange of knowledge between these various centers. There are still many clinical problems that need help from scientists trained in research and, undoubtedly, there are many discoveries being made locally by those in research that will have significant clinical value.

The Medical School with its staff of teachers will undoubtedly stimulate and strengthen the various teaching services now established in the Worcester hospitals. Students, house staff and attending physicians all benefit from improved teaching programs and this all adds up to better patient care.

The medical care facilities in Worcester are several traditionally independent units, each providing very similar medical services for the community. As in other cities, each is somewhat in competition with one another. If good health care is to be provided with maximum efficiency and unnecessary duplication, city wide planning with the cooperation between the various medical facilities is fundamental.

For example, in Greenville, South Carolina, the General Hospital has during the past ten years developed a close relationship with three other smaller regional satellite hospitals and a nearby nursing center. It is called the Greenville General Hospital System. Although each unit has its
administrator, they all function as part of one organization with an overall director. The Director, Mr. Robert E. Toomey, has stated that this system is "achieving economic administration of health care. Group purchasing power of the system has saved some $200,000 in supply costs, and the savings in personnel represent more than $600,000 a year." He also states that teaching programs have been improved by the integration and cooperative planning of the medical staffs of the component institutions. Reviewing the experiences of the organization, he states, "Regional planning as it is developing today may succeed, but it is largely dependent upon appeals to cooperation and coordination of autonomous, competing institutions. The Greenville system with its vigorous intent to move forward has had the opportunity to implement regional planning to the benefit of the entire area. Duplication is lessened. Services and personnel are shared. It has been a truly wonderful opportunity to act effectively in improving the economics of medical and hospital care."

The Berkshire Medical Center in Pittsfield, Massachusetts and the Medical Center Hospital of Vermont, in Burlington, are other examples of a close relationship between area hospitals. They permit a coordinated program of service and teaching.

Is it not now time for representatives of the Worcester hospitals to meet and plan closer relationships? Each hospital has certain physical facilities or staff members, with particular talents and specialization, who are equipped to provide special services. An Inter-Hospital Committee, appointed under the auspices of the Medical Society should profile each hospital and create a master plan, integrating these services. This plan would avoid duplication of highly specialized services and avoid unnecessary expense, plus encourage the development of specialty services now lacking in the area.

For example, a kidney center is already in operation at The Memorial Hospital. Other specialty services such as a burn care center, development of a cardiac surgical program, an obstetrical unit, and a closely related infant and children's center, are other possibilities that have been suggested. The teaching programs of all of the participating hospitals could be strengthened by rotating residents through these specialty services.

The Inter-Hospital Committee would work in coordination with various departments of the Medical School establishing and staffing satellite health clinics where needed in the city or in nearby communities in which family physicians are not available. A coordinated plan such as this for the citizens of Worcester, would provide an efficient, modern program of better health care for all.

In closing, the current popular explosion has created communities where the physician-population ratio is very low. Physicians in such communities, and in many rural areas, are not being replaced by young doctors. The majority of young physicians now going into practice are highly specialized and naturally settle in communities where there are facilities which permit them to utilize their skills. Health care clinics are being established to provide medical care in communities where practitioners no longer exist. They are staffed by young internists who have had special training in providing family care. There is a responsibility to provide health care facilities for low income or rural areas.

It is apparent that with a willingness to cooperate and integrate the medical facilities in Worcester we could assemble into a strong medical center.

In summary, I would like to point out that our city planners have shown Worcester can be modernized by an attractive downtown business complex. Is it not time, therefore, for the physicians and hospitals in the Worcester area to modernize and integrate the various medical services for the benefit of the people of Central Massachusetts?