HEALTH PLANNING IN KANSAS: A COMPARATIVE STUDY OF AMERICAN AND INTERNATIONAL HEALTH PLANNING SYSTEMS

by

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CHAPTER I

INTRODUCTION

The United States has long prided itself on the quality and ingenuity of its medical care. Its numerous medical research programs have pioneered in a multitude of medical breakthroughs that have allowed doctors to perform routinely surgical procedures long held to be highly dangerous. People all over the world come to american hospitals for complex and risky brain, heart, and other types of surgical procedures.

Yet, for some time now, it has been generally accepted by social planners, and providers as well as consumers of health care, that the U.S. health care system is in a state of chaos. The american way of providing medical care is thought to be obsolete, overstrained, redundant and exorbitant in price. Despite the skyrocketing costs of care, medical schools and hospitals throughout the nation are going bankrupt. For most families, a lengthy illness often means financial ruin.

There is much that is wrong with the american health care. There is little or no preventive medicine - which is partly the patient's fault - and there is a dramatic lack of manpower, equipment and facilities. This state of affairs has prompted Fred Anderson to make the following observation.

> "The result is that though this is the best country in the world in which to have a serious illness, it is one of the worst countries in the world in which to have a nonserious illness. That part of medicine which most people encounter most often is mediocre. At the same time, we have outstanding open-heart surgery, plastic surgery, surgical organ transplantation, and diagnostic skills. It is this paradox which makes it possible for a patient to read in the waiting room literature of America's latest triumph

of medical technology, while failing to receive quick, effective and inexpensive treatment for a sore throat."[1]

Traditionally, the theory has been that the United States are not a healthy place to live in because health and other social services are items of very low priority in a nation whose immense wealth is dedicated to the expansion of its economy and its military power. Some people feel that the remedy lies in shifting the spending priorities from defense to social activities.

It seems, however, that national priorities make up only part of the problem, and perhaps, the part that could be most easily solved. The fact is, in spite of our sentimental protestations about building a true democratic state, we still cherish the wrong sort of values. Health is no more a priority of the health industry, than making safe, cheap and pollution-free cars is a priority of the american automobile industry.

The American Health Crisis became official in July 1969, when President Nixon announced it in a special message. Immediately, the nation's foremost academic and political authorities on the subject, along with the news media, hastened to conduct interviews, shows and talks, rushing in with details and documentation. For the great majority of Americans, however, the health care crisis goes far beyond the presidential address or the television talk shows: It is a crisis of survival. In the American Health Empire: Power, Profits and Politics, John and Barbara Ehrenreich point out that the daily number of Americans in search of medical care approaches 3 million. For most of them, the search is a vain one. Most medical care is scarce and expensive. It is also fragmented and surrounded by mystery and

unaccountability. Many people, mainly the poor, the minority members and the women, can only secure medical care "at the price of humiliation, dependence or bodily insult".[2]

John and Barbara Ehrenreich have identified four major problem areas in securing health care:

1) Finding a place where one can secure adequate care at a reasonable price. For many Americans, this represents a near impossibility. It was long thought that distance from doctors and hospitals was a typically rural problem. This is a myth.[3] The slum community of Bedford-Stuyvesant counts one practising physician for 100,000 inhabitants. The Milwaukee County Hospital which is the unique source of medical care for thousands of low-income and working class people, is located 16 miles outside the city, approximately an hour and a half bus ride for most of its patients.

Another major point of friction is the financing of health care: Private insurance plans can help out many families, but many more are "too rich for Medicaid, too poor for Blue Cross and too young for Medicare."[4] The price of care also includes the loss of income incurred when people have to stay away from work in order to reach the doctor during office hours. Middle class patients waiting in bright waiting rooms with magazines and free coffee, and their low income counterparts in crowded noisy clinic waiting rooms, all have one thing in common: upwards of an hour's wait for a five to ten minute face to face encounter with a harried and uninterested physician.

After hours, (mainly 5:30 p.m.) and on weekends, physicians are almost impossible to locate, and the only resource left to many people is the Hospital Emergency Room where doctors and nurses are more interested in (and more

geared to handle) exotic cases such as bullet wounds than fever and stomach aches.

The second major problem area encountered by health consumers is:

2) Finding one's way amidst the many available types of medical care. In the american health services system, everything is arranged according to the various specialties of doctors, and not the symptoms and problems which patients perceive. Typically, a patient first sees a general practitioner or an internist who, either unable or unwilling to claim responsibility for the patient's illness sends him to a long list of specialist colleagues. This obviously is a very expensive process which confuses the patient.

Another problem caused by specialization is that care targeted at a particular organ often leads to misunderstanding of the overall problem. Furthermore, since doctors have no time to dwell upon the patient's life habits and other health complaints, it is up to the patient to integrate his medical problems, and to integrate them with the rest of his life.

3) Figuring out what they are doing to you. Beyond finding the right doctor or clinic, most patients want to know what is being done to them, and why. This is not only idle curiosity: when the patient has to pay the bill, he has the right to know whether or not a cheaper treatment would be just as efficacious, or whether he really should be paying for a more complex treatment procedure. The desire to know exactly what is going on is also a manifestation of the human instinct of preservation. Since the physician's knowledge of his patient is reduced to a brief glance at his chart, before entering the examination room, it is almost vital that the patient should look

out for himself and try to the best of his ability, to coordinate past and future treatment, and point out possible areas of conflict.

The same mystery that shrouds all medical or surgical procedures and turns intelligent patients into irresponsible, unthinking children, has transformed modern medicine into a folklore that is not unlike that of the old witch doctors.

4) Getting a hearing if things don't go right. The health care consumer has been turned into just that: A consumer; and yet, he has none of the rights to the protection available to consumers of other goods and services. In securing health care, there can be no comparative shopping, no Better Business Bureau, no Department of Consumer Protection. The patient has no way of judging what kind of care he should get, let alone the quality of the care he gets.

When something goes drastically wrong, and when the patient dies or is permanently maimed because of malpractice, only the very rich can afford to sue the physician. The poor have no resources other than open resistance.[5]

Much of the blame for the state of chaos in which health care finds itself has been laid at the feet of the medical professionals. The most acute problem faced by the U.S. is that of a critical physician shortage. Senator Abraham Ribicoff stated that "this shortage is due basically to the 'professional birth control' the American Medical Association practiced in the 1930's and, more recently, to the development of specialists and the tendency of doctors to pursue careers in teaching, research, industry, and public health instead of patient care."[6] The doctor shortage in itself is a myth. There are at present approximately 300,000 physicians in the country, which gives America one of

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the highest ratio of doctors per capita in the world - and the number of physicians is growing at a rate faster than that of the population. However, two thirds of the medical professionals are involved in health related activities, such as the ones mentioned by Senator Ribicoff, rather than in services directly related to the patients. The growth rate of the patient-oriented physician population is far less than that of the general population itself. The outlook would be even bleaker, were it not for the foreign medical graduates who make up 14% of the nation's active physicians and 28% of its residents and interns.

Beyond the lack of physicians involved in direct patient care, health officials are greatly concerned by the uneven distribution of physicians throughout the country. The poor and the isolated in rural areas have almost no access to medical care, and we know that the urban low income classes are not much better off. In comparison the suburban areas experience a surplus of medical specialists.

All these factors tend to point to the fact that, contrary to widely held beliefs, we are not the healthiest nation in the world; in most instances, we are not even coming close. We spend much more money on health and medical care than any other nation in the world ($94 billion per year, 7.7% of our GNP, or a $441.18 per capita health expenditure in 1973). However, a dozen other nations do a better job of preventing infant deaths, and have a lower maternal death rate than we do, and seventeen countries have a higher life expectancy for both men and women. The implications of these data are obvious: The $63 billion spent in 1970 were not used to buy medical care.

A more significant factor about health care costs is their rate of increase. In fiscal 1969, national health expenditures totalled $60 billion, or 6.7% of the GNP, for a per capita expenditure of $292.19. In five years then, total health expenditures increased by 56.7%.

More significant perhaps of the magnitude of the crisis is the increase in the share of health costs borne by the government. TABLE 1 illustrates this increase.

TABLE 1

PUBLIC HEALTH EXPENDITURES
1960-1973

	1960	1969	1973	Percent Change From 1960-1973	Percent Change From 1969-1973
Total Public Health Expenditures (In Billions of Dollars)	$ 6.5	$ 23	$ 37.5	476.9%	63.0%
Public Health Expenditures Per Capita (In Dollars)	$35.03	$111.73	$176.12	402.8%	57.6%
Public Health Expenditures as a Percent of Total U.S. Health Expenditures	24.7%	38.2%	39.9%	61.5%	4.5%

Therefore, this is where we stand today: Skyrocketing health care costs, not enough doctors, nurses, or other health professionals, an overly large percentage of people receiving poor care or no care at all, inadequate health insurance, and an organization that seems to reward inefficiencies and perpetrate inequities. Dr. John Knowles, Director of the Massachusetts General Hospital, has suggested that all that keeps the medical system afloat is the fact that millions of people literally have no knowledge of their medical needs. One cannot help but conclude that there is no American medical system, at least no "systematic way in America of getting medical help when you need it, without being financially ruined, humiliated, or injured in the process - What system there is, the 300,000 doctors, 7,000 hospitals and supporting insurance plans, was clearly not designed to deal with the sick."[7]

STATEMENT OF THE HYPOTHESES

The problems that plague the american health care delivery system, although numerous, could be summed up very simply in three propositions:

1) There is no systematic way, within the present organization for health care to determine national and regional health policies or for establishing program objectives and priorities.
2) The failure to coordinate program activities and resource allocation at the federal, state and local levels contributes to duplication of effort and program conflict resulting in inefficient performance.

3) The failure of the present system to effectively measure the potential benefits from alternative programs and the failure to plan and coordinate program activities have resulted in an inefficient allocation of resources.[8]

Since the goal of any medical system is to organize the provision and distribution of health services to those who need them, and to use the facilities, manpower, and technologies available to prevent and alleviate disease, disability and suffering to the extent possible under the prevailing conditions,[9] it becomes obvious that, what the American Health care delivery system needs now is a little planning.

Since the 1950's, the World Health Organization (W.H.O.) has been greatly concerned with the increasing value of health planning as a method of improving all types of health services. In 1972, W.H.O. commissioned Dr. Herman Hilleboe, Dr. Arne Barkhus and Dr. William Thomas to write Approaches to National Health Planning, a study of current approaches to national health planning, ranging from the pragmatic approach used in a great many developing countries to the non-system found in the United States and the complex, fully integrated system that has developed in the USSR. This study has been widely used in the third chapter of this thesis, as it presents an overview of different systems, and provides examples of new methodologies, as well as point out the mistakes that have been made elsewhere and could therefore be avoided by subsequent attempts at health planning. These different health planning systems will be studied for their potential applicability to the health planning function in Kansas. Three particular approaches will be considered:

1) the pragmatic approach, which is predominant in developing countries and, surprisingly enough, in the United States. The reason for studying the pragmatic approach is that it is considered to be the first step toward a fully integrated comprehensive planning system.

2) The Swedish model which is of course widely held as the only truly operative comprehensive health planning system functioning on a national basis. It will be studied here for its regionalization model which could possibly be adopted to rural Kansas.

3) Finally, the PAHO-CENDES method, developed by a regional branch of W.H.O., which developed a highly sophisticated methodology for determining priorities and allocating resources.

Many other forms of national health planning could have been studied; in particular, one can think of the Russian and Indian approaches, which are both examples of "planning as a way of life", particularly where Russia is concerned. However, it seemed unreasonable to even try to adapt the Russian model to the situation in Kansas, because of the drastically different spot occupied by the planning function in the administrative framework of both Russia and the United States. While planning is a "way-of-life" in Russia, it is still a suspicious activity in the United States, somehow, still smacking of the "communist-plot-to-take-over-the-country" complex. Therefore, only systems that have practical adaptability to the situation in Kansas were considered and analyzed.

There are some very real difficulties inherent in such comparative

studies. First of all, and perhaps most important, it is to be remembered that health planning, as an integral part of the broader field of socio-economic planning, is totally related to the form of other social institutions, and to the economic, organizational, and value context of the society of which it is a part. Another problem involved in transferring planning methodologies across national boundaries is that effective planning must by definition be established at the policy-making and decision-making level, and should possess a great amount of administrative capacity, without which it is bound to fail, and has been known to do so occasionally. This means that in order to be acceptable to a foreign government, a successful planning methodology in one country may have to be manipulated to such an extent as to be no more than a shadow of its former self.

Given these difficulties, it would seem that a medical care system as large and varied as ours could very easily provide all the needed opportunities to compare different methodologies, mainly comparisons between prepaid and free-for-service plans, solo or group practice, new community health centers and more traditional forms of service, etc. There are certainly advantages, and very substantial ones, in staying within the same medical system: One would not then be faced with the difficult problems of assessing care programs operating in various cultural contexts, having different histories, medical traditions, and forms of professional organizations, the whole background being furthermore affected by different governmental regulations, planning and economic circumstances in general. Modern medical systems have not evolved along rational lines. Most of them are the result of hundreds or even thousands of years of religious traditions, and in the more recent past, of

vested interests. These influences become very important and very difficult to weigh when one undertakes comparative studies across border lines.

There are, however, a few very important justifications for undertaking international comparative studies. First of all, it is important to know that the system we are developing is not tied to the peculiarities of our own system. The investment involved in the establishment of a sound medical care system is of such magnitude that it has to transcend any possible ephemeral characteristics of a nation such as political theory, economic or even personal values. It is therefore absolutely vital that the medical system be independent of a particular political figure, or administration, as well as the economic climate of a given time in history. The comparison of health planning systems will allow us to test the general applicability of our own hypotheses. A second reason is that we must study other systems to learn what we can from them. A good example of this transfer of knowledge can be found in the recent trend toward returning ambulatory mental patients to their community for care and support. The relatively new "day care" approach to the care of the mentally ill to be found today in the United States is an idea that has been successful for many years in the scandinavian countries, particularly Denmark. Not to take advantage of existing knowledge and innovations would constitute in itself a sort of "duplication", and certainly a waste of money and effort.

In order to study the applicability of foreign methods of health planning to the system to be found in the State of Kansas, a study will be made of the present conditions existing in the state. To this effect, a questionnaire was devised (See APPENDIX A) and sent to the chairpersons of the sixteen Areawide

Comprehensive Health Planning Councils. The aim of the survey was to identify and evaluate the problems of the different Areawide Councils, as they are perceived by the resident populations. An attempt will then be made to correlate the existing problems to the degree of urbanization of the Councils, to show that rural areas face different difficulties from those experienced by the bigger metropolitan areas.

CHAPTER II will present an historical review of the events that lead to the "system" we now have to cope with, "an irrational jungle in which countless vested interests compete for both the private and the public dollar, causing not only distorted allocations of health resources in relation to human needs, but all sorts of waste and inefficiency along the way."[10]

CHAPTER III will study the three different health planning approaches mentioned above.

CHAPTER IV will be an analysis of present conditions in Kansas and will present an interpretation of the questionnaire data.

CHAPTER V will contain a set of recommendations for the reorganization of health planning in the State of Kansas, based on the analysis of foreign systems in CHAPTER III, and the findings of CHAPTER IV.

CHAPTER II

HEALTH PLANNING IN THE UNITED STATES

HISTORY

It has been repeatedly said, by authorities both here and abroad, that the most striking feature of the american health care delivery system is that it is a non-system. Health care delivery has developed over the years as a spontaneous evolution of uncoordinated practises on the part of the public and the private sectors, generating from professional estimation of need.

From the very first, care was financed primarily by private sources, as is still the case. In some instances, however, the government made funds available, to cover services that were clearly outside the concerns of the private sector.

The beginning of governmental interference coincided with the early development of urban concentrations at port locations: immigrants suffering from contagious diseases and mental disorders constituted a threat to local inhabitants, and for them the government built special "pesthouses" outside the main stream of population. As the urban migration increased, so did the unproductive and dependent segment of the population, causing a great health and financial burden on the local population. The Philadelphia Almhouse, established in 1729, and the Public Workhouse and House of Correction of the City of New York (1736) were two of the early institutions created for the purpose of isolating and controlling people who posed a special health threat to the general public. These three facilities set the precedent, early in

American history, for the commitment of public local funds to the support of facilities and services for particular population groups.

Up to 1900, the systems for delivery of public health care were simple ones because the recipients were few in number, and easily identifiable, and because the costs of provision were financed from a single source of general tax revenues. Before the turn of the century, public health programs consisted mainly of local, state and federal services chiefly concerned with quarantine, and some attempts at prevention, through vaccination and sanitation drives. At the same time, personal health care was organized in much the same manner it is today. Services were provided on a direct user-fee basis, and philanthropic or public resources could be used to supplement the funds in cases where the individual could not assume complete financial responsibility for his care. The system was thus more complex, because it contained more autonomous organizations, but the basic relationship was already that between the patient and his physician.

Up until 1900, the american public hospital was almost exclusively used as a quarantine facility and a home for the indigent. The level of medical technology was low enough at the time, to keep hospitals from providing anything but mere custodial care, and a setting for the provision of a more humane treatment.

The provision of personal health care services was left to voluntary institutions, whose policy was to accept only patients able to pay all or at least a major part of the cost of their care. The deficit was met by funds from private philanthropic foundations.

There was however no means of controlling these hospitals. They

remained private in nature, and made all of the important decisions concerning location, type and amount of services to be provided, etc. There were no restrictions that matched possible location in an area with the demand for health care in that area. The description of the provision of public and personal health care before 1900 tends to point out the fact that there was little attempt at coordination or efficiency in the running of the voluntary hospitals. In this respect things have changed preciously little over the past 74 years.

After the turn of the century, mainly because of advances in medical science, hospitals greatly improved as a resource for the delivery of health services. The utilization of the hospital increased several folds, due to several factors: First of all, the investments in expensive research equipment prompted physicians to demand hospital facilities in which to practice. Furthermore, the urban migration helped cause the phenomenon known as the nuclear family, and prompted the medical function to shift from home to hospital. Thus the demand for hospital services on the part of both the physician and the patient caused a sharp increase in the demand for hospital facilities.

The next major development in the history of american health care delivery was the introduction in 1935, of the Social Security Act. The effects of this legislation were to be felt on two main levels. First of all, the Act officialized federal governmental participation in the provision of health care, and established financial support for specific health care programs. Secondly, but just as important, the Social Security Act of 1935 indirectly fostered health planning. Title V of the Act authorized grants to the states

for the provision of maternal and child care services, and although much of the financial support went for provision of retirement income, public health measures benefited greatly from the new legislation.

In 1946, the first real signs of health planning began to appear. That year, the Hospital Survey and Construction Act (known as Hill-Burton) established the provision of federal matching funds to local areas for the construction of health facilities. But, more important than the money was the fact that the Hill-Burton Act required each state to create a planning agency responsible for developing an inventory of all existing facilities and a statewide plan for expansion with priority given to areas of greatest need. The Hill-Burton Act had a primarily regulatory function in that it provided planning control over activities that utilized funds appropriated under the Act. This provision still left out about 60% of the annual health facility construction which were financed from other sources, and over which the Hill-Burton Act had no control. The planning agencies established by the Act, called Hospital Planning Councils, were responsible for assessing the need for new hospital construction on the basis of a static formula of hospital beds per population unit. These state Councils were required to submit a detailed plan setting priorities in meeting the needs. The annual revision of these plans was mandatory.

The narrow scope of the Hill-Burton Act was widened in 1954, when an amendment permitted it to include nursing homes, rehabilitation centers, chronic disease facilities and diagnostic or treatment centers. In 1964, a drastic and far-reaching revision of the basic law resulted in the passage of the Hospital and Medical Facilities Amendment (Hill-Harris Act, P.L. 88-443).

The new legislation established a new grant program for the provision of funds earmarked for modernization and replacement of both public and private non-profit health facilities. Besides sharply increasing the number of projects submitted for funding, the new law caused a shift in emphasis from rural to urban hospital needs. The new orientation of the law resulted in a shift in the purpose of the basic legislation: From 1962 on, Hill-Burton funds were channelled mainly to planning per se rather than construction, with the main emphasis still focusing on the regional planning of hospitals and other health facilities.

New standards and procedures were adapted to enhance the technical level of the planning done in the Hospital Councils. First of all, minimum and uniform national standards for evaluating the physical conditions of hospitals were designed and implemented. A new formula for assessing bed capacity was adopted, which used newly-set square footage minimums. Finally, a new way of evaluating bed need was developed, which used previous data, but also projected future population estimates and established a desirable occupancy factor.

The Hill-Burton program has been immensely successful; a simple look at the record is enough to be convincing. Since 1946, the Act funded over 10,000 projects, in 50 states and territories. The funds obligated to the projects came to $3.7 billion, almost 1/3 of their total cost. By 1969, 470,000 in-patient beds had been provided, 75% of them in general hospitals. Moreover, upwards of 2,700 out-patient facilities were built, 50% of which were public health centers. The Hill-Burton Act has more to its credit. It has introduced systematic health planning, established long-needed minimum

standards, and significantly improved the quality of health care in rural America. Furthermore, the Health Planning Councils created through this legislation have been among the most active planning institutions in the american health field, during the last 25 years. The Hill-Burton Act has been criticized for focusing too exclusively on hospital and health facilities construction, and failing to promote the investigation for a more sophisticated system of organization and distribution of health care services.

Meanwhile, in 1965, with two new amendments to the Social Security Act, Medicare and Medicaid, the federal government deepened its involvement with the financing of health care for private individuals. This involvement induced governmental effort to provide more coordination and more efficiency in the health care delivery system. To further this objective, in the 1950's, the government began to encourage areawide health planning. In 1959 and 1960, the Public Health Service, and the American Hospital Association actively promoted the non-governmental areawide planning movement.

To counter the abovementioned deficiencies of the Hill-Burton Act, an amendment (P.L. 89-239) was made to the Public Health Services Act. The major tenet of this new legislation was "regionalization". In the words of the Act, "cooperative regional arrangements" were to be organized from existing health facilities. The regions delineated by the Regional Medical Program Act (hence referred to simply as RMP) were not to follow necessarily state boundaries: Approximately half of the 56 regions are statewide. The other half is divided into areawide and multistate regions. The RMP was born out of the 1951 President's Commission on Heart Disease, Cancer and Stroke,

and its character, therefore, is strongly categorical, although in 1970, a subsequent amendment (P.O. 91-515) expanded the program by including all other major diseases and conditions, along with prevention and rehabilitation concerns in addition to the basic diagnosis and treatment functions.

The advent of the RMP Act is of special value inasmuch as it signals the beginning of a decentralization trend from federal government to local governments and agencies.

The preamble to the Comprehensive Health Planning Act of 1966, (hence referred to as CHP), (P.L. 89-749) cited the objectives of the Act to be the promotion of comprehensive planning for health services, manpower and facilities at every level of the government, through a strengthening of leadership and capacities of state health agencies. This legislation is also widely known as the Partnership for Health Act. Unlike the RMP, the CHP is not categorical in nature, as to allow for a more flexible use of funds, and promote a general strengthening of state and local health services.

One of the more striking features of the CHP is its concern with citizen participation. Its membership must be formed of a majority of consumers from all walks of life, representing both public and private interests. In addition, CHP seeks broad and active citizen participation in the development and implementation of CHP funded projects by organizing educational programs for the training of consumers for their role in comprehensive health planning.

The newest addition to the health planning legislation was born out of the Partnership for Health Act. Health Maintenance Organizations (HMO's) represent the direct answer to the criticism of the Hill-Burton Act. They

represent an attempt to organize a more sophisticated mean of delivering health care by replacing the old fee-for-service system, promote greater efficiency, better quality, and a more equitable coverage of urban and rural areas alike.

Kansas Congressman William Roy recognized the importance of the Health Maintenance Organization Act of 1973:

> "It is landmark legislation because it signals the recognition by Congress that health care expenditures are increasing at an unacceptable rate and that public money should be spent in an effort to control this rate of increase - without compromising the quality of care."[11]

An HMO is a corporation, either public or private that provides health services to its enrollees on a contractual basis. Without limitations as to time or cost, the HMO will provide its members with designated "basic services". These include:

1) physician services (consultant and referral services);

2) in-patient and out-patient hospital services;

3) medically necessary emergency health services;

4) out-patient evaluative and crisis-intervention mental health services;

5) medical treatment and referral services for the abuse of or addiction to alcohol and drugs;

6) diagnostic laboratory and diagnostic and therapeutic radiologic services;

7) home health services; and

8) preventive health services (family planning, infertility services, preventive dental care and eye examinations for children).[12]

In addition to this, the HMO can provide supplemental services for an additional fee.

Basic services will be available to members on a 24 hours a day and 7 days a week basis.

The principle behind the creation of the HMO system is that it will emphasize preventive care, out-patient services and continuity of care, and will promote cost effectiveness through competition.

The advantages of the HMO are many: it would eliminate non-essential services. If the medical providers are paid a fixed amount per patient in advance, independent of the amount of care he gives, there is no incentive to give unneeded care, to perform unnecessary operations or to require too many return visits, because there is no more money in it for the provider. Moreover, he will have an incentive to practice preventive medicine in order to avoid the more expensive treatment of the subscriber's illness. Furthermore, the operation would be run on a fixed income, and it will definitely be to the advantage of the HMO to save on operational costs. This will promote efficiency.

The main criticism of the HMO concept is that there are insufficient quality controls. There is indeed a very thin line to draw between eliminating non-essential services and providing sufficient services. It seems, however, that the competition and the potential benefit increase would contribute to keeping the two concepts distinct.

The target of this new concept in health care delivery is ambitious: 1,700 HMO's by 1975, serving approximately 1/5 of the nation, and by the end of the decade, enough HMO's to cover 90% of the population in the U.S.

Planning for better health care obviously means planning for more and better facilities, better financing, and, no less obviously, planning for

manpower to man the facilities and meet increasing demands. Manpower planning dates back to at least 1910, date of the publication of the Flexner Report.[13] Like most american health planning efforts, manpower planning was categorical in that it dealt with one profession at a time. Report titles such as Nurses for a Growing Nation, Physicians for a Growing America, etc. are indicative of such a fact. The shortage of health manpower has increasingly become more acute. In 1966, *skyrocketing* health costs, and the implementation of Medicare and Medicaid prompted President Johnson to create the National Advisory Commission on Health Manpower, to recommend ways of improving the availability and quality of manpower. In 1971, efforts in manpower planning resulted in the passage of the Health Training Improvement Act of 1970 (P.L. 91-519) which provided funds for building teaching facilities, research grants and scholarships. In 1971, the Comprehensive Health Manpower Training Act (P.L. 92-157) provided money to support the costs of education in the health professions. This legislation has yet to prove itself. As of 1974, there is still an acute shortage of all health personnel. This may be due, not to overall numbers, but to the ends to which efforts are directed. As mentioned in CHAPTER I, the overall number of doctors in the U.S. is more than sufficient to establish an impressive ratio of physicians per person. The problem lies in the fact that almost 2/3 of these doctors shy away from patient practice, and drift into the more prestigious worlds of research, public health administration and teaching. Of those who stay in patient practice, most keep clear of general practice and rural areas. In order to be fair, however, one has to mention that in very recent times, there seems to have been a tendency among medical students to

choose general practice over specialization. The lack of health personnel in rural areas, however, remains a very crucial problem.

Several steps have been proposed to increase the supply of medical personnel, and to relieve the shortage in rural or low-income areas. These measures are discussed in detail in CHAPTER V.

The latest chapter in the history of health planning concerns the debate on national health insurance. It is by no means a new topic: The basic idea of people pooling their resources to spread the economic risks of illness goes back to Ancient Greece in the Old World, and to the Marine Hospital Service Act of 1798 in the New World. The concept of compulsory national health insurance, however, is basically a product of the twentieth century. Compulsory national health insurance was first enacted in Prussia in 1854, and Bismarck extended it to the German nation in 1885. After the passage in 1911 of the British National Health Insurance laws, it soon spread to other European nations. Today all civilized nations, with the exception of the United States, have adopted some kind of compulsory national health insurance as part of their social insurance programs.

In this country, debate over this topic has ebbed and flowed for 60 years, during which time a number of legislative proposals have found their way into Congress.

However, since 1969 (onset of the "official" health care crisis), the subject of national health insurance has enjoyed renewed popularity.

Once again, as was the case for Medicare, labor led the way. In 1970, Representative Martha Griffiths of Michigan introduced a bill (H.R. 15779) sponsored by the AFL-CIO. A year earlier, the UAW had organized a Committee

for National Health Insurance (CNHI) and drafted the Health Security Program (S 4297) introduced in August 1970 by Senator Kennedy and fourteen other Senators.

To date, the major current proposals can be organized into three broad categories:

1) A federal program, with compulsory coverage of all or most of the civilian population, with broad and explicitely defined benefits, financed by a combination of payroll taxes and general tax revenues, and administered by the federal government without use of the private carriers.

2) A federal program of voluntary income tax credits to taxpayers and vouchers to non-taxpayers, to help them purchase private health insurance, with minimal benefit standards, and financed entirely out of general revenues.

3) Various in-between proposals embodying some characteristics of each category.[14]

There are three major proposals in Category I: The AFL-CIO sponsored Griffiths bill, and the Kennedy (NCHI) bill, both aiming at universal coverage. Both bills cover all citizens in the U.S.; they eliminate all other federally sponsored medical programs, except Medicaid and CHAMPUS (Civilian Health and Medical Program of the Uniformed Services), and give no role to private health insurance. Both bills provide a wide range of benefits that include all physician services and hospitalization. There are limits on most other services (dental, psychiatric private care, drugs, etc.).

Both proposals would be financed on a tripartite basis from general federal tax revenues (40%), employers (35%) and employees and other

individuals (25%). Both programs would be operated in their entirety by the federal government (HEW and its regional units).

As far as administrative functions are concerned, the Kennedy bill advocates a 5-man full time Health Security Board appointed by the President, and serving under the Secretary of HEW to establish policy and regulations, and an executive diréctor appointed by the Board. There would also be an advisory council, and technical advisory committees.

The Griffiths bill recommends a 9-man Board (six full-time, and three top HEW ex-officio), advised by a consumer council and a professional council.

Both programs aim at restructuring the delivery system, and especially to promote comprehensive health service organizations. The Kennedy bill calls for a massive multimillion dollar planning and grant-in-aid program, dealing with both facilities and personnel training. The Griffiths bill and the Kennedy bill both would establish a revolving fund aimed at developing comprehensive delivery systems.

In Category II, we find the Broyhill-Fulton bill (H.R. 18567) which represents the opposite end of the spectrum from the labor bill. First of all, under this bill national health insurance would be voluntary instead of compulsory. None of the federally sponsored medical services organizations would be tampered with, although the Medicaid load would probably be reduced. The whole proposal is to help families purchase health insurance from private carriers, through a system of tax credits of federally financed certificates in lieu of credits for people who do not pay taxes.

Benefits offered by the Broyhill-Fulton bill include:

1) Basic benefits: 60 days in-patient care, unlimited emergency care, complete coverage of M.D. or D.O. services; and

2) One or more supplemental benefits: drugs, blood in excess of three pints, etc.

The program would be financed entirely out of federal general revenues, and would be administered through a Health Insurance Advisory Board of eleven persons, including the Secretary of HEW and the Commissioner of Internal Revenues.

One unique feature of this bill is that it provides for the establishment in each state of a Peer Review Organization (PRO) to review "the need for and quality of...medical and other health services, and the appropriateness of charges for such services."

The proposals falling into Category III are numerous and stand somewhere in-between the extreme centralization of Category I and the extreme permissiveness of Category II. The most structured of these bills is that proposed by Senator Javitts (S 3711). He intends to build up Medicare and extend its benefits to the entire population. To the present Medicare benefits would be added drug and dental benefits plus provisions for annual physical examinations.

Financing would be on a tripartite basis; however, the federal share would be limited to the coverage of the unemployed and public assistance recipients. The "new" program, just like present Medicare, would be administered by HEW. The Javitts bill will also encourage the development of more effective health care delivery systems, provides special grants for

group practice plans, and allow contracts with "comprehensive service systems" on a basis that will enable them in any savings.

Traditionally, the opposition to National Health Insurance has stemmed from devotion to private enterprise, opposition of the AMA, and the absence, until very recently, of a political counterforce to the AMA.

However, since the late 60's, the doubling of medical costs has made cost-containment the major new political strategy in health care. To quote Pierre de Vise:

> "We conclude that the only thing wrong with a workable national health insurance program for the United States is that our doctors will not accept it and our citizens will not dictate it on recalcitrant doctors. We must resign ourselves to an unworkable national plan that will so exacerbate the present dilemna of poor access and runaway costs that either the doctors or the citizens will have a change of heart, and decide the rest of the civilized world in making health care part of the public interest."[15]

It seems that in 1974, a high enough level of ineptitude and consequent frustration has been reached to ensure the prompt passage of some sort of national health insurance program.

HEALTH PLANNING AT THE STATE LEVEL: THE KANSAS EXPERIENCE

Public Law 89-749, the enabling legislation for comprehensive health planning points to the state government as the critical element in achieving the stated goals of national health policy. The responsibilities of the state government are many:

1) the governor is authorized and encouraged to create or designate a single agency to be entrusted with the task of comprehensive health planning.

2) He must appoint an advisory council.

3) He must complete a plan coordinating health activities within the state, and form the basis for federal support to state and local health activities. Finally,

4) the state is responsible for stimulating and coordinating health planning activities within its regions.

In Kansas, the State Board of Health was designated by Governor Docking to be the State Comprehensive Health Planning Agency. The Governor also established a thirteen member advisory council, the Coordinating Council for Health Planning, to advise the Board of Health in the health planning process.

The health planning process differs only little from the general planning process, in that it includes the main elements identified by J. Brian McLoughlin in his definition of planning as a "cyclic process":

1) The environment is scanned, and on the basis of values held by the individual or group, certain needs or wants become apparent, some of which might be satisfied through the physical relationship with the environment.

2) Goals are formulated in broad terms and perhaps at the same time, certain more precise objectives (which must be reached in order to move toward goals) are identified.

3) Possible courses of action to reach the objectives and move toward the goal are examined.

4) Evaluation of these possible courses occurs by reference to the means available, the costs likely to be incurred in overcoming the constraints on action, the benefits likely to be derived, and the consequences of action, as far as can be seen.

5) Action is taken on the basis of these considerations. The action modifies the relationship between the individual or group and the environment; it will also alter the environment itself and, in time, the values held about it. The environment continues to be scanned and new goals and objectives may be formed.

Thus the cycle is completed and begins afresh.[16]

The health planning process differs from this general outline in that, first of all, the means to planning themselves have to be planned. The comprehensive health planning agency and the councils have to be organized before much planning can take place. More so than in general comprehensive planning, there has to be a great emphasis on coordination. In his book, Public Expectations and Health Care, David Mechanic suggests that the american health care system is or will soon be a $100 billion business, in which the variety and complexity of arrangements for financing and distributing medical care are staggering. There is no study of the american system, or rather non-system, of medical care that even begins to describe, in any comprehensive way, existing medical arrangements, and we often lack even the most superficial information concerning the provision, distribution, and quality of care obtained for our vast investment.[17]

To fail to fully inventory, coordinate and utilize existing facilities and programs in a system plagued by insufficient manpower and facility resources is only to compound the problem several folds. A typical outline of the health planning process is that developed in 1969 by Harold F. Wise and Associates.

Step 1. Organization and development of the comprehensive health planning agency or council. Development of community understanding and support.

Step 2. Development of detailed working relationship with other agencies which have concerns, interests and activities in the area of comprehensive health planning. These include agencies and organizations having to do with health services, facilities and manpower in the physical, mental and environmental health areas.

Step 3. Development and articulation of health goals, policies, objectives and priorities by the advisory council in

conjunction with the staff. Goals are generally being defined as statements of the methods and procedures by which goals will be realized. Objectives are being defined as purposes which are short range in character and incremental steps toward realization of goals. Priorities are simple statements as to which things must be done in what order of importance.

Step 4. Description of the way in which the health care system currently operates. This includes a description of what agencies and institutions and organizations are offering what services to whom, under what conditions and with what resources.

Step 5. Description of the health status or condition of the population of the area. This involves development of data about the major negative and positive indicators of health in the community.

Step 6. Identification of gaps, duplications and major problems. This will become possible once the first five steps have been taken. Here it will become possible to state that given certain goals, the community stands at a certain distance from those goals at present and has certain tools and resources available to it. Major gaps in services, as well as duplications can be identified, and major problems or barriers to the achievement of goals can be delineated.

Step 7. Identification of needs. This step follows logically from the one just completed, since once the distance between the present and the desired future is known, and once the barriers to achievement of that future are described, needs can be set forth in relatively clear terms.

Step 8. Development of programs to meet needs. Programs are generally being defined as specific and detailed activities designed to achieve objectives. Specific programs can be set forth once needs are known. Program development involves a determination first of priorities among needs, and then a clear description of the program, its contribution to meeting the objective and the long range goal, and the resources required, in terms of funds, personnel, time, and changes in procedures, regulations and legislation, to make the program successful.

Step 9. Establishment of a comprehensive, long-range planning program, with detailed planning for one or two years in

advance and more general planning for a longer range of perhaps five years to a generation.

Step 10. Establishment within the planning program of regular procedures for evaluation of the progress made by programs toward goals and objectives. This procedure permits regular reevaluation not only of the programs themselves, but of the goals, policies, objectives, and priorities of the community.[18]

The Kansas Board of Health is the sole and official state agency empowered to administer and supervise the state comprehensive health planning functions. The Coordinating Council for Health Planning assists the State Board of Health and the staff of the Comprehensive Health Planning program in conducting comprehensive health planning activities and in setting priorities for health needs throughout the state. The Advisory Council also alerts the Board to problems and developments relating to health, facilitates communications and cooperation among health agencies, organizations, professions and the public.

The Areawide Comprehensive Health Planning Councils are statewide committees of the Coordinating Council.

Their purposes are many. The areawide councils were developed to establish grass-root contact between the providers and consumers of health care, and to provide for local input into the decision making process at the state level. These councils are voluntary organizations designed to represent the largest possible number of people. According to state guidelines, the representation must be unevenly divided between providers and consumers of health care, with a larger number of consumers, to eliminate as much as possible the influence of vested interests. The regions comprising the areawide Councils have been designated by local option. However, to allow

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MAP 1

KANSAS AREAWIDE COMPREHENSIVE HEALTH PLANNING COUNCILS - 1973

Approved		
x	1.	Mid-America Comprehensive Health Planning Agency, Inc.
x	2.	Southeast Kansas Health Planning Council
x	3.	Flint Hills Area Health Planning Council
x	4.	Health Planning Council of South Central Kansas
x	5.	Southwest Central Area Health Planning Council
x	6.	Southwest Plains Region Health Planning Council
x	7.	Far Southwest Region Health Planning Council
x	8.	Far Northwest Region Health Planning Council
x	9.	Northwest Central Region Health Planning Council
	10.	North Central Region Voluntary Health Planning Council
x	11.	Northern Flint Hills Health Planning Council
	12.	Five-County Health Planning Council
x	13.	Capital Area Health Planning Council
x	14.	Northeast Kansas Region Health Planning Council
x	15.	Mo-Kan Bi-State Health Planning Council
x	16.	Bi-County Comprehensive Health Planning Council

the planning function to take its course properly, the regions encompass a reasonable market area comprising several counties, or a central city and its surrounding counties, as in the case of Wichita, Kansas City or Topeka.

The following is a definition of the Health Planning Region, provided by the State Health Planning function:

1) A health region should serve as a "community of solution" for personal and environmental health problems, in which health planning and delivery of services can be based on health problem sheds and health service marketing areas, rather than primarily on political jurisdictions.

2) Health regions should have sufficient health-related resources to provide a broad range of health programs, facilities and manpower to meet most of the health needs of the region's citizens.

3) Regions should be organized around major health care "hubs" or centers, which have sufficient resources to provide complete health care services for the region's citizens, including individuals from small communities who may be referred for specialized care.

4) Health regions, insofar as possible, should correspond with state-wide economic regions to facilitate the coordination of health activities with other functional areas of state government and the state's economy as a whole.

5) Regions should form meaningful statistical areas for assembling health-related data and information which can be used for both planning and evaluating health problems.

The primary function of an Areawide Council is to identify the health needs and problems of their area and to evolve goals and priorities which will meet the needs and solve the problem. The goals of an Areawide Council have been identified as:

1) Stimulate community discussion and identification of health goals and needs;

2) Coordinate for maximum use all existing and planned facilities, services and manpower in the fields of physical, mental and environmental health.

To achieve these goals, the Areawide Councils must provide an assessment of the region's health needs and problems, as well as an inventory of its resources, such as the number and type of health services provided, the facilities and manpower available, etc. A second step is the establishment of the goals, from the information obtained, as to resources and needs. At this stage, priorities would also be set. The third step is to examine alternative ways of meeting goals and objectives, and to develop procedures and principles that will provide a framework for fair and impartial evaluation of all plans and proposals for health facilities and services.

Each Areawide Council is divided into subcommittees dealing with specific areas of concerns such as facilities, manpower, mental health, etc. APPENDIX B represents the work program of one Areawide Council (North Central Health Planning Council), and it is hoped that the activities of the Council as a whole and the charges to the different subcommittees will contribute to the understanding of the contribution of the Areawide Councils to the State Health Planning function.

A typical program would include items such as:

1) Identify health problems, needs and resources.

2) Recommend goals and objectives.

3) Promote development and effective utilization of the area's health resources.

4) Recommend actions to be taken by both public and non-public providers of health resources.

5) Work with other planning and service organizations to assure that current and future health manpower, services and facilities for the prevention of disease and injury, and for health care and rehabilitation will be coordinated with one another and with statewide programs.

6) Provide a framework for strengthening specialized health planning efforts by relating objectives in these specialized areas to each other and to overall needs and resources of the state and by recommending action to coordinate the health services and resources under various auspices in the area.

CHAPTER III

FOREIGN HEALTH PLANNING SYSTEMS

GOVERNMENTAL ORGANIZATIONAL THEORY IN HEALTH PLANNING

It has been proven at length in the first chapter that the United States are slipping behind most of the European nations in their ability to keep their citizens alive and well. It is useless to repeat here the numerous and well-known health statistics establishing our poor showing in all health matters, especially infant mortality and life expectancy which are the two most important mirrors of any health care system. It is also time to destroy the conscience-numbing beliefs that our ranking is negatively affected by the high mortality rates of the low-income classes. Numerous studies have shown that controlling for these factors (increased mortality rates of the poor) only achieves a slight upgrade of our status (11th as compared to the previous 14th position, and to 3rd position for the Netherlands). Our overall health rates put us on a level comparable to that held by countries that we consider at best "slightly" underdeveloped, such as Romania, South Vietnam or Venezuela.

On the other hand, our resources, be they knowledge, facilities and certainly money, are enormous, and should present no problem in allowing us to take the lead in most health care matters.

In spite of efforts at all levels of the government, our health care system is characterized by unhealthy statistics, soaring costs and increasing frustration over the quantity and quality of medical care. Every year, billions of dollars are poured into the system to create new programs or build new

facilities. After so many unsuccessful attempts, the politicians dedicating the new facility or officially introducing the new program are the only ones capable of mustering any enthusiasm. Until very recently, the American public held an attitude of "wait and see" and of quiet desperation.

The very frustrating part of the problem at hand is that with so many more resources than the other nations, we should do so much worse than they in making health care equally accessible to all. A very embittered William Ryan writes in Blaming the Victim:

> "On the average, the physical health of the American people is in a shameful state. I say "on the average" because health is a typical American product in that it is distributed unequally. The majority of Americans are in rather good shape, yet in our technologically advanced, science-worshipping, pill-swallowing nation, about one-fifth of the population suffers from blatant medical neglect."[19]

It is all too evident that the poor suffer from "blatant medical neglect"; however, that "the majority of Americans are in rather good shape" is another myth. The white middle-class man may be better able to secure curative services; however, the complete inability to secure preventive care puts him and keeps him at the edge of disaster. One statistic will suffice to prove that the average American is not all that well off when it comes to medical care: The average white might well expect to live a decade longer than his black counterpart, but on the other hand, an average Swede will, in all likelihood, live another 7 or 8 years longer than he.

The American public has finally come to realize that the state of the care he gets is a national disgrace. It seems unlikely, in the light of the increasing grumbling and complaining done by health care consumers, that the politicians will get away much longer with sporadic and superficial

strengthening of the health care structure, as it is presently organized. What is now needed is not more patching up, but a major overhaul.

Since health needs can be assumed to be more or less similar among all groups of individuals, regardless of their geographic situation, and since we have so many more resources than any one else in the world, it would seem logical to attribute our failure to lack of organization and misallocation of resources, the latter being a direct consequence of the former.

American health care has developed over the years in response to locally felt needs, answered locally by private profit-making enterprises or by voluntary institutions. Because of the private character of these health care delivery functions, there have been until recently little or no effort to force efficient use of the available resources. Today, the American health care industry has become a $100 billion business. Yet it still retains its parochial organization, its primary profit-making outlook, and its characteristic and traditional lack of foresight.

This third chapter has for purpose to study the major trends in international health planning. Three particular approaches will be studied: the pragmatic approach, representative of the american non-system, and of most developing countries; the PAHO-CENDES method, developed by the World Health Organization; and the Swedish model, universally accalimed as a truly comprehensive health care delivery system. It is hoped that a look at the organization of health care planning in various settings will bring about suggestions and recommendations to be applied to our present faculty "non-system" of health care delivery.

Since organizations are made up of men gathered for the purpose of furthering in one sense or another, human well-being, and since a long and healthy life is not only a human expectation, but also a birthright, it seems necessary to preface this chapter with a study of the theory of organization insofar as it relates to health planning and the health care delivery system.

It has been said that Man is a social animal. This appears to be the truth, along with another characteristic, that of being a highly organized animal. From the moment of his birth, Man is involved with a great many organizations that dictate his values, his thoughts, and the use of his time. Through organizations, Man gets his education, is entertained, works and worships. The greatest and most powerful of all organizations, the state, dictates and supervises a great deal of his daily life.

Organizations are not a new "modern" phenomenon, born out of the increasing complexity of life. Since the beginning of recorded history, organizations have provided the means through which progress has taken place. One of the most extraordinary examples of organization is the administration of a complex political body such as the Roman Empire, which managed to survive, thrive, and set the example of real civilization for approximately 400 years, at a time when the fastest means of communication between the major points of the incredibly vast expanse of land was the horse. The Roman Empire was a masterpiece of organization; a much smaller unit, such as a family, dedicated to the common goal of preserving its well-being, and promoting its economic welfare, is only a slightly different kind of organization.

Within the same framework, one can distinguish between two sorts of organizations:

1) Formal organization, Etzioni suggests, generally refers to the organizational pattern designed by management: the blueprint of division of labor and power of control, the rules and regulations about wages, fines, quality control, etc.

2) Informal organization refers either to the social relations that develop among the staff or workers above and beyond the formal one determined by the organization, or to the actual organizational relations as they evolved as a consequence of the interaction between an organizational design and the pressures of the interpersonal relations among the participants.[20]

Organizations find their raison d'etre in two principal factors:

1) Man, as part of a united group, can provide more goods or benefits for himself than would be possible if he were acting on his own.

2) By decentralizing authority to several members of the organization, a higher level of efficiency can be achieved, as long as the different authority holders share in the same beliefs and values.

Modern society, unlike its predecessors, has come to place a high moral value on such concepts as rationality, effectiveness and efficiency. Therefore, organizations have become a fact of life, a necessary evil, and an omnipresent phenomenon. Increasing population and urbanization probably played a major part in the spread of organizations, by bringing Man closer to his counterparts, in a situation where there is a high level of interdependency. Man's actions, even the least significant ones, greatly affect his neighbors, and vice-versa.

Organizations have evolved into large groupings of people, all sharing the same values, brought together for the purpose of achieving a common goal, the benefits of which are typically to extend beyond the immediate membership of the organization. This is not usually accomplished without some sacrifice of individual liberties. The reward lies in the fact that the organization can reap benefits that individuals could not secure for themselves. Upon this assumption, Etzioni comes to make the following conclusion: "Organizational rationality and human happiness go hand in hand."[21]

Organizational rationality and human happiness cease to be a cause and effect process when the organization's primary goal becomes its own perpetration, and when the sacrifices asked of the individual outweigh the rewards to be gained. The organization is a means to an end, not an end in itself. When it becomes the latter, it has obviously outlived its usefulness.

The two basic components of any organization are people and goals. People, because they make up the organization, and run it, and goals because they are the raison d'etre of the organization. Since the beginning of the twentieth century, scientists have poured over the nature of organizations, and the problems associated with them. There have been two main lines of development in traditional organization theory.

First of all, Frederick Taylor investigated the effective use of human beings in industrial organizations, within the framework of the scientific management movement. His main concern was restricted to men as "adjuncts to machines in the performance of routine tasks."[22] This outlook brought about considerable precision of movement in the performance of

assigned work, where every gesture was programmed and "organized" as to minimize human fatigue and maximize productivity.

However, the passage of time since Taylor has indeed brought about a great deal of mechanization, and "scientific management" and "physiological organization" of the kind Taylor supported find themselves less and less relevant.

A new approach to organizational theory was born in the 1920's: Elton Mayo, John Dewey and Kurt Lewin studied elements of the organization in which Taylor had shown little or no interest. This new approach, the Human Relations approach, focused on the role of communication, participation and leadership. Mayo discovered that organizations present a set of interesting characteristics, among which:

1) The amount of work carried out by a worker (and hence the organizational level of efficiency and rationality) is not determined by his physical capacity, but by his social "capacity".
2) Non-economic rewards play a central role in determining the motivation and happiness of the worker.
3) The highest specialization is by no means the most efficient form of division of labor.
4) Workers do not react to management and its norms as individuals but as members of groups.[23]

The Scientific Management School and the Human Relations Movement were almost diametrically opposed. The former saw the worker as a primarily economically-motivated man. This being the case, the more

efficient the organization, the higher the productivity of the worker, and the higher his salary, therefore the most completely satisfied his desires. On the other hand, the Human Relations movement holds that the most satisfying the organization, the more efficient it will be because it will create in the worker the desire to fully cooperate.

Both movements assumed that the organization's quest for rationality, and the human search for happiness were not in basic contradiction.

A third school of theory of organization was that of the Structuralists. It was a synthesis of both previous ideologies, and as such, cannot claim to be a main development of organizational theory. But it goes one step further, in that it recognizes the inevitable organizational dilemna: sooner or later, there will be a conflict between organizational and personal needs, between management and workers. The Structuralist school was also the first to stray from solely industrial and business organizations, and took on "social" organizations such as schools, prisons, hospitals, etc.

Max Weber, the major contributor to the Structuralist Movement was concerned with the distribution of power among the organizational positions in the bureaucratic structure.[24] This concern is of very great importance to this study, as the problem of health planning is almost primarily one of power. Almost any competent and interested individual can readily identify the problems of distributing health services, and the same person also can provide recommendations on how to bring about improvement. The problem is, and always has been implementation; how to bear upon immensely powerful special interest groups in the interest of the public?

The first characteristic of the organization, according to Weber, is that it can rely on its power to make participants obey: It has resources that it can use to reward those who follow its regulations, and to punish the recalcitrant members. An organization like the AMA, through contributing to presidential campaigns, and other Brownie-points-getting activities, has placed itself beyond the organization. In Russia, on the other hand, dissidents are quickly arrested, and never heard from again. The organization, in that case, is all powerful.

Another important concept of Weber's is that of legitimation, or the degree of "acceptance of the exercise of power because it is in line with values held by the subjects."[25] Obviously, if the AMA's primary value was to make adequate health care accessible to all, instead of nurturing the discrepancy between an inordinately high demand and a relatively low level of supply, it would have long ago, reopened widely its doors to competent medical students. Half of the health care crisis would have been solved, or maybe never would have come into existence at all.

Weber defines "authority" as the combination of "power" and "legitimation": Authority is the power that is viewed as legitimate. He distinguishes between three different kinds of authority. It is traditional when it is accepted on the grounds that this is the way things have always been done. In most families, for instance, we find "traditional" authority, even though the Women's Liberation Movement is trying to change that. Authority can also be bureaucratic when a ruling is justified because it agrees with a set of more abstract rules considered legitimate by the public. In the U.S., authority is typically "bureaucratic". Finally, under certain

circumstances, authority can be charismatic, when it is conveyed through the influence of a ruler's personality, with which the public identifies largely. Hitler and Stalin certainly made significant use of "charismatic" authority. Different authority relations arise in different social structures, but Weber suggests that in a modern societal set-up, only the "bureaucratic" type of authority leads to efficient organization. Not to say that it does not have its failures too; it is typically limited in scope, and does not transcend social realms. Furthermore, it seems to require a level of self-denial that is difficult to maintain. But it is more stable than "charismatic" authority, and possesses a larger scope than the "traditional" model.

Weber suggests that the organizational structure is very fragile, and is constantly threatened by external pressure to change its goal and lose its identity. In the following paragraph, taken from Etzioni's Modern Organizations, Weber spells out the features of the bureaucratic (or organizational) structure:

1) "A continuous organization of official functions bound by rules." Rational organization is the antithesis of ad hoc, temporary, unstable relations; hence the stress on continuity. Rules save effort by obviating the need for deriving a new solution for every problem and case; they facilitate standardization and equality in the treatment of many cases. These advantages are impossible if each client is treated as a unique case, as an individual.

2) "A specific sphere of competence. This involves (a) a sphere of obligations to perform functions which have been marked off as a part of a systematic division of labor; (b) the provision of the incumbent with the

necessary authority to carry out these functions; and (c) that the necessary means of compulsion are clearly defined and their use is subject to definite conditions." Thus a systematic division of labor, rights, and power is essential for rational organization. Not only must each participant know his job and have the means to carry it out, which includes first of all the ability to command others, but he must also know the limits of his job, rights, and power so as not overstep the boundaries between his role and those of others and thus undermine the whole structure.

3) "The organization of offices follows the principle of hierarchy; that is, each lower office is under the control and supervision of a higher one." In this way no office is left uncontrolled. Compliance cannot be left to chance; (emphasis added) it has to be systematically checked and reinforced.

4) ...

5) "It is a matter of principle that the members of the administrative staff should be completely separated from ownership in the means of production or administration....

6) In order to enhance this organizational freedom, the resources of the organization have to be free of any outside control and the positions cannot be monopolized by any incumbent. They have to be free to be allocated and reallocated according to the needs of the organization. "A complete absence of appropriation of his official positions by the incumbent" is required.

7) ...

Weber pointed out that officials should be compensated by salaries and not receive payments from clients to ensure that their primary orientation be to the organization, to its norms and representatives. Moreover, by promoting officials systematically, thus channeling their ambitions by providing them with careers, and by rewarding those loyal to it, the corporation would reinforce this commitment.[26]

Weber went a little too far in advocating a rigid machine-like organization. In his opinion, the perfect bureaucracy was the most effective type of organization, in which "the management was based on written documents and most of the decisions were made at the top and passed down through a hierarchy of officials who carried their duties in accordance with prescribed routines."[27] Etzioni best expressed the shortcomings of Weber's theory by saying that "bureaucratic organizations tend to break either in the charismatic or the traditional direction where discipline relations are less separated from other, more "natural", "warmer" ones.[28]

Yet, Weber's theory represents the first attempt to study the organization as the complex process it really is, with all of its structural and behavioral components. We owe him the first objective look at the nature of organization.

The science of Linguistics teaches us that individual words by themselves are of little value until they have been molded into a language that can communicate ideas. The same holds true of health planning: Individual health resources are useless until they are organized into viable health services. Health planning organizations, unlike the institutions[29] studied by Taylor, Mayo, and to a large extent Weber, are not concerned with the output of

units of production, but with three different problems: Structural and behavioral matters, and information systems.

Most human beings have a limited capacity to perform the wide range of activities required in an organization. The formal structure is therefore characterized by specialization, which in turn creates friction among different groups. While most activities in health planning are compartimentalized to a degree, actions and repercussions know no departmental boundaries, and tend to create allocational problems, when, as so often is the case with medical programs, two or more activities vie for scarce available resources. One of the main concerns of the organization in the health planning field will therefore be with allocation.

The structure of the organization is also a concern that directly affects problem 3) mentioned above, the information systems. As will be seen in the following section, information systems make up a significant part of the health planning organization.

The organization can have a "steep" or a "flat" structure; in other words, it can be "centralized" or "decentralized". The steep, or centralized structure forms a long chain of command with many layers. The administrator at the top of the pyramid receives only a very limited amount of screened information. This, presumably, enables him to devote himself entirely to crucial decisions, the less important matters having been dealt with by subordinates. The obvious drawback of "steep" organizations is that data and information are distorted as they move up and down the line of authority. At each level, the person in charge decides what is worthy of being passed on to the next level, and what is not, so that, at any point, important data may reach a dead end,

while relatively inconsequential information will be passed on. In a chart showing a hypothetical flow of information in a seven level structure, William Reinke postulates that of 2,048 pieces of data received by Level G, only 17, through screening, would reach Level A and be acted upon. This means that only .0083 percent of the data initially gathered were found worthy of action.[30]

An obvious way of dealing with this large-scale apparent waste of data is to flatten the structure so that more direct contact can be afforded between subordinates and higher level administrators. This decentralization, however, usually leads to a deluge of information that can neither be assimilated nor rejected. Decentralization in decision-making appears to be necessary because of the increasing scope and size of the programs, and the diversification of their activities. Pushing decisions as far down the line of command as possible would provide a means of getting better decisions and higher morale. Better decisions would result from decision-making being the task of those closer to the scene of action. In a field involving somewhat emotional issues (such as the right to health care), one may wonder whether remote decision-making (from the top) might not be preferable in terms of providing "cooling-off" time-lag and avoiding hasty decisions. The other factor in favor of decentralization can hardly be contested. Distributing decision-making authority down the chain of command improves the participants' morale and dedication, and encourages initiative.

Whether or not decentralization is a feasible alternative depends on the type of organization one deals with. In an industrial complex, where tasks are largely routine, and problems hardly ever interfere with production,

decentralization would largely consist of a reduction of direct supervision, and entail little more than a change in formal titles.

In an organization dealing with research activities (which would be the case of health planning), decentralization does not appear to be a very positive innovation. There is little routine work, and a great amount of specific problem-solving, each involving a new area of activity and an original solution. Decentralizing the chain of authority would almost presuppose that the same level of training and capability should be expected throughout the whole unit, to equalize the decision-making ability. It seems a better alternative to perpetrate the chain-of-command type of organizational structure, while trying to eliminate unnecessary intermediary levels that lessen general efficiency.

Organizational entities are far more than inanimate structures. Their rise and decline, and the need for viability in the face of destructive forces cause them to have a dynamic character. In the long run, they face extinction unless they can change and innovate. In the short run, they demand stability, and thus seek a comfortable routine. This dichotomy causes a lot of organizations to be in a constant state of tension. Two laws have evolved from this situation:

1) Law of Countervailing Goal Pressures. "The need for variety and innovation creates a strain toward greater goal diversity in every organization, but the need for control and coordination creates a strain toward greater goal consensus."[31]

2) Law of Increasing Conservatism. "All organizations tend to become more conservative as they grow older, unless they experience periods of very

rapid growth or internal turnover.... They formulate more extensive rules, learn to perform their tasks more efficiently, broaden the scope of their activities, develop more rigid procedures, shift their attention from task-performance to organization survival, and devote a higher proportion of their activities to internal administration."[32]

The behavioral characteristics of the organization depend on the participants themselves. In an article dealing with coordination in health planning, Morris states that the major impetus for change within the organization usually comes from one or two key leaders, who usually belong to a guiding subgroup sharing religious or ethnic backgrounds. Downs discussed five different types of officials who can be classified into two major classes. These individuals are motivated differently by factors such as power, income, security, creativity, loyalty to an ideal or an institution, and desire to serve the public interest, and play a distinct role in each of the stages of growth of the organization.

A. Purely self-interested officials are motivated almost entirely by goals that benefit themselves rather than their bureaus or society as a whole. There are two types of such officials:

   1) Climbers consider power, income, and prestige as nearly all-important in their value structures.

   2) Conservers consider convenience and security as nearly all-important. In contrast to climbers, conservers seek merely to retain power, income, and prestige they already have, rather than maximize them.

B. Mixed-motive officials have goals that combine self-interest and altruistic loyalty to larger values. The main difference among the three types of mixed-motive officials is the breadth of the larger values to which they are loyal. Thus:

   3) Zealots are loyal to relatively narrow policies or concepts, such as the development of nuclear

submarines. They seek power for its own sake and to effect the policies to which they are loyal. We shall call these the sacred policies.

4) Advocates are loyal to a broader set of functions or to a broader organization than zealots. They also seek power because they want to have a significant influence upon policies and actions concerning those functions or organizations.

5) Statesmen are motivated by loyalty to society as a whole and a desire to obtain the power necessary to have a significant influence upon national policies and actions. They are altruistic to an important degree because their loyalty is to the "general welfare" as they see it. Therefore, statesmen closely resemble the theoretical bureaucrats of public administration textbooks.[33]

Downs observes that almost every organization goes through a rapid growth before reaching what he calls "its initial survival threshold". During the growth period the organization contains a high proportion of zealots who helped to establish it and climbers who have been attracted by its fast growth. Ultimately a high proportion of the organization's membership tends to be converted into conservers because of the increasing age and the frustration of ambitions for promotion. The squeeze on promotions also tends to drive many climbers out of the organization into faster growing agencies if alternatives are available. From this point of view, then, the nature of individuals, with their private goals, combined with the more or less natural course of events, results in the organizational patterns of growth, decline, energy and stagnation that we have come to recognize.[34]

Organizations make decisions, and decisions are made as a result of gathering information. In a broad sense, the health planner is also a "physician" who attempts to diagnose health problems and to recommend appropriate kinds of treatment in the form of services and programs. He too,

like a hospital, must deal with an information system with three components: basic data collection and storage, processing and analysis, and recall and utilization. The required information consists of demographic census data, tax records, etc. These data are analyzed and summarized in terms of population growth and migration patterns, hospital admission trends, physician utilization rates, etc. The information is not only used by the planning body, but also provides a feedback for purposes of updating, revision and control.

In observing the decision making and the data gathering processes, Alexis and Wilson emphasize the role of "perception".[35] Reinke also remarked that the more vague the information, the greater latitude officials have in interpretation. They might emphasize one ramification of the data as being more probable, not because it is, but because the occurrence of that result would benefit them more than other possible outcomes. According to Alexis and Wilson, processes of perception are important for two reasons:

1) They provide the means of gathering information from the environment. Through perception, facts become a reality to individuals.
2) As a consequence of not dealing with the facts per se, interpersonal information flows are colored by the perceiver's biases or "filtering" mechanisms.

It is important, therefore, that the administrator be sensitive to the personality and social forces impinging on information gathering and problem solving in organizations. The manner in which an organization perceives the information depends upon its goals, aspirations and needs.

The field of health planning can be compared to an arena in which two major groups confront each other: The health care consumers and the health care providers. The latter group as a whole has money, influence and no desire to change the status quo. The former group is, very literally, fighting for its life. There is a very strong incentive to collect health planning data through the professional group because of the technical nature of the data involved, that "laymen" might either misunderstand or misinterpret. But the obvious, and in a way, natural, biases of the professionals prevent this from happening.

The Areawide Health Planning Council framework through which Kansas health planners operate provide what looks like a satisfactory process. A group of "advisers", divided almost equally between health consumers and providers, provides the state health planning function with data on which to organize the planning process. The major drawback of this type of data gathering process, is that the councils are formed by well-motivated selfless "amateurs", and that the reports, understandably so, lack the professional quality that could maximize their usefulness. This process, however, provides citizen input, so important to the acceptance of the plan by the public, and supplies as unbiased information as one might hope for. Once the council has turned in its report, its role is over (for that particular activity); the matter is entirely out of its hands. The planning function is a three stage process: the State stands in the middle; it receives recommendations from the Councils, acts upon these, goes to the Federal Government for funds, and if the outcome of the request is favorable, plans for what the Council asked for in the first place. Obviously, the process is not ideal.

The following sections show how other countries with much the same problems go about planning for health care.

HEALTH PLANNING IN THREE DIFFERENT SYSTEMS

Three specific approaches will be studied in this Section:

1) the pragmatic approach characterizes developing countries, because it is by nature very adaptive to changing conditions. It is also the first step in the progression toward true comprehensive planning.
2) the Swedish health care delivery system has rightly won for itself a reputation for being the only truly comprehensive health care delivery model in the free world. Its most interesting features include a sophisticated regionalization model, and a consumption unit index.
3) the PAHO-CENDES method, developed by W.H.O. represents a very accurate way of determining the priorities in health planning.

It is believed that these major contributions to health planning on an international level will yield concepts that can be applicated to Kansas.

It is obvious that other systems could have been studied; in particular, one can think of the Russian method. However, this was not done because of the inherent discrepancy in governmental philosophy between the two countries. The average American mind does not take too kindly to attempts on the part of the government to regulate his life; therefore, the Russian

model could probably not be adopted to the American situation without being changed beyond recognition and usefulness.

The pragmatic approach to planning is a practical, "gut-reaction" and intuitive manner of dealing with health care problems. There are no clearly defined methodologies that regulate the data gathering process or the utilization of that data. No specific guidelines have been established as to particular techniques of analysis and measurement. Therefore, whatever data gathering and analysis has been done in previous stages of the planning process, has little, if any, impact upon final decision-making.

For several reasons, that will be elaborated upon further, pragmatic planning has mainly been applied in less developed countries.

The problems that make pragmatic planning so well-suited to the special needs of the developing countries, are of two sorts: economic and administrative.

The economic status of the developing country is summed up very accurately in a remark by Gunnar Myrdal:

> "The now widely used term "developing countries" is one of those diplomatic euphemisms.... The really important aspect of their situation and the meaning that seeks expression is not that they are developing, but that they are underdeveloped, that they need to develop, and that they ought to develop, and in some cases, are planning to develop.
>
> Also, by using a term that presupposes that these very poor countries are now developing, and implies that they will continue to develop, an important question is begged."[36]

Unfortunately for the countries under concern, their potential for development does not look too encouraging. Between the 1950's and the 1960's, far from increasing, the pace of economic development has been slowing down.

According to the United Nations Economic and Social Council, the annual per capita growth rate in domestic product dropped from 2.7% in 1950-55 to 2.0% in 1960-65.

This prompted Bryant to state:

> "The rates of economic growth for many of the less developed countries provide a somber picture for their futures. They indicate that now and in the foreseeable future, resources will be desperately limited. Indeed, these limitations are relentless determinants of the design of health services."[37]

In Africa, the obtention of independence has been coupled with a desire to "have something to show for it"; this has resulted in a tendency on the part of the political leaders to earmark their country's meager resources on a grandiose scale that commits them to living way beyond their means. Increasing health planning funds have been more than counterbalanced by inflation and population growth.

Raising funds is also a problem. Foreign aid is sometimes available for capital investment, but recurrent expenditures must normally be funded from domestic sources.

Developing countries have recently started moving away from the neo-classical planning approach which related to investment in physical capital to economic development - this latter notion has been widened to encompass investment in human resources.

Because the basic elements of human welfare are missing from most developing countries, the concept of human resources covers such things as nutrition, housing and education facilities, education, clothing, etc., and any other factor that might relate (directly or indirectly) to health.

The emphasis on human consumption is therefore a factor of much relevance to the developing countries: much more is to be gained by improving the nutrition of an average citizen in Africa than in the U.S.

In the main, administrative problems arise from the fact that the social welfare system established in the developing country by the colonial powers were based on European models, and in many ways, were ill-suited to the peculiarities of the country they were endeavoring to serve. Contrary to widely held beliefs, the planner in a developing country cannot plan from the beginning. He usually finds that the administrative capacity is firmly entrenched in traditional ways, and the funds committed to existing facilities. This is perhaps one of the most serious problems of planning in developing countries: even when existing services are recognized to be wasteful and ineffectual, it is usually impossible to do away with them or to modify them to any large extent.

Given these problems, and the highly unstable political and economic climate of the developing countries, pragmatic planning seems to be the procedure best suited to their needs. Having very limited preconceptions, such planning is highly flexible. It is often palliative in orientation, crisis-oriented, and aims mostly at slow, step-by-step modifications of the existing system.

This project-by-project approach can be considered the first step in the evolution toward comprehensive health planning.

1) Project-by-project approach,

2) integrated public investment planning, and

3) comprehensive planning.

Typically, the less developed countries possess neither the required data nor the qualified personnel to formulate and execute comprehensive plans. Another deterrent to launching head-on into comprehensive planning is the fact that there may not be the administrative capacity essential to carry out such planning. It is estimated that 80% of the failures of socio-economic plans are due to administrative incompetence.

Guidelines for the health plan should include:

1) Criteria for the determination of broad consumption objectives,

2) Policy objectives determined in the light of expected income,

3) Broad policy objectives to be fulfilled in each sector, and

4) An indication of the distribution of resources between sectors.

Keeping in mind the objectives and the resources expected, a draft plan should be developed, containing:

1) an accurate assessment (diagnosis) of the existing situation;

2) definition of the means recommended to improve efficiency in the operations of the sector;

3) an estimate of personnel needs, category by category, together with an indication of the facilities needed for staff training;

4) the costing of the various activities, project by project, taking into account and listing separately: (a) capital expenditure (buildings, vehicles and equipment) spent inside the country or spent on imported goods, and (b) recurrent expenditure on personnel in each category and materials bought in the country or imported;

5) a description of the expected results, in terms as concrete as possible;

6) as accurate as possible an estimate of the expected economic effects; and

7) recommendations for activities in other sectors; for example, the health planning unit may make recommendations about

> nutrition (including crop rotation), health education in educational establishments and environmental health.[38]

After proper review of the plan by a health planning committee, and necessary revisions, the draft plan is then compiled into a plan of action.

Pragmatic planning looks into the future intuitively because (a) it lacks data, (b) it lacks sophisticated techniques of prediction, and (c) it recognizes the instable nature of political and social conditions. Pragmatic planning is intrinsically supported in much American literature - particularly in the writings of Lindblom[39] and Wildavsky.[40]

Pragmatic planning has several advantages: it costs is usually relatively low, and its propensity for realistic adjustment to circumstances is immense. On the other hand, it tends to bend with current forces, and is too closely connected with politics for its own good. Another major drawback of practical planning is the need to make decisions without the benefit of adequate information and analysis.

Socialist countries have a tendency to rely rather heavily on planning at all levels of government.

As a process of seeking the best way to achieve a determined set of goals, planning can take place at a number of different levels. According to Myrdal:

> "Planning may extend all the way from relatively limited planning to an essentially private or mixed enterprise economy to the comprehensive all-embracing planning of a totalitarian system."[41]

The size of the planning unit varies also widely. It may be a region or a nation. The region can be political, or economic, or determined specifically for social planning.

Sweden has long held a leading position among all developed nations in the planning of comprehensive health services for its entire population. The Swedish approach has many attributes worthy of study, but the most interesting one is the regionalization of health services.

Engel was the originator of the regional approach to health planning. As far back as 1862, new county-councils were established on the basis of the historical state governed entities, and their new duties included health care, until then a state concern.

As the medical field became more and more technical and complex, the costs of care in the hospitals began to rise. Along with the prohibitive medical care, Sweden ex perienced a severe shortage of medical staff. In response to the growing problems, responsible medical and political bodies started looking up to regional planning as the solution to the crisis.

Arthur Engel, who by then had become the head of the National Board of Health, was given the task of drawing up a preliminary plan to divide the country into hospital regions, or self-sufficient units for providing medical care.

Three questions became primarily important in the process of regionalizing health care delivery.

1) How should the system for the delivery of services within the region be organized?

2) What would be the most advantageous population size for such a system?

3) How should the geographical problem of availability of services be solved?

In answer to question 2), Engel defined a region as "an area that is appropriate, in population and size, for the planning of independent and self-sufficient health services."[42]

He organized the medical care system on a pyramid-shaped model. At the top is the regional hospital that provides the most highly specialized services to a population of one million in three or four counties. The regional hospital is administered in much the same way any large hospital is, with the exception that there is an obvious emphasis on close coordination with the county hospitals within each region.

The second level of the pyramid is formed by Central Hospitals. These serve a single county, and provide specialized services, not to the extent, however, that characterizes the regional hospital described above. The central hospital, with 800-1,000 beds, has a catchment area of 250,000-300,000 people.

At the third level of the pyramid are the district hospitals. With 300 beds, they serve a population of 60,000 to 90,000 and provide all services normally expected of a hospital (surgery, radiology, obstetrics and gynecology, pediatrics, psychiatry and geriatry) but not the most technically advanced kinds of surgical procedures.

At the bottom of the pyramid are health centers offering ambulatory care to 10,000 to 20,000 people. Satellite nursing homes are attached to the center.

The answer to question 3), relating to the geographical problem of availability of services is perhaps the point that could be of greatest interest to this study.

Dr. Engle enlisted the help of an expert in geography to study the locational problem from the point of view of demographic and economic development and transportation. Through a set of isochrone[43] and isodapan[44] maps, aggregate travel distance and travel costs were calculated, and resulted in the choice of eight regional hospital centers, chosen because they maximized the proportion of the population living within a certain travel time and minimized the aggregate travel costs and times for the projected population of Sweden.

Another interesting feature of the Swedish approach to health planning is the consumption unit index. This method relates the use of services by a particular age group to the average use of services by all age groups. This was important for the Swedes who have a low birth-rate, and a high life-expectancy at birth; consequently, there is an unusually large number of people in the older age groups, who consume a disproportionate share of medical services.

The Swedish approach to national health planning has several unique features that could well be applied to both developed and developing countries.

The PAHO-CENDES methodology was developed in the 1960's by the Pan American Health Organization (PAHO) and the Center for Development Studies (CENDES) of the Central University of Venezuela, Caracas, as a methodology for national health planning. One of the themes of this method is that "planning is a state of mind rather than a method". Like the Planning-Programming-Budgeting-System (PPBS), the PAHO-CENDES method aims primarily at establishing a method by which priorities can logically be set.

As a central principle, the method adopted the criterion of efficiency as follows:

> "A resource is efficiently used if the benefit obtained from its use is greater than that which would have been obtained, had the resource been used for something else."

The method deals with the significance of the different health problems in a geographic area in the future, and the resources available to deal with the problems. Furthermore, the method is concerned with the most efficient organization of resources for solving specific health problems. "Organizational and allocational patterns are then developed in such a way that each resource is assigned to a problem as long as it produces the greatest benefit. When the resource ceases to do so, it is transferred to another problem on which it can be used more efficiently."[45]

The method prescribes means of achieving goals, according to the dictates of efficiency. It seeks to identify the technique that will accomplish the most with the least expenditure of resources, and furthermore, it seeks the health objectives that allow the greatest achievement per unit of resource expended. In this respect, the PAHO-CENDES method is very similar to PPBS.

The method has one feature that complicates it greatly but constitutes its uniqueness: resources are concentrated on the disease or health hazard that require the lowest expenditure per death prevented, up to a point where the resources are no longer effective. Then they are directed toward another disease (using the same criterion), and so on, until the resources are all exhausted.

The cost of preventing one death varies with the prevalence of the disease, getting higher as the prevalence of the disease diminishes.

Therefore, as the program progresses, the disease will loose its priority to another disease.

This concept of marginal utility lends rationality to the whole process.

Several other factors complicate the setting of priorities. The eradication of one disease might require a simultaneous attack on several other diseases. Thus the planner has to identify cluster of diseases that require the lowest expenditure of resources per death prevented.

The allocation of health resources among geographic areas also represents a problem. The cost of preventing one death in an area may be substantially lower than in others; thus, according to the method's economic rationale, the resources should go to the areas where the costs are lower. This problem raises an ethical question. To counteract such harsh statements, the PAHO-CENDES method recommends that available resources be allocated so as to ensure that existing levels of health will be at least maintained during the period of the plan.

Other problems cause the process to depart from the rationale of efficiency. Some disease are likely to continue to occur, in spite of the expansion of health resources. "Reducible" and "non-reducible" diseases are connected to the fluctuations of the living standards. Even though resources allocated to "reducible" diseases could yield more deaths prevented per unit of resource expanded, the existing level of care of "non-reducible" diseases constitutes a community demand that must be met. Therefore, available resources are allocated to maintain the level of existing care for

non-reducible diseases, and remaining resources are allocated to reducible diseases, according to the rule of lowest cost per death prevented.

Other problems exist, connected to technical and administrative limitations on the ability of planners to follow the method logically. Funds are usually allocated as they are released, so that shifting funds from one use to another might prove an impossible task. Because of the large amounts of capital and time invested in facilities and personnel education, health planning must be regarded as a preventive measure rather than a cure.

The intricacy of the relationship between health planning and other related fields presents a major problem in determining the comprehensiveness of health plans. Ideally, a comprehensive health plan should cover any topic that has any bearing upon health, such as nutritional research, environmental sanitation, education, transportation and industrial development, and other topics that might not be under the direct responsibility of the Ministry of Health.

The PAHO-CENDES method prescribes three major steps in the planning process:

1) Diagnosis,

2) Determination of feasible alternatives in the local area, and

3) Preparation of regional and national plans.

The diagnosis begins with the identification of the geographic units that make up the country for health planning purposes. The PAHO-CENDES method advocates a highly decentralized type of health planning, even if it involves broad reorganization of the administrative jurisdictions. The diagnostic

process involves the establishment of the cost of preventing one death from each of the diseases or other health hazards of concern in the area.

To calculate such costs, the method offers a guide, based upon magnitude, importance, and vulnerability, to indicate which causes of death should receive attention.

The measure of magnitude is the number of deaths in the population caused by the disease, expressed as a percent of total deaths.

Importance of the disease is concerned with assessing whether one life is more valuable than another. This may sound like an insensitive statement, but from an economic point of view, the most important lives are the productive ones. In other words, health maintenance programs will yield greater economic returns if they benefit the children and the productive age groups (0-64). In developing countries where health status is poor, and life expectancy short, the productive life span of an individual would be much shorter.

Vulnerability implies susceptibility of a disease to prevention and treatment.

Priorities for health hazards can be established by multiplying the coefficients of magnitude, importance and vulnerability. The priority ranking does not establish a pattern of allocation of health resources. It simply suggests to the planner what diseases should be studied to determine the cost of preventing deaths.

Next, follows an inventory of all health resources. These have been divided into three groups: instruments (recognizable combination of resources used to perform a health function, such as visiting nurses or

hospital beds), tasks (carried out by instruments), and techniques (combinations of tasks performed to combat a disease, such as epidemiological surveys, immunizations, etc.).

Instruments are measured in units of time (hospital bed days or visiting nurse hour), tasks in units of production (hospital beds discharges per year, and techniques in operational costs.

Costs are then calculated on the basis of salaries paid to instruments, charges per task, and costs of techniques. The total cost of any disease can then be obtained. The total cost of the disease should be adjusted for depreciation of the instruments (facilities), and fluctuations of charges for techniques.

To further complicate matters, techniques should be priced differently, depending on whether they are curative or preventive. The number of deaths prevented by curative techniques can be calculated by comparing the proportion of patients who recover after treatment with the proportion who recovers without treatment. The effectiveness of preventive techniques is calculated by comparing the probabilities of dying from the disease with and without the protection afforded by the technique.

Diagnosis also includes projections of the population (by age groups, sex, and urban and rural distribution), projected death rates for each of the major diseases, and the demand for curative services. Projections should take into account all health policies, even those not yet implemented, since any change in living standards, such as improved nutrition, education, housing and waste disposal, will have a great impact on the health status of the population.

A final evaluation of the health situation is necessary so that it can be determined if "with the resources available per inhabitant , it would have been possible to have achieved a higher level of health in the past , or will it be possible, during the period of prognosis, to reach a more satisfactory level than that indicated in the projected trends"?[46]

In the determination of feasible alternatives, the PAHO-CENDES method proposes that (1) the national planning office determine the funds available to finance health planning activities, (2) the local planning authorities define the minimum and maximum limits within which feasible targets can be selected, and (3) the national planning office present alternatives based on the available resources and suggests targets to the highest political decision-makers.

The minimum plan should provide adequate resources for the maintenance of existing care levels; the maximum plan indicates the highest possible rate of increase in health levels, assuming the availability of unlimited physical and monetary resources. In view of the fact that the availability of the funds is never unlimited (particularly in developing countries), the maximum plan is utopian in nature, but serves as general guidelines, should funds become available beyond those required to implement the minimum plan.

Regional plans comprise the adoption, to various degrees, of local area plans, together with the provision of services that cannot be based on any local area. Planning for local areas should follow the process outlined above, of compilation of an inventory of available instruments, analysis of the output and composition of instruments, establishment of standards and

standardization targets, projection of demand, and calculation of instruments required to meet the demand.

The PAHO-CENDES method provides the most accurate and logical way of establishing priorities and allocating funds for the planning of health activities. Its use, however, depends on enormous amounts of data (in many cases, very detailed data) to be used in the determination of death prevention costs. Whether or not this type and quantity of data is available in most developing countries is a highly debatable proposition.

Despite this, and other faults mentioned above, the PAHO-CENDES method is one of the most thorough application of systems analysis to health planning available as of yet. It is comprehensive in nature, and seeks to provide the most efficient allocation and utilization of resources. It represents, according to Drs. Hilleboe, Barkhus and Thomas, Jr., "a substantial step forward in the conceptualization and application of health planning "[47]

CHAPTER IV

KANSAS URBANIZATION INDEX

In Kansas, the health planning function is firmly entrenched in the state governmental framework. As was shown in CHAPTER II, the State Board of Health is entrusted with the planning of health care delivery. In an effort to maximize the efficiency and effectiveness of the delivery system, the state is also divided into sixteen areawide councils who provide local input into the decision-making process by reflecting the particular needs of their area.

Kansas, being a predominantly rural state, and one that has experienced a continuous population decline in most of its non-urban counties, present a new and interesting challenge to the health planner. The planning approach to rural areas varies widely from planning for urban areas as far as orientation of services go. Planning for health in urban places include more coordination, while planning for rural areas include more allocation.

In this chapter, two assumptions are made, relating to the influence of urbanization on health planning problems in Kansas. A basically parochial system of health care delivery to a scarcely populated, low population density area such as Western Kansas, seems likely to create particular problems for the health planner concerned with providing everyone with quality health care.

Therefore this chapter will establish that there is a significant relationship between regional health care delivery problems, and the degree of urbanization in any one of the sixteen regions.

Because of its nature, demography plays a primordial role in health planning. Demography is the study of the size, territorial distribution, and composition of the population. It is also concerned with the components of population change - fertility, mortality and migration - and with the changing characteristics of the population. Certain features of the population change provide the demographic context in which planning takes place.

Our first hypothesis, therefore, will be that there is a meaningful relationship between urbanization and selected demographic variables.

Our second hypothesis is a logical extension of the first one within the context of the overall goal formulation. We will try to establish that there is a significant association between "urban-prone" population characteristics and functional health care delivery problems.

METHODOLOGY

In order to collect data relevant to the present organization of health care delivery in Kansas, the State was regionalized into the sixteen existing Areawide Comprehensive Health Planning regions, as they are indicated on MAP 1.

The collection of specific data on health care delivery problems was accomplished through a mail-out questionnaire, sent to the chairpersons of the sixteen regional councils.

Next, an average index of urbanization was computed for each region, based on the four standard definitions of urbanization: percent of population classified as "urban" by the 1970 U.S. Census of the Population; percent of land classified as "urban" and "built up"; function of the area; and the

area's legal status, that is the number of cities of different classes within its boundaries.

Out of the 1970 Census, several demographic variables were collected by County, and aggregated into data per region. The next step was to rank the urbanization index with the selected population characteristics chosen.

The questionnaire data were analyzed by use of x^2 and contingency coefficients in order to determine the functional relationship between health delivery problems and urban-prone demographic characteristics.

In the belief that the Areawide Councils who provide the State health planning function with all data relevant to health planning would be the best available sources of first hand information on health services delivery, a questionnaire was devised to examine the different phases of the health care delivery system.

In order to encourage a greater level of responses, the questionnaire was purposely made short. It was composed of five closed questions to be rated on a scale of 1 to 5, 1 representing NO problem, (or as was the case in two of the questions, no need or no relationship) and 5 representing EXTREME problem (extreme need or very strong relationship). Additional space was provided for comment after each question. The respondents as a group made quite extensive use of the "comment" space, and some made very relevant and interesting observations. The nature and the "tone" of the comments were taken, rightly or wrongly, to reflect the respondents' high degree of interest in, and commitment to, their voluntary function.

The rather general questions included: perception of health care as a problem in the region; what constituted a problem; questions of duplication of

services, need for additional specific medical or paramedical personnel, and possible causes of health care delivery difficulties. A copy of the questionnaire is included in APPENDIX A.

The questionnaire was mailed to the chairperson of each of the sixteen Areawide Comprehensive Health Planning Councils. In most cases, the questionnaires were returned with surprising speed. Of the sixteen questionnaires sent out, twelve were returned (a 75% return rate). In one instance, the Health Planning Council of South Central Kansas (the ten-county Region 4 which includes Wichita), whose area of responsibility covers both rural and metropolitan communities, found it impossible to give a unique cumulative answer to the questions; they sent back five copies of the questionnaire; one covering the larger metropolitan base, and the other four covering selected rural counties.

REVIEW OF LITERATURE

The concept of "urban" versus "rural" is not a static one. It changes according to geographical and historical backgrounds.

At the end of the 19th century, F. Ratzel gave the following definition of a city: "A continuous and dense agglomeration of people and dwellings occupying a large area of ground and lying at the focus of great trade routes." This definition was written at a time not too far removed from the pre-industrial era, which explains the emphasis on trade. For another geographer, H Wagner, towns were "concentration points of human commerce". Ratzel's definition contains the three conditions which form the basis of all other definitions: (1) Some sort of professional activity, or a

concern with commerce and industry, as opposed to agriculture, (2) a concentration of housing, and (3) a minimum number of inhabitants. This last condition was emphasized by Ratzel who specified also that below a population of 2,000, a group looses its urban character. The U.S. Census has acted along the same line, and set 2,500 as the lower limit for a population to be considered "urban".

Other writers, such as Christaller and Aurousseau emphasize the administrative function of the town, and its import-export concerns. Another geographer, Vidal de la Blache, suggested another urban characteristic, that of the urban "way of life". Because of its very imprecision, it affords greater elasticity. Brunhes considers one angle of the old idea of the "way of life": A town can be said to exist if the majority of the population spends the greater part of its time within the bounds of the agglomeration. This attractive definition excludes bedroom suburbs, so popular, and so very urban.

Two Swedish writers, Ahlmann and William-Olsson, define the urban area as a place characterized by a certain variety of occupations. While this definition has its value, it is not operative because it leaves out large agricultural centers.

Later on, Jean Gottmann, in Megalopolis, defined the U.S. Northeastern seaboard as a "concentration of people, wealth, and economic activities". Urban, in Gottmann's words, is associated with "a large group of people living together in the same place; it evokes a picture of dense grouping of a substantial population. On the other hand, the concept of "rural", whether applied to people or land, has long carried a meaning of close association

with agriculture or forestry, or in any case, living off the land in a way that contrasts with the industrial and commercial pursuits of city folks."

These varied definitions clearly illustrate the stumbling block which has faced all writers who have attempted a definition. Something always remains which is impossible to pinpoint precisely.

URBANIZATION INDEX

The principal types of definitions of cities may be classified into: (1) legal and administrative functions, (2) definitions using minimum population thresholds, (3) definitions in terms of functions. It should be noted that none of these types of definitions are satisfactory for all purposes.

1) legal and administrative definitions. This includes a breakdown of urban places, 2,500 population or more, in First, Second and Third Class cities.

2) minimum population thresholds. The Census considers as "urban" any group of population over 2,500. This measure, however, cannot be used as a criterion of urban status in a functional or physical sense because there is no necessary relationship between numbers of people and density of development. Nevertheless, population is commonly used as an index of urbanization, with minimum population figures over which a place qualifies as "urban".

3) definitions in terms of density. Density thresholds have been extensively used by geographers, sociologists, and others, to measure the extent of an urban area. If a population threshold is used to define the

lower limit of urban status, the population within the selected density contour constitutes the population to be used in determining the threshold.

4) functional definitions. People typically locate in mutual proximity in order to accomplish purposes which cannot be accomplished, or cannot be accomplished as effectively, if they are located with respect to one another at lower densities. Urban functions are numerous and diverse. They are not directly related, as are most non-urban functions, to the characteristics of the site, such as productivity of the soil, but, rather, depend on access to the location of complementary functions with which interaction takes place.

For the purpose of this study, surrogates of the four previously defined standard measures of urbanization were chosen. The first one was percent of population urban. The 1970 Census provided the information by county, and the data was then aggregated by region.

The second measure, percent of land urban and built-up instead of density, was felt to be particularly valuable to the urbanization index, because it was assumed that the State's primary agricultural concern would cause a very high correlation between the amount of land built-up and the degree of urbanization of a given region.

The third measure, function, was also felt to be of great value. By correlating the number of people employed in different activities, we obtain a fairly good and objective picture of the region.

The fourth measure, legal status, involved ranking the regions by the number of cities of First, Second, and Third Class they contained. The author had grave reservations about this measure, as Third Class and some Second Class cities might be able to support one physician, but certainly not a

hospital or any other kind of health facilities, and as such, would not fit the requirements of the study.

One problem arose in conjunction with the choice of urbanization and demographic variables. The regions were chosen, as was indicated in the first part of this study, so as to form viable market areas. This means that, whenever possible, a large urban center was incorporated to several definitely rural counties. Therefore, when the variables were aggregated to give an average measure for the region, the rates obtained were, so to speak, "watered down"; the high urbanization rank of the city was diluted by the low rank of the rural counties. An example of this would be Region 4, which includes the City of Wichita, and nine rural counties. One notable exception is Region 1, in which all three counties, Johnson, Leavenworth and Wyandotte, are fairly heavily populated, and definitely urban in character.

Because the purpose of this study is to test the hypothesis that, in each region, there is a significant relationship between health care delivery problems, and the degree of urbanization of that region, it was not enough to devise a standard measure of urbanization from the four measures discussed above. This is especially so because, as we have pointed out, the region is made up of very dissimilar components.

Several demographic variables were chosen, then, to be tested for correlation against the average urbanization ranking, that combined both a relationship to the degree of urbanization, and a functional relationship to both health planning problems.

The five demographic variables chosen for their dual relationship are:

(1) average median age, (2) migration, (3) female labor force participation, (4) age dependency rates, and (5) economic dependency rates.

1) Average median age. This measure reflects the degree of urbanization because the exodus of young people from the more rural counties is evidenced by an increasing average median age. The relationship of this measure to health planning is self-evident. The change of the structure of age groups in the population calls for a different demand in types of health care services. An aging population will mean less child-oriented services, and more home-oriented care or long-term care facilities.

2) Migration. In-migration, which is typical of urban regions will exemplify an increase in demand for services, while out-migration, typical of rural counties, will require a readjustment in the orientation of health services.

3) Female labor participation. This is a phenomenon fairly typical of urban areas, where economic opportunities are located. Female labor participation rates will also reflect a change in the overall fertility rates of the women, and a change in the age patterns of their fertility. Therefore, this measure too, will be relevant to our study.

4) Age dependency rates. By knowing the number of people under 18 and over 65, dependent on the productive age groups (19-64) for their livelihood, one will know the age structure of the region's population, and where, on what kind of services, the emphasis is to be put in health planning.

5) Economic dependency rates. In Kansas, as in the rest of the nation, economic wealth plays a primordial role in securing health care. It is therefore important to know how many people cannot secure health care

through their own means. In a rural situation, health care depends not only on one's ability to pay for it, but also on one's ability to get to it (meaning almost exclusively, automobile ownership, in itself a sign of wealth). This measure should then, be of interest to the urbanization index.

The first step in our statistical testing procedure, was to arrive at an average measure of urbanization for each of the sixteen health planning regions, and then, correlating each of the demographic variables with the average rank on the urbanization index. For this procedure, the Spearman Rank Correlation coefficient r_s was chosen.

The second step in the procedure, was to analyze the questionnaire data. Because of the small size of the sample (N=16), and because of the great potential number of ties in the questionnaire answers, the Chi square test and the contingency coefficient, C, appeared to be the only possible choices of non-parametric statistical tests available to us.

The x^2 test is a very general test that can be used to test whether or not frequencies which have been empirically obtained differ significantly from those which would be expected under a certain set of theoretical assumptions.

The contingency coefficient C is a measure of the extent of association or relation between two sets of attributes. In other words, the x^2 technique will be used to determine whether or not there is a relationship between the degree of urbanization of a region, and its health planning problems; the contingency coefficient C will be used to determine how much the two characteristics are related.

To test the measures obtained through the first three techniques, the Z test of significance will be used, and a .05 level of rejection adopted.

DESCRIPTION OF HEALTH PLANNING REGIONS IN TERMS OF DATA

The answers to the questionnaire did not reveal any startling new facts. Most regions reported a serious lack of medical personnel, and Region 3 reported a serious lack of medical facilities, most specifically hospitals.

Region 2 and 12 considered health care to be a major problem in their area, while all other regions rated this as either no problem (1) or an average problem (3).

Two regions, 1 and 13 considered duplication of services a serious difficulty. In answer to question 3, most regions rated their need for additional medical and paramedical personnel as great .

The answers to question 5, as to the causes of health service problems, varied widely from region to region. Only three regions, 12, 13 and 14, listed "unattractive living environment" as a major cause of problems in attracting health personnel. Those same counties also listed the lack of desire to improve health care, as a serious problem. Two regions, 5 and 14, cited lack of financial resources as a great handicap.

The answers to the questionnaire are tabulated in TABLE 2.

The evaluation of these answers must be conducted with a great deal of care. First of all, it is difficult to assess the amount of reflection and thinking that went into the filling out of the questionnaire. Secondly, the opinions expressed in the survey are those of individuals, and obviously, whether these persons are providers or consumers of health care, does make

TABLE 2

TABULATION OF QUESTIONNAIRE ANSWERS

QUESTIONS	REGIONS															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1		5		2	3	1				3		4	3	3	3	2
2 a	1	5		2	5	5	4			4		5	3	4	3	2
b	4	5		3	5	5	4			4		5	4	4	4	2
c	1	3		2	3	4	4			2		3	2	2	3	3
d	3			2	3	1	4			2		3	3	3	3	3
e	1	1		1	2	1	2			2		1	3	2	1	1
f	3	2		2	2	1	1			2		4	3	2	1	3
g	3	2		3	4	3	1			2		2	3	2	2	1
h	2	1		2	4	3	1			2		2	3	2	2	1
i	5	1		2	2	3	1			2		1	3	2	1	4
j	3	4		3	4	3	1			2		2	4	3	2	3
k	3	4		2	3	3	1			2		4	4	4	2	2
l	1	2		1	4	3	4			3		5	3	2	2	
m	3	3		2	4	4	2			3		5	3	3	2	3
n	2	5		3	4	4				4		5	4	2	4	2
o	2	3		4	3	1	1			1		3	3	3	2	1
3	5	1		3	1	2	1			2		3	4	2	2	1
4 a	2	4		4	3	2	1			3		4	3	3	2	1
b	1	2		3	5	2	1			3		3	3	3	2	3
c	1	5		3	5	5	4			4		5	4	4	3	3
d	3	2		2	3	4	4			3		3	3	3	2	3
e	5	5		2	5	4	5			4		4	4	3	4	3
5 a	2	1		2	2	3	1			1		5	5	4	3	1
b	2	1		3	4	2	1			1		3	3	4	3	1
c	1	1		3	4	2	1			2		3	3	2	2	2
d	1	1		4	3	5	1			2		3	3	3	2	2
e	1	1		2	1	3	1			2		5	4	4	3	1

NO REPLY

a very great difference in their outlook, and their evaluation of the present system.

From a general point of view, it seems that three regions consistently remained within the mean range of scores (2-3-4), conveying the impression that though things could be better, they could also be worse.

One of the most remarkable facts was that, as explained above, only two regions out of sixteen considered health care to be a problem in their particular area. This seems to support the aforementioned opinion of Dr. John Knowles, Director of the Massachusetts General Hospital, that all that keeps the medical system afloat is the fact that millions of people literally have no knowledge of their medical needs.

Region 1 is the most urban of all the health planning regions. Made up of Leavenworth, Wyandotte and Johnson Counties, it includes a major part of the Kansas City SMSA. The health planning characteristics identified by the questionnaire for the region seemed fairly typical of those to be expected in an urban situation: sufficient numbers of medical and paramedical personnel and facilities. The problems emphasized by the survey were also expected, as they reflected areas of concern on a national governmental scale: lack of general practitioners, lack of nurses, inadequacy of sewage treatment facilities, duplication of services (which has been identified as a major flaw of our health care system), and unequal access to health care for some segments of our society, mainly the poor and the aged. Region 1 ranked first on our urbanization index, and presented all the characteristics of an urban region: low average median age, fairly significant in-migration, high

rate of female labor force participation, low age dependency ratio, and important manufacturing, trade, and services oriented functions.

Region 2. This region includes the Southeast corner of the state. It ranked fourth on the urbanization index and claimed health care to be an extremely important problem. The main health care problems consist of an acute lack of physicians, private practitioners, and nurses, no family health counseling or sewage treatment facilities, and a very difficult access to health care by people living in remote rural areas. Duplication of services does not seem to be a problem. Region 2 believes it has no intrinsic factors that hinder its potential for adequate health care services. Region 2 scores fairly highly and evenly on all urbanization variables, appearing to present all the characteristics of a semi-urban area: relatively low average median age, slight out-migration, fairly important female labor force participation rate, and a definitely urban function (it ranked fourth in manufacturing, fifth in services, and sixth in trade).

Region 3. This region comprises Greenwood, Chase, Lyon and Morris Counties, and ranks ninth on the urbanization index. The questionnaire sent to the chairman of the region was not returned. It is therefore impossible to speculate on its health care delivery problems. From the demographic data collected and correlated, it appears to be a typically rural county, with a fairly old population, a mediocre rank on all the urban functions (manufacturing, trade and services). An anomaly of this region is that, unlike the majority of the State's rural counties, it has not suffered from out-migration, but on the contrary, had registered an in-migration rate of 2,288 in the 1970 Census.

Region 4. This very large region, which includes the City of Wichita and nine other counties, ranks second on the urbanization index. It does not consider the provision of health care to be much of a problem. It seems to suffer to a mediocre extent, from the typical "urban" problems, identified in the analysis of Region 1, with the exception of duplication of services which is not particularly troublesome in the region. Region 4 scored high on all the demographic characteristics of an "urban" place.

Region 5, includes the nine counties of Southwest Kansas. A fairly rural area, it ranked seventh on the urbanization index. Its answers to the questionnaire evidenced a number of grave problems: lack of physicians and general practitioners, lack of rescue services, hospital facilities and family planning services; whatever services are available seem to be out of reach of the poor and the people isolated in remote areas. There is a lack of services directed towards the handicapped. Lack of financial resources and inadequate facilities are identified as the major barriers to the provision of adequate health care.

Region 6. This region includes Meade, Clark, Ford, Gray and Hodgeman Counties, and ranked sixteenth on our urbanization index. Although it considered health care to be no problem, and gave the question the lowest possible score, 1, it cited a number of problem areas typical of rural counties: Lack of medical and paramedical personnel (acute shortage of physicians and nurses), lack of services, and care unavailable to large segments of the population; lack of complementary health personnel (paramedical) was identified as a major obstacle to the provision of adequate

health care. Region 6 ranked very low on all economic and demographic variables, characteristic of urbanization.

Region 7 represents the thirteen counties that make up the Southwest corner of the State. It ranked fifteenth on the urbanization index, and, like Region 6, seems to suffer from the typical health care delivery problems associated with a rural state: serious lack of medical and paramedical personnel, and excessive distance to existing health facilities and services. Region 7 suffers from out-migration, which, under the present system of delivering health care, is almost bound to make matters worse, care more scarce, and physicians harder to attract and retain.

Region 8. This is the eight-county region that forms the Northwestern corner of the State. It ranked sixteenth on the urbanization index, which makes it the most rural of all the regions. The questionnaire sent to the region has not been returned and, therefore, data on specific health care delivery problems were not available for this study.

Region 9. This eleven-county region, situated just to the east of Region 8, ranks eleventh on the urbanization scale. As was the case for Region 8, the questionnaire was not sent back, and data are unavailable for our purposes.

Region 10. This nine-county North Central region ranks fifth on the urbanization index. It considered health care as an average problem, emphasizing the lack of medical and paramedical personnel, and the lack of services for people in remote rural areas. It ranks fairly high on all "urban" functions, and has a high female labor force participation rate. Paradoxically, Region 10 suffers from a serious case of out-migration, has a high average median age, and a high age dependency ratio.

Region 11. Region 11 includes Washington, Marshall, Clay, Riley, Geary and Pottawatomie Counties, and ranks sixth on the urbanization scale. No health data are available from this region either. Because of the specialized activities that take place in Geary (Fort Riley) and Riley (KSU) Counties, this region has a fairly high urbanized profile: Low average median age, relatively high female labor force participation rate, low age dependency ratio, and a fairly high ranking on the urban function scale.

Region 12. Region 12 is a five-county area located against the Missouri state line, and ranks eleventh on our urbanization index. Like most other rural counties, it considers health care to present an important problem. It experiences a lack of medical and paramedical personnel, facilities and services for people in remote areas. Duplication of services appears to be a problem. Of reasons cited as possible causes of problems, two were seen as being of paramount importance: (1) lack of desire for change, and (2) unattractive living environment, that would keep eventual medical personnel from settling in the region.

Region 13. Region 13 includes Osage, Shawnee, Wabaunsee and Douglas Counties, and ranks third on the index. The health care delivery problems do not seem to be as great as in the more rural areas. There is a slight shortage of medical and paramedical personnel (particularly physicians). Duplication of services does not appear to be a concern. Reasons for the present state of health care included (1) no desire for change, (2) lack of financial resources, and (3) unattractive environment.

Region 14 includes the four counties that make up the Northeast corner of the State, and ranks thirteenth on the urbanization index. The survey

reveals the typical pattern of lack of personnel, only a little less pronounced. Duplication of services is not a problem. Lack of desire for change, and lack of financial resources, are held responsible for the present state of health care.

Region 15 includes Doniphan County, and ranks nine on the urbanization scale. Lack of general practitioners and of services for people in remote areas seem to be the salient features of the health care system in the region.

Region 16 includes Franklin and Miami Counties, and is located just South of the Kansas portion of the Kansas City SMSA. It ranks seventh on the urbanization scale. In some ways, the region, as disclosed in the survey, presents "urban" characteristics: sufficient number of physicians and facilities, and a general feeling of agreement with the status quo.

The demographic variables also concur: Region 16 has a low average median age, is experiencing in-migration, has a fairly high number of females in the labor force, and enjoys a respectable rank on the manufacturing function scale.

ANALYSIS OF DATA

The first step in our study, was to compute an urbanization index that would rank all sixteen health planning regions according to several variables. As was indicated earlier, four measures were chosen: (1) percent of urban population (see TABLE 3), (2) percent of land urban and built-up (see TABLE 4), (3) function of the area, and (4) number of First, Second and Third Class cities in the region.

TABLE 3

PERCENT URBAN POPULATION BY REGION (1970) AND RANK

REGION	% URBAN POPULATION	RANK
1	85.23	1
2	59.27	5
3	46.00	9
4	76.21	2
5	48.60	8
6	37.57	12
7	29.72	15
8	26.19	16
9	41.58	11
10	51.42	6
11	60.17	4
12	36.31	13
13	74.70	3
14	35.83	14
15	43.52	10
16	50.84	7

TABLE 4

PERCENT URBAN LAND BY REGION (1970) AND RANK

REGION	% URBAN LAND	RANK
1	16.56	1
2	7.98	2
3	3.98	10
4	5.06	6
5	3.21	12
6	2.53	14
7	2.34	16
8	3.41	15
9	2.85	13
10	4.06	8
11	3.72	11
12	4.48	7
13	5.63	5
14	3.85	9
15	6.70	3
16	5.85	4

The function of the region was determined by its rank on manufacturing (see TABLE 5), trade, in particular retail and wholesale (see TABLE 6), and services, which included business and repair services, entertainment and recreation, personal services, and health and professional services (see TABLE 7). The rankings in these different categories were then aggregated and a single measure was obtained, which is illustrated in TABLE 8.

After some hesitation, the ranking procedure for the legal definition of the city was altered in that the regions were ranked, not on the total numbers of I, II and III Class cities they contained, but only cities of Class I and II. This was done because of the economic inability of Third Class cities to support any kind of medical services beyond an eventual physician. The final ranking is illustrated in TABLE 9.

The four standard definitions were tested for association through a Spearman ranking coefficient technique. Three of the measures were found to correlate fairly highly: Percent of urban population correlated with trade at a p value of .7176; urban land and urban population, at a p value of .6647; urban population and function, at a p value of .7265. The number of cities of different classes, however, did not correlate, and was not significant, therefore, the measure was abandoned. TABLE 10 shows the final urbanization index.

Next, the several demographic variables mentioned earlier were tested for association with the urbanization index. Of the five variables chosen, migration (see TABLE 11), average median age (TABLE 12), female labor force participation (TABLE 13), age dependency (TABLE 14), and economic

TABLE 5

MANUFACTURING DATA PER REGION AND RANK (1970)

REGION	NUMBER OF PEOPLE EMPLOYED IN MANUFACTURING	RANK
1	36,556	2
2	13,684	4
3	2,562	10
4	51,328	1
5	4,166	6
6	1,217	14
7	2,148	11
8	463	16
9	1,840	13
10	4,243	5
11	2,103	12
12	2,884	9
13	14,197	3
14	3,141	7
15	585	15
16	2,906	8
State	147,933	-

TABLE 6

TRADE DATA BY REGION (1970) AND RANK

REGION	NUMBER OF PEOPLE EMPLOYED IN TRADE	RANK
1	18,364	1
2	2,668	6
3	1,337	10
4	14,121	2
5	4,557	4
6	887	12
7	1,718	9
8	787	13
9	1,853	8
10	3,207	5
11	2,264	7
12	904	14
13	5,787	3
14	1,038	11
15	199	16
16	575	15
State	59,859	-

TABLE 7

SERVICES DATA BY REGION (1970) AND RANK

REGION	NUMBER OF PEOPLE EMPLOYED IN SERVICES	RANK
1	21,561	2
2	5,706	5
3	2,296	10
4	24,863	1
5	6,351	4
6	1,620	13
7	3,264	9
8	1,457	14
9	3,404	8
10	4,947	6
11	3,985	7
12	1,862	11
13	11,569	3
14	1,748	12
15	227	16
16	1,193	15
State	94,821	-

TABLE 8

RANKING BY FUNCTION

REGION	MANUFACTURING	TRADE	SERVICES	RANK
1	2	1	2	2
2	4	6	5	5
3	10	10	10	10
4	1	2	1	1
5	6	4	4	4
6	14	12	13	14
7	11	9	9	8
8	16	13	14	15
9	13	8	8	8
10	5	5	6	6
11	12	7	7	7
12	9	14	11	12
13	3	3	3	3
14	7	11	12	10
15	15	16	16	6
16	8	15	15	13

TABLE 9

NUMBER OF CLASS I AND II CITIES
BY REGION (1970) AND RANK

REGION	I AND II	TOTAL	RANK
1	13	30	3
2	19	49	1
3	4	34	11
4	17	93	2
5	11	82	4
6	1	17	15
7	6	23	6.5
8	2	23	14
9	6	57	6.5
10	6	57	6.5
11	5	46	9.5
12	5	31	9.5
13	3	33	12.5
14	6	32	6.5
15	0	8	16
16	3	12	12.5

TABLE 10

URBANIZATION INDEX

REGION	% URBAN LAND	% URBAN POPULATION	FUNCTION	AVERAGE RANK
1	1	1	2	1
2	2	5	5	4
3	10	9	10	9.5
4	6	2	1	2
5	12	8	4	7.5
6	14	12	14	15
7	16	15	8	14
8	15	16	15	16
9	13	11	8	11.5
10	8	6	6	5
11	11	4	7	6
12	7	13	12	11.5
13	5	3	3	3
14	9	14	10	13
15	3	10	16	9.5
16	4	7	13	7.5

TABLE 11

NET IN-MIGRATION BY COUNTY (1970)

REGION	NET IN-MIGRATION
1	4,770
2	- 166
3	2,288
4	- 2,284
5	- 1,031
6	313
7	- 881
8	- 312
9	- 118
10	- 2,279
11	- 87
12	517
13	14,229
14	- 1,176
15	- 7
16	305

TABLE 12

AVERAGE MEDIAN AGE BY REGION (1970)

REGION	AVERAGE MEDIAN AGE (TOTAL POPULATION)
1	32.5
2	35.7
3	38.6
4	35.5
5	37.7
6	33.5
7	28.0
8	32.5
9	35.5
10	38.3
11	33.5
12	40.0
13	30.7
14	34.7
15	31.7
16	32.8

TABLE 13

FEMALE LABOR PARTICIPATION BY REGION (1970)

REGION	NUMBER OF FEMALES IN LABOR FORCE
1	70,528
2	24,030
3	3,828
4	81,988
5	23,104
6	5,297
7	9,498
8	5,349
9	12,134
10	16,660
11	15,945
12	7,082
13	39,006
14	6,813
15	1,063
16	5,587

TABLE 14

AGE-DEPENDENCY RATIOS BY REGION (1970)

REGION	AGE-DEPENDENCY RATIOS
1	32.01
2	87.57
3	77.89
4	80.99
5	85.39
6	89.26
7	87.50
8	96.95
9	89.43
10	95.03
11	60.50
12	98.61
13	73.88
14	99.41
15	48.70
16	92.93

dependency (TABLE 15), only three showed a high degree of correlation: female labor force participation, economic and age dependency.

The next step was to organize the questionnaire answers in a tabular form to summarize the data.

An attempt was made to test the association of the demographic variables to the health planning questionnaire data. The goal of this study, as emphasized earlier, was to show that there was a formal, statistically demonstratable relationship between the urban-prone demographic variables, and the various health planning problems identified in the questionnaire. However, some intrinsic defects existed in the questionnaire which seriously limited its usefulness, the main one of which being the too narrow continuum that was provided for response to each question. The small size of the sample (N=12) prevented the use of parametric techniques. It was initially planned to use the Spearman Correlation routine to determine the degree of association between the demographic variables and the health care delivery problems, as was done in the urbanization index. It immediately became clear, however, that this could not be done because of a vast number of ties. The data was then simplified into ordinal level information (Yes, No, High, Low) and the beginnings of a Chi Square analysis were carried out. Once again, we found that this technique could not be used because the frequency cell count frequently fell below the minimum requirement of N=5, even in a 2x2 table.

The Kolmogorov-Smirnov test was considered, and abandoned, also because of the size of N. The Difference of Means test was tried, between the demographic variables and the questionnaire responses, but when

TABLE 15

ECONOMIC DEPENDENCY RATES BY REGION (1970)

REGION	NUMBER OF DEPENDENT FAMILIES
1	4,004
2	2,070
3	499
4	5,384
5	1,004
6	237
7	448
8	184
9	449
10	897
11	753
12	465
13	1,621
14	521
15	100
16	375

breaking down the sample into two sub-samples to be tested on the same attribute, typically, too few individuals fell into one.

SUMMARY OF ANALYSIS

In order to achieve a semblance of logic in the analysis of data, percentages were calculated for each score category. The regions were first divided into "urban" and "rural". In view of their scoring on the urbanization index, four regions were defined as "urban":

Region 1:	Johnson	Wyandotte
	Leavenworth	
Region 2:	Cherokee	Montgomery
	Crawford	Neosho
	Labette	Wilson
Region 4:	Butler	Kingman
	Chautauqua	Marion
	Cowley	McPherson
	Elk	Sedgwick
	Harvey	Sumner
Region 13:	Douglas	Shawnee
	Jefferson	Wabaunsee
	Osage	

For the sake of convenience, the scores were grouped into three categories: 1 and 2 no problem, 3 average problem, and 4 and 5 extreme problem.

TABLE 16 summarizes the questionnaire answers for urban and rural counties.

Question 1:

50% of the rural counties indicated that health care is somewhat of a problem (score 3), while another 25% considered it to be no problem (score 1 and 2). The urban counties were equally divided in their opinions as to whether or not it was no problem, somewhat of a problem, or an extreme problem.

TABLE 16

URBAN AND RURAL REGIONS

QUESTIONS	SCORE					
	1 and 2		3		4 and 5	
	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL
1	25.0	25.0	25.0	50.0	25.0	12.5
2 a	50.0	--	25.0	12.5	25.0	75.0
b	--	12.5	25.0	--	75.0	87.5
c	75.0	25.0	25.0	50.0	--	25.0
d	25.0	25.0	50.0	62.5	--	12.5
e	75.0	100.0	25.0	--	--	--
f	50.0	70.0	50.0	12.5	--	12.5
g	25.0	37.5	50.0	50.0	25.0	12.5
h	75.0	75.0	25.0	12.5	--	12.5
i	50.0	75.0	25.0	12.5	25.0	12.5
j	--	50.0	50.0	37.5	50.0	12.5
k	25.0	50.0	25.0	25.0	50.0	25.0
l	75.0	25.0	25.0	25.0	--	37.5
m	25.0	25.0	75.0	37.5	--	37.5
n	25.0	25.0	25.0	--	50.0	62.5
o	25.0	62.5	50.0	37.5	25.0	--
3	25.0	87.5	25.0	12.5	50.0	--
4 a	25.0	50.0	25.0	37.5	50.0	12.5
b	50.0	37.5	50.0	50.0	--	12.5
c	25.0	--	25.0	25.0	50.0	75.0
d	50.0	12.5	50.0	62.5	--	25.0
e	25.0	--	--	25.0	75.0	75.0
5 a	75.0	50.0	--	25.0	25.0	25.0
b	50.0	50.0	50.0	25.0	--	25.0
c	50.0	87.5	50.0	12.5	--	--
d	50.0	50.0	25.0	37.5	25.0	12.5
e	75.0	50.0	--	25.0	25.0	25.0

Question 2 a:

As expected the vast majority of the rural counties (75%) considered the lack of physicians a very serious problem (score 4 and 5). The remaining 25% of the counties gave the question a score of 3, indicating that the physician shortage is a universal problem in rural Kansas. In urban areas, the same problem does not exist to such a great extent (50% yes to 25% average and 25% no).

Question 2 b:

The lack of general practitioners is an overwhelming problem in rural areas (87.5% yes) while a majority of urban counties (75%) voted it as no problem, and 25% as an average problem.

Question 2 c:

The ratio of specialists per patients was voted from an average problem (50% in rural counties) to no problem at all (75% in urban counties).

Question 2 d:

In both rural and urban counties, the lack of dentists was only considered a mild problem.

Question 2 e:

Rural and urban counties alike rated the lack of facilities as no problem (100% in rural and 75% in urban areas).

Question 2 f:

The rural counties, the lack of clinic facilities was seen as of no relevance to the health care crisis (70%). In urban areas, it was considered at least an average problem (50% no, 50% average).

Question 2 g:

The lack of ambulance rescue services was considered an average problem (50%) in both rural and urban counties.

Question 2 h:

Family planning services were in adequate supply (75%) in both rural and urban areas.

Question 2 i:

School nursing throughout Kansas was not considered a problem (50% no in urbanized areas, 75% in rural counties).

Question 2 j:

Family health counseling services are either considered no problem (50% in rural areas) or only an average problem (50% in urban areas).

Question 2 k:

Sewage treatment facilities were considered to be no problem in rural communities (50%) and an average problem (50% in urban areas).

Question 2 l:

Contrary to expectations on the part of this question, excessive distance to facilities was considered a very minor problem in rural communities: 37.5% yes to 25% average and 25% no. In urban areas, the consensus (75%) was that distance, excessive or otherwise was no handicap to getting needed medical care.

Question 2 m:

The lack of facilities oriented toward specific population groups (such as the handicapped, the aged, the mentally retarded, etc.) is an average problem in urban areas (75%) and an average to serious problem in rural areas (37.5%).

Question 2 n:

Services to people in remote areas present a serious problem for the majority (62.5%) of the rural counties.

Question 2 o:

Neither rural nor urban communities seemed to consider the financing of health care a problem.

Question 3:

Contrary to expectations, the "duplication of services" question did not yield the marked difference that was pointed out in the statement of hypotheses. While 87.5% of the rural regions considered this to be very little of a problem, only 50% of the urban areas thought it a serious problem.

Question 4 a:

50% of the urban areas suffer from a serious lack of public health nurses while 50% of the rural regions consider this a minor problem.

Question 4 b:

Neither urban nor rural communities seem to be experiencing a lack of social workers.

Question 4 c, d, e:

75% of the rural communities suffer from a serious lack of physicians, and a mild lack of dentists and nurses, while urban areas experience the same shortage to a lesser degree.

Question 5 a:

Rather overwhelmingly, both rural and urban communities believe in a strong desire on the part of region officials and citizens to improve health care.

Question 5 b:

They also feel that they have the financial resources necessary to the support of adequate medical personnel.

Question 5 c:

Both rural and urban communities feel that they have enough facilities to provide adequate health care.

Question 5 d:

Adequate complementary health personnel seems the rule rather than the exceptions in both settings.

Question 5 c:

Both rural (50%) and urban (75%) regions felt that they offered a living environment that should enhance rather than decrease their chances of attracting and keeping medical staff.

SUMMARY AND CONCLUSIONS

The distinction between health planning problems experienced by "urban" and "rural" regions was not as marked as our second hypothesis suggested.

Both types of regions seem to suffer from the same ills, only to a differing extent. However, some care was to be used in the analysis and interpretation of the questionnaire data. Question 2 h, i and j are a good case in point. The availability of counseling services depends on the demand for them. Urban areas with problem prone low income populations are much more likely to use such services than rural areas with a stable aging population. This fact could explain the satisfaction with the status quo in rural regions where the per capita availability of counseling services is undoubtedly lower than in urbanized regions.

Question 2 o illustrates physicians' biases. The fact that health care is difficult to obtain because of high costs and complex methods of financing has been the most controversial issue on the Congress floor for several years. However, since the AMA determines the costs, it is unlikely that it will indulge in self accusation. It is interesting to note that the Chairmen of ten of the sixteen health regions can be qualified as "medical personnel" (M.D.'s, D.O.'s, and hospital administrators).

As expected, rural counties experience a drastic lack of medical personnel. The shortage is especially severe as far as physicians are concerned. Other medical specialists, such as nurses, dentists and therapists of various descriptions are also in scarce supply. Rural areas have an overabundance of facilities and a shortage of manpower to man them.

Services to rural areas are also beset with many problems, most of them caused by distance. Because a large city typically offers a more attractive living environment in terms of economic potential, recreational and cultural activities, the problems lie more in the path of balancing the available

manpower than in attracting physicians and medical personnel. The tradition among medical educational institutions to push students towards specialization has resulted in an overabundance of once scarce specialists creating critical shortages in other areas. Surgeons, for example, are now in excess while nurses and general practitioners are in very short supply.

Duplication of sources and lack of coordination are the city's most important problems. It is not uncommon to find several hospitals within a few miles of each other, staffing and supporting expensive facilities around the clock; yet, because of the limited clientele served by such units, the low rate of use of these facilities contribute to very low levels of efficiency and high costs to the public.

In a similar trend of disorganization, services such as family planning, counseling, etc., are usually not found where they are most needed.

The answers to the questionnaire seems to imply that in both urban and rural counties in Kansas, there exists a good infrastructure on which to build a truly comprehensive and efficient delivery system. In the cities, the greatest need seems to be for reorganization of available manpower, facilities and services to make health care available on a more extended level.

The rural counties face a more drastic problem. In order to survive, they will have to increase their manpower. Reorganization of services will also in all likelihood be necessary in order to increase the productivity of the doctors.

Based on the review of foreign systems of health planning presented in CHAPTER 3, CHAPTER 5 will make recommendations on methods of improving the basic problems that plague the delivery of health care in Kansas.

CHAPTER V

RECOMMENDATIONS AND CONCLUSIONS

RECOMMENDATIONS

Any attempt to make recommendations for the continuing provision of health services to the State of Kansas (and the planning framework through which care will be provided) implies careful analysis of the future trends evidenced by projections, interviews and surveys.

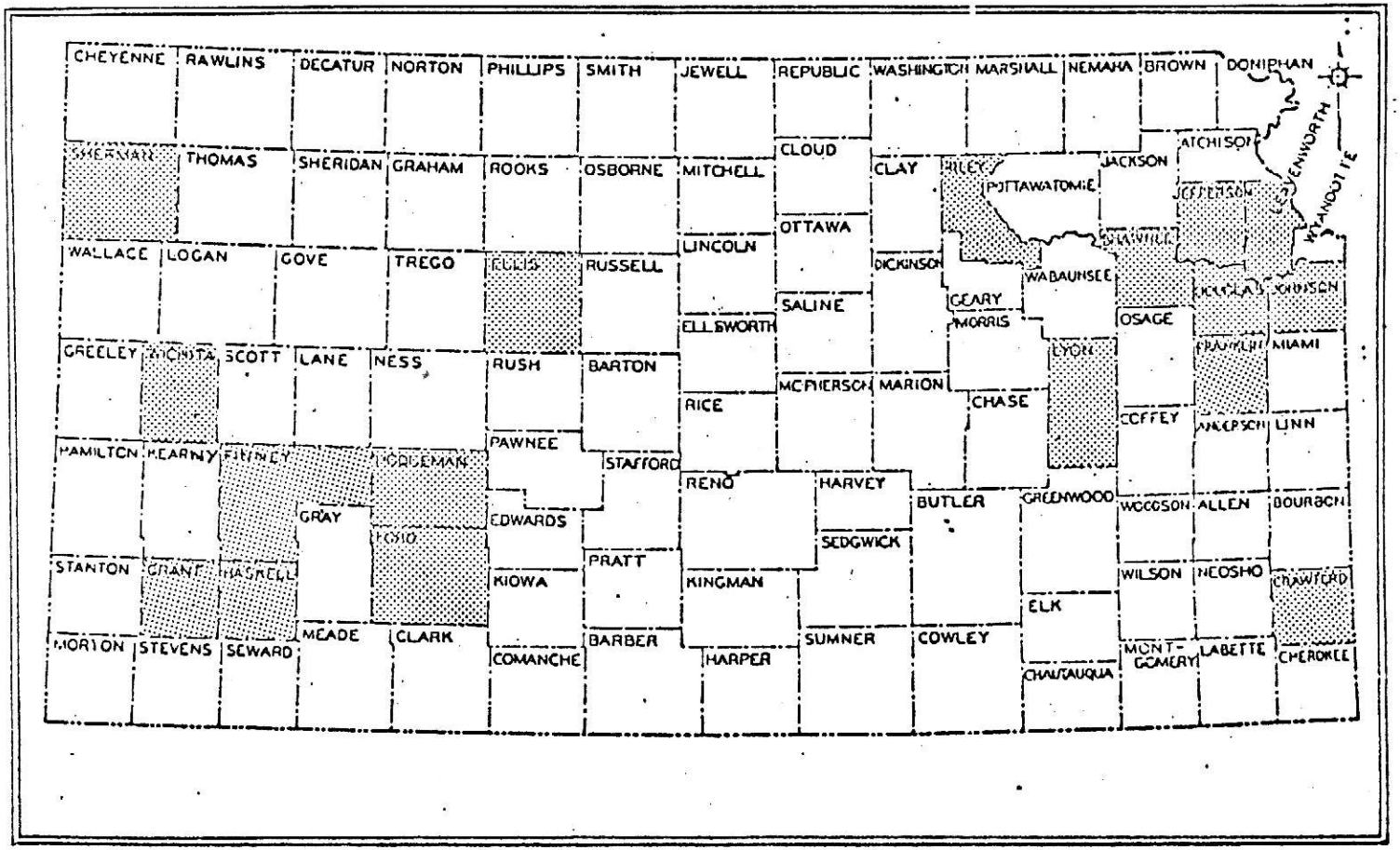
Population projections through the year 2020 show that 88 out of the 105 counties in Kansas will experience a steady decline in population. Furthermore, the majority of the counties experiencing out-migration are and will continue to be rural counties (See MAP 2).

These projection, however, do not seem to fit the reality of the situation. They are projected too far into the future, from highly accentuated past depopulation trends, and fail to reflect new patterns that appear to be establishing themselves.

This author believes that the mass exodus that has characterized rural Kansas for the last decade is over. In fact, it is believed that Kansas has reached a sort of turning point where it is going to begin experiencing a very slight increase of its rural population (though the process will in all probability be very slow and insignificant). No concrete data exist to substantiate this prediction; however, several major factors tend to suggest that this opinion is not totally erroneous. First of all, there seems to be a growing awareness of environmental quality that has caused many communities

MAP 2

PROJECTED POPULATION GROWTH IN KANSAS - 1974-2020



counties with growing populations 1974— 2020

to reassess themselves and consequently to paint, fix and clean-up. One of the more striking examples of this new tendency is the very successful "face-lift" that Saint Marys (Shawnee County) went through over the last year. It seems fairly reasonable to presume that within the next decade, rural Kansas will be in a position to offer newcomers a higher quality of living environment.

Several other factors will probably contribute to the renewed attractiveness of rural Kansas: At federal and state levels, efforts have been made to promote the development of rural areas. The Rural Development Act was passed by the Federal Government in 1972. Even though no significant results have been achieved so far (primarily because of inadequate funding), it can be hoped that the Act will serve its purpose in the near future. At the state level, efforts have been made to attract American as well as foreign industries to Kansas, in order to promote its economic growth.

Another factor that was seemingly not taken into consideration in the population projections is the socio-economic profile of the remaining residents in rural counties. The population seems to be *stabilizing* at replacement levels. With the advent of added attractiveness of the living environment, and increasing economic growth, there is no reason to believe that the rural population will do anything less than, at worst, remaining stable, and at best, increasing in size.

Other implications of the changing socio-economic features of the rural population are developed further in the next sections.

Even though the population projections are considered unrealistic in terms of actual members, they do evidence general trends that do not hold

bright promises for the future of rural health care. No matter how stable and attractive rural Kansas becomes, it seems highly unlikely that physicians will ever trip over each other in their rush to go hang their shingle in rural counties.

Another important factor to be taken into consideration is the fact that the rural county emigrant is usually in the productive age group. The population left behind is therefore made up of older people who, by reason of their age, create a greater and greater demand for health services which are becoming less and less available.

An illustration of this disparity in the demand for health services can be found in the hospital utilization rates for the population of the Capitol health planning region.[48]

TABLE 17

AGE SPECIFIC UTILIZATION PATTERNS
IN REGION 1

Category	Under 65	% Total	Over 65	% Total	Total
Medical	5,407	27.45	4,184	21.81	19,697
Surgery	8,865	75.46	3,040	25.54	11,905
O.B.	4,004				4,004
Peds.	1,616				1,616
Other	625	85.62	105	14.38	730
TOTAL	20,517		7,329		37,952

TABLE 17 shows that people over 65 utilize only slightly less hospital based medical services than do people under 65 (21.81% to 27.45%).

Another factor mentioned above that could prove important in the planning of care delivery is the changing socio-economic conditions of rural Kansas. In an interview conducted by Patterson for the Kansas Department of Economic Development, Dr. Sheppard from Smith Center suggested that as the rural counties loose population, they tend to eliminate those who "could not make it", and in the words of this particular doctor, "only the cream of the crop remains". This could have serious implications for planning future services. It means that the remaining residents will have the money to provide financial incentives to attract new doctors. They will be able, if they are willing, to provide new facilities and to assure the doctor of a reasonable, stable income. It also means that if the services are not directly available in the community or its immediate vicinity, the patients will be able to travel as far as they have to to secure the care they need.

Over the last decade, there has been a general awakening of the public consciousness of the problems caused by the isolation of the rural communities. Several steps have already been taken to reestablish a link between isolated individuals and neighboring communities. Education is one field in which a large amount of work has been done toward finding new ways to provide rural citizens with some of the amenities of urban life. Educational and cultural purposes in particular have been well served through extensive use of the communications networks. Rural inhabitants have thus been enabled to complete high school education, attend continuing education courses, and enjoy concerts and plays in the comfort of their own homes.

It is the opinion of this author that a somewhat similar framework will have to be established for the provision of health care services to rural areas.

The professional isolation of medical personnel in rural areas can be greatly alleviated by recent developments in the technology of network diagnostic procedures, and by new legislation destined to regroup rural medical personnel and thus increase its efficiency. The most significant piece of legislation is the Health Maintenance Organization Act of 1973; its possible contribution to the improvement of rural health care delivery will be elaborated upon further.

In Kansas, the maldistribution of doctors in the rural areas is compounded by the problem posed by the age of the physicians. A computerized study of the state's health manpower reveals that of all the active physicians in the state, 28.4% are 55 through 59 years of age, 19.9% are 60 through 64, 12.9% are 65 through 69, and 5.3% are over 70. Of the 605 physicians located in the rural regions described in the preceding chapter, close to 30% are over 60 years of age. If past experience is any indication of future trends, doctors who retire or die will not be replaced. In view of the high average age of the physicians, it can be safely assumed that unless drastic measures are adopted to palliate the shortage of medical staff, approximately 75% of Kansas will become a wasteland for medical care in the very near future. There are two major alternative ways to improve the provision of health care to rural areas. One is to inject more manpower into the system, the other is to increase the productivity of the existing manpower.

The health care crisis in general, and the health manpower in shortage in particular, have aroused considerable interest on the part of politicians

at all levels of the government. Rural health is, understandably enough, a very important issue in Kansas, particularly in an election year.

The future of health care delivery in rural America revolves around two major issues:

1) the attraction of new physicians

2) the increased productivity of the physicians by reorganizing and regrouping rural health services.

A great many steps have been proposed, or taken, to increase the overall supply of medical personnel. These efforts started in 1966 with the creation of the National Advisory Commission on Health Manpower. In 1971, the Health Training Improvements Act (P.L. 91-519) provided scholarships and research grants to medical schools, and funds for building new teaching facilities. Later on, another piece of legislation, the Emergency Health Personnel Act, was enacted in the hope that by creating more medical schools and providing financial assistance to more students, new benefits would eventually trickle down to rural areas, in the form of more physicians and other medical staff. The cities, however, have seemingly not yet reached a saturation point, and most of the increase in production of new medical personnel has so far been absorbed in metropolitan areas.

Several new proposals have emerged, as holding special promise for the otherwise bleak future of rural health care.

The major and most recent issues were contained in a Bill (H.R. 14537) introduced on April 24, 1974, by Congressman Roy of Kansas.

> "To amend the Public Health Act, to revise the programs of student assistance, to revise the National Health Service Corps program, to

> establish a system for the regulation of post graduate training programs for physicians, to provide assistance for the development and expansion of training programs for nurse clinicians, pharmacist clinicians, community and public health personnel and health administrators, to provide assistance to projects to improve the training provided by undergraduate schools of nursing, pharmacy, and allied health to provide assistance for the development and operation of area health education systems, to establish a loan guarantee and interest subsidy program for undergraduate students of nursing, pharmacy, and the allied health professions, and for other purposes."[49]

Basically, Dr. Roy attacks the manpower shortage on two fronts: low levels of production, and misallocation of existing personnel.

Under the National Health Services Act, students pursuing an approved course of study, and maintaining "an acceptable level of academic standing, leading to a doctorate level degree in medicine, osteopathy, dentistry, optometry, podiatry or veterinary medicine, or a master level degree in clinical nursing, clinical pharmacy, community or public health, or health administration" would be provided yearly substantial stipends for a period of no more than 4 years, amounting to full tuition plus $5,000 to cover living expenses, books and other educational expenses not covered by the tuition payment. Upon completion of his training, any individual having participated in the program will be obligated to serve on active duty in the Health Service Corps in an "underserved"[50] area for a period of 6 months for each year of training received under the program, with a minimum service length of 12 consecutive months. The newly graduated physicians serving in the Corps would be eligible for an income supplement destined to bring the income from a practice in an underserved area in line with competitive salaries made by new physicians in an urban environment.

Dr. Roy believes that if the hurdle is high enough, everyone will be

stopped by it. In other words, if medical school tuition is made high enough, most students will turn to the Health Services Corps as the only means to finance their medical education, and will end up serving in the Corps. Consequently, Dr. Roy proposes to cut all financial assistance to schools to force them to raise their tuition. At the same time, however, he will greatly increase the amount of federal funds available for student loans. This proposal will provide medical staff to underserved areas and at the same time will make the prospective medical students "an offer they can't refuse".

However, health manpower is a necessary condition, but not a sufficient condition for the provision of health services.

This author believes that the special characteristics of a rural practice environment are the major deterrents of the location of new physicians where they are needed most. The Patterson Report emphasized this concept best when it cited the opinion of one of its interviewees.

> "A. But I wonder if the new physician who comes out of internship may not feel a little bit inadequate to place himself in a rural situation where he is faced with many, many decisions to make - faced with all types of health problems. He comes out of training with great respect for his specialist teachers, as well he should, and he has been taught many things about the exotic diseases, and probably not nearly enough about the common ordinary illnesses. He may feel just a little bit frightened about coming into this kind of situation.
>
> Q. It's total exposure, isn't it?
>
> A. Total exposure. You're hit immediately with the cardiac problems, pediatric problems, obstetrical problems, the massive trauma cases off the highway - these guys feel lost."[51]

Several other steps have been taken to increase the attractiveness of a rural practice. Several medical schools (one of which is the Kansas

University Medical Center) have organized new programs in Family Medicine. This step was taken to deemphasize specialization which in many cases can only be carried out in major urban centers. Another step was to decentralize medical education, so that medical students do not spend their most formative decade in a large urban area, which they come to like and refuse to leave. Special loan programs were also set up to favor rural students, in the hope that, once graduated, they would go back to the rural areas where they came. In the past, however, this hope has consistently been frustrated. Said Dr. Thomas Duckett of Hiawatha, Kansas: "I have made a list of about 30 young men we have sent to medical school from this area during the last 20 years. Not one has returned here to practice."[52]

Another idea holds some potential for the future of rural health care. It has been suggested that medical students be required to practice general medicine for a few years before being permitted to go on to specialize - this step, coupled with the financial incentive provided by the National Health Service Corps might well be the means through which rural America will secure health services in the future.

Many factors contribute to make a rural practice unattractive to physicians. Contrary to widely held beliefs, financial prospects are <u>not</u> a major objection to rural practice. Statistical data show that rural doctors make $60, $70, or even $100,000 per year, which in most cases, is well in line with urban practice profits. The problem is that in a rural area, there is nothing to spend all that money on. This problem does not exist for the physician who is usually kept too busy to think about the lack of recreational opportunities, but it is a major deterrent for his wife and family. Surveys have demonstrated

that the physician's wife is usually the one violently opposed to settling in the country, and that her opinion usually prevails. Thus the lack of good educational, cultural and recreational opportunities represent a major obstacle to the attraction of new physicians.

From a professional point of view, a rural practice is not much more attractive. In Kansas, a rural physician can look forward to a very long week (60-70 hours) with no relief at night or on weekends, a lack of back-up services (laboratory, x-ray and other diagnostic procedures), a heavy patient load (in most places, in excess of 2,500 patients per physician), little or no opportunity for inter-professional contacts, and an inordinate amount of paper work which, in an urban practice, is usually taken care of by clerical staff.

Hopes for the survival of rural health care seem to lie with a new and better utilization of medical ancillary personnel. In this respect, Kansas has an advantage over other states. Its health services enabling legislation, the Healing Art Act, does not spell out the duties of the nursing profession, and thus does not put limitations on nurses' activities. Therefore, very little new legislation will be needed to create nurse clinicians or other medical assistant personnel. Under the enabling act, the physician determines what responsibilities he can delegate to his nurse or assistant. She can carry on whatever assignment is given her as long as she is under the supervision of a physician.[53] Thus, there is nothing in the Act that would prevent nurses to take over routine care and follow-up services.

In the words of a Nursing Education Instructor:

> "The creation of "sub-physicians" or "assistant physicians" does not imply the creation of a cadre of poorly trained physicians, but the creation of a cadre of well trained assistant doctors or

medical assistants. It would do much to enable rationalization of services."[54]

Such personnel may do much to ease the allocation and distribution that now beset a nation committed to health improvements, but characterized both by private practice of medicine, and (largely) private financing of medical care. Given this type of personnel assistance, some physicians might find practice in "poorer" areas more rewarding than they now do. Problems of overwork would be eased, and the physician would have the time to practice the better medicine he is trained for. In any case, fewer physicians would be needed.

At the local level, several actions have been initiated. Local Chambers of Commerce have advertised for doctors. Very significant progress was made when an M.D. Clearinghouse was set up in Wichita in June 1974. This Clearinghouse is a sort of central data gathering system which keeps files on all Kansas communities in need of medical personnel. The information is based on questionnaires sent to several hundreds of communities under 50,000 population. Besides identifying the need for medical personnel, the questionnaire provides a glimpse into each community for the interested physicians, as to medical resources, educational, cultural, civic and recreational opportunities, transportation, average temperatures, and even television channels received.

Through the National Health Services Corps, two Kansas communities, Cimarron (Gray County) and Mound City (Linn County) have received a new physician. Two other counties, Meade and Wabaunsee, have applications pending with the Corps In addition, six physicians have been scheduled to

settle in Health Planning Regions 7 and 10 (Far Southwest and North Central). These physicians will be hospital-based, and will provide primary health care to a 22-county area. A new clinic is opening in Delphos (Ottawa County) manned four days a week by doctors from Minneapolis.

Furthermore, the Kansas Osteopathic Foundation has a contractual agreement with nine osteopathy medical students who will settle in Northwest Kansas upon completion of their training. These students will also provide primary care. The same Foundation recently placed physicians in Leoti (Wichita County), Lakin (Kearny County) and Coffeyville (Montgomery County).

It is the belief of this author that health care as we know it today is disappearing forever. What will take its place is a more complex system of coordinated medical activities, a system relying heavily upon the physician-nurse team and elaborate technical communication equipment, more mobile means of providing preventive care and airborn emergency transportation. Care will be available through large regional institutions that will promote better efficiency and reduce costs for consumers. The location of services will hopefully maximize the accessibility to health care for the general public and minimize inconvenience to particular individuals.

The emphasis on reorganization was well expressed by the Surgeon General of the United States:

> "We shall never have all the physician manpower we need. Therefore, we must reexamine one function as physicians to make sure that we are performing at the top of our professional competence all the time, extending that competence by the use of ancillary personnel. We shall never have all the ancillary manpower we need either. Therefore, we must look to technology, to automation, for all the support they can provide. Since we shall never be able to remain completely the economic, social and geographic barriers to health care, we must do

everything possible to surmount those barriers and make equal access to health services more than a pious hope."[55]

As was mentioned earlier, the H.M.O. legislation provides the greatest hope for the survival of rural health care. On the surface, the H.M.O. seems to represent an optimum solution to the problems facing rural America. The H.M.O. preserves and respects the concept of free enterprise, so dear to the American heart. It represents nothing more than a new operational and organizational model for the delivery of health care. It does not in itself generate new resources, but it does create a better working environment that would be more conducive to the attraction of new medical personnel.

The main features of the H.M.O. are:

1) It emphasizes cost containment;

2) It spreads the burden of delivering health care across several medical groups; and

3) It provides comprehensive health care.

The H.M.O. concept promotes cost containment on several levels. By offering a true prepaid health insurance, it provides the incentive for the doctors to keep their patients healthy. One of the mottos of the Group Health Association of America (GHAA) who promoted the H.M.O. legislation is "Don't Get Well, Stay Well!" GHAA points out that the Blues (Blue Cross and Blue Shield) and other private health insurance brokers provide in fact postpaid sickness insurance. In other words, the physicians get paid for services rendered: the more services, the more money. On the contrary, the H.M.O.'s provide basic health services to enrollees for a standard monthly community-rated fee. The physicians are paid salaries, and operate on a prepaid fixed monthly income. There is a strong incentive therefore for

the physicians to keep the patients healthy, so that they don't consume costly services. At the same time, there is a built-in "quality control" criteria, because the H.M.O. is a private corporation subject to all the vissitudes of private enterprise, mainly competition. Therefore, the H.M.O. has to stand on a knife-like edge, trying to provide the quantity and quality of services necessary to retain patients, and yet eliminate all unnecessary procedures in order to maximize profits.

The Health Maintenance Organization Act of 1973 provides $325 million to stimulate the development of several hundred H.M.O.'s over the next five years. 20% of this funding will be reserved for feasibility studies of rural H.M.O.'s

The 1974 Kansas Legislative Session carried the H.M.O. enabling laws. So far, there is only one H.M.O. in operation, in Wichita. Three others are in the planning or feasibility study stage. One of those, an H.M.O. in a rural area, was found to be unfeasible from a financial viewpoint.

Given the broad spectrum of basic health services an H.M.O. has to provide, to be financially solvent, such a health delivery services organization would have to serve approximately 5,000 families, or 20,000 people.

In September 1971, Trans-Action published an article by Milton I. Roemer, entitled "An Ideal Health Care System For America". The design of this ideal organization is quite simple, and very similar to the Swedish paramidal system.

> First of all, in every neighborhood, close to the homes of people, would be a health center staffed by a team of primary health personnel. At this center all the usual personal preventive services

would be provided. The basic health and medical record of each patient would be kept here, transferred to another health center if he should move and temporarily lent to a hospital or other facility where he may be referred for care.

Depending on the distribution of the population, each such health center would be intended to serve about 10,000 people. In a sparsely settled rural area, it might be fewer, and in a very densely settled city it might be more. There would be one doctor, in collaboration with the other allied health personnel, for about 2,000 persons that would do reparative work as well as prophylaxes on children. An optometrist would also be on the team for visual refractions. Drugs would be dispensed from the pharmacy within the health center.

Services of the neighborhood health center should be available 24 hours a day, but no individual doctor should ordinarily have to serve more than an eight-hour day, with the other hours covered on a rotation scheme.

For each four or five such health centers - that is, for population clusters of 40,000 to 50,000 - there should be a district hospital. Assuming about three beds per 1,000 for the relatively common conditions handled at this hospital, it would have 120 to 150 beds. This facility would accommodate maternity cases, trauma, abdominal surgery of lesser complexity, most cardiovascular cases, severe respiratory infections and the like.

It would provide ambulatory specialist care through an active

outpatient department, to which patients would be referred by doctors at the primary health centers. Except for obvious emergencies, all admissions to the hospital would be made through the outpatient department.

In the district hospital, there should also be provision for some mental patients.

The next echelon of hospital care would be a regional hospital serving populations of about 500,000 - in other words, the service areas of about ten district hospitals. Offering about 1.0 bed per 1,000 people, this larger hospital would have about 500 beds and would be devoted to the care of patients with more complex medical or surgical problems. Here is where the chest surgery (heart or lungs) would be done, the more complicated abdominal surgery, the kidney dialyses, the complex diagnostic workups. Here also would be an active program of medical research, along with training programs for nurses, technicians and various other types of health personnel. Physicians and others from both the district hospitals and neighborhood health centers would come here also for periodic refresher courses on new developments in medical science.

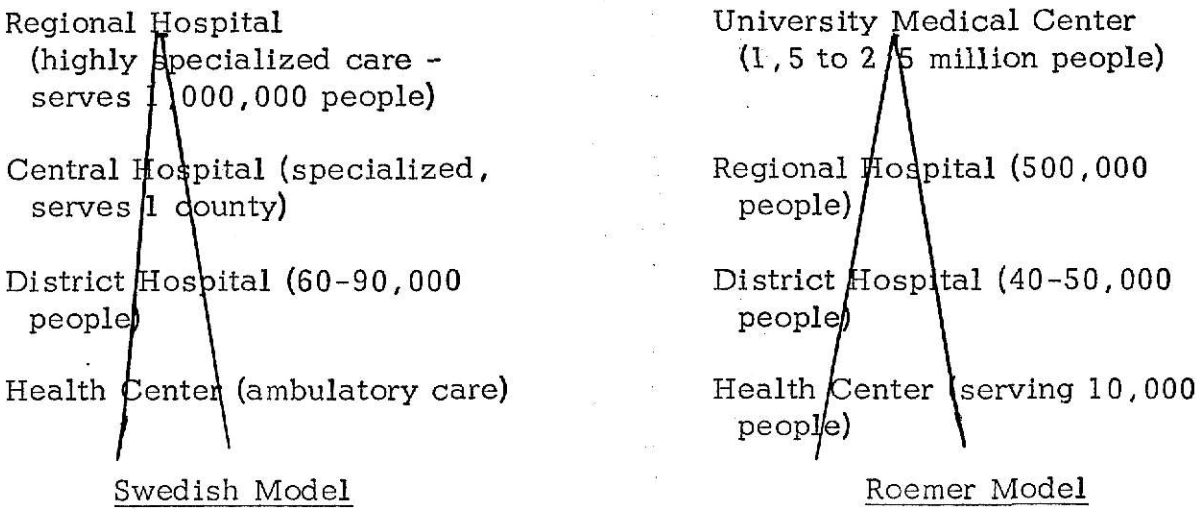
At the highest echelon, serving the population coming under three to five regional hospitals (that is, from $1\frac{1}{2}$ million to $2\frac{1}{2}$ million people), should be a university medical center. Assuming roughly 0.5 beds per 1,000 (that is, 750 to 1,500 beds), part of these beds would be devoted to simple cases (of the district

hospital type), part to complex cases (of the regional hospital type) and part to special diagnostic categories on which the medical school staff was doing research.

As for care in the patient's home, this would be provided principally by the staff of the local health centers. Physicians would go when necessary - usually for acute emergencies - but most initial or follow-up home visits would be done by broadly trained nurses or medical assistants attached to the health center. If a patient discharged from the hospital must have continuing medically supervised care, this should be provided by the health center staff (aided by any special instructions or advice from the hospital staff) or occasionally by a "home care" staff dispatched directly from the hospital.[56]

FIGURE 1 illustrates the similarities between the Swedish model and Roemer's.

FIGURE 1



Roemer emphasizes the increased use of medical assistants as the main source of manpower at the first echelon of the pyramid (the health center).

They would handle simple cases on their own, and have more time than the doctor to give sympathetic attention to each patient.

At the district hospital level, assistants would handle routine obstetrical care (as in Great Britain), anesthesia, and routine and preventive dental work (as in the case in New Zealand). All the assistants of course would remain in close contacts with the physicians, and any cases not recovering promptly or causing difficulties would be referred to them.

Before proceeding further with the reorganization of health care delivery, one major problem needs to be brought to attention, in connection with the increased responsibilities of the paramedical staff. The present malpractice laws will not allow any extensive use of the medical assistants. The Patterson Report quotes one of its interviewees as saying:

> "We had one insurance company tell us they would take us if we would dismiss our nurse anesthetist who has been working for us for a number of years, with a good record. Now, she is one of the paramedical people we are talking about. If she can't give anesthetics, it will take a doctor off our team in order to replace her."[57]

This problem is particularly serious in rural areas where the lack of physicians compels the paramedical staff to take over growing responsibilities. By prohibiting the extensive use of assistants, the insurance companies could in fact paralyze rural medicine. The doctor quoted above went on to say:

> "Suppose the company decides next year that we can no longer do major surgery because of some broad risk factor elsewhere. What they would actually be doing is telling us that our license isn't worth a damn."[58]

Thus, before paramedical personnel can be used on a large scale, the Legislature will have to improve the malpractice laws, and spell out the standards under which physician assistants can be trained and used.

Reorganizing health care delivery is a very involved process. Unless he is familiar with the situation at the site of each existing facility, the planner might make assumptions that could have disastrous effects upon the delivery of health services to the local population.

The State of Kansas has 154 general hospitals, or a hospital/population ratio of 1/14,946. Given the rule of thumb that anyone is hospitalized on the average once every sixth year, we find that the population subject to hospitalization in any given year is fairly small. Furthermore, an analysis of the Patient Origin Study (mentioned above) identifies a great number of small hospitals (under 30 beds) located quite close to each other, offering the same services and each running at low occupancy rates (approximately 30%).

A natural reaction is to want to emphasize efficiency and promote lower operation costs. A common mistake is to achieve these goals by closing down some of these "unnecessary" hospitals. A good case in point is the Lane County Hospital in Dighton. This is a 10 bed hospital which discharged 149 patients from January to December 1973, and runs at an occupancy rate of only 36.0%. Within an hour's drive of Dighton are two large hospitals, in Garden City and Dodge City. Furthermore, within a 25-30 mile radius of Dighton are three smaller hospitals, in Scott City (31 beds), Ness City (42 beds) and Jetmore (24 beds). Dighton has a population of 1,696. It would therefore seem that the Dighton facility is unnecessary and duplicationary.

However, other factors have to be taken into consideration. The Dighton hospital is affiliated with a long-term care unit (the only one in the

vicinity) that functions at a 95% occupancy rate. There is a doctor in Dighton who keeps office hours and mans the hospital and the long term care unit. The closest city is Scott City, 24 miles away. If the Dighton hospital were closed down, the 149 patients would have to seek treatment in nearby Scott City. Besides the inconvenience of the 35 minutes trip, one has to consider the cost of the patient trip, and that of daily family visits. Furthermore, if the Dighton facility does not operate any more, the doctor will probably leave the town, leaving its population to rely on Scott City for medical services. It was estimated that the Dighton doctor sees approximately 40 patients a day out of his office, six days a week. This yields 240 patients a week. At 11¢ a mile, it would cost $1,267 a week in travel costs for these patients to see a doctor in Scott City.[59] Thus, even though the Dighton hospital is not a financially solvent operation, Lane County decided that it was more profitable[60] to subsidize the facility at the county level than to incur the travel costs and loss of productive activity that would inevitably result from the closing down of the hospital. This reasoning does not take into account unquantifiable factors such as inconvenience, etc.

However, a deeper look into the Dighton hospital data reveals that it possesses an obstetrical service unit that was used only 15 times over the year 1973, and a nursery which accommodated 13 newborn babies. These obviously are badly underused facilities, and the Dighton hospital could vastly increase its efficiency by coordinating its services with those provided in Scott City, Jetmore and Ness City. A 35 minutes trip is only a minor inconvenience to most patients and would greatly decrease the operational

In a July 1, 1974 interview with Mr. Duane Dauner, Assistant Director, Kansas Hospital Association, it was pointed out that there wasn't a hospital in Kansas that could very easily be closed down, for reasons very similar to those mentioned in connection with the Dighton hospital.

80 of the 105 counties in Kansas have a population of less than 20,000, making it unfeasible to provide each county with an H.M.O. However, it would seem possible to combine the H.M.O. and the Swedish health care delivery concepts, the H.M.O. providing preventive care and the opportunity for cost-containment, and the Swedish model providing decentralized health care.

A study of the location of hospitals in Kansas shows that no community is more than 25 miles away from a hospital. Given the present 55 mph speed limit, no one is more than 30 or 35 minutes away from primary care.

1) A "primary medical care and health services unit" should provide quality primary care and health services in an available, personalized, and continuous fashion:

a) Preventive services, case finding services, and diagnosis and treatment for usual and uncomplicated illness and disease.

b) Minor surgery and medical care for uncomplicated problems.

c) Home care programs - nursing services.

d) Preventive, diagnostic and restorative dental services.

The smaller hospitals will serve as area primary health care centers

or community health centers, depending on the centrality of their location. They will be made to expand their out-patient orientation, and specialize their in-patient services, in coordination with neighboring centers. The staff will include one or more physicians[61] aided by a team of nurse-practitioners and other paramedical personnel. The physicians needs not be at the center on an in-residence basis. The nurses could take care of the bulk of the routine care, referring more troublesome cases to the physician. In low density areas, physicians coverage will be insured by M.D.'s from neighboring centers giving a particular area bi- or trice-weekly coverage on a rotating basis.

The area health center will be the provider of all preventive care, diagnosis of uncomplicated illness, minor surgical and medical procedures and minor dental services. The center will be the point of entry into the medical system and act as a referral service to more specialized medical facilities.

The latest discoveries in computer and communications technologies can provide a continuous link between the medical personnel in area health centers and district and regional hospitals. This will allow a nurse to diagnose a severe illness or a vascular problem, and forward the patient post-haste to a facility where his problem can be better handled.

2) The second step on the health care delivery ladder is the regional hospital. These facilities should serve approximately 100,000 people, and be no more than one hour away from any point in their service area. They will handle all "normal" medical surgical procedures. They will be staffed by physicians, just like a hospital is at present. It will contain

approximately 100-150 beds, and should provide both primary care to the population in its immediate vicinity, and secondary care for the patients referred by area health centers.

3) At the top of the ladder, is the tertiary medical care facility. It will provide every kind of highly specialized services, diagnostic, medical or surgical. It will also (because it typically is a teaching hospital) handle primary and secondary care.

Studies have shown that the location of such facilities is not an issue. Highly specialized services are usually elective, and people will travel as far as they have to to secure this special kind of care. The Health Maintenance Organizations would operate out of area health centers and regional hospitals, and could contract with tertiary care centers for highly specialized care.

MAP 3 illustrates how health care could be regionalized in order to maximize the accessibility of the rural population to primary and regional health centers, and minimize inconvenience to individuals.

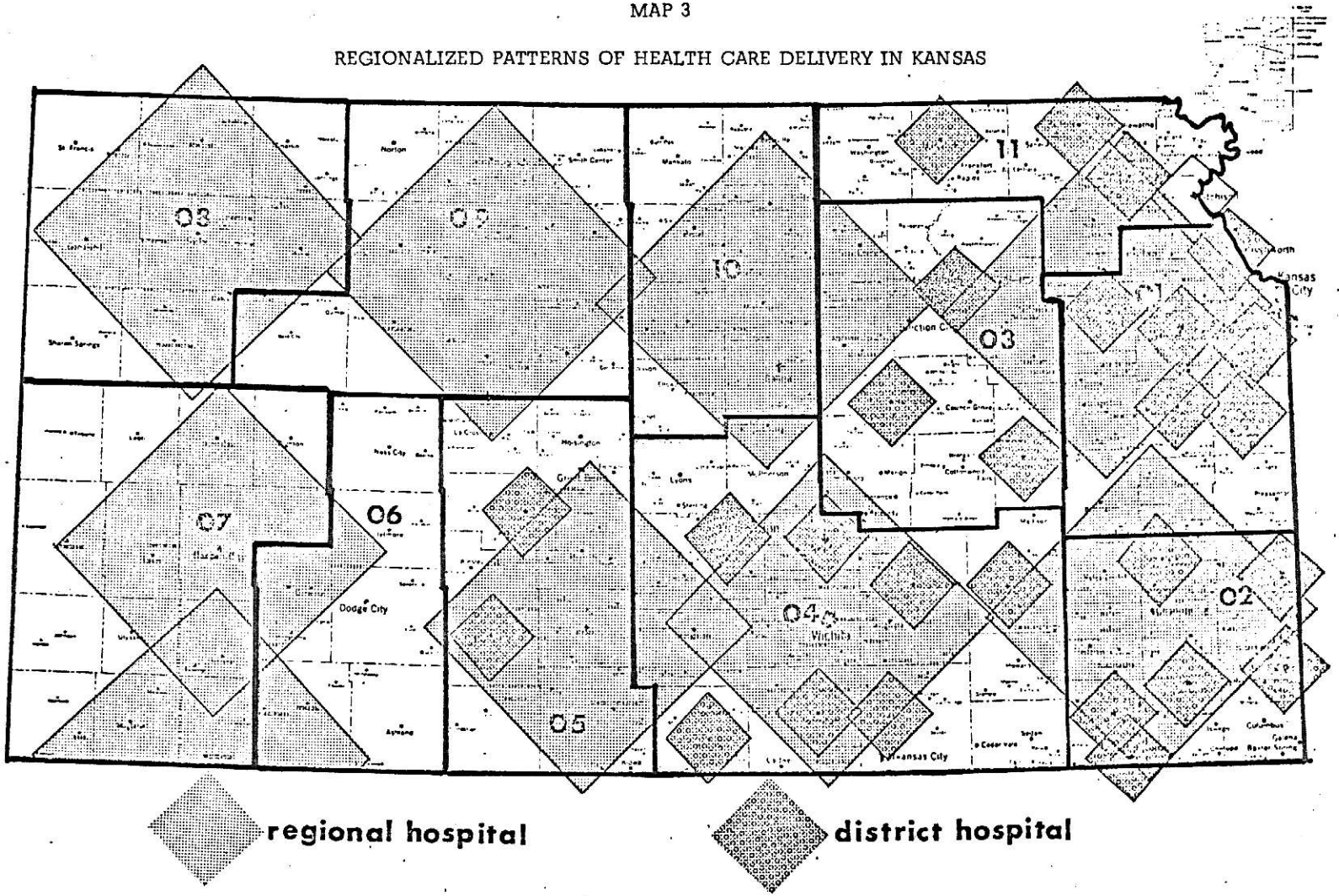
It has to be understood that an effort to reorganize health care in rural areas is bound to make matters worse for a few individuals who like the present organization. But the geographical characteristics of rural America demand that the special interests of the few be sacrificed to the general welfare of the many.

There will undoubtedly be transportation problems. With a little ingenuity, these could be solved by making use of school buses which remain idle for all but very few hours of the day.

Emergencies could be handled by airplane. While this is not to be

MAP 3

REGIONALIZED PATTERNS OF HEALTH CARE DELIVERY IN KANSAS



considered a standard approach to emergency transportation because of the weather, and the costs involved, it is certainly an option, and contacts should be initiated with nearby Army and Air Force bases to determine the extent of possible cooperation.

Such a regional health care delivery system will, in all likelihood, require a somewhat more direct planning framework than exists at present.

During the past few years, there has been a tendency among professional planners, to want to bring back all specialized planning activities under the same umbrella agency.

In February 1974, the American Institute of Planners (AIP) adopted a policy statement on health which recommended "the integration of CHP with the general planning process, including an emphasis on citizen participation."

Furthermore, the National Association of Regional Councils (NARC) contented that "the health planning regions should conform with A-95 boundaries, and that existing multi-jurisdictional planning bodies should continue to function as the designated agency."

In keeping with this new direction in planning, the State of Kansas created a new Division of State Planning on July 1, 1974. A part of the Department of Administration, this new office will regroup the major planning functions in the State.

Comprehensive Health Planning (CHP) is the regional approach to health services. Its duties include planning, development and coordination of both private and public health programs at state and local levels.

The State Health Planning Agency (314(a)) and the Areawide Councils (314(b)) share legal control power over the implementation of health services delivery improvements within the state:

1) A-95 Review and Comment: this Office of Management and Budget (OMB) procedure requires all state and areawide agencies to review and comment on local applications for "federal projects for construction and/or equipment involving capital expenditures exceeding $200,000 for modernization, conversion and expansion of federal inpatient care facilities ...as well as plans for provision of major new medical care services."[62]

A-95 Review and Comment power is rested within the state agency. Only occasionally will the 314(a) agency refer to the areawide councils for clarification.

2) Areawide planning councils also have the responsibility for reviewing all applications for HEW funds.

3) All local and areawide health planning agencies are responsible for the issuance of certificates of need.

> "Certification-of-need is defined as the process whereby the state grants permission to health care providers (hospitals, nursing homes, clinics, health departments) to change the scope of their services, or in the case of prospective providers, permission to introduce new services. Its purpose is to ensure a community of the availability, accessibility, and viability of comprehensive health services."[63]

This power lies with the (b) agencies only. While the (a) agency acts as coordinator, the (b) agencies have the final say over what is offered.

Actual health planning is carried out at both levels, areawide and state.

Health subcommittees in both the House and the Senate will soon begin to review comprehensive health planning legislation.[64]

The pending bills all contain provisions to replace the 314(b) CHP program. Such health planning would be carried out by non-profit health planning organizations. Local governments and/or their regional councils would be prohibited from undertaking this areawide responsibility.

It is the belief of this author that CHP regions should be redefined, and made to coincide de facto with the boundaries of the Regional Planning Commission (See MAP 4). This would allow the creation of a central data gathering system, and would eliminate duplicationary efforts.

The justification for such an action is to be found in a statement by W.H.O., that truly comprehensive health planning involves major issues that are far beyond the purview of a single Health Planning Agency: sanitation issues, water supply, environmental problems, social and economic characteristics of the population, etc.

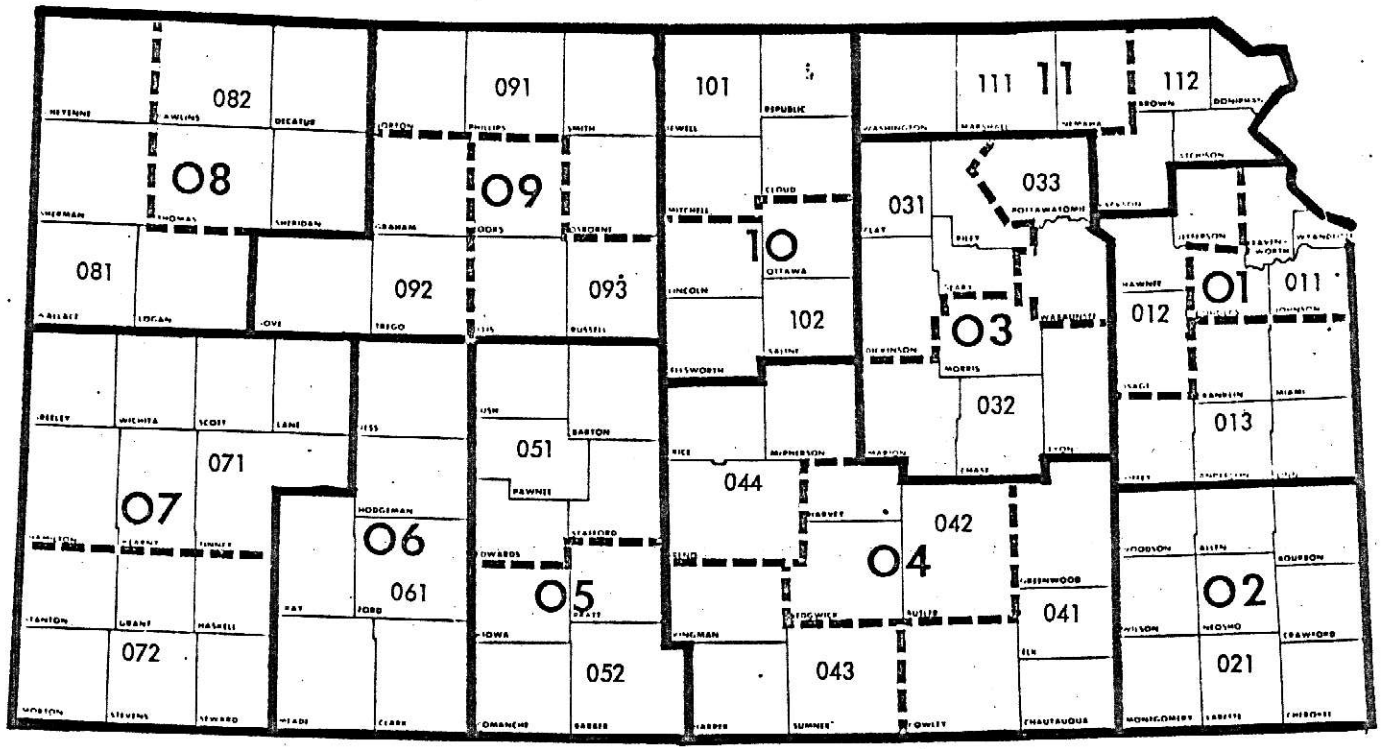
Besides, what is hospital-site-location, if not land-use planning?

At the regional level, planning would be carried out by a professionally trained health planner who would be a regular part of the Regional Planning Commission staff. The Regional Planning Commission membership should be chosen so as to meet the criteria of H.U.D. and C.H.P. Since there are no limitations as to the number of people on the Commission, the present Areawide Health Planning Council membership could be incorporated in the Commission, this would provide widespread grass-root input and citizen participation in the planning of health care delivery.

Obviously, this step would require a little reorganizing. Since the CHP regions would be redefined, the Councils could not be incorporated

MAP 4

PLANNING REGIONS AND SUB-REGIONS OF KANSAS
(Revision No. 2, Oct., 1967)



LEGEND

REGION 01

SUB-REGION 011

PLANNING DIVISION, KDED

"as is" because the present membership would not follow the new boundaries. But the changes required would no doubt be very minimal.

At the state level, the 314(a) agency should be made an integral subdivision of the new Division of State Planning. Its task would be to provide technical assistance to the regional planning commissions staff, to exercise its responsibility for comment and review, as mentioned above, and to coordinate projects on a multi-region basis.

By providing professional planning competence at the regional level, it is hoped that the health planning process will be made more efficient and more effective.

SUMMARY AND CONCLUSION

The last decade has witnessed a profound change of attitude within the public towards the medical profession.

> "A major characteristic of contemporary political systems throughout the world is popular antagonism towards large bureaucratic organizations. There is a crisis of legitimacy generated by a public dissatisfied with governmental policies and inadequate institutions."[65]

> "This rapid social change has also confronted the world of organized medicine. The public is becoming highly sophisticated and it is rejecting its former reverence for the medical profession, akin to that which the laity formerly extended to the clergy. Attitudes of awe and respect are rapidly changing to high expectations and little patience."[66]

Public opinion now considers health a right rather than a privilege. These factors have contributed to the anger with which frustrated efforts towards improvement have been met.

It has become obvious over the last few years that continued expansion of funds for medical services - without associated incentives for major

changes in the organization and delivery of medical care - will contribute to the currently growing inflation in the health area, and is unlikely to succeed in meeting population needs for health care. The failure of the Medicaid and Medicare programs is proof of the fact that money alone will not solve health care delivery problems. The presently deteriorating situation leaves us little alternative but to actively pursue major constructive change or court disaster.

Major efforts are underway to drastically reorganize the delivery of health care in the U.S., converging mainly on attempts to reorganize the doctors. Although the health industry encompasses well over three million workers, the 300,000 doctors define and control the basic pattern of organization of health services.

A physician sees his responsibility in terms of providing consciencious care to his patients, and he does so under conditions that fulfill his personal needs also. Thus, he is very unlikely to review his effectiveness or contribution in terms of the greatest good for the greatest number of people.

Furthermore, governmental programs in health care have rarely demanded that doctors demonstrate responsibility in the charges for their services, or in the manner in which they use hospitals, nor have hospital administrators been sufficiently secure in their own power to attempt to institute rigorous controls. The increasing role of third party payments have provided no incentive for doctors or for patients to resist rising medical costs.

Thus, efforts have aimed at three different directions:

1) To increase the production of physicians;

2) To increase their productivity; and

3) To work out a system of financing health care that will be fair both to the health care consumer and to the provider.

Through educational loan programs, attempts are made to increase the number of students entering medical schools, emphasize the practice of family medicine versus specialty practice, and provide incentives for physicians to locate in underserved areas.

Group practice has been strongly emphasized, as the only means of fighting professional isolation (particularly in rural areas) and providing necessary but expensive back-up services (laboratory, diagnostic and "housekeeping" services).

The concept of prepaid medical care has been hailed as the best way to promote efficiency and effectiveness in the medical care delivery process. Two major types of prepaid practices hold special promise for the future of health care:

1) The Health Maintenance Organization which is basically a group of physicians providing basic health services to a voluntarily enrolled membership for a pre-established, community-rated monthly fee; and

2) The Health Co-ops which operate on the same principle, with the exception that the physicians are hired (and fired) by the membership of the Co-op.

Past experience has proven that both organizations can be highly successful in providing health services, and yet reducing hospital utilization

rates: prepaid group-practices have turned out to be highly profitable ventures.

The advent of a National Health Insurance program will not, of itself, affect the organization of health care delivery. It will simply mean that there will be help available in paying out monthly fees for H.M.O. or Health Co-ops.

In accordance with a more democratic health care delivery system, the planning framework will have to be made more realistic and more "professional" at the regional level.

Comprehensive Health Planning is appearing more and more as the hope of future health care delivery to both rural and urban America. With the skyrocketing costs of care (due to duplication of services and technological progress), and the continuing exodus of the population from rural to urban areas, it seems absolutely vital that some framework be established in which various health programs can be devised and coordinated.

APPENDIX A

QUESTIONNAIRE

IDENTIFICATION OF PROBLEMS IN THE DELIVERY OF HEALTH CARE IN KANSAS

Please rate the severity of each of these problems in your health care area, on a scale from 5 to 1, according to the instructions for each question. Please, feel free to comment on the specific needs and problems in your area in the space provided or on a separate sheet.

	1	2	3	4	5
I. Do you perceive health care as a problem in your area? (1=no problem, 5=extreme problem) (Please check appropriate block)	—	—	—	—	—

COMMENT:

II. Is the absence or inadequacy of the following a problem in your area? (Please check the appropriate block: 1=no problem, 5=extremely serious problem)

	1	2	3	4	5
-adequate number of physicians	—	—	—	—	—
-adequate number of general practitioners	—	—	—	—	—
-adequate number of specialists	—	—	—	—	—
-adequate number of dentists	—	—	—	—	—
- adequate hospital facilities	—	—	—	—	—
-adequate clinic facilities	—	—	—	—	—
-ambulance-rescue services	—	—	—	—	—
-family planning services	—	—	—	—	—
-school nursing	—	—	—	—	—
-family health counseling	—	—	—	—	—
-sewage treatment facilities	—	—	—	—	—
-excessive distance to facilities	—	—	—	—	—
-facilities oriented toward specific population groups (aged, mentally retarded, physically handicapped, etc.)	—	—	—	—	—
-services for people in remote rural areas	—	—	—	—	—
-care is not available to all due to social or economic barriers		—	—	—	—

COMMENT:

III. Do you consider duplication of services a problem in your area? (Please check appropriate block: 1=no problem, 5=extremely serious problem.)

1	2	3	4	5
_	_	_	_	_

COMMENT:

IV. Indicate the need for additional personnel in each of the following category.
(Please check appropriate box:
1=no need, 5=extreme need)

	1	2	3	4	5
-public health nurses	_	_	_	_	_
-social workers	_	_	_	_	_
-Physicians	_	_	_	_	_
-Dentists	_	_	_	_	_
-Nurses	_	_	_	_	_

COMMENT:

V. What, in your opinion, is the relationship between health service problems in your area and the following? (Please check appropriate box:
1=no relationship, 5=very strong relationship)

	1	2	3	4	5
-no strong desire on the part of officials and people of the area to improve health care	_	_	_	_	_
-lack of financial resources to attract and support adequate personnel	_	_	_	_	_
-lack of adequate facilities	_	_	_	_	_
-lack of complementary health personnel	_	_	_	_	_
-unattractive living environment	_	_	_	_	_

COMMENT:

Would you like a summary of the findings of my study? Yes ____ No ____

APPENDIX B

NORTH CENTRAL HEALTH PLANNING COUNCIL
WORK PROGRAM

The purpose and function of this areawide health planning council is to eliminate unnecessary and costly duplication, and to develop a continuous process of arriving at agreement of both providers and consumers of health services on the health needs, objectives and priorities within the grographic limits of this planning council. In compliance with the legislative intent as set out in Public Laws 89-749 and 90-174, we intend to bring together providers and consumers in order to assess the community health needs of the region. After proper determination of regional health needs, goals must be established and priorities determined and recommendations made to appropriate agencies.

We hope to achieve these goals through an open process which encourages full public discussion, thorough research of the issues, evaluation based on solid current data, and recommendations which evolve from this process. All Council meetings shall be open to the public. We intend to adequately publicize all Council activities through the media in order to encourage local participation, educate the public, and gain support for Council activities.

Activities of the Council as a Whole:

1. The Council shall establish standing committees to review specific types of proposals and grant applications. Each committee shall be required to give a report of their activities at every areawide council meeting.
2. The Council shall establish special task forces to perform committee type work in specialized areas. Once a task force has completed the specific work assigned, it is automatically disbanded.
3. Periodically a new "charge" shall be given to the committees, outlining the work requested of each committee.
4. The Council shall review committee reports and recommendations, taking appropriate action upon same.
5. The North Central Health Planning Council shall take appropriate action to maintain its official state recognition as an areawide health planning council. This shall include a periodic review and updating of council membership to insure that the consumer-provider ratio is in accord with federal and state guidelines and the council by-laws. Membership shall reflect

a broad grass-roots representation of people and community interests from the geographic area encompassed. Periodically a task force should be appointed to develop and update the Work Program, review and recommend changes in the by-laws, and develop the new "charges" given to the various committees.

6. The Council chairman shall annually appoint a nominating committee to present a slate of officers for election two months before the meeting at which the annual election is held.
7. The chairman of the Council shall appoint a task force to develop an application for continuation of recognition, to be submitted to the Coordinating Council at least two months before the period of official recognition expires.
8. The Council shall conduct a consumer education program and promote greater public awareness and understanding of comprehensive health planning.
9. Using the established priorities and procedures, the Council shall review and comment upon any health facility proposals submitted to them. The chairman of the Council shall issue a "certificate of need" to said applicant if the need is so determined according to HB 2094.

Charges to the Various Committees:

Health Facilities Committee

A. Objective:

1. Assess the community health resources and identify health facility and service needs.
2. Determine goals and priorities for orderly development of health facilities and the services they render in the region, and evaluate proposals for establishment, modernization, and expansion of facilities.

B. Activities:

1. Collection of pertinent data relating to facilities, such as number of beds, level of care, kinds of services provided, utilization rates, etc.
2. Development of a health facilities plan for the various levels of care needed within the geographic area. This plan should be submitted to the full Council for their review and comment.
3. The Facilities Committee shall review all applications

and proposals in the light of this facilities plan and make recommendations to the full Council accordingly.
4. Investigate and discuss available options which may serve as alternatives to additional facility construction, and other health services, to preclude overbuilding, duplication, and overstaffing, which are expensive to the taxpayer and patient.
5. Continue the Facility Committee education process and develop new criteria and forms for facility review.

C. Estimated Progress:

1. Adoption of sound review criteria and development of a plan for the area.
2. Principles and procedures for facility planning must be studied and mastered by members of the committee.
3. Pertinent health information collected; community needs identified; goals and priorities established.
4. Review and comment capabilities will be developed by members of the committee; it is hoped that recommendations for certificate of need will be issued or denied on a regular basis with recommendations submitted to the full Council.

Personal Health Services Committee

A. Objective:

1. To insure that every citizen in the region has available to him local community health services. This committee is to review existing programs and make specific recommendations to fill health gaps. They will be concerned with the delivery of personal health care services.

B. Activities:

1. Further organization and education of a personal health services committee of the Council.
2. Investigation of personal health programs currently available in the region; determination of needs, goals, and priorities for local community health services.

3. Discussion of alternate forms for the delivery of local community health services (e.g. current system, multi-county, bi-county, etc.).
4. Investigation of ways in which local community health services for all citizens of the region can be financed (local, state, federal, and private funding).
5. Adopt a procedure for the review of 314(c), (d), and (e) grant applications. Present to the Council for discussion and adoption.

C. Estimated Progress:

1. Public Health Services Committee meetings to be held on alternate months and reports of findings to be made at regularly scheduled Council meetings.
2. Encourage Lincoln and Mitchell counties to establish County Health Departments.
3. Secure some input for the Areawide Council in the distribution of 314(c), (d), and (e) funds.
4. Review and comment upon 314(d) grant proposals, community mental health and other proposals as specified in the 314(d) guidelines and the Coordinating Council for Health Planning Resolution.
5. Expand Family Planning services.
6. Expand Title XIX services through certification of Local Health Departments.
7. Expand and foster Home Health Care Services.
8. Study the need for diagnostic services, treatment, and rehabilitative care; also the need for a drug abuse program.

Committee on Alcoholism

A. Objective:

1. Assess the overall problem and extent of alcoholism in the area and develop a plan for dealing with it.

B. Activities:

1. Bring together interested citizens and health professionals in the field of alcoholism to develop plans and priorities for dealing with the problems of alcoholism.

2. Linkages should be established among all agencies and organizations that are already involved with the treatment of alcoholism.
3. Community cooperation is necessary for handling the problems of alcoholics; this committee on alcoholism must enlist the help of all professionals that come in contact with the alcoholic, whether medical, religious, economic, social or legal. Treatment of the alcoholic often requires professional help in one or several of these related fields.
4. Overall community goals should be determined and program priorities established to prevent duplication of efforts, overlapping or the proliferation of unrelated services.

C. Estimated Progress:

1. Completion of the community assessment program.
2. An information and referral center is to be established in each county for the treatment of alcoholics.
3. It is hoped that the basic linkages will be established among the various agencies dealing in any capacity with alcoholics.

Environmental Health Committee

A. Objective:

1. Assess the environmental status of the area. Study the environmental problems found within the purview of the planning council and make recommendations which would achieve the most healthful environment for people living within this region.

B. Activities:

1. Gather pertinent data and conduct surveys that will provide a good assessment of the environmental problems in the area.
2. Establish a surveillance team to locate and report all incidents of pollution to the environmental committee. The recommendations of this committee for effective action should be reported to the full Council and acted on by them.

3. Promote the establishment of county zoning as a management tool for controlling environmental problems.
4. Work with the County Commissioners and local planning commissions to develop a land use management system and a solid waste management system as alternatives to zoning.

C. Estimated Progress:

1. Have completed a basic assessment of the environmental health problems of the region.
2. Have established a surveillance team and reporting system for incidents of pollution.
3. Study the practicality of county zoning and land use management systems as implemented in other areas of the state and in other states.

Publicity Committee

A. Objective:

1. Create a public awareness of areawide health planning council activities through news releases to the various media.
2. Inform and educate the public as to health planning goals and gain support for council activities.

B. Activities:

1. Adequately publicize Council and committee activities.
2. Develop news releases that will educate the public in the area of health planning and also serve as progress reports of Council activities.
3. All areawide health planning council meetings are open to the public and should be properly publicized to insure community participation.
4. New and proposed Federal and State legislation affecting the health field should be properly studied and presented to the public through the media.

THIS BOOK CONTAINS NUMEROUS PAGES WITH ILLEGIBLE PAGE NUMBERS THAT ARE CUT OFF, MISSING OR OF POOR QUALITY TEXT.

THIS IS AS RECEIVED FROM THE CUSTOMER.

C. Estimated Progress:

1. The Publicity Committee should be meeting on a regular basis to develop news releases.
2. The committee should develop a series of canned news releases of an educational nature. If the newspapers feel that they can count on a regular article of some special significance, they will reserve space.
3. Items on the agenda that should be of some special significance to the community should be properly advertised in order to give interested parties a chance for local input.

Health Manpower Committee

A. Objective:

1. The shortage in health manpower has been nationally recognized as a critical problem. The overall problem though is not one of numbers alone, but involves many other aspects. Some facets of the problem are: shortage of allied health professionals, shortage of physician and nurse manpower, utilization of health personnel, and training needs of health personnel.

B. Activities:

1. Conduct a complete survey of all health professions by location and type of practice and service area, and a survey of health training facilities.
2. The committee should gather and analyze health manpower data collected, define the problem, and establish goals and priorities for action.
3. Consider the feasibility and effectiveness of alternate solutions and recommend the most pragmatic application of resources to meet the agreed upon goals.
4. The Health Manpower Committee should evaluate the shortages of health manpower in this geographic area and consider whether it would be better to produce more of the same types of personnel, to produce different kinds of personnel, to seek ways of employing existing manpower more efficiently, or to try some other alternative.

5. Make a study of the legal barriers to the utilization of health *manpower*. Review the licensure requirements to see whether they are proving to be a hindrance to obtaining qualified health personnel.
6. The communities themselves must respond to their own health manpower needs instead of waiting for Uncle Sam to do it for them. They must plan for rational allocation of resources and take decisive action for improving community health.

C. Estimated Progress:

1. Committee should engage in active recruitment of out-of-state and out-of-area physicians and other health personnel in special scarcity areas.
2. Committee members should encourage civic programs to make rural areas and smaller cities more attractive to physicians.
3. "Career ladders" within the health industry should be considered and promoted, if feasible.
4. Explore the re-training potential for military-trained health personnel as one answer to the shortage of health manpower.

FOOTNOTES

[1]Stephen Lewin (ed.), The Nation's Health, (New York: The H. W. Wilson Company, 1971), pp. 35-36.

[2]Barbara and John Ehrenreich, The American Health Empire: Power, Profits and Politics, (New York: Random House, 1970), p. 3.

[3]As a case in point, John Ehrenreich cites the case of a social science graduate student who was able to carry out her thesis work on rural health problems in a densely populated Chicago slum.

[4]Ehrenreich, p. 5

[5]John Ehrenreich cites two cases in point: One man, angered by the treatment his wife received in a New York hospital emergency room, beat up the intern on duty; while another man, whose child had died inexplicably at a big city hospital, solitarily pickets City Hall every summer.

[6]Lewin, p. 13

[7]Ehrenreich, p. 17

[8]Gordon Dean Brown, Health Care Research Series, No. 19, Planning and Development of Regional Health Programs in a Federal System, (Iowa City, Iowa: Graduate Program in Hospital and Health Administration, 1972), p. 19.

[9]David Mechanic, Public Expectations and Health Care: Essays on the Changing Organization of Health Services, (New York: Wiley-Interscience, 1972), p. 115.

[10]Ibid., p. 133.

[11]Jeffrey A. Prussin, Health Maintenance Organization Legislation in 1973-74, Vol. II, The Health Legislation Report Series, Science and Health Publications, Inc., p. 1.

[12]U. S. Congress, Health Maintenance Act of 1973, Public Law 93-222, 93rd. Congress, 1st Session, 1973, p. 4.

[13]William A. Reinke, Health Planning: Qualitative Aspects and Quantitative Techniques, (Baltimore, Maryland: Waverly Press, 1972), p. 225.

[14]Anne Somers, Health Care in Transition: Directions for the Future, (Chicago, Illinois: Hospital Research and Educational Trust, 1971), p. 129.

[15]Pierre de Vise, Misused and Misplaced Hospitals and Doctors: A Locational Analysis of the Urban Health Care Crisis, (Commission on College Geography, Resource Paper No. 22, Washington, D.C., 1973), p. 13.

[16]J. Brian McLoughlin, Urban and Regional Planning: A Systems Approach, (New York: Praeger Publishers, 1969), p. 95.

[17]Mechanic, p. 117.

[18]Harold F. Wise and Associates, The Discipline of Comprehensive Health Planning, (Washington, D.C., January 1969), pp. 40-43.

[19]William Ryan, Blaming the Victim, (New York: Vintage Books, 1971), p. 154.

[20]Amitai Etzioni, Modern Organizations, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), p. 40.

[21]James G. Mauche and Herbert A. Simon, Organizations, (New York: John Wiley and Sons, Inc., 1958), p. 13.

[22]Ibid., p. 51.

[23]Etzioni, p. 32.

[24]Weber refers to "organizations" as bureaucracies. While the two terms are synonyms, Etzioni mentions that "bureaucracy" often carries a negative connotation for the layman, and secondly, that the term implies that the unit is organized along principles specified by Weber, which is not the case in many organizations.

[25]Etzioni, p. 51.

[26]Ibid., pp. 53-54.

[27]Ernest Dale, Organizations, (American Management Association, 1967), p. 12.

[28]Etzioni, p. 53.

[29]Etzioni regards the words "organization", "bureaucracy" and "institution" as synonyms, although each word carries a slightly different connotation.

[30]Reinke, p. 229.

[31]A. Downs, Bureaucratic Structure and Decision-Making, (Santa Monica, California: Rand Corporation, Memorandum RM-4646-1-PR, 1966), p. 31.

[32]Ibid., p. 150.

[33]R. Morris, "Basic Factors in Planning for the Coordination of Health Services," American Journal of Public Health, 53: 248-259 and 462-472, 1963.

[34]Reinke, p. 225.

[35]Marcus Alexis and Charles Wilson, Organizational Decision-Making, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967), p. 68.

[36]Gunnar Myrdal, Asian Drama: An Inquiry into the Poverty of Nations, (New York: "Pantheon", Vol. I.3, 1968), p. 1841.

[37]J. Bryant, Health and the Developing World, (Ithaca: Cornell University Press, 1969), p. 26.

[38]Herman E. Hilleboe, Arne Barkhus, and William C. Thomas, Approaches to National Health Planning, (Geneva: World Health Organization, 1972), p. 36.

[39]C. E. Lindblom, Intelligent Democracy: Decision-Making Through Mutual Adjustment, (New York: MacMillan Press, 1965).

[40]A. Wildavsky, The Politics of the Budgetary Process, (Boston: Little, Brown and Co., 1964).

[41]J. F. Elliot, "Economic Planning Reconsidered," Quarterly Journal of Economics, 86, I, 62.

[42]Hilleboe et al., p. 47.

[43]"Isochrones" are lines joining points situated at the same travelling time from a given center.

[44]"Isodopans" are lines that join points situated at the same travel cost from a given center.

[45]Hilleboe, et al., p. 53.

[46]J. Ahumada, et al., Health Planning: Problems of Concept and Method, Pan American Health Organization Scientific Publication No. 11, (Washington, 1965).

[47]Hilleboe, et al., p. 67.

[48]Region 1 includes Wabaunsee, Shawnee, Osage, Douglas and Jefferson Counties.

[49] U. S. Congress, House, National Health Services Manpower Act of 1974, 93rd Congress, 2nd Session, 1974, H.R. 14357, p. 1.

[50] Section 712 of H.R. 14357 defines a medically underserved population as "the population of an urban or rural area (which does not have to conform to the geographical boundaries of a political subdivision and which should be a rational area for the delivery of health services) which the Secretary (of H.E.W.) determines has a critical manpower shortage or a population group determined by the Secretary to have such a shortage;"

[51] Patterson Advertising Agency, Rural Medicine in Kansas: Its Hopes For Survival, (An unpublished report to the Kansas Department of Economic Development, 1973), p. 19.

[52] Ibid., p. 1.

[53] "Supervision" has been ruled to mean not "physical presence" but more accurately "knowledge" and "continuous contact with".

[54] From an interview with the Department of Maternal and Child Health, Topeka, July 1, 1974.

[55] William H. Stewart, "Medical Education and the Community," Medical Annals of the District of Columbia, XXXV, No. 8, (August 1966), p. 417.

[56] Milton I. Roemer, "An Ideal Health Care System For America," Transaction, Vol. 8, XI, (September, 1971), pp. 401-402.

[57] Patterson Advertising Agency, p. 29.

[58] Ibid.

[59] This does not include wages lost as a result of taking off work to see the doctor.

[60] This decision was probably precipitated by the fact that Dighton is the only community in the county; with 1,696 inhabitants, it does not meet the U. S. Census of Population requirement for classification as "urban".

[61] Depending on the population to be served. An ideal physician/patient ratio is 1/1,000 population. The U. S. average ratio is 1/706.

[62] County News, June 24, 1974, p. 10.

[63] Ibid.

[64] House Committee on Interstate and Foreign Commerce: H.R. 13995, 13472, 12053 and 14191: Senate Labor and Public Welfare Committee: S 2796, 3166, 2994 and 3139.

[65]Eugene Fiengold, "The Changing Political Character of Health Planning," American Journal of Public Health, LIX, (May, 1969), p. 805.

[66]Eric W. Springer, "Law and Medicine: Reflections on a Metaphysical Misalliance," Milbank Memorial Fund Quarterly, Part I, L, (July, 1972), p. 259.

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HEALTH PLANNING IN KANSAS: A COMPARATIVE STUDY OF AMERICAN AND INTERNATIONAL HEALTH PLANNING SYSTEMS

by

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AN ABSTRACT OF A MASTER'S THESIS

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ABSTRACT

The last decade has witnessed a major shift in public opinion about health care in America. Traditionally, health care was, like any other major commodity, a privilege enjoyed by the wealthy, while its unavailability was accepted by the poor as a more or less normal occurrence.

Several factors contributed to the drastic change of attitude. First of all, people of all social classes (particularly the intelligentsia) have become more aware of the poor's plight, and are joining their voices to those of minority activists in loud protest and demand for change. The concept of health care also changed from being a privilege to be secured by the wealthy to a right to be enjoyed by everyone, regardless of social or economic situations.

The protests, however, would probably never have had any significant results, had it not been for the fact that over the last few years, the health care crisis began to affect rich and poor alike with the bulk of american society (the middle class) being hit the hardest. The wave of discontent has now been swelling to such dimensions that the health care issue has become one of the major issues on the floor of both Houses.

The health care crisis is composed of three main elements:

1) overall shortage of medical manpower;

2) maldistribution of medical personnel; and

3) lack of adequate financing mechanisms for health services.

Much legislation has very recently been acted upon, both at the national and local levels, to provide more financial assistance to prospective medical students and open wide the doors of medical schools.

New methods of delivering health care are being studied, that would make it more effective and efficient. In particular, much thought has been given of late to the state of medical care in medically underserved areas, mainly in inner-cities and rural areas.

And then, of course, there is the great debate on National Health Insurance. Several proposals are being reviewed, and it is the opinion of experts that legislation on this particularly sensitive issue will be adopted within the next two years.

Kansas has been on the forefront of medical innovations. One of its Congressmen, Dr. Bill Roy of Topeka, has been the proponent of major health legislation (in particular the Health Maintenance Organization of 1973).

Many factors contribute to make Kansas a good testing ground for new health care delivery methods. It is primarily a rural state which contains also several large cities. Its average income is fairly high: It ranks thirteenth in the nation in personal income. It also possesses a rather flexible piece of enabling health legislation (The Healing Arts Act) which permits immediate use of new resources without drastic legislative changes. Yet, it experiences all of the inequalities of health care delivery connected with an isolated rural population.

Two methods seem particularly well-suited to the solution of health care problems in Kansas. One is the Swedish regionalization model of delivering health care services through a pyramid-shaped organizational structure. Another potentially successful method is the concept of prepaid group practice. This concept, although not new, has been hailed as "the greatest thing to hit rural America since indoor plumbing", and is

expected to greatly relieve medical personnel shortages by providing an appealing professional atmosphere.

Another idea whose time has apparently come is that of truly comprehensive health planning. It appears to be the possible answer to disconnected local efforts to meet crisis situations on their own.

Several problems have beset CHP in its early years, not the least of which was the lack of professionalism. However, as the general planning function becomes less and less suspicious in the public mind, one can hope that comprehensive health planning will acquire the power and the influence necessary to maximize its potential benefits.