The July 1, 1968 issue of HOSPITALS, the Journal of the American Hospital Association, featured several aspects of Regional Medical Program activities, particularly as they are relating to hospitals. Attached is a reprint of all of this material as it appeared in that issue, including the index.

It should be noted that the full proceedings of the American Hospital Association Invitational Conference on Hospitals and Regional Medical Programs, held on June 13-14, 1968 and reported in this material, are now being edited and will be made available when they are ready in the near future.
REGIONAL MEDICAL PROGRAMS - A PROGRESS REPORT
SPECIAL REPORT

21 Conference on Hospital Involvement in Regional Medical Programs
- Highlights of Two-Day Proceedings
- Keynote Address by Jack Masur, M.D., All Hospitals are Not Equal

Regional Medical Programs: Case Studies

48 1. Intermountain Program Focuses on Community Hospitals
   C. Hilmon Castle, M.D.
   Urban centers lead in research, but regional programs focus on community hospitals, where most health care is delivered.

52 2. Albany Program Emphasizes Community Strengths, Relationships
   Frank M. Woolsey Jr., M.D.
   Initial activities in the regional medical programs serve as guides for total program planning and provide feedback on results.

56 3. Academic and Public Agencies Work Together in Missouri Program
   Vernon E. Wilson, M.D.
   Missouri program projects enlist the aid of academic and public agencies to improve the quality and availability of health care.

60 4. Local Action Groups Involve Communities in Kansas Program
   Charles E. Lewis, M.D.
   A network of projects carried out by local action groups is the basis of the Kansas Regional Medical Program's operation.

Regional Medical Programs: The View from the Hospital
Two leaders in the hospital field were interviewed for their views on the proper role of the hospital in Regional Medical Programs.

65 Trends in Blood Banking (Part Two): Component Therapy, Frozen Storage Promise Fullest Use of Blood Resources
Dorothy W. Green
The use of packed red cells, frozen cells, and other types of component therapy is a boon to patients and to blood banking.

MATERIALS MANAGEMENT

70 Evaluating and Standardizing New Products
Albert Carroll
The committee evaluating new hospital products should think about use, costs, waste—for these also improve standards.

PHARMACY DIGEST

75 Pharmacists Realign Goals with New Laws, Health Programs

LAUNDRY DIGEST

78 Differences Noted Between Soaps and Detergents

ENVIRONMENTAL SANITATION DIGEST

80 Salmonellae Found in Enzymatic Drain Cleaners

Memo from the editor

We met Dr. Leona Baumgartner, the distinguished public health worker, for the first time at a meeting at headquarters the other day. We have always associated her with the campaign to substitute the unambiguous “flammable” for “inflammable” on gasoline trucks and the like. “Flammable,” clearly preferable, is now widely accepted. But that isn’t the case with “inflammatory” and, strangely enough, neither the second nor the third edition of the unabridged Merriam-Webster lists it, sticking with “inflammatory” despite the “not” meaning of the prefix “in.”

That led us to look for some other opposites, such as “ept” for “inept.” “Ept” isn’t a word in either of the big books. We have never heard the adjectival “ruth” as the opposite of “ruthless” and, although “ruth” does make the Second Edition, the Third recognizes, quite rightly, its disuse and drops it.

On the other hand, “couth,” as in “uncouth,” has grown from the Second to the Third. In the Second, “couth” is limited to the unfamiliar “familiarity” meaning of the word but in the Third it comes into full bloom as the opposite of “uncouth” in all of that word’s definitions.

J. E. Fraenkle
Regional Medical Programs were authorized under P.L. 89-239, signed by President Lyndon B. Johnson in October 1965 with the specific intent of improving the nation's health resources for the diagnosis and treatment of heart disease, cancer, stroke, and related diseases. The legislation called for an effective partnership between the federal government and hospitals, physicians, medical schools, research institutions, and voluntary and public health agencies to improve patient care for these categorical diseases.

In November 1967, the American Hospital Association expressed full support of the Regional Medical Programs and voted to undertake the development of activities and materials that would be mutually helpful to hospitals and Regional Medical Programs.

In this issue of Hospitals, J.A.H.A., is an editorial (Page 47) pressed full support of the Regional Medical Programs and Regional Medical Programs. Also, four articles appear describing Regional Medical Programs that are now operational.

On June 13-14, the AHA sponsored an Invitational Conference on Hospital Involvement in Regional Medical Programs. The purpose: to clarify issues, air differences of opinions, identify common goals, and, on the basis of these discussions, recommend regional and national methods for accomplishing these goals. The following eight pages of the Journal contain a special report on the Invitational Conference, concluding with its keynote address by Jack Masur, M.D.

More Hospital Involvement Needed:
Group Views Regional Medical Programs

Hospital involvement in Regional Medical Programs so far has been disproportionate to the potential contribution hospitals can and should play in the diagnosis and treatment of heart disease, cancer, stroke, and related diseases, in the opinion of most speakers and panel members at the American Hospital Association's Invitational Conference on Hospital Involvement in Regional Medical Programs held at AHA Headquarters, Chicago, June 13 and 14.

Nearly 100 persons affiliated with hospitals, Regional Medical Programs, and the AHA attended the conference to review the developing relationships between hospitals and Regional Medical Programs. Edwin L. Crosby, M.D., director, American Hospital Association, was general chairman of the conference.

Dr. Crosby expressed the AHA's continued interest in and support of Regional Medical Programs. He told the participants that the conference could help clarify the role hospitals should play in the administration of the programs.

Other speakers discussed the concept of Regional Medical Programs, the role of hospitals in the planning process, cooperative arrangements, and specific RMP's that are already operational in various parts of the nation.

Hospital Involvement

D. Eugene Sibery, executive director, Greater Detroit Area Hospital Council, Detroit, emphasized that the hospital must be a major participant in the process of planning Regional Medical Programs. Mr. Sibery declared that hospitals provide an unparalleled organizational structure that "marshals the largest reservoir of community health resources, involves on its governing board a cross-section of community leadership to provide broad community involvement, continuously identifies changing community needs and develops means to be responsive to those needs, responds to the needs of physicians and other health care professionals, and permits physicians to organize into a meaningful group for the provision of institutionally related health care."

Mr. Sibery also pointed out that hospitals are the focal point at which medical theory can be converted into practice, continuing education of medical and
paramedical personnel can promote high quality patient care, and the organization of services under the categorical framework of Public Law 89-239 can best develop.

Unfortunately, Mr. Sibery said, "hospitals have not been involved extensively in the planning process" of Regional Medical Programs. "Perhaps," he continued, "this is the result of lack of interest or understanding on the part of hospitals. Perhaps it is a result of the orientation of the RMP agency. Regardless of the reason, the result is the same—an essential participant in the planning process seems conspicuously absent."

Mr. Sibery's viewpoint de-emphasized the fact that many cooperative arrangements between hospitals and other institutions involved in Regional Medical Programs have been developing since the enactment of P.L. 89-239 in 1965. To date there are 54 Regional Medical Programs, 13 of which are operational; 11 more will become operational within a few months. The degree and intensity of hospital involvement in Regional Medical Programs at both planning and operational levels, however, has varied from region to region.

"DEFINITE COMPLICATIONS"

L. Brent Goates, administrator, Latter-day Saints Hospital, Salt Lake City, Utah (involved in the Intermountain Regional Medical Program), agreed with Mr. Sibery that there have been definite complications in hospital involvement in Regional Medical Programs.

Mr. Goates said, "It is unquestionably true that the process has produced many concerns and uncomfortable moments for many persons. Years of radiation and custom leading to isolationism, provincialism, pride, and near-sighted concentration on self-interest must be broken down. The dialogue, now forced by 'cooperative arrangements,' however painful, is producing results, and is a wonderful tonic to help us tool up for the unprecedented challenge that lies ahead in reshaping the mechanisms of a much more efficient delivery system for health care in the United States.

"While participation at the conference table is voluntary, of course, there are just enough incentives to keep the participants on the job. The medical schools might be quick to abandon the uncomfortable transformation to become truly 'community-oriented'—except that if they did, much revenue would be lost to their coffers. And the hospitals, finding progress so agonizingly slow, might also want to give up—but they know that a new health care system will emerge from the struggle, and their role might be diminished somewhat unless they participate freely. Thus, though many are more highly motivated, the stakes are high for everyone. With much patient, long-suffering, and diligent work, the 'answers will be coming into focus soon.'"

Although the nature of hospital involvement in Regional Medical Programs was viewed as question-
able by most participants in the conference, empirical evidence was presented that demonstrated, at least numerically, that hospital representatives have been engaged in Regional Medical Programs to a considerable extent.

Roland L. Peterson, chief, Planning Branch, Division of Regional Medical Programs, National Institutes of Health, Bethesda, Md., reiterated the intent of P.L. 89-239: "Linkage with and among hospitals and other major health resources is a categorical imperative of the law that established Regional Medical Programs."

Mr. Peterson pointed out that failure to comply with this policy has resulted in the rejection by the National Advisory Council for Regional Medical Programs of several initial planning grant applications involving very prestigious institutions and personalities.

Mr. Peterson, before presenting data that showed how many hospital representatives are currently active in Regional Medical Programs, gave an operational definition of hospital involvement: "There are two different aspects of Regional Medical Programs. The first distinction relates to the planning and development of a decision-making process as a part of that planning activity. Hospital involvement in this aspect of Regional Medical Programs is defined as a hospital administrator or other hospital representative such as a trustee, chief of staff, or full-time director of medical education being a member of the Regional Advisory Group. Under the law (P.L. 89-239) that group has the final regional responsibility for decision-making in terms of the nature and scope of the program. Involvement, by our measure, can also include membership on the several planning and review groups which are now generally found in all Regional Medical Programs. These latter planning and review groups—variously referred to as 'planning task forces,' 'planning subcommittees,' 'local advisory committees,' and 'local action groups'—have two broad areas of responsibility: (1) the planning of operational programs and activities, including the establishment of priorities and needs, and (2) the review and recommendation to the Regional Advisory Group of individual operational projects meriting local approval."

Community and teaching hospitals, both large and small, are represented by some 1000 hospital persons on all 54 regional advisory groups, according to Mr. Peterson. These hospital representatives also are active on planning task forces and subcommittees and local action or advisory groups. Nearly 600 hospitals, almost every state hospital association, and a number of hospital planning agencies are included in this group of hospital representatives. (See Tables 1, 2, and 3.)

### TABLE 1—REPRESENTATION OF HOSPITAL PEOPLE ON RMP DECISION-MAKING AND PLANNING GROUPS

<table>
<thead>
<tr>
<th>Total No. Involved</th>
<th>No. Hospital People</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>4589</td>
<td>1007</td>
</tr>
<tr>
<td>Regional Advisory Groups</td>
<td>1956</td>
<td>300</td>
</tr>
<tr>
<td>RMP Planning and Review Groups*</td>
<td>2633</td>
<td>707</td>
</tr>
</tbody>
</table>

*Includes both RMP Planning Task Forces and Subcommittees, and Local Advisory or Action Groups.

### TABLE 2—BREAKDOWN OF HOSPITAL REPRESENTATION ON RMP DECISION MAKING AND PLANNING GROUPS

<table>
<thead>
<tr>
<th>Planning and Review Groups</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>300</td>
<td>707</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hospital Staff:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Administrators</td>
<td>133</td>
<td>297</td>
</tr>
<tr>
<td>Chiefs of Medical Staff</td>
<td>14</td>
<td>58</td>
</tr>
<tr>
<td>Chiefs of Service</td>
<td>34</td>
<td>42</td>
</tr>
<tr>
<td>Boards of Trustees</td>
<td>9</td>
<td>57</td>
</tr>
<tr>
<td>DME's and Other Hospital MD's</td>
<td>55</td>
<td>138</td>
</tr>
<tr>
<td>Nurses and Other Allied Health</td>
<td>15</td>
<td>86</td>
</tr>
<tr>
<td>State and Local Hospital Associations</td>
<td>36</td>
<td>19</td>
</tr>
<tr>
<td>Hospital Planning Agencies</td>
<td>24</td>
<td>10</td>
</tr>
</tbody>
</table>

### TABLE 3—BREAKDOWN OF HOSPITALS, BY KIND AND SIZE, INVOLVED OR PARTICIPATING IN REGIONAL MEDICAL PROGRAMS

<table>
<thead>
<tr>
<th>KIND</th>
<th>Total Number of Hospitals</th>
<th>Community</th>
<th>Teaching</th>
<th>0-99</th>
<th>100-199</th>
<th>200-299</th>
<th>300 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Decision-making (54 Regions)</td>
<td>551</td>
<td>81%</td>
<td>19%</td>
<td>33%</td>
<td>26%</td>
<td>15%</td>
<td>26%</td>
</tr>
<tr>
<td>Operational Activities (13 Regions)</td>
<td>531</td>
<td>91%</td>
<td>9%</td>
<td>60%</td>
<td>16%</td>
<td>9%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Mr. Peterson further noted that “these hospital people constitute some 22 per cent of the total number of individuals serving on these planning and decision-making groups. In comparison with other participating groups, this is a favorable percentage. For example, private practitioners, including medical society representatives, constitute about 24 per cent of the total; medical school officials about 18 per cent; voluntary and official health agency representatives about 16 per cent; and public representatives about 11 per cent.”

OBJECTIONS TO RMP’S

Although Mr. Peterson’s figures proved that hospital people are involved in Regional Medical Programs to a considerable degree, most of the conference’s participants were not impressed by the numerical basis of his argument. Hospital involvement, it was generally agreed, means far more than merely belonging to regional advisory groups and subcommittees.

At the concluding session, Frederick N. Elliott, M.D., assistant to the director of the American Hospital Association, reviewed the issues discussed at the conference. Dr. Elliott stated that most participants in the conference felt hospital involvement in Regional Medical Programs was far less than was desirable.

“The monetary basis of Regional Medical Programs,” Dr. Elliott declared, “dovetails with agencies and institutions already receiving substantial federal funds of one sort or another—namely, university hospitals and medical centers. Because such institutions and agencies already have close ties with the federal government, they have become grantees for Regional Medical Programs for reasons other than the main one that should dictate allocation of these funds: need. This procedure,” Dr. Elliott continued, “discriminates against hospitals not affiliated with universities and medical centers. In other words, Regional Medical Programs are not utilizing the potential of community hospitals to the fullest in pursuing the intent of P.L. 89-239.”

Dr. Elliott emphasized that community hospitals are the focal point of health care; as area-wide planning and comprehensive health care programs evolve, community hospitals will offer even greater potential for Regional Medical Programs. And, finally, Dr. Elliott pointed out, as the AHA restructures itself on a regional basis, it will be in an even better position to relate hospitals to Regional Medical Programs.

CONCLUSIONS AND RECOMMENDATIONS

The issues discussed during the conference were summarized by Mr. Sibery. He spoke against traditionalism, parochialism, and provincialism in the hos-
pital and health care field, simultaneously praising the potential of P.L. 89-239 and P.L. 89-749 (Comprehensive Health Planning and Public Health Services Amendments of 1966).

“There is a new concept of the hospital that is evolving,” he said, “one which recognizes that hospitals are corporate entities for the provision of comprehensive health care to the community, entities composed of medical and paramedical personnel, the administrator, and the board of trustees, who are community leaders. While the private sector has taken the initiative in many areas of health care, the federal government has tried to fill the remaining gaps and will continue to do so. In the past, hospitals have placed too much emphasis on inpatient care, too little on other areas of health care. The new, evolving concept of the hospital makes it an integral component of a comprehensive health care system. Regional Medical Programs must recognize this concept and support it.”

Mr. Sibery recommended that the American Hospital Association both lead and define the role of hospitals in the implementation of both P.L. 89-239 and P.L. 89-749. In particular, he urged that this issue be studied thoroughly and acted upon during the 1968 annual meeting of the AHA at Atlantic City, Sept. 16-19.

The federal government, Mr. Sibery suggested, needs to coordinate the administration of Regional Medical Programs and comprehensive health planning legislation at the national, regional, and state levels. The mutual objective of both legislative acts is to provide health care for all Americans, he said, and intelligent, complementary planning and administration, with the full recognition of hospitals’ potential, is necessary if that objective is to be reached.

All Hospitals Are Not Equal

by JACK MASUR, M.D.

A FEW WEEKS ago, some of us old fellows were sitting around, stroking our clean-shaven chins, and ruminating on the spate of health legislation we have had in the last few years. How can we implement the new programs? How can we recruit and retain enough competent staff for Medicare, Medicaid, Health Professions Education Assistance, Regional Medical Programs, and Comprehensive Health Planning? What is a true partnership for health? How do we mobilize the resources of men and women, money and facilities, and time and understanding to achieve these worthy goals for Americans?

Over the second cup of tea, one of the more literate members of our cadre quoted the oft-forgotten passage from the Gospel according to St. Luke:

“For which of you, desiring to build a tower, does not first sit down and count the cost, whether he has enough to complete it?

“Otherwise, when he has laid a foundation, and is not able to finish, all who see it begin to mock him, saying,

“This man began to build, and was not able to finish.”

We all agreed that “cost” should not be read like a fundamentalist. We thought it would be more prudent to count the “cost” of our tower in appropriations and doctors, hospitals and group practices, paramedical health workers and administrators. And on that note of perplexity, the old men went home to rest for the next day at the office.

Several days ago, I prepared to come to this conference to count the “cost” of our Regional Medical Program as we leave the talking stage and enter the doing stage. There entered my mind a story—the story of the seriously sick man:

Minister: “Have you made your Lord and renounced the devil?”

Patient: “Considering the fix I’m in, I’m not going to make an enemy of anybody.”

IMPORTANT THINGS HAPPEN

A hospital is a place where important things happen every day. It is a place where people who are sick and in trouble are sent to get help. It is a place where doctors and nurses and other trained workers strive to diagnose, to cure, and to console them. It is a house where all of us endeavor to better the people who are brought to us . . . so that the sick may recover their health by the care and diligence of doctors and nurses and others.

In thousands of hospitals we concern ourselves only with today’s patients. We use what we were taught long ago; we use what we have gained from our own experiences; and perhaps we may also use what we have gleaned from the writings of others who are more learned than we.

In some hospitals—not many hospitals, and cer-
tainedly not enough hospitals—we concern ourselves with today's patients and with tomorrow's patients. In these centers, teachers prepare young men and women for the health professions. In these centers, many kinds of doctors and scientists engage in research for the acquisition of new knowledge. In these few hundred hospitals, where there are persons with lifelong commitments to teaching and to clinical research, we are more likely to witness the restless pursuit of excellence in the care of the sick and the reaching out for more effective ways to prevent suffering in the future.

The reason we are gathered here is that we now have the chance, through RMP, to bring to many, many other hospitals that are concerned only with today's patients the know-how that is continuously being improved in the larger centers of learning and teaching.

All hospitals are not equal. About 20 years ago, under the Hospital Survey and Construction Act, we embarked on a program to increase the number of hospitals and to improve the geographic distribution of hospitals, with special emphasis on economic need of the states and on the attraction of physicians to rural areas.

Government funds have supported the construction of many small hospitals in all parts of this country. There have been many beneficent results from the government subsidy in the creation of so many new hospitals in the past two decades. But we must face up to the fact that in 1968, two-thirds of our general hospitals are under 100 beds. In fact, three out of four general (nonfederal) hospitals are under 200 beds. In terms of the number of hospitals—not the proportion of beds—we are a country of mostly small hospitals.

Small hospitals are useful for delivering babies and setting broken bones, but I hardly need remind you of the limitations of lack of house staff, difficulties of recruitment of professional and technical staff, and absence of other resources to deal with the modern diagnosis, treatment, and rehabilitation of patients with heart diseases, cancers, strokes, and related diseases.

**FAILURE IN REGIONAL PLANNING**

To acquire proper perspective, we ought to remember that a basic premise in the formulation of the original Hospital Survey and Construction Act in 1946 was the introduction of regional planning as the essential mechanism for articulating small, medium, and large hospitals. For a variety of reasons—professional chauvinism, medical economics, institutional autonomy, civic pride—we have failed since 1947 to achieve effective systems of regional planning.

Like many other good ideas, this type of collective voluntary planning, through representative regional organizations, takes more than 20 years to consummate. The Regional Medical Programs now afford us the opportunity to improve the odds in favor of that random patient going to the random doctor who sends him to the random hospital. Or, to put it in bureaucratic terminology, the Regional Medical Programs can be the orderly process required for the organization and coordination of health services in a geographic area—utilizing local enterprise and responsibility—to improve the quality, efficiency, and availability of health care.

This is a time of trouble. Violence around us, war in Vietnam, riots in the cities, student revolts, marches and demonstrations, readjustments in government financing—these all contribute to what is called the ordeal of change in our society. It will be hard to make constructive changes in the rigid patterns of health care. There are plenty of long-term problems which burden the polyprofessional complex in which hospital administrators, trustees, physicians, coordinators, and public officials serve throughout this nation. I select just three of these problems for special mention at the opening of this conference on hospital involvement in regional medical programs. They are crucial, I believe, in the future determination of whether there will be a place for the voluntary system in the health scheme of our country. Let us spend a few moments on (1) costs and quality, (2) doctors and management, and (3) planning and government.

Our people want and deserve the best hospitals we can design, equip, staff, and operate. It makes good sense for all of us in government at the local, state, and federal levels to nourish and sustain voluntary hospitals and health agencies so that we can use all that is good in the voluntary system to carry out the public responsibility.

**COSTS AND QUALITY**

Ever since the end of World War II, people in our society have wanted and needed and expected more health care. The massive growth in prepaid and insurance protection for the families of working men and women did not suffice. A prosperous nation was urged to provide more government assistance to the aged, the handicapped, and the poor. During the past few years, Congress has responded with legislation authorizing enormous new medical programs. Our hospitals have not been overwhelmed. They have accepted the greater load. They have adjusted to the demands for higher wages by health workers, who have been in short supply. Costs have escalated rapidly: more than two and a half times as fast in 1966 as in previous years. And they are now rising even more sharply.

For some time now the atmosphere has been polluted with a lot of pejorative rhetoric about hospitals, doctors, and dollars, and the high cost of being sick, of getting well, and of dying. Speech writers paraphrase the professional analyses of trends in an affluent period when the demands exceed the supply, and we are told from many platforms that there are serious deficiencies in the organization, financing, and delivery of health services in the United States. There is even some perseveration about the uncontrolled runaway escalation of medical costs. We are admonished to bring the costs down but to keep the quality up.

Unfortunately, some of the "badmouth" talk about rising wages without commensurate increases in productivity leads to allegations of inefficient management. However much we hospital people may feel put upon by those who would penalize the so-called
inefficiencies, the hard cold fact is that few people understand why hospital costs have gone up so steadily and so rapidly. We have not succeeded in explaining the inextricable relationship between quality and costs. Although the people want the best that modern medicine can provide, most of them do not yet accept the fact that the higher quality of hospital care justifies the higher costs.

DOCTORS AND MANAGEMENT

Most of you are familiar with the fable which was recounted earlier this year in the report of the Secretary's Advisory Committee on Hospital Effective-
ness:

"The intelligent visitor from Mars was interrogating a hospital administrator on the purposes, functions, and administration of a hospital. The Martian was told that the doctors in the hospital order the procedures for patients and thus determine how the resources are used and what work members of the staff do—that the physicians decide which patients to admit and when to dismiss them.

"And where do these important persons stand in your organization?" the man from Mars asked.

"Actually, they stand outside the organization," the hospital administrator explained. 'They are paid by our customers and they must observe certain rules, but by tradition the hospital must not interfere or seek to influence their decisions.'

"But you must be joking!" the visitor exclaimed. 'As anyone can plainly see, such an arrangement would be impossible to manage.'

"The administrator acknowledged that it was not easy. The intelligent visitor was heard to mutter as he was leaving:

"Impossible—or very, very expensive.'"

As our health programs grow bigger and more costly, as our hospitals and health organizations have more stress, there is a relentless trend toward administrative centralization and toward enlargement of executive power—within the hospital as well as in governmental jurisdictions. It will be fascinating to observe the efficacy of innovative managerial techniques such as product commonality, cost-benefit analyses, and programming-planning-budgeting systems in the guidance and control of massive expenditures in hospital care, health services, and biomedical research.

Be that as it may, I think many of us are convinced that we are long overdue in devising ways and means of having more involvement of doctors in the institutional affairs of hospitals—more authority and more responsibility for staff physicians and dentists in the making of policy, in the getting and spending of money, and in sustaining professional discipline.

The personality of a hospital is split. It defies analysis by conventional methods of consulting management therapists because of the bizarre relationships between the trusteeship-superintendency and the medical staff. The dual control of hospital activities which the man from Mars had a hard time understanding is, in my judgment, a threat to the survival of the voluntary hospital and ultimately jeopardizes the proper care of patients. More than ever, the hospital and doctor are in a sort of obligatory symbiosis; more and more the doctor's professional activity is at the hospital. It has been reported that nowadays at least half of the income of the average physician—and for some specialists 100 per cent of income—is earned at the hospital.

As new state laws and additional court decisions make it abundantly clear that the quality of medical practice in a hospital is indeed the responsibility of the governing board, physicians will want to participate in the decisions of trustees. The point in our discussion here is that the services prescribed by the doctor for the patient in the hospital account for a large part of the costs of care. A way needs to be found to make the physician aware of these costs and to obtain his continual cooperation in ordering what is needed for the proper care of the patient.

It is this dichotomy that must be dealt with before we can make any sense out of the exhortations to lower costs and still maintain high quality.

PLANNING AND GOVERNMENT

Earlier I referred to the Hospital Survey and Construction Act—the popular Hill-Burton program which is generally accepted as a happy example of fruitful collaboration of federal government, state government, local government, and voluntary agencies. I believe that all who are responsible for the Regional Medical Programs will find it useful to study carefully the long-term achievements and shortcomings of the Hill-Burton activities, bearing in mind that the program has a different states-relations structure.

You will recall that during the great depression there were 1200 counties, with a population of 15 million people, that had no hospital facilities. During the hard times of the 1930s, we made do with what we had, and there was no hospital construction. During World War II, we built a small number of simple hospital structures to cope with the emergency requirements of communities crowded with workers in shipyards, airplane factories, and industrial war plants.

In 1946, Congress enacted the law which incorporated the major recommendations of the Commission on Hospital Care, a joint effort of the American Hospital Association and the United States Public Health Service. We look at the lessons of 20 years of history and conclude that the Hill-Burton activities have served the nation well. They have subsidized the construction of more than 300,000 hospital beds and several thousand health units, including nursing homes, diagnostic and treatment centers, chronic disease hospitals, and rehabilitation facilities. More than half the hospitals constructed with Hill-Burton support have been in areas that had no hospitals: about one-fourth of the projects have been in areas that previously had only unacceptable hospital beds. There has been an improved distribution of doctors and nurses; the average level of architectural and engineering design has been greatly improved throughout the country. Of considerable importance is the fact that enabling legislation at both federal and state levels brought representatives of consumer and community interests, as well as nongovernment hos-
pital officials, into the policy-making structure of state health departments.

These have been gratifying achievements. There have been some failings, some deficiencies. In a program of this size and complexity, wide variations in performance by government at all levels slowed progress: handicaps included inadequate staffing, pro forma surveys, rigidity in administration, lack of administrative research, and the approval of too many small hospitals. But as we confess those things we have left undone that we ought to have done in the Hill-Burton program, the most notable deficiency has been in areawide planning. In 1952, the President's Commission on the Health Needs of the Nation called for a wider range of goals for regional systems of health services. These objectives would have entailed a heavy commitment of medical schools and teaching hospitals in extension services, postgraduate education for all levels of health personnel, appraisal studies, and sharing of medical, technical, and administrative resources. The realization of the grand strategy was not achieved because of (1) the traditional reluctance of medical school faculties to project their services beyond the campus, (2) the shortage of medical teachers, and (3) the burgeoning of biomedical research programs.

A NEW OPPORTUNITY

And now we come to Regional Medical Programs. And, once again, we must consider the fix we're in. We can all agree that RMP has become an organizational imperative. The good that we are doing in our hospitals is often overtaken by the resentment of high costs. In the course of time, there will be a better acceptance of high costs if we continue to strive to remedy some of our professional and administrative weaknesses.

One of the most satisfying results of an effective RMP effort throughout the country will be the improvement of the environment of more hospitals for learning and the improvement of the capacity of more hospitals for applying new and better methods of treatment.

This is a room full of sincere realists. You know and I know that we shall not have instant change, despite those who are impatient with the shortage of easy answers. We ought to remember the classic phrase, "inevitability of gradualism," as we search for the right answers to the limitations of health services provided by the combined voluntary and public health systems in America.

And now I conclude. I have sought some brief expression of what I hope RMP will do for patients—how it will help doctors to heal the sick and to keep the well in good health. I submit this portion of the Code for Physicians written 700 years ago:

"... If physicians more learned than I wish to counsel me, inspire me with confidence in and obedience toward the recognition of them, for the study of science is great... grant me the strength and opportunity always to correct what I have acquired, always to extend its domain; ... man... today can discover his errors of yesterday, and tomorrow he may obtain new light on what he thinks himself sure of today."—MAIMONIDES.
REGIONAL Medical Programs represent an evolutionary partnership of the federal government and physicians, hospitals, university medical centers, and public and voluntary health agencies to combat heart disease, cancer, stroke, and related diseases—afflictions that are responsible for 70 per cent of deaths in this nation. Regional Medical Programs are attempting to reduce this percentage by reducing the time and space separating the latest research advances in these disease categories and the individuals who suffer from them.

Increasing attention is being turned to the initiative of individual hospitals in the development of plans by which they can contribute to, as well as participate in, the benefits Regional Medical Programs offer. This attention is reasonable, particularly since hospitals’ ability to provide health services to heart, cancer, and stroke victims within their service areas stands to gain through these programs.

It is no simple task to coordinate the leadership and manpower necessary to achieve the intent of the law. Voluntary hospital administrators, trustees, and physicians often are prejudiced against federal participation in health care planning and practice. Moreover, there is a critical shortage of health manpower. But Regional Medical Programs are overcoming these biases and limitations, more quickly in some regions than in others, and the programs are becoming viable, concerted efforts toward the achievement of their goals.

Bridging the gap between medical research and patient care requires, above all, the development of continuing education and communication channels that enable medical and paramedical personnel to keep abreast of the latest methods of treatment. Many hospitals are located at great distances from major medical centers, and it is not always feasible for physicians or other health personnel to travel hundreds of miles for advanced training in the treatment of heart disease, cancer, stroke, and related diseases.

Regional Medical Programs can provide, at major medical centers, special training based on research findings, to medical and paramedical personnel who, in turn, communicate their knowledge to their colleagues in community hospitals. Continuing education is implemented in some cases via telephone, radio, and television networks that link the medical centers, hospitals, clinics, and other agencies in a given region.

Regionalization maximizes hospitals’ potential for providing patient care to victims of heart disease, cancer, stroke, and related diseases through continuing education programs and improved communications. Moreover, regionalization enables individual hospitals to benefit from health care research and facilities they lack but that exist elsewhere in their region.

In this issue of HOSPITALS, J.A.H.A., case studies of four operational Regional Medical Programs present evidence that the health care objectives in the original legislation are being realized. Congress is now considering the extension of P.L. 89-239 for another five years. If the extension is approved by Congress, it will be a tribute to the current achievements of Regional Medical Programs and, more significantly, a very positive contribution toward the improved health of our nation.

A hospital is the logical focal point of projects and developments of Regional Medical Program activity, since it is the dispenser of program achievements to the patient. What is implied, therefore, in the hospital’s position is also essential—that the hospital recognize and respond to its responsibility to participate not only in dispensing, but in planning and implementation of projects with all the creative energy that the resources of the hospital will allow. Perhaps it goes without saying that an overriding responsibility for those administering the Regional Medical Programs is conducting the programs in a way that will foster and encourage this all-important participation by hospitals.
A little more than a year after the first operational grants were awarded to Regional Medical Programs under the provisions of Public Law 89-239, 13 programs are now operational and are beginning to close the time and distance gaps between research centers and community hospitals, for the benefit of patients suffering from heart disease, cancer, stroke, and related diseases. On the following pages, HOSPITALS, J.A.H.A., presents case studies of four of the operational programs, each from the viewpoint of its director.
ORGANIZED EFFORTS to improve health manpower and facilities in the Intermountain region of the United States began to coalesce in the fall of 1965 under the impetus of federal funds and assistance available through the Regional Medical Programs legislation enacted as Public Law 89-239. The University of Utah and the faculty of its College of Medicine became the hub of planning meetings with state medical associations, county medical societies, medical staffs of major hospitals, and other medical leaders in the Intermountain region. The support of organized medicine and a broad spectrum of health workers was enlisted through discussions in major community meetings and regional workshops of the purposes and potential of the regional medical program legislation. As a result of these meetings, the health professionals agreed to develop a regional medical program in a coherent geographical area with strong economic and cultural ties, an area composed of the state of Utah and portions of five adjacent states—Nevada, Idaho, Montana, Wyoming, and Colorado.

PRIORITIES ESTABLISHED

A planning grant for the Intermountain Regional Medical Program (IRMP) was obtained in July 1966. Major planning efforts since then have been directed toward recruiting and training a staff capable of meeting the challenges of this new program, establishing lines of communication with all the organizational elements within the region and with other regional programs in the country, and developing systems for sustaining interaction among such groups. Explaining the purposes of the program to professional and lay communities, developing methods for collecting data on heart disease, cancer, and stroke, identifying needs within the region that can be met by Public Law 89-239, and formulating proper procedures for construction of pilot projects and methods for their review and approval have required continuing efforts under the planning grant.

The critical mass of resources required to initiate the Intermountain Regional Medical Program was provided by the educational institutions in the region, particularly the University of Utah and its medical school. The presence of this medical school, with its interest in and commitment to community needs, has been an important ingredient in IRMP progress to date.

Major problems confronting the IRMP include the scarcity of health-planning personnel interested in the regional medical program, the territorial imperatives of existing institutions and organizations, the natural resistance to
change by organized professional groups, and the apprehension on the part of physicians of government-funded programs. Although all of these problems have been minimized in the Intermountain region, they must be acknowledged as major deterrents to rapid development of any regional medical program.

**EXPERIMENTAL PROJECTS**

All pilot projects of the IRMP have been constructed as experiments, but with specific goals based on documented needs within the region. Methods for evaluation of progress are required in all project designs. Many of the needs were identified prior to the formation of the IRMP and several of the projects discussed here have emerged from existing strengths. Most of the projects are aimed at improving the capabilities of personnel already trained as well as exploring methods for better utilization of existing health manpower. Much planning has been directed toward meeting the obvious and serious health manpower needs of the region, but projects to train new and different personnel have not yet emerged.

Twelve pilot projects have been implemented in the IRMP over the past year:

**Network for continuing education.** The network connects the major community hospitals in the Intermountain region by means of two-way radio communication and a distribution system for a variety of teaching aids, including taped television programs, broadcast television, and closed-circuit systems within institutions. An important element of this project is the establishment of a teaching faculty, drawn from the IRMP staff, in the major community hospitals, with the ultimate objective of creating an environment conducive to learning and clinical research in the major community hospitals in the region.

**Educational and training program in heart disease.** This program encompasses four interrelated projects: acute cardiac care training for physicians and nurses; cardiopulmonary resuscitation courses for health professionals and selected personnel who provide first aid (firemen, policemen, and so on); clinical traineeships in cardiology tailored to individual needs; and visiting consultants and teaching clinics for physicians in remote communities who are unable to attend courses away from their practices.

**Cancer training and continuing education.** The cancer training program includes refresher courses for practicing physicians, seminars for pathologists, and a computerized regional tumor registry. The program emphasizes retrieval of data for the purpose of identifying educational needs of individual practitioners and facility requirements within each community in the region.

**Continuous on-line computer monitoring of physiologic data.** Data monitored for patients with acute myocardial infarction and postoperative cardiac patients in four hospitals is used to provide patient services and information to physicians for decision-making under urgent circumstances. This project also provides screening tests (such as pulmonary function tests and electrocardiograms) for large groups, as well as measurement and analysis of cardiac catheterization data while the procedure is being performed.

**The stroke project.** This project sponsors visits to small communities by consultants in stroke and related diseases, plus a library and telephone consultation service and an inservice clinical training program for physicians.

**Communication and information exchange service.** This service is an instrument for obtaining feedback from the public and health professionals as to health needs and the extent to which the Regional Medical Program is meeting its stated purposes. The project also serves to inform those interested in the IRMP of program developments through a monthly newsletter and other conventional communication techniques.

**Training-feedback seminars.** Every four months, seminars are conducted by experts in medicine, education, the social and behavioral sciences, and politics, to help the IRMP staff, Regional Advisory Group members, and other community health leaders gain a better understanding of the forces influencing health care and to develop new ideas and perspectives for the Regional Medical Program.

**Respiratory therapy training for physicians, nurses, and technicians.** The training provides instruction in the proper selection of patients for special respiratory therapy and the use of modern equipment in community hospitals.

**Endocrine and metabolic laboratory determinations relevant to cardiovascular diseases and cancer.** The IRMP's newest project provides for laboratory analyses of abnormalities in production of certain substances (catecholamines, renin, aldosterone, pituitary hormones, and others) not performed in existing clinical laboratories in the region. Each laboratory determination serves as a stimulus to development of a specific educational program for the physician or hospital staff member requesting the test. Programs of clinical research into frequency of abnormalities and incidence of diseases related to hormone abnormalities are developing as a natural by-product of this project.

**CONCEPT AND APPROACH**

The general concept and approach used in developing the IRMP is illustrated by the acute cardiac care project for physicians and nurses. First, a "core faculty" was developed from a cadre of practicing internists, cardiologists, and nurses interested in teaching and providing exemplary coronary care. The primary catalyst for the faculty has been a program of concentrated three-day courses for physicians and three-week courses for nurses, each held quarterly, and conducted by a visiting faculty of nationally recognized stature. The confidence and capabilities within the "core faculty" necessary to implementation and maintenance of a continuous and extensive education program in cardiology have emerged as a result.

Coronary care units in community hospitals have served as the primary focus of the heart disease education program, but the efforts of the "core faculty" extend far beyond the confines of hospitals, and the interest created in coronary care has resulted in many other benefits. For example, several members of the "core faculty" have initiated clinical research...
projects in the existing units; a uniform system for collection and classification of data on coronary care patients is being developed for analysis of the value of coronary care units in altering morbidity and mortality of patients with ischemic heart disease; and the entire medical community has become interested in the use of equipment to continuously monitor physiological parameters such as arterial and venous pressures, cardiac output, ventilation, and blood gases.

As a result of the educational program in heart disease, advanced methods of monitoring and treating acute cardiac illness are likely to be extended to other community hospitals within the region as soon as the value of such techniques has been demonstrated more clearly. Interest in the feasibility of coronary care units in small hospitals (less than 50 beds) and in methods of transporting patients with acute myocardial infarctions to special treatment units also was stimulated by the project. All of these benefits developed from the original effort to improve the knowledge and skills of selected physicians and nurses in acute coronary care.

The development of the acute coronary care training project emphasizes the value of beginning with a small but manageable portion of a particular problem. As interest and understanding increase and feedback on the initial effort is obtained, direction is provided for meeting larger needs in proper sequence.

MEET EDUCATIONAL NEEDS

The primary thrust of the Intermountain Regional Medical Program has been to provide additional education to health professionals who already have had formal training and experience. The program's concern with continuing education includes not only practitioners' abilities to provide exemplary care, but also the availability of essential services such as physiologic monitoring of acutely ill patients, laboratory determinations, and consultations. The conviction is strong that continuing education must take into account the facilities and setting in which a particular health service is provided. Also, involvement of both academic and practicing communities in continuing education is essential to a viable Regional Medical Program that will have significant impact on improving the health care of patients with heart disease, cancer, stroke, and related diseases.

The projects developed to date in the IRMP emphasize the important place of community hospitals in any regional program. University medical centers may provide the stimuli for education and research in health care and provide models for study, but the bulk of health services will be delivered within communities by community hospitals and their staffs. Therefore, the functional elements of programs such as the IRMP should be concentrated in community hospitals. The IRMP has already helped develop teaching faculties in community hospitals, created better working relationships among hospitals and the educational and research institutions in the region, provided new diagnostic facilities, and trained a broad spectrum of health professionals. This progress marks only the beginning of a program that has the potential of measurably improving the delivery of health care. The IRMP is committed to working within the existing patterns of medical practice, to continuous monitoring of regional needs, to exploration of new ways to improve health manpower and facilities, and to serving as an integrating force among all the elements engaged in the care of patients with heart disease, cancer, stroke, and related diseases.
When the Albany Regional Medical Program (ARMP) became the first regional program in the nation to be approved under Public Law 89-239, its organizers set as their primary goal the strengthening of community medical resources and the promotion of cooperative relationships among all institutions, agencies, and individuals concerned with improved patient care.

Although leadership in the program has been assumed by Albany (N.Y.) College of Medicine of Union University, interregional meetings have been held throughout New York State and New England for the exchange of pertinent information on the prevention, detection, and management of heart disease, cancer, stroke, and allied diseases.

The focus of the program is the community, particularly the community hospital. The regional program gives to both the medical college and community hospitals an opportunity to assume new responsibilities and to develop more positive roles in community leadership and service by responding to the many opportunities residing within regional medical programs.

The pilot projects discussed in this article comprise the initial activities of the Albany program and are not representative of a complete regional program, but they do fit the established and identifiable mold of the ARMP.

The following pilot projects have been designed to attack the more pressing problems identified in the early stages of the program through establishment of adequate communication, identification of educational and training needs, and supplying of educational and training opportunities to meet those needs.

Two-way radio network. The organizers of the Regional Medical Program concept, although seeking
A "JUKEBOX" automatic self-instruction device is being developed at Albany (N.Y.) Medical College under the auspices of the regional medical program. The device will be used in learning centers to be established in community hospitals throughout the region.

The Albany regional program sponsors a training project for coronary care unit nurses to familiarize them with the special equipment and nursing techniques employed in coronary care.

In the past the two-way radio facilities have been used almost entirely for the continuing education of practicing physicians, but their use is being greatly diversified. The ARMP is developing programs to assist the rapid dissemination of information to allied medical personnel, administrators, members of boards of trustees, voluntary health agencies, selected civic groups, and, as mentioned above, adult education classes. The same radio facilities will allow community and medical college personnel involved in the Albany program to meet "on the air" for
informal conferences and forums. Another project is twice-monthly radio conferences for nurses, inaugurated in January 1968 with broadcasts from 12 separate nursing school faculties in New York, New England, and Ohio.

Community information coordinators. Community coordinators and the professional staff of ARMP are in direct personal communication with the institutions and individuals in the Regional Medical Program. The community information coordinators are former pharmaceutical manufacturers' representatives who serve the program by maintaining a continuous flow of information among individuals, communities, and Albany Medical College. In addition, they gather data and assess attitudes and reactions to the program in an attempt to evaluate the amount of progress being made toward major objectives. They also help organize and carry out data-gathering techniques used for identification of health care needs.

Postgraduate instruction development panel. The development panel will be used to identify the educational needs of practicing physicians. Approximately 80 practitioners will assist in the identification of educational and training needs and will help determine the effectiveness of instruction designed to alleviate those needs. It is anticipated that physicians' participation in carefully designed programs of continuing education will improve their diagnostic and treatment abilities and thus enhance the quality of patient care.

Community hospital learning centers. Many practicing physicians no longer can take time away from practice for adequate involvement in continuing medical education, so it has become advisable to develop the community hospital as a center for continuing education and to devise methods of helping those in practice to receive needed information. Therefore, "learning centers" will be developed within community hospitals as enticing innovations and attractive opportunities for continuous learning. The department of postgraduate medicine at Albany Medical College is in the process of formulating self-instruction programs to be used in these learning centers. This developmental activity is financed under a contract with the National Library of Medicine.

The design and configuration of the learning centers is experimental. Experience will be gained through careful evaluation of function and the reaction of the learner to various items of equipment and methods of presentation. Many of the educational needs identified by the postgraduate instruction development panel project will determine the design of instruction available through the learning centers. Activities to date have been concerned with the development of programs and the establishment of equipment needs. Careful evaluation of the use of
those centers, each associated with a medical library within a selected hospital, should prove useful in determining the effect of learning centers on patient care.

Coronary care training and demonstration programs. The administration of Albany Medical College believes that the Regional Medical Program should be developed in such a way that the medical college faculty is not required to supply all the educational activities undertaken through the program; therefore, the coronary care program has been designed to develop an educational and training cadre not only at Albany Medical Center, but also in some of the larger community hospitals. Members of this cadre may then give instruction to others within their local areas.

The recruitment of personnel and the acquisition of necessary physical facilities to organize the coronary care education and demonstration program has been difficult. Progress has been steady, however, and the first classes now are being conducted at the medical center.

SUCCESSES AND PROBLEMS

The Albany Regional Medical Program has been very successful in conducting a program of information dissemination to inform individuals and organizations of the Regional Medical Program legislation and the opportunities residing within the developing program. Hospital administrators, staff physicians, governing board members, voluntary health agencies, and many others have been contacted. In some instances, misconceptions about the program—misconceptions based on the "Report of the President's Commission on Heart Disease, Cancer and Stroke"—had to be dispelled, but almost without exception, those individuals contacted have indicated their sympathetic agreement with the concepts of the Albany Regional Medical Program. Administrators and staff members of community hospitals often express the desire for a closer working relationship with Albany Medical College and the medical center. Great interest has been shown in the developing opportunities for continuing education and assistance in keeping professional knowledge and ability updated, and in the training of allied medical personnel in great numbers.

The ARMP has produced important effects within the medical center: responsibilities and opportunities vaguely recognized in the past have been brought into focus as the regional program entered its operational phase, and the predominant attitude within the center has become one of interest, enthusiasm, and cooperation. The continuous planning that has accompanied ARMP activities is beginning to generate additional projects to strengthen individual and institutional interrelationships and effect improved patient care.

Serious problems in the Albany Regional Medical Program have been limited to a scarcity of trained or trainable personnel, particularly skilled and highly trained professionals. The relatively slow activation of the postgraduate instruction development panel, for instance, is a result of difficulties in obtaining the needed supervisory personnel. Psychologists, behavioral scientists, computer and data processing experts, educational specialists, and other key personnel are in short supply. A temporary solution is the intermittent employment of consultants in those specialties until enough full-time staff is recruited for the program's expanding activities.

Early approval of ARMP operational projects has guided realistic planning of the total program and has helped sustain interest and momentum at the community level. The resulting additional project applications will, when approved, expand the advantageous influences of the Albany Region Medical Program.
CASE STUDY: MISSOURI REGIONAL MEDICAL PROGRAM

ACADEMIC AND PUBLIC AGENCIES WORK TOGETHER IN MISSOURI PROGRAM

by VERNON E. WILSON, M.D.
The Missouri Regional Medical Program is concerned with research and demonstration projects in the development of techniques, devices, and other aids to assist the physician in delivering to each citizen the highest possible quality of medical care, in the patient's own community, if possible, at the lowest possible cost.

In the 10 months that the program has been operative, a number of gratifying developments have shown that it will justify its organizers' commitment to it and contribute to some of the broad goals of the Regional Medical Program concept.

Initial efforts of the Missouri Regional Medical Program (MRMP) have been focused on early detection and improved educational processes. However, activities in the program are expected to be dynamic and continually evolve in response to new information provided through research and through new, imaginative proposals arising from local groups. Expansion of interregional cooperative endeavors also is expected as the program develops.

**INTERRELATED PROGRAMS**

At present, 16 individual, interrelated—and to some degree interdependent—projects are in progress. A brief summary of these projects suggests the nature and direction of present activities.

**MRMP in microcosm.** The Smithville project represents a microcosm of the total program activity. The project at Smithville, a small community just north of Greater Kansas City, centers on the Smithville Community Hospital, where several aspects of "total medical care" are being tested or put into practice.

The Smithville project is designed to test the proposition that a community hospital can be the base of operations from which physicians can deliver comprehensive health care to the surrounding population. Comprehensive care includes prevention, treatment, and rehabilitation, as well as consideration of the social and emotional aspects of illness. An important part of the concept is a program of community education aimed at informing the population of available and possible treatment for heart disease, cancer, and stroke at the community hospital, as well as efforts at public indoctrination in measures for the prevention or early detection of these diseases.

The program at Smithville considers the whole individual and the several factors that might have brought him to his state as a patient; indeed, this is the kind of patient care and consideration that is the goal of the whole Missouri Regional Medical Program. When a patient emerges from this kind of comprehensive attention, he is ready to return to society as a productive and adjusted member.

**Cardiac Hall.** Springfield, a city of about 100,000 in southwest Missouri, is the site of another kind of effort. There, through the efforts of a number of physicians, several aspects of a comprehensive cardiovascular care program are being developed. A model "cardiac hall" already has been established at one local hospital, with the financial and consultative help of the MRMP. Although MRMP funds were not used for physical facilities, the program did assist with planning and training programs that demonstrably have improved patient care.

The Springfield project director has reported that MRMP assistance has made it possible in the last few months to save the lives of some 33 cardiac patients who might have died had not the MRMP project been in existence.

The intensive cardiac care techniques in practice at Springfield Hospital also have been taught to more than 200 Missouri nurses through a "Code Blue teaching symposium" sponsored by the program.

**Interregional cooperation.** Activities in the Greater Kansas City area demonstrate that two Regional Medical Programs can work together effectively. A proposal has been submitted for the development of a testing and demonstration "laboratory" built around the personnel and facilities at a large hospital formerly owned by the city. This institution has been reorganized under a voluntary board of trustees, which is establishing a medical center complex containing general hospital facilities, a center for intensive treatment of mental illness, and a teaching and research complex that includes a dental school.

Since this hospital provides much of the care received by the indigent population of the area, a major concern is the determination of whether better health care and improved delivery of that care to the poor will help reduce urban social tensions.

**Bioengineers in medicine.** A number of MRMP projects draw heavily upon the engineering talent available at the University of Missouri: for example, the development of bioengineering electronics for use in early detection and treatment of heart disease, cancer, and stroke. One device already in operation aids in the recovery of patients suffering from bedsores. These skin ulcers, often developed by patients confined to bed for long periods of time—stroke victims, for example—seem to heal faster if a low voltage electric current is maintained through a wet bandage over the sore. The bioengineering project has produced an inexpensive device that can be used either in the hospital or in a patient's home. Should the current be interrupted by the drying out of the bandage, the machine automatically sounds an
alarm. Its simplicity and portability permit use of the machine almost anywhere.

Biomedical engineers also have produced an electrocardiogram (EKG) mass-screening system built into a comfortable reclining chair. By impregnation of arm and calf rest paddings with lithium chloride, electrical contacts can be made and the need for strapped-on terminals eliminated. The subject need only raise his sleeves, place his arms in a normal position on the armrests, make contact between one calf and the padding under it—and relax. In less than two minutes, a three-lead electrocardiogram can be produced.

Devices to measure heart murmur and the condition of a patient's vascular system (by measuring the velocity of the pulse wave from the heart to the lower leg) and to detect the presence of plaques within the arteries also will be incorporated into this chair. These devices eventually will be coupled to a computer that will interpret the findings and return a readout to the operator of the chair. A further modification will facilitate a spirometry test for lung condition through the use of ultrasonic devices.

Long-distance EKGs. About 20 other engineered devices for a variety of medical uses are being produced at this time. Building upon work originated in the Heart Disease Control Program of the United States Public Health Service, a system of transmitting electrocardiograms by long-distance telephone and radio for analysis by computers has been developed by MRMP. The system enables physicians to take EKGs at a remote location, transmit them to a computer for thorough analysis, and receive the results in a matter of minutes. Thus a large patient population may be served effectively from a central source at relatively little expense.

The EKG concept can and will be expanded into several other functional areas, such as radiology and rehabilitation techniques.

RESEARCH AND COORDINATION

In its brief operational period, MRMP has compiled a complete listing of organizations in the state that offer health services to patients suffering from heart disease, cancer, or stroke. Project personnel now are turning their efforts toward an inventory of health personnel in the Missouri region. It is anticipated that this type of information, especially when coupled with the "facilitating" material being produced by the communications research team, will be useful to many physicians as they plan the care of their patients.

Another project includes work being done by the MRMP Communications Research Unit under the direction of two members of
the faculty of the University of Missouri School of Journalism, who, with several graduate associates, are studying and scientifically measuring the kinds of communications to which people react; for example, what motivates individuals to heed medical advice. Studies of the effectiveness of existing brochures on cancer and smoking and other diseases measure communication effectiveness with “Q-scale” techniques. The team also has designed and produced brochure covers that score very high on the Q-scale and is producing poster material designed to appeal to various kinds of audiences.

The Communications Research Unit also is devising “facilitators” to reinforce the patients’ desire to follow health instructions. For example, a provocative set of health-oriented pamphlets is being designed and written to attract recipients not only to read the pamphlets, but to retain them as reference booklets, much as cookbooks are kept and referred to.

Much of this work represents a new kind of approach to health-oriented activity, and preliminary results indicate that the techniques and materials devised by the Communications Research Unit will be effective.

Research also is being conducted into the development of multiphasic, automatic laboratory screening for early detection of diseases. Another project concerns an automated and computerized method of taking patient histories. It is hoped that this device, or something similar to it, will enable the patient to contribute more positively to his own care, thus offering a partial solution to the serious shortage of physicians and long waiting periods for patients.

SUMMARY

After a year of experience, the MRMP staff is discovering the potential benefits of coordinating the efforts of many disciplines in the search for solutions to health care problems. Under the aegis of programs like MRMP, the future holds possibilities for this kind of interchange not only among disciplines on a single campus, but among universities and health-oriented agencies everywhere.
The development of the Kansas Regional Medical Program began in January 1965 when several faculty members of the University of Kansas Medical Center met to discuss potential involvement in the proposed program. Discussions continued throughout that year, and in November the University of Kansas Medical Center was designated by the governor as the agency to act in behalf of the Kansas Region.

In April 1966 a planning grant was submitted to the Division of Regional Medical Programs of the National Institutes of Health, requesting $197,945 for the first year and $223,700 for the second year of planning activities. This application was approved in June 1966, and planning began on July 1. A grant requesting funds for support of operational activities was submitted in October. In April 1967 approval was given for certain elements of this proposal, and on June 1, 1967, the Kansas Regional Medical Program became operational.

To achieve the objectives set forth in Public Law 89-239, more groups must participate in the program than just research and teaching centers. Involvement of local communities in the activities of the Regional Medical Program is essential if the program is to develop roots and thrive. The Kansas Regional Medical Program operates on the philosophy that this program must be made up of a network of projects representing a regional approach to the improvement of patient care.

For a Regional Medical Program to survive, it must beget a second generation of projects, and a third generation, and so forth. Unless additional groups can become involved, the program is sterile and...
A typical planning session of the Kansas Regional Advisory Council illustrates the "Kansas method"—roll up your sleeves and get down to business. This group reviews new project applications submitted by local action groups. These nurses are receiving training for duty in an intensive care unit. This program, one of several demonstration projects under way, also attempts to evaluate the newly acquired skills and information gained by the trainees.

Regional approach to improving patient care.

Most of the efforts of the operations and planning staff of the Kansas Regional Medical Program have been concerned with the promotion of local action groups throughout the region. Since the beginning of operational activities, 10 communities or groups of communities have expressed definite interest. These groups range from two small communities of 5000 persons each in Northwest Kansas to nine counties in Southeast Kansas that have joined together in their approach to the program. While 10 "communities" already have applied for "action," several others are working on projects for the program.

ASSIST LOCAL GROUPS

Having encouraged the formation of local action groups, the core staff of the Kansas Regional Medical Program must assist these groups in converting their ideas into projects. This action requires different approaches, depending...
upon the size and the nature of the local action group.

The first groups within the Kansas region to submit projects for a supplemental operations grant request generally represented larger institutions and metropolitan areas. It appears that smaller communities require considerably more help during the brainstorming period, in which ideas that not only are feasible, but also are acceptable to the community, are identified. Thus, the role of the staff varies, depending upon the degree of definition of the projects proposed by a group at the time it becomes "involved" with the Regional Medical Program.

It is in the best interests of all concerned if all local action groups, large or small, can discuss potential projects with the staff as early as possible. The staff assists them in defining the background need, the objectives, the methodology, including means of evaluation and the budget for the projects they are proposing. Local action groups are encouraged to submit or to develop several ideas that might result in projects that could be carried out in their areas. The submission of several ideas (potential projects) allows the staff to exert some guidance over the long-range development of the program by assisting the natural promotion of those projects that are obviously more consistent with the needs of the region (as seen by the Kansas Regional Advisory Council) and that will represent successive steps in the development of a truly regional program.

VARIETY OF EFFORTS

The original operational grant supports a variety of efforts. A computer project is concerned with studying the feasibility of installing hospital information systems in hospitals involved in the educational project, as well as with providing computation and data analysis services for staff offices and other projects within the program. A communications group is examining the feasibility of constructing two-way audio-visual communications between various centers throughout the state. This group also is concerned with utilizing television and other media in self-instructional learning laboratories that will be installed in community hospitals throughout the state. A library network that will make it possible for health professionals throughout the state to receive on request recent bibliographic reviews, as well as soft copies of scientific articles, through their hospitals or existing public library networks.

Several demonstration projects also are under way. They include the development of a work evaluation unit in a community hospital in Wichita that is similar to a cardiovascular work evaluation program now existing at the University of Kansas Medical Center. A cancer detection clinic is being studied in a private hospital in metropolitan Kansas City to evaluate means of increasing its efficiency.

A program to train nurses for duty in intensive or coronary care units involves four hospitals in the metropolitan area. This program already has been oversubscribed for the first year. It includes an attempt to evaluate trainees, including their fund of information and newly acquired skills, and an experimental evaluation program utilizing actors from the graduate school of the University of Kansas who play the roles of "programmed" patients. Students are able to examine their own behavior by replaying video tapes made in an effort to evaluate the effective domain of nursing care in the program.

The research project is providing base line data and follow-up evaluation of all projects. One of its major endeavors has been a consumer study in three counties in Kansas with various problems regarding the health service system. This study will provide base line data to measure the efforts of treatment with Regional Medical Programs.

The largest project in the region is the educational project being carried out at the Central Kansas Medical Center in Great Bend. This program represents an attempt to introduce a program of active continuing education based upon needs determined by local health professionals and members of the project staff. Full-time faculty in medicine and nursing will be located at this hospital. In addition, a local medical library and data link to the University of Kansas Medical Center will assist in the creation of a tangible manifestation of the university's concern for continuing education by extending itself into the state. If this project is successful, it will be replicated at several other centers throughout the region.

The approach described in developing a local action program seems to have been successful. On Nov. 18, 1967, the Kansas Regional Advisory Council met and considered 11 new project applications resulting from community activities. Five of these applications were approved and submitted to the Division of Regional Medical Programs in Washington in the form of a supplemental operations grant request. If approved, these applications will involve 19 additional hospitals in the Kansas Regional Medical Program. Judging from activity in other communities, it seems probable that supplemental grant applications will be forthcoming from the Kansas region on a quarterly basis for several years. The ability of the Regional Advisory Council to function effectively suggests that the regional review mechanism can, at least under certain circumstances, fulfill its responsibilities.

AN EXPERIMENTAL VEHICLE

The Kansas Regional Medical Program might be described as an experimental vehicle for developing methods for regionalization of health care (for persons with certain diseases) within the state. There is some danger that with a program of this type, individuals will ask, "What can the program do for me?" instead of "What can the program do for our community?"

In addition, there is a risk of overselling the program in terms of leading the public to believe that a flurry of activities under the name of "Regional Medical Programs" will result in the ability to prevent or even cure patients with heart disease, cancer, or stroke. It would be unfortunate if impatience and expectations for immediate payoff lead to disillusionment and defeat before the design intentions of Regional Medical Programs can become a reality.
REGIONAL MEDICAL PROGRAMS:

THE VIEW FROM THE HOSPITAL

Two respected health professionals, closely related to both hospitals and the Regional Medical Program concept and operations, agree on the hospital’s position as focal point of RMP effectiveness.

In the early days of the life of the organization created by Public Law 89-239—the Regional Medical Programs—one often heard the expression "regional medical complexes." Those charged with administering the law, especially those from the hospital world working to spread the potential good tidings of the Regional Medical Programs, cringed whenever they heard this phrase. Rightly so, because the phrase "regional medical complex" carried with it a connotation of ever larger complexes of laboratories, institutes, classrooms, and hospitals clustered about the great medical centers in various regions of our country.

The primary aim of the legislation was not to reduce the "gap" between the laboratory bench and the hospital bedside or clinic. To most Americans, the hospital bedside is in their own community hospital and not in the large medical center. Furthermore, the gap between laboratory bench and hospital bedside in the medical center often is small. It was a reduction in the time lag and the distance gap between the university medical center and the community hospital, at least in the categorical area of heart disease, cancer, and stroke, that was sought in the law.

Regardless, in the early stages of the program hospital involvement at the local level was extremely limited, and even today it is a matter of considerable concern. Two persons who are close to both hospitals and the Regional Medical Programs discussed this problem recently. They are James T. Howell, M.D., executive director of Henry Ford Hospital in Detroit and a member of the National Advisory Council to Regional Medical Programs, and Dr. Eugene Sibery, executive director, Greater Detroit Area Hospital Council, and acting coordinator of the Michigan Regional Medical Program during its organizational period, and still active in the Regional Medical Programs at the state, regional, and national levels.

Both agreed on two things. First, there was, at the outset, an understandable emphasis of the medical school as the statutory center of the programs and, second, that without the deep involvement of the community hospital on a widespread basis, the Regional Medical Programs could not begin to attain their potential for improvement of health care in this country.

A NEW RELATIONSHIP

Dr. Howell, who has committed much of his personal time and energy to the successful inauguration of the RMP concept, sees it as a first-time mobilization of hospitals, the practicing physician, and the school of medicine and research facility. He said that it has brought unusual problems and that these were to be expected. One of them, Dr. Howell said, is the fact that the dean of the school of medicine must now develop a relationship that he has never had before with the administrator of the community hospital. The inevitable choice of the medical school as the primary participant in the RMP planning process at the outset did produce a sense of outsideness—of nonparticipation—on the part of the local hospital and the local physician.

However, although the medical school was at the heart of things at the beginning, the real target in Dr. Howell’s opinion is "out there in the community." Dr. Howell believes that the good of pro-
grams will come from community involvement; he also is sure that the real control over the future of RMP's is in fact going to be at the local community level.

"What the region is going to do," Dr. Howell said, "must be derived at the local level. A physician and the hospital have the right to make their own decisions and then work through the regional advisory board to bring their own programs to fruition.

The state medical societies, the state hospital associations, the state nurses' association—all sorts of groups—must be involved in the creation of the planning body. In every one of the regions, the state hospital association has been involved. The degree of activity varies, as one would expect, but where the hospital group has been the most active, there we are going to have the best results.

INITIATIVE IS LOCAL

"What hospitals and their organizations must understand is that this program is not designed to produce something from the top down. RMP simply says, 'Send us a proposition.' RMP doesn't tell the physician or the hospital what they should want or what they should do. There are no standard forms. The local group can put it together in any way it sees fit.

"RMP headquarters in Bethesda isn't telling Fargo, North Dakota, or Albany, New York, what they think is good for them. It has created a very flexible organization, an organization that is a vote of confidence in us at the local level. I think that it is up to the hospitals to accept this vote of confidence.

"RMP has given the community hospital a chance to come closer to the center of medical progress. The community hospital must move. It must respond. I now sense a much greater awareness on the part of hospitals than at the beginning of the programs. This, of course, is due largely to the appointment of full-time staffs in the various regions. Now that these staffs are busy in the various regions, I think that communications are improving every single day.

"I'd like to emphasize that the whole design of the Regional Medical Programs is to take away any 'this is good for you' or 'here it is on a silver platter' concept. The community hospital must reach out. It, and this obviously means the hospital administrator, is to a very large measure the master of his own fate in this program. The hospital administrator, with his managerial talent, has an unprecedented opportunity to improve patient care not only in his own hospital but throughout the nation."

FOCUS IN HOSPITALS

Mr. Sibery agrees that at the outset the Regional Medical Programs were medical-center-oriented. Some of the medical schools perceived the programs, he said, as simply a method of expanding their own continuing education efforts. The medical schools were the ones that were going to determine the needs and then do their utmost to meet those needs. He believes that this was the wrong approach and that, if it had prevailed, RMP's may well have foundered. As originally contemplated, he pointed out, the Michigan Regional Medical Program would have had a direct effect on just 12 per cent of the hospitals: the hospitals that, in Mr. Sibery's opinion, least needed improvement.

Mr. Sibery was instrumental in turning the program around. "What we had to do," he said, "was to devise programs that would have input at the grass roots, that would determine the needs at that level. Then we could identify the role that medical schools and other centers of excellence should play in meeting these needs. The hospital is evolving as the focal point for health within the community; therefore it is going to become a comprehensive community health center.

"Not that every hospital is going to become a university teaching hospital, but every hospital must be concerned with a full range of services. If this is true, and I sincerely believe it, then the hospital is the best place to start identifying local needs. It is the primary organizational level at which the members of the medical staff start relating in some meaningful and organizational way. I think it is up to the hospital to recognize this, to proclaim it, and then to say that we, the hospital, do represent the community's focal point and we are going to work with the medical staff and the Regional Medical Program organization to identify our communities' needs.

INITIATORS, NOT REACTORS

"Let's face facts! The medical center is often remote from the actual practice of medicine, often remote from the practicing physician. Fancy schemes of communicating the latest in medical knowledge to the practitioners on the firing line may die a-borning simply because the doctor doesn't have any more hours in his busy day. It may be, and he's the one who can tell you, that the way to improve his practice is to have someone work with him in his actual practice, with his actual patients.

"Much has been said and much concern expressed about the fact that in most cases the medical school was the applicant for the RMP grant. To me, while I happen to prefer the method of an independent agency that we've used in Michigan to avoid identification with an individual school, it doesn't really make all that much difference. What does make a difference is the involvement of the local community hospital in the identification of needs. The thing that matters is that the definition of need must not be made by remote control, either in a planning agency or in a medical school.

"There are some glaring examples of the hospitals being ignored and others of hospitals ignoring the whole program. I think the hospitals and their organizations must become the initiators of action rather than the reactors to it. We in hospitals and hospital groups must understand this legislation and its intent and be among the chief architects of its development. We must go out and knock on doors wherever they are and insist that we be heard. I believe that we have the expertise. I know that the community hospital is the level at which the Regional Medical Program must be made to work. It is logical, therefore, that we should get into the act all the way.

"Like Dr. Howell, I think that this program offers every hospital a unique opportunity to tie into, to tap the great resources of our medical center."
Frank M. Woolsey Jr., M.D., coordinator of the Albany Regional Medical Program, describes some activities being developed by that program in an article beginning on page 52.

Dr. Woolsey also serves as associate dean of the Albany (N.Y.) Medical College of Union University, and as professor and chairman of the department of postgraduate medicine at the college.

C. Hilmon Castle, M.D., coordinator of the Intermountain Regional Medical Program, discusses pilot projects sponsored by the Intermountain program in an article beginning on page 48.

Dr. Castle also is associate professor of medicine and professor and chairman of the division of postgraduate medical education at the University of Utah College of Medicine, Salt Lake City, where he also serves as associate dean of the medical college. He is a fellow of the American College of Cardiology and of the American Heart Association Council on Cardiology, a fellow of the American College of Physicians, a past president of the Association of Medical Television Broadcasters, and a member of the American Medical Association committee on national plan for continuation education for physicians.

Vernon E. Wilson, M.D., program coordinator of the Missouri Regional Medical Program, describes current activities in the program in an article beginning on page 56.

Dr. Wilson, who also is executive director for health affairs at the University of Missouri, Columbia, is a graduate of the University of Illinois Medical School. Dr. Wilson is chairman of the Commission on Health Professions of the National Association of State Universities and Land Grant Colleges, a consultant for health education and construction to the United States Public Health Service, a member of the American Association of Medical Colleges-Veterans Administration liaison committee, and a member of the Advisory Council on Health Research Facilities of the National Institutes of Health.

Charles E. Lewis, M.D., director of the Kansas Regional Medical Program, discusses several pilot projects sponsored by the Kansas program in an article beginning on page 60.

Dr. Lewis, who also serves as professor and chairman of the department of preventive medicine at the University of Kansas Medical School, Kansas City, took his medical degree at Harvard University and a doctor of science degree at the University of Cincinnati, where he was a fellow in the Kettering Laboratory Department of Preventive Medicine. He has served as a resident in occupational medicine at Eastman Kodak Company, Rochester, N.Y., and as an associate editor of the Journal of Occupational Medicine. Dr. Lewis is a member of the American Public Health Association, the American College of Preventive Medicine, and the New York Academy of Science, and is a fellow of the American Academy of Occupational Medicine.