



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

HRD-76-157
J-20-75
093685

AUG 20 1978

B-164031(5)

The Honorable Jennings Randolph
United States Senate

Dear Senator Randolph:

As you requested, we have reviewed the actions taken or proposed by the Department of Health, Education, and Welfare (HEW) to implement the recommendations in our report entitled "Study of Health Facilities Construction Costs" (B-164031(3), November 20, 1972). As you recall, the report is divided into two parts. The first part deals with the process of planning, design, and construction of health facilities, and the second part addresses reducing the demand for health facilities.

The Secretary, HEW, responded to our report in a July 19, 1974, letter to the Chairman, Senate Committee on Labor and Public Welfare. The letter was only partially responsive to our recommendations. Information on the means by which construction costs could be reduced by decreasing the demand for health facilities was insufficient. On November 6, 1975, we requested that HEW provide us with additional information on the specific actions it was taking in this regard and with more current information on its actions relating to the planning, design, and construction of facilities.

On December 11, 1975, and February 17, 1976, HEW provided us with the information requested. Following is a summary of the steps being taken by HEW in response to our report and our evaluation. Additional details are included in the enclosures.

PLANNING, DESIGN, AND
CONSTRUCTION OF HEALTH FACILITIES

HEW's actions regarding the planning, design, and construction of health facilities appear for the most part to be responsive to the recommendations in our report.

Construction approaches

Our report recommended that HEW require that the fast-track and total-concept approaches be considered for health

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facility projects assisted under the Public Health Service Act as means of reducing project delivery time and cost. Fast-track involves overlapping programming, design, and construction so that one activity begins before the other is completed. Under the total-concept approach, a developer may undertake the entire responsibility--planning (including predesign needs and budget considerations), programming, designing, financing, construction, and equipping--for a project under one contract with the owner.

HEW did not adopt our recommendations as stated but is of the view that its actions are responsive to our recommendations. Rather than adopting the fast-track concept, HEW guidelines for grantees stipulate that there may be no obligation of Federal funds for a project until a guarantee is obtained by a specific date that the cost of the total work will not exceed a stipulated sum--a guaranteed maximum price. HEW suggests that before a guarantee is submitted the construction manager should prepare an itemized guaranteed maximum price for the entire project based on preliminary working drawings which summarize the costs for each component of the work as it will be packaged and bid. In addition to requiring a guaranteed itemized price, the construction manager and architect might also be required to designate that "design development" must be at a certain percent of completion before a guaranteed price may be submitted. Further, in lieu of the total-concept approach, HEW suggests that a construction project be managed by a team consisting of an architect and construction manager, each under separate contract to the owner.

The guaranteed maximum price, according to HEW officials, provides a grantee with the assurance that the cost of the project will not exceed a stipulated sum and avoids spending Federal funds in financing a project which might not be completed. In view of these factors, we do not object to the approach taken by HEW to implement our recommendations.

Other aspects of planning,
design, and construction

In response to our recommendations concerning matters such as a data base of construction requirements, safety, and life-cycle cost data, HEW initiated three projects. Under an agreement negotiated in November 1974 with HEW, the National Bureau of Standards is to study fire and smoke detection systems, alarm and communication devices, smoke

control in buildings, behavior in fire emergencies, and automatic extinguishment systems. The output of these studies will serve as a guide for (1) analyzing the level of fire protection in current codes, (2) developing alternate design systems, and (3) evaluating fire risk at a given level of fire protection costs.

In June 1975, HEW awarded contracts to two private firms to study facility planning and develop techniques for determining the life-cycle costs of construction innovations. If the expected results of the agreement and contracts are achieved, HEW will have complied with our recommendations.

Also, HEW is managing two projects sponsored by other Federal agencies which deal with utility systems and solar energy. The data obtained from these projects should provide HEW with useful information relating to the planning, design, and construction of facilities.

REDUCING DEMAND FOR HEALTH FACILITIES

HEW's efforts to reduce the demand for health facility construction are less easily identifiable than its attempts to improve facility planning, design, and construction. HEW has informed us that many of the programs it administers emphasize prevention, either by promoting public health services or as part of its medical service delivery programs. In addition, several pieces of major legislation which could have an important impact on reducing the need for health facilities have been enacted since the issuance of our report.

Such legislation includes

- the Social Security Amendments of 1972 (P.L. 92-603), which authorized the creation of Professional Standards Review Organizations;
- the Health Maintenance Organization Act of 1973 (P.L. 93-222); and
- the National Health Planning and Resources Development Act of 1974 (P.L. 93-641).

The ultimate impact of these acts on reducing the demand for health facilities is not yet known because the implementing programs have not been in operation long enough to determine their effectiveness.

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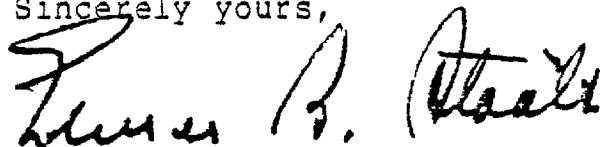
Further, we believe it will be difficult to measure the extent to which HEW's emphasis on prevention has reduced the demand for health facilities because adequate baseline data which could be used to make comparative studies is lacking. The problem is further complicated by many variables such as public attitude and the availability of health manpower and financial resources, which affect the delivery of health care.

We believe that the public attitude toward preventive medicine and the amount of health insurance coverage available for preventive care are among the most important variables relating to decreasing the demand for health facility construction. Education programs and increased accessibility to primary care seem to offer considerable potential for reducing the demand.

We are enclosing for your information (1) a summary of HEW's response to the recommendations in our report, (2) a list of selected reports we have issued during the past 3 years which may be of interest to you, and (3) copies of HEW's July 19, 1974, December 11, 1975, and February 17, 1976, responses to the recommendations in our report.

If we can be of any further service, please let us know.

Sincerely yours,



Comptroller General
of the United States

Enclosures - 3

SUMMARY OF HEW RESPONSE TO GAO REPORT
ENTITLED "STUDY OF HEALTH FACILITIES
CONSTRUCTION COSTS"

OUR RECOMMENDATIONS

To help health facility planners avoid some of the deficiencies noted in our study, we recommended that the Secretary, assisted by the American Institute of Architects and the American Association of Hospital Consultants, compile and publish information on the essential factors to consider in performing the functional planning process, particularly in the needs-determination phase of that process, and on the suggested methodology to be used. Determination of needs for individual hospitals should, of course, be coordinated with areawide plans. (See the report, p. 20.)

We also recommended that the Secretary

--adopt a common set of requirements for new construction under the Hill-Burton, Medicare, and Medicaid programs;

--direct the Facilities Engineering and Construction Agency (FECA) to extend its efforts to "other" areas involving construction requirements for health facilities; to make the data available to the model code groups, States, and such other organizations as appropriate; and to make revisions when necessary to the Hill-Burton construction requirements, based on the FECA and National Bureau of Standards (NBS) findings. (See the report, p. 24.)

HEW RESPONSE

In June 1975, Chi Systems, Inc., a multidisciplinary consulting firm in Ann Arbor, Michigan, and Stone, Marraccini and Patterson, architects and planners in San Francisco, California, were awarded as a joint venture a 1-year contract for \$184,000; the contract contained four 1-year renewal options. As of January 30, 1976, total estimated completion cost was \$742,603. Both firms are reported to be experienced in the planning and design of health facilities.

The overall goal cited in the contractor's work statement is to develop (1) a generic health facilities planning process that will be responsive to regional community needs and to changing health care practices and (2) criteria for planning,

design, and construction expressed in terms of intended performance of the health facility. The planning process and criteria would serve as flexible planning, programming, designing, and construction guides for health facility planners, users, designers, Federal, State, and local agencies, and others. Innovations would be incorporated into department-wide procedures as appropriate.

According to HEW, this contract will provide only a limited information base for "other" areas of construction requirements for health facilities as recommended in our report. Additional funding would be required to obtain the depth of research in performance standards and criteria that they desire.

A technical guidance group was formed in July 1975 to monitor the contract and provide related assistance. The group was to consist of representatives from 16 organizations of health planners, administrators, architects, providers, consumers, financial experts, and public agencies, including the American Association for Comprehensive Health Planning, the American Association of Architects, and the American Hospital Association. Two meetings, attended by representatives from 7 of the 16 organizations, have been held.

OUR RECOMMENDATIONS

We recommended that the Secretary explore the feasibility of reusing designs in hospital construction and, if appropriate, establish the criteria under which designs or elements of designs could be reused. (See the report, p. 20.)

We recommended that the Secretary establish within FECA the capacity to:

1. Establish a state-of-the-art data base on innovative construction techniques, materials, designs, and operating systems.
2. Develop the methodology for life-cycle analyses, including data collection methods and techniques.
3. Establish and maintain a central repository of life-cycle data which would show health care facility planners, by the proposed health care facility size and geographic location, the innovations which have a potential to reduce life-cycle operating costs.

We recommended also that until HEW establishes a central repository of life-cycle operating data it should encourage health facility planners to consider the information presented in our study, along with local operating conditions and costs, in identifying the alternatives for life-cycle analyses

that are likely to be most appropriate for inclusion in the facility.

We recommended further that health care facilities applying for funding under the Public Health Service Act be required to justify the use of construction techniques, materials, designs, and operating systems which differ from those identified by FECA as having a potential to provide significantly lower life-cycle costs. (See the report, p. 91.)

HEW RESPONSE

In June 1975, Naramore, Bain, Brady, and Johnson, a Seattle, Washington, firm of architects, planners, and economists, was awarded a 1-year, \$147,500 contract for development of life-cycle costing techniques. The agreement contains four 1-year renewal options with a total estimated completion cost of \$666,600. Major objectives cited in the contract description are to (1) build and expand on current knowledge; (2) integrate cost analysis into the planning process; (3) relate cost considerations not expressible in monetary terms to decision parameters (i.e., energy use, operational effectiveness, and user appeal); and (4) provide methodologies, data collection, and utilization procedures for applying cost techniques in health care decisions.

Energy considerations are emphasized in the contract description. In this regard, the Federal Energy Administration has provided \$30,000 to include an energy component in the contract.

HEW also acts as a manager for two projects sponsored by other Federal agencies.

--An integrated utility systems application project sponsored by NBS.

--A solar energy application project at the Shiprock Indian Health Service Hospital sponsored by the Energy Research and Development Administration.

HEW has not implemented procedures requiring health care facilities applying for funding under the Public Health Service Act to justify variance with HEW construction techniques having potential for lower life cycle costs. Four volumes of life cycle concepts, procedures, and methods resulting from the first year of the contract have been distributed to interested organizations for their comments. The volumes pertain to processes and concepts, energy, data base requirements-format and sources, and life cycle costing procedure.

Office of Management and Budget Circular No. A-109, April 5, 1976, (subject: major system acquisitions) requires all executive departments and establishments to provide contractors for the acquisition of major systems (e.g., Federal hospitals) with life cycle cost factors that will be used by the agency in evaluating and selecting the system. The circular states that each agency should tailor an acquisition strategy for each program which could typically include methods for projecting life cycle costs and that they should maintain a capability to estimate life cycle costs.

OUR RECOMMENDATION

The Secretary should direct FECA to resume its efforts with NBS toward developing a scientific base of knowledge on fire safety. (See the report, p. 24.)

HEW RESPONSE

In November 1974, HEW entered into a cost-reimbursable services agreement with NBS for a "Life Safety/Fire Safety Project." Estimated cost of completion over the 5-year agreement period is \$2,510,000. HEW is sponsoring the expansion of the ongoing NBS "Program for Design Concepts" which is compiling a scientific base of knowledge of fire safety for a rational approach to life safety in institutional occupancies. NBS is to develop a comprehensive life/fire safety model of health care facilities for HEW. In addition, a portion of a former NIKE missile site has been acquired and will be arranged to conduct fire research related to health facilities.

OUR RECOMMENDATIONS

We recommended that the Secretary require the Director, Health Care Facilities Service, in cooperation with the Director, FECA, to issue policy guidance (1) setting forth the advantages and disadvantages of using fast-track (overlapping of programming, design, and construction) and total-concept (single project manager) approaches on different types and sizes of health facilities and (2) requiring that the fast-track and total-concept approaches, along with the conventional approach, be considered on all health facility projects assisted under the Public Health Service Act. (See the report, p. 37.)

HEW RESPONSE

According to HEW, the phased construction and construction management process described in its Technical Handbook

for Facilities Engineering and Construction Manual, published in July 1972 and revised in June 1975, is responsive to our recommendation.

Our report defined fast-track as the overlapping of programming, design, and construction so that one begins before the other is completed and total-concept as the undertaking of the entire responsibility for a project under one contract with the owner.

The procedures described in HEW's Technical Handbook stipulate that there may be no obligation of Federal funds to a project until a guarantee is obtained by a specific date that the cost of the total work will not exceed a declared sum--a guaranteed maximum price. HEW suggests that before a guarantee is submitted the construction manager should prepare an itemized guaranteed maximum price for the entire project based on preliminary working drawings which summarize the costs for each component of the work as it will be packaged and bid. In addition to requiring a guaranteed itemized price, the construction manager and architect might also be required to designate that "design development" must be at a certain percent of completion before a guaranteed price may be submitted.

HEW has also taken the position that, in lieu of the total-concept approach, a construction project be managed by a team consisting of an architect and construction manager, each under separate contract to the owner. Each member would exercise leadership in his own field. The construction manager would advise the architect in the design phase and be responsible for cost control of the entire project.

OUR RECOMMENDATION

The Secretary should place more emphasis on preventive medicine and public health, giving particular emphasis to education for health professionals and paraprofessionals and to further reduction of the incidence of hospital-contracted infections. (See the report, p. 115.)

HEW RESPONSE

HEW's February 17, 1976, memorandum of actions taken on our recommendations makes reference to a variety of programs which have been developed relating to preventive medicine. Included among these programs are:

--Community Health Centers.

--Family planning.

- Health Maintenance Organizations.
- National Health Service Corps.
- Migrant health.
- Maternal and child health and crippled children.
- Physician assistants.
- Area Health Education Centers.
- Alcohol and drug abuse treatment.
- Mental Health Centers.

In addition, the Public Health Service's "Forward Plan for Health, Fiscal Years 1977-1981" discusses "primary prevention strategy" that focuses attention on the underlying causes of preventable diseases and potential remedies. According to the plan, many causes are not susceptible to direct medical solution but stem from social, economic, and environmental factors. In this regard, a national conference was conducted in 1975 with the American College of Preventive Medicine to review the state-of-the-art of prevention.

HEW's February 17, 1976, memorandum also stated that the Health Resources Administration (HRA) conducts a variety of activities that support the development of primary care, including assistance for manpower development and training facilities. The concept of health maintenance as a principal component of primary care, according to HEW, strongly emphasizes preventive care services. In this regard HRA is providing support for

- residency training of physicians in family practice,
- training of physician assistants, and
- training in public health.

In addition, HEW's Center for Disease Control has launched an national study to describe current hospital infection control programs and determine their cost-effectiveness. HRA's Bureau of Health Planning and Resources Development held seminars in 1975 on preventive medicine related to hospital-contracted infection.

OUR RECOMMENDATIONS

The Secretary should develop for use by physicians, hospitals, and patients and their families specific current information about the availability of alternative health care services and facilities and the types of care provided by them and publicize (1) the kinds of care that can be obtained other than as a hospital inpatient and (2) the effect the use of different types of facilities would have on reducing medical costs and insurance premiums. (See the report, p. 115.)

HEW RESPONSE

HEW's February 17, 1976, memorandum indicates that actions regarding these recommendations are being taken through the provision of outreach services and the development of alternative modes of care, such as Health Maintenance Organizations. HEW noted that implementation of the National Health Planning and Resources Development Act of 1974 will result in plans being developed to improve access to care and provide alternatives to inpatient care.

OUR RECOMMENDATION

The Secretary should study the geographic variations in lengths of stay for those types of diagnoses, such as normal delivery of the newborn, whose variances are less explicable for medical reasons and more likely to be attributable to physician customs and traditions followed in different localities, and, as applicable and consistent with good medical practice, encourage physicians, through utilization review committees, to adopt those practices which will result in reducing patient lengths of stay. (See the report, p. 115.)

HEW RESPONSE

HEW referred to several programs which are addressing utilization review, including Professional Standards Review Organizations (PSROs), Health Maintenance Organizations, and Community Health Centers.

PSROs, according to HEW, are part of a broader quality-assurance program mandated to assure the medical necessity of services through concurrent review, medical care evaluation studies, and their review of patient and physician profiles. Norms, criteria, and standards are to be developed and applied in each of these review activities. Health Maintenance Organizations and Community Health Centers advance the concept of utilization review through the internal group review of the services provided.

OUR RECOMMENDATIONS

We recommended that the Secretary:

- Work with local and areawide health planners to establish minimum standards of use for obstetric and pediatric services with a view toward eliminating unnecessary duplication of those services and to encourage public and private third-party payers not to reimburse hospitals that consistently fail to adhere to such standards. (See the report, p. 115.)
- Work with local and areawide health planners to reorganize emergency services in communities served by two or more hospitals to eliminate duplicate facilities and services excessive to the needs of communities.
- Assess the financial and personnel resources of area-wide health planning agencies and take appropriate actions, as necessary, to assist the agencies to increase these resources, particularly to improve their capability to determine health services and facility needs and develop and promote plans to fulfill those needs. (See the report, p. 116.)

HEW RESPONSE

HEW stated that these recommendations are being addressed primarily through implementation of the National Health Planning and Resources Development Act of 1974 and the Emergency Medical Services Systems Act of 1973.

The National Health Planning and Resources Development Act is designed to promote development of improved planning capability at state and regional levels and is aimed at improving access to care and containing costs. Priorities include increased provision of primary care services to the medically underserved population, development of multiinstitutional arrangements for shared institutional and support services, the training and use of physician assistants, the promotion of group practices, and improved methods of preventive care and health education.

The Emergency Medical Services Systems Act of 1973 is designed to achieve optimal arrangements of emergency services, including the elimination of duplication. Recently, Emergency Medical Services grantees have been required to categorize all emergency services and facilities with a view towards identifying potential duplication.

REPORTS ISSUED SINCE NOVEMBER 1972

<u>Title</u>	<u>Reference no.</u>	<u>Issue date</u>
Observation On The Implementation Of Title VI Of The Civil Rights Act Of 1964 In The Hill-Burton Program For The Construction And Modernization Of Health Facilities	B-164031(3)	12-13-72
Letter Report--Review Of Certain Complaints Concerning The Mountaineer Family Health Plan, Inc., And The Beckley Appalachian Regional Hospital	B-164031(4)	1-10-73
Progress And Problems In Providing Health Services To Indians	B-164031(2)	3-11-74
Comprehensive Health Planning As Carried Out By State And Areawide Agencies In Three States	B-164031(2)	4-18-74
Review Of Certain Aspects Of The Hill-Burton Health Facilities Construction And Modernization Program	B-164031(2)	5-3-74
Review Of Grants To Health Maintenance Organization Of South Carolina, Inc.	B-164031(2)	5-17-74
Review Of Selected Communicable Disease Control Efforts	B-164031(2)	6-10-74
Need For More Effective Management Of Community Mental Health Centers Program	B-164031(5)	8-27-74
Letter Report--Review of Hill-Burton Program Compliance With Certain Legislative Requirements	B-164031(5)	9-25-74
Letter Report--Request For Further Information On Health Maintenance Organization Of South Carolina, Inc.	B-164031(2)	11-5-74
Progress And Problems In Training And Use Of Assistants To Primary Care Physicians	MWD-75-35	4-8-75

<u>Title</u>	<u>Reference no.</u>	<u>Issue date</u>
Improving Federally Assisted Family Planning Programs	MWD-75-25	4-15-75
The Urban Rat Control Program is in Trouble	MWD-75-90	9-29-75
Grants For Development Of Health Maintenance Organizations In Region IV	MWD-76-41	10-21-75
Circumstances Surrounding Approval Of Mortgage Insurance For Cedars Of Lebanon Hospital	MWD-76-17	10-31-75
How States Plan For And Use Federal Formula Grant Funds To Provide Health Services	MWD-75-85	12-9-75

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JULY 19, 1974

Honorable Harrison A. Williams, Jr.
Chairman, Committee on Labor
and Public Welfare
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

In response to a Resolution of the Senate Committee on Labor and Public Welfare, this Department has conducted a review of the General Accounting Office Report entitled "Study of Health Facilities Construction Costs," and I am pleased now to transmit our report. Specifically, the Committee asked for a report on our findings, conclusions, recommendations and actions concerning its Resolution. Staff from the Office of the Assistant Secretary for Legislation have at various times communicated with Committee staff on the progress of this activity, and we appreciate the Committee's forbearance while we completed our report. I am particularly pleased to call your attention to the planned Departmental actions in the enclosed report, the implementation of which will result in approximately \$750,000 being obligated within the next six months.

As you know, there are two related but separate parts to the GAO study and its recommendations. The first part concerns itself with the process of planning, design and construction of health facilities; the second part addresses itself to the health services delivery issues.

Although the cost of health facility construction is significant, national health expenditures for services and supplies are of far greater import, almost \$70 billion in fiscal year 1971 versus \$3.5 billion for health facility construction, a ratio of 20 to 1. This fact is the underlying theme of much of the GAO report which stresses the concept of life-cycle costing and points out that the cumulative operating costs of a hospital facility usually equal or exceed initial construction costs in 1 to 3 years.

Our response to the first six recommendations of the report, therefore, is directed not only to controlling initial costs. More importantly it also deals with achieving significant

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savings in the life-cycle costs of both the facility and the activities conducted within it while determining how the facility can best be planned and designed to help health professionals improve the quality of services.

The magnitude of health services delivery issues outlined by GAO is so great they cannot be addressed completely and fairly within the context of health facility construction costs alone. Therefore, we have addressed them in a more general manner. In addition, this Department will continue its efforts to control health financing costs, improve the organization and delivery of health services, explore new modes of health care delivery such as Health Maintenance Organizations and strengthen health planning activities.

With respect to the implementation of the Department's action plan, we would be pleased to provide whatever briefings or further information you or the Committee may wish.

Sincerely,



Secretary

Enclosure

COPYSTUDY OF HEALTH FACILITIES CONSTRUCTION COSTSBACKGROUND

The Study of Health Facilities Construction Costs was undertaken by the General Accounting Office (GAO) pursuant to Section 204 of the Comprehensive Health Manpower Training Act of 1971 (85 Stat. 462) enacted in November 1971.

The GAO staff, assisted by Westinghouse Health Systems of Pittsburgh under contract, conducted its study of those health facility construction projects assisted under authorities of the Public Health Services Act. The completed study was submitted to Congress on November 20, 1972.

On April 4, 1973, the Senate Committee on Labor and Public Welfare adopted a resolution relative to the GAO Study stating that the Department of HEW should assume a position of national leadership in the assessment and dissemination of information about, and guidance with respect to, the use of innovative methods of health facility planning and construction. It also requested the Secretary of Health, Education, and Welfare to (1) compile and publish information on the essential factors to be considered in project planning, (2) explore the feasibility of reusing hospital designs, (3) study the feasibility of adopting a common set of construction requirements for HEW-administered programs, (4) develop and disseminate a scientific base of knowledge on construction requirements, and (5) require that the fast-track and total concept approaches be considered for health facility projects assisted under the Public Health Service Act. It further requested the Secretary to solicit the cooperation of interested groups and individuals and to assume leadership in an effort to place greater emphasis on preventive medicine practice, make more appropriate use of health care facilities, employ more effective utilization review techniques, change health insurance incentives that emphasize in-patient care, share hospital services, and increase the capabilities of area-wide health planning agencies.

FINDINGS

The concept of new Federalism encourages the decentralization of Federal activities and the assignment to State and local governments those functions that can best be carried out at that level. However, DHEW is the Federal Department

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with primary responsibilities for health affairs and has a national leadership role; no other governmental or private entity has the responsibilities or resources comparable to the Department. Further, the recommendations contained in the GAO Study have nationwide application rather than being regional or local in nature. Finally, any results of DHEW actions taken with respect to the GAO recommendations will apply only to Federal or Federally assisted construction; the results can be made available to other governmental levels and the construction industry for their uses as they deem appropriate. In this way, the proposed actions by the Department would be consistent with its responsibilities without usurping the prerogatives of State and local governments.

The first six recommendations of the Study are related to planning, design, and construction of health facilities with special emphasis on life-cycle costing. These recommendations properly reflect the title of the Study. The second set of recommendations contained in Chapter 4, entitled, "Means By Which Construction Costs Could Be Reduced By Reducing Demand For Health Facilities," relate to other aspects of the health care delivery system. On the surface, the chapter appears to deal with ancillary actions to reduce the demand for health facilities when in fact it deals with the larger issues in the health care delivery system. Stated in other terms, health facilities construction costs are an important but subordinate aspect of the larger problem outlined in Chapter 4. The scope of the issues outlined is so great it is not possible to adequately address each of the points within the context of health facilities construction. Therefore, the thrust of this report will deal with the construction recommendations specifically but must restrain itself to addressing the Chapter 4 issues in a more general manner.

Upon receipt of the GAO Study, the Department of Health, Education, and Welfare made analyses of the recommendations and developed a program. That program established eight projects considered to be responsive to the recommendations of the GAO Study and the Resolution of the Senate Committee on Labor and Public Welfare. The projects are:

1. Publish Functional Guidelines for Use in Project Planning;
2. Explore Feasibility of Reuse of Existing Designs;

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3. Develop Common Set of Requirements for New Construction Under "Hill-Burton," Medicare, Medicaid;
4. Develop Scientific Base of Knowledge on Fire Safety;
5. Publish Policy Guidance on Use of Fast-Track and Total Concept Procedures;
6. Establish a State of the Art Data Base of Innovative Construction Techniques;
7. Develop the Methodology for Life-Cycle Cost Analysis; and
8. Establish and Maintain a Repository of Life-Cycle Data.

In health care facilities, protection against fire is of paramount importance due to the number of occupants who are bedridden or minimally ambulatory. This group, more than the general public, needs maximum protection incorporated in the building design and construction.

The need for initiation of work is self-evident for those areas related to functional planning guidelines, evaluation of reuse of designs, use of fast-track and total concept construction, innovative construction techniques, and life-cycle cost analyses. Much of the raw data necessary for these studies comes from projects funded under the authorities of the Public Health Service Act. The long term Federal role in assisting health facilities construction may change and limit the availability of these data but there is sufficient existing information to at least establish basic project results.

One of the GAO recommendations related to developing construction requirements, but not reflected in the HEW project list, is important to health facilities construction. However, it also has the same or greater application to the entire building construction industry. There are other responsible Federal agencies with a greater involvement in facilities construction who must share our concern in this problem area.

As a standard operating procedure the Department has a history of soliciting the cooperation and support of other agencies, private health organizations, and medical professionals in all endeavors to improve the quality of health care services. The practice of enlisting the cooperation

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of others in the health field is a widely recognized, if unstated, requirement of any Secretary if he is to provide national leadership. Therefore, the GAO recommendation in this area must be viewed as a reinforcing statement of a long standing practice rather than proposing a new course of action. The GAO concerns relative to preventive medicine, use of health facilities, utilization review, insurance incentives, shared hospital services, and area-wide health planning agencies are shared by this Department. In two of the areas, Health Maintenance Organization and comprehensive health planning including our new proposal for Health Resources Planning, steps are being taken to strengthen these facets of health care delivery. Planning of a health strategy for the coming 5 years, contingent upon legislative action in some cases, also reflects an increasing emphasis on the remaining four areas enumerated above.

CONCLUSIONS

The role of national leadership by DHEW in health facilities construction, implied in the GAO Study and requested in the Senate Committee resolution, is a valid position. Those recommendations by GAO related to the overall delivery of health care services are tied to an evolving health strategy comprised of many elements that are now under consideration in the Department or are being evaluated by the Congress for possible legislative action. Until the executive and legislative branches jointly define the role of the Federal Government in critical areas such as health insurance incentives and preventive medicine, definitive conclusions cannot be precisely drawn.

In the specialized area of health facilities construction, the task can be more clearly defined. Although an attempt should be made to enlist the aid of other Federal agencies, the hazard of fires associated with life and safety in health facilities is so serious that this Department should fund and proceed with the proposed project during this fiscal year. In the area of developing and disseminating a scientific base of construction requirements as recommended by the Study, there are other Federal agencies with greater volumes of construction, e.g. Public Buildings Service, or with authorities to investigate these issues, e.g. National Bureau of Standards. Further, the Study noted the number of past efforts to resolve this problem. Therefore, this Department will encourage the renewal

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of work in this area but it should not attempt to place itself in the position of being the lead agency in the resolution of the problem.

RECOMMENDATIONS AND ACTIONS

We are taking the following actions:

1. The Department will solicit support and funding, through an interagency agreement, of other Federal agencies who share our concern for improving knowledge of fire safety, but unilateral action will be taken by us this fiscal year to initiate the work. First year costs for the eight projects will be supported by \$750,000 to be made available from health appropriations. Monetary support for the projects will be furnished within available funds from applicable appropriations for the succeeding 4 years in the following estimated amounts: \$980,000; \$845,000; \$725,000; and \$555,000.
2. Health program planning and evaluation functions, in considering area-wide planning for health services or any of the other issues outlined in Chapter 4 of the GAO Study, will take full cognizance of and incorporate in its planning, the impact of health facilities upon the delivery of health care services.
3. The support contemplated for this program will not exceed 5 years. Annual reviews will be conducted of the ongoing projects to determine their efficacy. As a result of the evaluations, recommendations will be made to the Assistant Secretaries concerned that a project be continued at its present level, that it be modified, or that it be terminated.

RANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE SECRETARY

TO : Assistant Secretary for
Administration and Management
Assistant Secretary for Health
Through: Director, Health Facilities
Planning Division, OASH

DATE: DEC 11 1975

FROM : Director
Office of Facilities Engineering and Property Management

SUBJECT: Status Report on the HEW Program Plan Related to the GAO Report:
"Health Facilities Construction Costs"

The attached Status Report is furnished to acquaint you with the progress being made on the subject Program Plan.


Gerrit D. Fremouw, P.E.

Attachment

December 9, 1975

STATUS REPORT of the

HEW PROGRAM PLAN for:

- I HEW-NBS LIFE/FIRE SAFETY PROJECTS
- II LIFE CYCLE BUDGETING AND COSTING AS AN AID IN DECISION MAKING
- III FACILITY PLANNING AND DEVELOPMENT

Plan dated - August 6, 1974

Approved for Implementation:

Assistant Secretary for Administration and

Management - August 15, 1974

Assistant Secretary for Health - August 30, 1974

EXECUTIVE SUMMARY:

The Comptroller General of the United States issued on November 20, 1972, a Report to the Congress entitled "Study of Health Facilities Construction Costs." The Report contained six facility related and six health care delivery recommendations or suggestions. The HEW Program Plan of August 6, 1974 seeks to be responsive to the facility related recommendations. With the approval of the Secretary on July 19, 1974, the Assistant Secretaries for Administration and Management, and Health, then approved the Plan for implementation with contract funds to be provided from the Public Health Service (PHS), Health Resources Administration (HRA) R&D program as follows: FY-75 \$750,000, FY-76 \$980,000, FY-77 \$845,000, FY-78 \$725,000, and FY-79 \$555,000. FY-76 funds have been provided to date.

In November 1974 an inter-Departmental agreement with the National Bureau of Standards was negotiated, and in June 1975 contracts were awarded for the facility planning project and the life cycle costing project. The contracts are five year agreements in order to preserve continuity and momentum, and are tied to actual contractor performance and availability of HEW program funds. It should be noted that the contracts were awarded shortly after the advent of the "National Health Planning and Resources Development Act of 1974," Public Law 93-641, and

are supportive of that act. In addition, active and effective collaboration between HRA elements and their contractors for related work has been accomplished. Day to day managership of the Program Plan is maintained in the project office within the Office of Facilities Engineering and Property Management (OFPEM), Office of the Secretary, with monitoring and surveillance maintained by the Division of Health Facilities Planning, Office of the Assistant Secretary for Health.

While support for the Program is mostly from HEW-PHS, the Federal Energy Administration has provided \$30,000 in FY-75 funds to expand the life cycle costing project to include an energy component in the contract work statement. Negotiations are now underway for FEA participation at a level of \$162,000 in FY-76 funds to expand their energy-costing interests in facilities design.

The attachments provide information on project outputs and schedule:

Attachment 1: HEW-NBS Fire/Life Safety (now in month 12)

Attachment 2: Life Cycle Costing (now in month 6)

Attachment 3: Facility Planning and Development (now in month 6)

The contractors are essentially on schedule.

Of particular interest has been the development and promulgation of policy guidance and procedures for implementation in the HEW grant and loan programs of accelerated delivery of health facilities through phasing and overlapping of the design phase and construction phase - "Fast Tracking." The HEW approach utilizes "Construction Management with a Guaranteed Maximum Price (CM-GMP)"; this competitively bid procedure provides the advantages of the widely practiced "Construction Management (CM)" plus the additional advantage that the grantee-community owner has the assurance that he has the financial capability to complete the project. (Attachment 4 is a recent HEW CM-GMP publication guide.)

With regard to "Total Concept" or the "design-construct" type single contract approach, it is our belief that the grantee-community owner utilizing a building team consisting of an architect-engineer and CM-GMP - each under separate contract to the owner - achieves most, if not all, of the asserted advantages of the single contract for design-construct. Furthermore, the A-E CM (GMP) team provides the cost-quality protection the owner needs within the requirement for public competitive bidding. It should be borne in mind that the modern hospital is an extremely complex facility in technological terms, and that procurement options such as design-construct have not been successfully demonstrated in hospitals except under very special circumstances.



Gerrit D. Fremouw, P.E.

Director, Office of Facilities Engineering
and Property Management, OS/HEW

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE ASSISTANT SECRETARY FOR HEALTH

TO : Director
Office of Administrative Management

DATE: 17 FEB 1975

FROM : Director
Office of Policy Development and Planning

SUBJECT: GAO "Study of Health Facility Construction Costs":
PHS Response to Health Service Delivery Issues in Chapter 4

In response to your memorandum of December 8, 1975, I am enclosing a report of PHS activities that relate to the areas of concern cited in chapter 4 of the GAO study.

As you know, members of our staff met with GAO on December 17, 1975 to ascertain the nature of the new follow-up request. Subsequently, we requested HRA, CDC, HSA and ADAMHA to report on ongoing activities related to the health care delivery issues raised in the GAO recommendations on pages 115 and 116 of the GAO study. If you would like to review the actual responses that we received, please let me know.


Harry P. Cain II, Ph.D.

Enclosure

Report on PHS activities relating to health service delivery concerns cited in GAO Study of Health Facilities Construction Costs (November 20, 1972)

As the Department's July 19, 1974 response to the GAO study indicated, the issues raised by chapter 4 are related only generally to health facilities construction. The Department concurs with GAO's concern on the need to emphasize preventive medicine, utilization review, insurance incentives, shared hospital services, and health planning now as it did then. From a policy perspective, the PHS Forward Plan for Health, FY 77-81 outlines a wide variety of activities which address a majority of the chapter 4 recommendations; the present report specifies those activities. It is hoped that this will clarify the scope of PHS programs that deal with the specific issues raised by the Study's recommendations.

GAO's General Recommendation

"In view of the probable continuing high demand for health care services and the increased demand which may result from proposed Government programs such as national health insurance, implementation of the changes cited above could be instrumental in offsetting a surge in demand for hospital facilities and increased construction and medical care costs. Responsibility for implementing these changes rests with many governmental agencies, private health organizations, and medical personnel. Accordingly, we recommend that the Secretary of HEW seek their cooperation and take the leadership in the following areas."

As our original response indicated, working with numerous public and private sector groups on a variety of issues is an implicit responsibility of the Secretary. This leadership role has been strengthened and augmented by the solicitation from a wide range of groups, of comments on the PHS Forward Plan for Health, FY 77-81. The following is a descriptive listing of activities, underway and planned, that support specific areas mentioned in the GAO recommendations (pp. 115-116 of the study):

Item 1: "Placing more emphasis on preventive medicine and public health, giving particular emphasis to education for health professionals and paraprofessionals and to further reduction of the incidence of hospital-contracted infections."

A variety of service programs administered by the Health Services Administration (HSA) emphasize prevention, either through promoting effective public health services, or operationally through current programs. This emphasis is central to the following HSA programs:

- o Comprehensive Health Centers
- o Family Planning
- o Health Maintenance Organizations
- o National Health Service Corps
- o Migrant Health
- o Maternal and Child Health and Crippled Children Programs

Another HSA program, the Indian Health Service, includes an active preventive health component that consists of sanitation and dental care, health education, and field medical programs, such as mental health, eye care, public health nutrition and social services.

The Health Resources Administration (HRA) conducts a variety of activities that support the development of primary care, including manpower and training facilities. The concept of health maintenance as a principal component of primary care strongly emphasizes preventive care services; hence, the support of primary care is an important component of any prevention policy.

- o Bureau of Health Manpower grants for residency training in family practice have been successful in attracting and training physicians in this primary care specialty. There are 1600 physicians enrolled in the first year of the three-year residency programs, more than 1200 in the second year, and over 800 in the third. FY 1975 expenditures amounted to \$15 million.
- o Under the Health Professions Construction Assistance Program, funds have been targeted to support primary health care facilities for teaching health manpower in a primary/preventive medicine role. To date, 28 manpower projects costing \$64.8 million for teaching facilities have been funded.

Other HRA programs emphasize primary care, prevention and health education in the education of professionals and paraprofessionals.

- o Thirty-six contract programs to train physician assistants have been supported;
- o Family medicine will be emphasized under the Health Professions Capitation grant;
- o Project grants for training in public health emphasize community health education, public health nutrition, environmental health, and preventive health service programs in schools of medicine and osteopathy, dentistry, optometry, and podiatry;
- o Many Area Health Education Center programs include a preventive medicine and/or public health component in the training of health professionals and paraprofessionals. These programs

are chiefly educational, and are designed to address the problem of maldistribution as well. The training of paraprofessionals reduces, to some degree, the need for professional services and lowers the cost of care.

The Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) services address the issue of how to prevent the onset and progression of alcoholism, drug abuse, and mental illness. Community Mental Health Centers initiated by legislation in 1963, must provide five basic services of which "consultation and education" is one. Each of the ADAMHA Institutes has developed informational materials in the form of posters, pamphlets, booklets, films, and TV spot ads, the goal of which is to disseminate information about the proper uses of alcohol; the dangers of alcohol abuse and drug abuse; the early warning signals of alcoholism, drug abuse, and mental disorder; and treatment resources that exist. In addition, a variety of studies have been supported to review the effectiveness of some of these efforts - e.g., a 1% evaluation study of consultation and education programs in school systems. Through these efforts, it is hoped that the incidence of new cases of alcoholism, drug abuse, and mental illness may be somewhat reduced. If such a reduction were to occur, there would be a concomitant reduction in the need and demand for health facilities, and thereby a reduction in the total costs of constructing such facilities.

Regarding the reduction of the incidence of hospital-contracted infection, the Center for Disease Control (CDC) has launched a national study to describe the current prevalence of various approaches to hospital infection control (study of the efficacy of nosocomial infection control - SENIC Project) and to determine the relative cost-effectiveness of the various approaches. In cooperation with the National Center for Health Statistics (HRA), CDC is conducting a mailed questionnaire survey of infection control activities among all U.S. hospitals. A representative sample of hospitals will be visited by CDC field staff to document the various approaches in detail. Later, teams of CDC medical chart reviewers will visit the same group of hospitals to determine to what extent the incidence rates of hospital-acquired infections have been diminished by the different hospitals' programs. In this way, the most effective program components can be identified and can subsequently be stressed in a national effort to reduce the demand for health facilities through further prevention of hospital-acquired infections.

In addition, the Bureau of Health Planning and Resources Development (HRA) held seminars in 1975 on preventive medicine related to hospital-contracted infections.

Finally, the PHS has been actively involved in developing a primary prevention strategy, as outlined in the PHS Forward Plan for Health, FY 1977-81, focusing attention on the underlying conditions or antecedent causes of preventable diseases, outlining a range of medical, legislative, regulatory and economic alternatives that may not fit into the traditional medical model of health care.

A relatively small number of underlying factors are judged to be primarily responsible for much of the morbidity and mortality, including smoking, alcohol, poor nutrition, dangerous driving practices, environmental pollution, occupational hazards, infectious agents, and genetics. The Public Health Service is calling national attention to these problems, redirecting its priorities and resources, and suggesting alternative ways of overcoming them.

The GAO Study, for example, addresses measures which may be taken to prevent heart disease. To attack this problem, the Public Health Service is promoting dietary changes in order to prevent or control high cholesterol, hypertension, and other risk factors through the training of health professionals; monitoring; identification of the nutritional content of food products; the development of new knowledge to increase our understanding of the relationship between specific dietary components and heart disease; and through the widespread transfer of nutritional knowledge by a number of agencies of the Department. In addition, the Public Health Service has called national attention to the relationship between smoking and heart disease; developed monitoring systems; emphasized cigarette smoking in health education efforts; and has suggested in the Forward Plan alternate ways of overcoming this problem including restricting the sale of high-tar and nicotine cigarettes, phasing out tobacco price supports, and banning advertisements.

While a higher priority is being given by the Public Health Service to the development of primary prevention programs, in many instances our capacity to affect these problems is limited or unknown. In an effort to assess the efficacy and costs of various preventive approaches, NIH co-sponsored a national conference in 1975 with the American College of Preventive Medicine to review the state-of-the-art of prevention.

Many prevention objectives depend on individuals deciding to change their style of living. A primary PHS responsibility is to equip the public with the information and skills necessary to enable them to make wise decisions about their health. The Bureau of Health Education (CDC) is emphasizing the development of new health education techniques so that effective programs to promote and improve health can be established throughout the Public Health Service.

- Item 2: - "Developing for use by physicians, hospitals and patients and their families specific current information about the availability of alternative health care services and facilities and the type of care provided by them."
- "Publicizing (1) the kinds of care that can be obtained other than as a hospital inpatient and (2) the effect the use of different types of facilities would have on reducing medical costs and insurance premiums."

An increasingly important alternative to inpatient care is surgery performed on an ambulatory basis in freestanding or hospital-affiliated surgical centers. In the broad substantive area of ambulatory surgery there appears to be little by way of literature; no complete list of such surgical centers; limited consultation with and among experts in the field; limited comparative cost and charge data among facility types (hospitals, freestanding centers, doctors' offices); poor definition and characterization of facility-types; conflicting perceptions of the merits and demerits of the ambulatory surgical approach to cost-saving; non-comparability between procedures by facility type; and the absence of indicators to assess the comparative quality of surgical services. In response to these issues, among others, the Office of the Assistant Secretary for Health, in association with the National Center for Health Services Research (HRA), conducted a working conference in May 1975 involving some 80 experts in the fields of health research, systems planning, quality assurance, economics and health services delivery. The outcomes of this discussion are being analyzed and will be published to provide guidance to the health community and the Department as overall research needs and priorities are established pursuant to the Social Security Amendments of 1972 (Public Law 92-603, Section 222).

In addition, several ongoing programs serve the general purpose intended by providing outreach services or fostering the development of alternative modes of care.

- o The Bureau of Quality Assurance (HSA) is involved in the development, review and revision of health and safety standards for providers of home health agencies. The Bureau is on an interagency task force that is considering ways to augment and improve home health services.
- o The Health Maintenance Organization program (HSA), by fostering the development of HMOs, is a key element in focusing attention on alternative methods of delivering health care services. For example, current statistics indicate that the average length of stay in acute inpatient facilities nationally was 900 days per 1000 people. HMO data show that for programs of prepaid group care, actual rates are running from 380 days per thousand to 530 days per thousand.

- o Many Indian Health Service (HSA) activities bring health services directly into Indian homes and communities. Moreover, information concerning the availability of these services and facilities is distributed to potential recipients.
- o A major goal of the Community Mental Health Center (ADAMHA) program is to reduce inappropriate utilization of mental hospitals, and to provide short-term care in the community in which the patient lives. The combination of the increased availability of community-based services together with the increased use of therapeutic drugs has enabled State and county mental hospitals to reduce their resident patient populations annually since 1955. It is felt that the long-term costs of providing care will be reduced, and the long-term ability of the system to provide appropriate care will be increased. Recent court decisions have required that less restrictive forms of care must be provided to patients outside of mental hospitals. These decisions will add further impetus to the movement toward community-based care.
- o ADAMHA has worked with the HMO program to assure appropriate inclusion of alcoholism, drug abuse, and mental health services in this program. Current legislation requires coverage for these services. Inclusions of coverage for these services can save HMOs money, by reducing the inappropriate use of other health services by persons who are suffering primarily from alcoholism, drug abuse, and mental disorder.
- o Services for the treatment of alcoholism, drug abuse, and mental illness have traditionally not been adequately covered by private insurance companies and by Medicare and Medicaid. The barriers to full reimbursement remain substantial. It has been an especially important goal of ADAMHA to reduce and remove these barriers, and to assure coverage that encourages the most appropriate form of care. Incentives for the provision of outpatient care and for care provided in organized care settings have been part of the recent discussions on National Health Insurance. Such coverage might be expected to increase the demand for outpatient services and for services in organized care settings which provide a range of services, while decreasing demand for long-term care facilities.

- o Under P.L. 93-641, the National Health Planning and Resources Development Act of 1974, Health Systems Agencies and Statewide Health Coordinating Councils will be developing plans aimed at improving access to care and containing costs. It is expected that these plans will emphasize alternatives to inpatient care as a strategy to achieve both of these aims. Moreover, strong consumer participation at both areawide and State levels may heighten awareness of the costs of hospital care.

Item 3: - "Studying the geographic variations in lengths of stay for those types of diagnoses, such as normal delivery of newborns, whose variances are less explicable for medical reasons and more likely to be attributable to physician customs and traditions followed in different localities, and, as applicable and consistent with good medical practice, encouraging physicians, through utilization review committees, to adopt those practices which will result in reducing patient lengths of stay."

Several PHS programs address utilization review (in addition to the review of care under the Medicaid and Medicare programs):

- o Professional Standards Review Organizations, as part of a broader quality assurance program, are mandated to assure the medical necessity of services through concurrent review, medical care evaluation studies, and the review of patient and physician profiles. Norms, criteria and standards are to be developed and applied in each of these review activities.
- o ADAMHA has been working with both the health insurance program for military dependents (CHAMPUS) and the Federal Employees Health Benefits Program (FEHBP) to institute utilization review procedures that would reduce abuses of these systems, and ensure that appropriate forms of care are provided for and reimbursed. An important incentive for instituting these utilization review efforts was the concern that there might be increasing costs for the coverage of alcoholism, drug abuse, and, especially, mental health services. The experiences with the utilization review efforts to date, however, give reason for optimism about the ability of these programs to reduce abuses and hold costs within acceptable bounds.
- o Health Maintenance Organizations, Community Health Centers, and the National Health Service Corps, (all administered by HSA), in establishing "group practices" of various kinds, advance the concept of utilization review through the internal group review of the services provided.

- Item 4:
- "Working with local and areawide health planners to establish minimum standards of use for obstetric and pediatric services with a view toward eliminating unnecessary duplication of those services and to encourage public and private third-party payors not to reimburse hospitals that consistently fail to adhere to such standards.
 - "Working with local and areawide health planners to reorganize emergency services in communities served by two or more hospitals to eliminate duplicative facilities and services excessive to the needs of communities.
 - "Assessing the financial and personnel resources of areawide health planning agencies and taking appropriate actions, as necessary, to assist the agencies to increase these resources, particularly to improve their capability to determine health services and facility needs and develop and promote plans to fulfill those needs."

These recommendations are being addressed through both the National Health Planning and Resources Development Act of 1974 (P.L. 93-641), and the Emergency Medical Services Act of 1973 (P.L. 93-45).

The Emergency Medical Services Act of 1973 is designed to achieve optimal arrangements of emergency services, which includes the elimination of duplication. A recent requirement has been made of EMS grantees that all emergency services and facilities be categorized, with a view to identify potential duplication.

The Department is currently in the process of implementing P.L. 93-641. This Act is designed to promote development of improved planning capability at State and regional levels, aimed at improving access to care and containing costs. Among priorities in the development of health plans are increased provisions of primary care services, development of multi-institutional arrangements for shared institutional and support services, the training and increased utilization of physician assistants, the promotion of group practices, and improved methods of preventive care and health education. Attachment 1 summarizes the progress being made in implementing the Act.

In addition to implementation activities, the Bureau of Health Planning and Resources Development (HRA) has undertaken a wide variety of projects which address directly or indirectly many of the areas in the GAO recommendation. These are listed in Attachment 2.

Other Research Activities

The National Center for Health Services Research (HRA) establishes research priorities through intensive interaction with decision makers in the executive and legislative branches of the Federal Government, representatives of State and local governments, providers, and the research community. Although it is difficult to attribute specific programs or research initiatives to any particular report, the issues raised by GAO are among those that NCHSR has identified as most pressing and current. For example, five major areas identified by NCHSR are:

- o inflation and productivity (cost containment)
- o health insurance (financing)
- o planning and regulation
- o emergency medical services
- o long term care (including the assessment of alternative assistance strategies)

Attachment 3 contains a list of current studies supported by the National Center which address each of these areas. (This includes studies which attempt to measure or monitor quality of care.)

Attachment 3 also contains recent testimony by the Director of NCHSR before the Subcommittee on Public Health and Environment (Committee on Interstate and Foreign Commerce) in the House of Representatives.

ATTACHMENT 1

Progress Report on Implementation

October 24, 1975

Of P.L. 93-641, The National Health Planning and Resources

Development Act of 1974

A. Area Designation

Section 1511 of P.L. 93-641 requires the Secretary, DHEW, in cooperation with State Governors to designate health planning districts within all States and Territories, to be known as Health Service Areas. These areas must meet criteria specified in Section 1511, unless waived by the Secretary. With the exceptions of Hawaii, Vermont, and Delaware, this process is now complete. Two hundred and two Health Service Areas have been designated in 47 States. Both Vermont and Delaware have been requested to submit area designation plans as their requests for Section 1536 exemption have been denied. Hawaii's Section 1536 claim is still under study in the Department.

B. Designation of Health Systems Agencies

Section 1512 requires the Secretary, DHEW, to designate a Health Systems Agency (HSA) for each of the designated Health Service Areas. Proposed regulations for this purpose were published in the Federal Register on October 17. (See attached summary of proposed rules.) Applications will be accepted on the basis of the proposed rules. For further information contact the DHEW Regional Health Administrator.

The Department expects to designate the great bulk of the HSAs during March 1976.

C. Centers for Health Planning

Section 1534 requires the Secretary to establish a minimum of 5 centers for health planning to provide multidisciplinary health planning and development assistance. Proposals have been invited from organizations seeking to become a Center for Health Planning. Up to 10 centers will be selected, one for each DHEW region, by December 31, 1975. For further information contact the Contracts Office, HRA.

D. State Health Planning and Development Agencies

Section 1521 requires each State to designate a State Health Planning and Development Agency. The Department expects to issue proposed regulations by November 1975. This will include minimum requirements for State certificate of need programs.

A consortium of States has begun preparation of a model State Administrative Program under contract to the Department. For further information contact BHPRD.

E. National Guidelines for Health Planning

Section 1501 of P.L. 93-641 requires the establishment by the Secretary of national guidelines for health planning within 18 months of enactment of this act. Over 90 national organizations have been invited to participate in the development of guidelines. A general invitation was also published in the Federal Register. For further information contact HRA, OPEL.

F. National Council on Health Planning and Development

Section 1503 requires DHEW to establish a National Council on Health Planning and Development, to be composed of 15 members representative of providers, consumers, and government. Many nominees have been submitted, and the Department is in the process of selection. For further information contact HRA, OPEL.

G. Rate Regulation Demonstrations

Section 1526 provides for rate regulation demonstration programs in up to six States. Twelve to 15 States have indicated varying degrees of interest in a rate regulation demonstration program. For further information contact SSA, ORS.

H. Budget

The FY 1976 appropriations have gone to the House-Senate conference. The health planning and resource development program will probably be funded somewhere between the \$186 million (high) and \$180 million (low) figures suggested in the conference.

I. Organization

The former Comprehensive Health Planning, Hill-Burton, and Regional Medical Program Federal staffs have been reorganized into a new Bureau of Health Planning and Resources Development within the Health Resources Administration, DHEW. In addition, a Departmental committee chaired jointly by the Assistant Secretary for Health and the Assistant Secretary for Planning and Evaluation

(Health) has been formed to oversee the program development in several areas (e.g., National Guidelines, rate regulation, National Council, and uniform systems).

J. Other

Proposed regulations concerning other aspects of the program are being developed according to the attached schedule. Outside input is being sought concerning the direction proposed regulations ought to take. For further information contact BHPRD, OPC.

Summary Statement

HEALTH SYSTEMS AGENCIES
(Notice of Proposed Rulemaking)

PURPOSE:

To propose requirements and procedures for designation and funding of health systems agencies (HSAs), as authorized by the National Health Planning and Resources Development Act of 1974 (P.L. 93-641).

SIGNIFICANT PROVISIONS:

The law is so specific on most matters that additional requirements have generally been proposed only where necessary for clarification or where mandated by the statute itself. This summary outlines the major provisions proposed to be added by regulation. References are to the relevant sections of the proposed new Part 122 of Title 42 of the Code of Federal Regulations and to the preamble which accompanies it in the Federal Register, dated 10-17-75.

A. Governors' Role in Designation of HSAs

The Secretary intends actively to consult with Governors and to give considerable weight to their recommendations. Eligible applicants are encouraged to contact Governors for a description of any issues or procedures which the Governors consider necessary for applicants to address. The Governors must be given thirty days to review applications. Should the Secretary not accept a Governor's recommendation, he must provide the Governor with a detailed statement of the reasons for the decision. (See sec. 122.105 and the preamble.)

B. Governance of Public HSAs

The Secretary has concluded, as a matter of law, that the relationship between the regular public governing board of a public HSA and its separate governing body for health planning is governed by the provisions of section 1512(b)(3) of the Public Health Service Act. This permits (but does not mandate) the regular public governing board to exercise considerable authority, including authority to:

1. Select and remove members of the separate governing body for health planning;
2. Establish personnel policies and review the appointment of the Executive Director and staff;

3. Establish, execute, and revise the agency's budget;
4. Set rules and regulations for the functioning of the agency;
5. Review and comment on any proposed action of the separate governing body.

(See sec. 122.109(d) and the preamble.)

C. Governing Body Composition

Not more than 1/3 of the total membership of the governing body of a private HSA (or the separate governing body for health planning of a public HSA) may be public officials. (See sec. 122.109(b).) This requirement has been added to insure that a private agency not be so dominated by public members that it becomes, in effect, a public agency. Furthermore, even public agencies are required by the Law to have a separate governing body for health planning, and the limitation in this case insures that the private sector will be adequately represented in public agencies.

D. Conditional Designation

All HSAs must operate under a Conditional Designation Agreement for at least one year before they may be fully designated. (See sec. 122.105(b)(1).) During the period of conditional designation, an HSA must perform a minimum set of functions concerning data analysis, planning, coordination, and the review of new institutional health services proposed for its area; and it must maintain a governing body which meets all legal requirements. During the first year of conditional designation, an HSA may not perform the review and approval function or the review of existing institutional health services as described in sections 1513(e) and (g), respectively, of the Act. An HSA must have developed its Health Systems Plan and Annual Implementation Plan before it may perform these review functions. (See sec. 122.106.)

E. Designation Criteria

The Secretary, after consultation with the appropriate Governor(s) and other appropriate State and local officials and consideration of his (their) recommendation(s), may enter into a Conditional Designation Agreement with an entity whose designation will best promote the purposes of the Act. Selection criteria include consideration of the applicant's:

1. Proposed work program,
2. Financial resources,
3. Governing body selection procedures,
4. Involvement of area residents in development of the application,
5. Knowledge of area needs and resources,
6. Plans for developing necessary relationships with other appropriate agencies, and
7. Response to unique circumstances within a State.

Applicants are required to describe the manner in which area residents and local officials have been involved in development of the application. Furthermore, the applicant must have sponsored a public meeting for the purpose of obtaining views on its qualifications. (See sec. 122.104 and sec. 122.105.)

F. Coordination with Other HSAs

HSAs designated within areas which include parts of the same standard metropolitan statistical area must enter into agreements which promote coordinated planning and resource development. (See sec. 122.107(b)(12).)

G. Public Access and Involvement

An HSA must adopt by-laws which describe the manner in which the public will be given adequate notice of its business meetings, which must be conducted in public. (See sec. 122.104(b)(1) and sec. 122.109(e).) It must make its data and records available to the public, and it must provide for widespread dissemination of its plans and its annual report. (See sec. 122.107(c)(2), sec. 122.114, and sec. 122.115.)

H. Contracting for Services

An HSA may contract with other entities to provide it with assistance in the performance of its functions; but it may not contract for the performance of an entire function specified in its designation agreement; and it may not contract for the performance of routine planning functions. (See sec. 122.111(c).)

I. Data Systems

Where an HSA wishes to undertake the design, development, and operation of a new data system, it must obtain prior approval from the Secretary. (See sec. 122.107(c)(1).)

J. Audits

HSAs which are not local governments shall arrange for annual independent financial audits. (See sec. 122.211(d).)

K. Application Materials and Information

Applications may be submitted prior to the publication of final regulations. Application materials and further information may be obtained from the Regional Health Administrator in each of the Department's ten regional offices. Should the final regulations differ from the proposed regulations, applications filed on the basis of the proposed regulations will be required to be revised or amended as may be necessary to conform to the final regulations. (See preamble.)

CODE OF FEDERAL REGULATIONS:

Title 42 is proposed to be amended by adding a new Subchapter K, entitled "Health Planning and Resources Development" and by adding a new Part 122, entitled "Health Systems Agencies," to such Subchapter K. (See preamble.)

ENCLOSURE III

ENCLOSURE III

Contracts Under Development by the Bureau of Health Planning and Resources Development ATTACHMENT 2

- HRA 106-74-36 "Development of Approaches to Determining and Projecting the Need and Demand for Health Services"
- HRA 230-75-72 "Requirements for Program Development in Health Resources Planning"
- 230-75-71 "Issues Affecting Comprehensive Health Planning"
- HRA 230-75-70 "Impact of Health Care System Component Interaction"
- HRA 230-76-0060 "Development of a Model State Health Plan"
- HRA 230-76-0058 "Methodology for Determining Area-Wide Inpatient Bed Service Requirements: A proposal for the Development of a Model and Procedures for Use by Health Systems Agencies"
- HRA 230-75-63 "Relation of Technological Advance in Health Services to Health Planning"
- "Analysis of Alternatives To Meet Deficiencies in Rural Ambulatory Care Services"
- "Study For Comparing Methods For Determining Ambulatory Care Needs, Using a Common Data Base"
- "Estimating The Need For Inpatient Psychiatric Facilities and Alternatives"
- HRA 106-74-56 "Development of Criteria and Standards for Health Services"
- HRA 230-75-60 "Planning Approaches, Criteria and Standards for Specialized Services"
- HRA 230-75-0130 "Development of Criteria and Standards to be Utilized by State and Local Health Planning Agencies in Reviewing Specific Project Proposals in the Area of Specialized Treatment and Generalized Inpatient Services"
- HRA 230-75-0110 "Development of Criteria and Guidelines for Reviewing the Appropriateness of Institutional Health Services"
- HRA 230-75-0129 "Development of Criteria and Standards to be Utilized by State and Local Health Planning Agencies in Reviewing Specific Project Proposals in the Area of Diagnostic Services"
- HRA 230-76-0064 "Life Cycle Costing Analysis"

293-75-0008	"Economic Analysis and Critical Cost Analysis of Health Issues"
HRA 230-75-69	"Models to Project the Need for and Accessibility to Health Services and Facilities."
HRA 230-75-0006	"Health Care Institution Model Long-Range Plan"
HRA 230-75-62	"Development of Methodologies for the Health Planner to Evaluate Services Shared by Health Care Delivery Organizations"

ATTACHMENT 3

NATIONAL CENTER FOR HEALTH SERVICES RESEARCH

ISSUE: EMERGENCY MEDICAL SERVICES (EMS)

GRANT NO.	TITLE	PROJ. PERIOD
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R18 HS 01665	Task Activities Analysis of Emergency Medical Services	
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R01 HS 01781	Delivery of Emergency Medical Services in Disasters	
01 HS 01957	The Delivery of Rural E.M.S. - A Special Analysis	
01 HS 00714	Regional Allocation of High Cost Health Services	
01 HS 01474	Medical Decision System: Emergency and Critical Care	
18 HS 01756	EMS Evaluation: Index of Injury/Illness Severity	
18 HS 01801	Effect of Burn Education of Quality of Emergency Care	
01 HS 01923	Treatment and Outcomes for Critical Patients	
18 HS 01705	Telephone Protocols for Emergency Room Services	
01 HS 02079	A Study of the Impact of Mobile Coronary Care Units	

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R01 HS 02081	Quality Assessment and Assurance	
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HRA 106-74-174	"		
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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

STATEMENT

BY

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RESOURCES ADMINISTRATION,
DEPARTMENT OF HEALTH, EDUCATION

AND WELFARE

BEFORE THE

SUBCOMMITTEE ON PUBLIC HEALTH AND ENVIRONMENT
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE
HOUSE OF REPRESENTATIVES

TUESDAY, FEBRUARY 10, 1976

Mr. Chairman and Members of the Committee:

I am pleased to have the opportunity to appear before this Subcommittee today.

As you know, the National Center for Health Services Research, Health Resources Administration, was established in accordance with the provisions of Public Law 93-353, the Health Services Research, Health Statistics, and Medical Libraries Act of 1974. It is the mission of the National Center to undertake and support research, evaluation and demonstration projects respecting virtually all aspects of health services delivery in this country.

The entire research agenda of the National Center for Health Services Research is directed at understanding and influencing the way health care is organized, financed, and delivered in this country. All of the research, therefore, is germane to any discussion of national health insurance.

A number of issues of public policy constitute the point of departure for the Center's research program. These include: quality of care; inflation, productivity, and cost; health care for the disadvantaged; health manpower; planning and regulation; ambulatory and emergency medical services; long term care; and health insurance.

As you have already heard, important experimentation and demonstration activities are being undertaken by the Social Security Administration

which will contribute significantly to our understanding of specific reimbursement and related financing and management issues.

With regard to health insurance, the research supported by the National Center for Health Services Research over the past several years has done much to clarify some of the uncertainty around several issues of particular importance.

Studies examining the price elasticity or responsiveness of demand for health services, the distributional aspects of national health insurance benefits and finance, the efficacy of regulatory activities to control inflation, and the impact of insurance on provider price and output decisions have added to our understanding of the implications of various proposals.

What we are presenting here today is a synthesis of the findings of research undertaken or supported by the National Center for Health Services Research. While this research represents a substantial part of all research carved out in this area, the information itself does not represent the totality of what is known. In addition, it must be emphasized that the findings described relate specifically to the particular setting in which the study was undertaken, the characteristics of the data available for analysis, and the analytic structure of the research itself. Investigations that are likely to confirm or modify some of these conclusions are currently underway. Often clarification of the issues and questions associated with a major health policy

decision depends entirely on hindsight or ex post evaluation of a policy already in effect. What is needed in addition is analysis based upon conceptual and empirical arguments which can help to array the possible alternative outcomes of a policy measure before its enactment. This is the primary concern underlying the research. It is from the accumulation of consistent results in a variety of research settings that reliable guidance for policy can be obtained.

One major subset of Center supported research has focused on what might be called the Demand Response to NHI. Several studies have empirically addressed the factors which can differentially affect the consumption of, and ability to pay for, various health services.

Some of the important issues which are part of this subset are:

- (a) the impact of a reduction in net money price on the demand for selected services, by socioeconomic class and medical problem.
- (b) the effect of coinsurance and deductibles on demand for health care.
- (c) the impact of changes in scope of coverage on demand.
- (d) the effect of time costs, such as travel and waiting time.
- (e) the impact of other non-financial barriers to access, such as race, social class, education, etc.
- (f) the impact of, and on, alternative sources of supply (e.g., outpatient clinics vs. inpatient use of hospitals).

To date, Center supported research has documented the following findings:

- (1) Any new demand arising from NHI should not lead to major price increases or rationing mechanisms in the hospital sector.

This is because insurance coverage for hospitals is already quite extensive and hospitals are operating at historically low capacity levels. A full coverage insurance plan would lead to a 5% to 15% increase in demand for hospital care (Phelps; Newhouse).

- (2) In contrast to its anticipated effect on demand for inpatient hospital care, NHI will have a dramatic impact on the demand for ambulatory services (Phelps; Newhouse; Scitovsky; Sloan). A full coverage health insurance plan would add at least 75% to the existing demands for physicians services outside of the hospital. A plan with 25% coinsurance would add at least 30% to the existing demand for physician services outside of hospitals (Phelps; Newhouse; Scitovsky).
- (3) Coinsurance, as already indicated will, affect all medical care expenditures but will be particularly effective in dampening increased demand for ambulatory services (Newhouse).
- (4) Insurance plans with a deductible are not likely to cause a major increase in the demand for ambulatory care, so long as the deductible is above the amount most individuals spend on medical care. Because the individual does not expect to exceed the deductible, he acts as if he were uninsured when contemplating the use of routine, lower priced services (Newhouse).
- (5) The cost of travel time and waiting time are somewhat more important than money prices in rationing or deterring utilization of ambulatory care (Lave; Holtman). Waiting time in the physician's office is more important, in this

respect, than travel time (Lave). Motivation to enter the medical system for preventive care may, however, be less dependent on time or money prices than on consumer education (Salkever).

- (6) It is still empirically unclear whether NHI would benefit those presumably willing to wait (low-income persons) more than persons with a high time cost (Holtman; Phelps), and whether higher time costs can significantly moderate inflationary demand pressures on ambulatory physician services (Lave; Holtman).
- (7) Under rather restrictive assumptions (a population similar to that using the FEHBA high option plan), the provision of catastrophic health insurance on a national basis, with unlimited ceiling and very high deductible, would not lead to a substantial increase in demand for medical care. Since annual expenses of \$3,000 or more were relatively infrequent for the group of Federal employees studied, there was a 97% reduction in the number of claimants when the annual deductible was raised from \$50 to \$3,000; claim expenses fell by two-thirds by increasing the annual deductible to \$1,000 (ADL).
- (8) Coverage of persons with large medical expenses increased sharply between 1963-1970. Over 75% of "catastrophic expense" (i.e., expenditures of \$5,000 or more as recorded in the CHAS-NORC survey) was covered by insurance in 1970 compared to 50% in 1963 (Phelps).

- (9) Federal tax deductions for private contributions to health insurance premiums substantially reduce the net price paid by consumers for such insurance. These tax subsidies average 18% of total premiums, are greater for higher income families in the higher tax brackets, and reduce the private cost of medical care since these subsidies more than outweigh loading fees of insurance companies. (% premium costs in excess of benefits) (Phelps; M. Feldstein).
- (10) The effect of a major increase in the consumption of ambulatory services due to NHI is likely to be qualitative, not quantitative. Objective indices of health status, such as life expectancy, are not likely to show any change. Rather, the benefits of additional health services are likely to be subjective including relief of anxiety, symptomatic relief, and provision of prognostic information (Newhouse; Lave; Anderson).

A second subset of issues dealt with by Center supported research can be categorized as Supply Response to NHI. These issues essentially reflect the impact of health insurance on provider behavior with respect to production and pricing decisions.

The following conclusions have been provided in grant and contract research funded by NCHSR:

- (1) A 1.0% increase in the proportion of the population with major medical insurance, which is very similar to many proposed NHI plans, would increase fees by .19 to .30

- percent. Thus, even an NHI with coinsurance and deductible features would likely lead to fee inflation (Sloan; M. Feldstein).
- (2) Major medical insurance coverage has a stronger effect on physicians' average revenues per visit than on fees charged. This suggests that either the number of services per visit has increased and/or physicians resort to more extensive itemized billing (Sloan).
 - (3) Another measure of the effect of insurance is given by the relationship between Medicare Supplemental Insurance Benefits per capita and average revenue per visit. A 1.0% increase in benefits per capita is associated with a .60 to .75% increase in average revenue. This increase may reflect a short run, once-for-all increase in collection ratios and/or decrease in free care to the elderly (Sloan).
 - (4) Existing insurance is heavily biased in favor of surgical and in-hospital procedures. An AMA physician survey revealed that 65% of surgical specialists' billings were covered by insurance, as compared to 45% of medical specialists' billings and even less of GPs' and pediatricians' billings. This suggests that a comprehensive NHI will have a much more dramatic effect on the demand for office visits relative to hospital visits (Sloan).
 - (5) The supply of physician effort (hours per week and weeks per year) does not appear to be very sensitive to short-run changes in earnings (Sloan).

- (6) A comparison of the usual-customary-reasonable (UCR) and traditional fee schedule methods of reimbursing physicians indicates that UCR results in both higher fee levels and faster rates of fee inflation. On the other hand, UCR is usually associated with more thorough and comprehensive coverage (Sloan).
- (7) Foreign medical graduates are more likely to participate in Blue Shield plans which prohibit direct patient billing, thereby providing an important source of care for many low-income people. On the other hand, board certified and/or medical school affiliated physicians are less likely to participate. Holding physician characteristics constant, the higher the fee schedule, the greater the likelihood of participation. These results indicate that cost-quantity-quality tradeoffs must be faced in the design of an NHI plan (Sloan).
- (8) From an analysis of the Medicare system it was found that a) expanding physician supply reduces hospital admissions and the cost of care per episode, but these savings are offset by increases in the costs of out-of-hospital care, and b) extended care facilities are complements rather than substitutes for short-term hospitals, and their coverage increases per episode costs (M. Feldstein).
- (9) The quantity of services provided per physician appears to decline as prices increase, suggesting that the supply curve of physicians' services may be backward bending (M. Feldstein).

- (10) Increased use of paramedical aides and supplies increases the prices and costs of physicians' services (M. Feldstein).
- (11) Increased demand for hospital care has led to the offering of a more technologically sophisticated, and more expensive, hospital product. Another source of historical increases in hospital costs has been rising hospital wages. In large part, the increases in wages and technological sophistication may be due to biases in the extent and type of existing insurance coverage (M. Feldstein).
- (12) In response to the introduction of a compulsory, universal health services insurance program (Medicare) in Quebec, Canadian physicians studied reduced the length of their work-week by an average of 8.5 hours, increased vacation time and days off, reduced patient contacts, and hired more ancillary personnel in response to a sudden increase in demand for their services. Average waiting time to appointment increased from 6.0 to 11.0 days, and waiting time in physicians offices also increased. All of these factors suggest that the number and mix of procedures per visit may have changed quite substantially in response to the increased demand pressure. (Enterline).

- (13) The supply of ambulatory services is not likely to be able to increase in the short run (say, for five years or more) sufficient to meet anticipated demand. This will lead to rationing through a variety of mechanisms such as delays to appointment, waits in offices, a reduction in time spent per patient, reducing the "revisit" rate, and/or handling more cases over the telephone. The degree to which each of these mechanisms will be called into play is unknown (Newhouse).
- (14) Changes in treatment of otitis media in children, appendicitis, maternity care, cancer of the breast, forearm fractures in children, pneumonia, duodenal ulcer, and myocardial infarction were, in general, cost-raising during 1964-1971, i.e., costs rose more than they would have if prices only had changed. Total cost of treatment for myocardial infarction rose 126% during 1964-1971 with price increases accounting for an increase of 70% and net additional inputs for an increase of 33%. Changes in treatment were, however,

cost-saving in the case of pneumonia and duodenal ulcer. Average treatment costs of these conditions rose 13% and 17% respectively, but would have risen 32% and 33% if it had not been for cost-saving changes in inputs of medical services (Scitovsky).

- (15) A 1973 survey of physician attitudes towards NHI revealed that 56% of the doctors were in favor of some form of NHI, more than 80% viewed it as inevitable, and 75% were in favor of peer reviews under NHI. The level of support for NHI is apparently underestimated by physicians themselves. Almost 75% of the respondents believed that most doctors they knew personally were opposed (Colombotos).
- (16) It is extremely difficult to generalize about what types of factors cause shorter or longer lengths of stay or higher or lower bills, because the significant patterns are often different from one diagnosis to another. Generally speaking, it appears that the policies of the hospital and the attending physician have a far greater impact on length of stay and charges than do the patient's income and insurance characteristics. It seems to be generally true that, within a diagnosis category, patients who are either in intensive care or are operated on have significantly higher lengths of stay and higher service costs than other patients. It also appears to be true that regardless of the diagnostic category, older, more experienced physicians tend to

hospitalize their patients for longer periods of but, but order fewer hospital services for their patients, than younger physicians. Older patients and non-whites tend to be hospitalized for longer periods of time and to require more services (i.e., are charged higher bills) than younger persons and whites. Higher income patients have consistently shorter lengths of stay (Nathan).

A final subset of Center supported research has focused on what might be termed Regulatory Response. These issues deal with the effectiveness of programs designed to control health service price and cost inflation. The findings are not encouraging:

- (1) The Economic Stabilization Program was very effective in reducing wage increases of hospital employees. This was not the case, however, with regard to costs; input intensity did not decline as a result of controls. Several reasons for ESP's minimal impact on costs were perverse disincentives and incentives which were part of Phase II, ambiguity of the regulations, and the expectation that the controls would be short-lived and, therefore, not necessitate cost-saving managerial changes (Ginsburg).
- (2) The time pattern of cost increases show rapid increases in the inflation rate at the time of the introduction of Medicare and Medicaid, the rate appearing to fall for the rest of the period. Although hospital costs increased

faster than the Consumer Price Index during the period studies (1964-1973), inflation did slow appreciably during the period of Cost of Living Council (COLC) regulations. The extent to which this can be ascribed to COLC is not entirely clear, however, since the decline in the hospital inflation rate started in 1970 before COLC was established. Future cost regulations must take into account outpatient activity, staffing and expansion policies, and the importance of local rather than state data (Lave).

- (3) Preliminary evidence obtained from an econometric analysis of aggregate state data suggest that certificate-of-need laws have encouraged a change in the composition of hospital investment. Although successfully curbing bed expansion, such laws have prompted hospitals to accelerate their investment in services, facilities, and equipment. Aside from the programmatic restrictiveness of the certificate-of-need review process, possible reasons for this change in hospital investment mix include prestige-maximizing behavior on the part of hospitals and reduced cost of borrowing. Policy implications such as expanding the review process to include a review of changes in services, facilities, and equipment would have to be evaluated in light of the potential increases in administrative cost of such a review. Finally, certificate-of-need programs may tend to increase hospital inpatient costs per day while days per capita and admissions per capita have been reduced (Salkever, Rice).

If one were to summarize the NHI related findings that have been documented in the extramural research activity of NCHSR, we would have the following:

A national health insurance plan, with deductibles and co-insurance, will still have an inflationary impact on the health services system. This will be particularly evident in the case of ambulatory care. Inflation will evolve not only from a sharp increase in demand for physician services but a supplier's response in which physicians trade off increased revenue for greater leisure time and institutions invest in costly equipment and facilities at the institutional level. Regulatory mechanisms (in the past) have not been successful in curbing this inflation.

The research findings which I have described for you do not exhaust the Center's portfolio of active grants and contracts which deal with NHI. In the near-term, findings will be available from a series of contracts which are entitled "Impact of National Economic Conditions on the Health Care of the Poor." These contracts empirically address the effects of adverse economic conditions and reduced ability-to-pay on the use of public vs. voluntary facilities (Policy Analysis), provider rationing (Rhode Island Health Services Research, health status (Meharry), use of emergency and outpatient facilities (Columbia University), access (Policy Analysis), state and local financing in health services (Urban Institute), and loss of insurance coverage (Abt; Battelle). The latter should be

especially important in assisting decision-makers as to whether differential eligibility rules and extended coverage after lay off by industry justify a more targeted approach in subsidizing health insurance coverage for the unemployed.

Another series of contracts aims at clarifying various issues pertaining to catastrophic insurance (Abt; Jefferson Medical College; Research Triangle Institute; Trapnell). Research effort is also continuing in an examination of the effects of alternative physician and patient payment mechanisms on prices charged to consumers, the cost and supply of physician services, and physician productivity (Mathematica). Finally, an analysis of the determinants of service intensity in hospitals (Stanford University) and a cost-effectiveness analysis of periodic health screening procedures (Schweitzer) are underway.

The National Center is also conducting research relevant to the possible scope of benefits under NHI. In collaboration with the Social Security Administration, the National Center is currently sponsoring seven demonstration programs in adult day care and/or homemaker services and comprehensive care as alternatives to institutionalization for selected Medicare and Medicaid beneficiaries. The evaluation of these projects (Medicus Systems Corporation) will provide valuable information concerning the types of programs and program related costs likely to be associated with these potential benefits.

The agenda for research on NHI related issues is far from closed. That agenda must mature to meet the specific needs of policy.

Thank you for the opportunity to have come before you. I have several attachments which abstract the research findings which I have discussed and wish to put into the record.