REPORT TO THE SUBCOMMITTEE ON EXECUTIVE REORGANIZATION COMMITTEE ON GOVERNMENT OPERATIONS UNITED STATES SENATE

Planning, Construction, And Use Of Medical Facilities In The Cincinnati, Ohio, Area

B-167966

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

JULY 15, 1971

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

B-167966

Dear Mr. Chairman:

In accordance with your request dated September 18, 1969, the General Accounting Office has examined into the coordination among Federal and State agencies and local organizations in planning and constructing short-term-care hospitals and skilled-nursing-care facilities in certain metropolitan areas. We have examined also into the extent to which certain medical facilities and services are shared among hospitals. This is our report on planning, construction, and use of medical facilities in the Cincinnati, Ohio, area.

The responsible Federal, State, and local health organizations have not been furnished with copies of this report for their review and comments; however, the information developed during our review has been discussed with these organizations.

We plan to make no further distribution of this report unless copies are specifically requested, and then we shall make distribution only after your agreement has been obtained.

Sincerely yours,

Elmer B. Staats

Comptroller General
of the United States

U+R

The Honorable Abraham A. Ribicoff
Chairman, Subcommittee on
Executive Reorganization 51506
Committee on Government Operations
United States Senate

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ABBREVIATIONS

CORVA	Health Planning Association of Central Ohio River Valley
GAO	General Accounting Office
PHS	Public Health Service

COMPTROLLER GENERAL'S REPORT
TO THE SUBCOMMITTEE ON
EXECUTIVE REORGANIZATION
COMMITTEE ON GOVERNMENT OPERATIONS
UNITED STATES SENATE

PLANNING, CONSTRUCTION, AND USE OF MEDICAL FACILITIES IN THE CINCINNATI, OHIO, AREA
B-167966

D I G E S T

WHY THE REVIEW WAS MADE

At the request of the Chairman of the Subcommittee on Executive Reorganization, Senate Committee on Government Operations, the General Accounting Office (GAO) examined into the coordination among Federal and State agencies and local organizations in planning and constructing short-term-care hospitals and skilled-nursing-care facilities in certain metropolitan areas.

GAO also reviewed the extent to which certain medical facilities and services are shared among hospitals.

The reviews were made in Baltimore, Maryland; Cincinnati, Ohio; Denver, Colorado; Jacksonville, Florida; San Francisco, California; and Seattle, Washington. GAO did not review the quality of care being provided by the short-term-care hospitals and skilled-nursing-care facilities.

This report represents the results of GAO's review in the Cincinnati health service area.

FINDINGS AND CONCLUSIONS

D.1975

The Ohio Department of Health administers the grants made by the Public Health Service (PHS), Department of Health, Education, and Welfare, under a program--commonly referred to as the Hill-Burton program--for construction and modernization of hospitals and other medical facilities. The State agency annually prepares a State plan setting forth an estimate of the number of short-term-care hospital beds and skilled-nursing-care beds needed for the ensuing 5 years. GAO did not evaluate the appropriateness of the methods prescribed by PHS for use by the State planners in determining future bed needs. (See p. 5.)

According to the tentative 1971 State plan, the Cincinnati health service area will need 4,494 short-term-care hospital beds by 1975. The projected total capacity of all hospitals in the area in 1975 is 4,694 beds, or 200 in excess of the projected need.

Tear Sheet

JULY 15, 1971

State planners, when formulating a State plan, are not required by PHS regulations to consider planned increases in total bed capacity. The State agency considers only facilities in operation and those under construction. Two hospitals were planning a total of 100 additional beds, but completion dates and financing arrangements were indefinite. Therefore by 1975 the Cincinnati health service area could have 300 beds in excess of the projected need. (See p. 14.)

State agency officials explained that control over privately funded construction did not exist but that, when Federal funds were used, some control could be exercised. If construction of a proposed hospital or skilled-nursing-care facility is to be financed with Federal assistance, the State agency must determine that there is a need for the facility before Federal assistance is given.

The 1971 State plan shows that 6,839 skilled-nursing-care beds will be needed by 1975. As of December 31, 1969, 6,441 skilled-nursing-care beds were in service and 398 additional beds were under construction in two facilities. According to the State plan, the beds in existence and under construction will meet the needs of the Cincinnati health service area in 1975.

GAO, however, has some reservations as to the validity of the data in the State plan because it is based on estimates of use--provided by areawide planning agencies in four major Ohio cities--and is not indicative of actual use. The skilled-nursing-care facilities do not report occupancy data in a consistent and reliable manner.

Without more reliable data the PHS formula cannot be used properly to determine whether a health service area has too many beds or needs more beds for skilled nursing care. GAO believes that there is a need on the part of the State agency to properly accumulate and analyze data from the community, to enable the preparation of a more reliable planning document for use as part of the State plan. (See pp. 23 to 26.)

GAO's review showed that two hospitals had received Hill-Burton grants for the construction of skilled-nursing-care facilities for 195 beds. These beds had not been used as skilled-nursing-care beds, however, but had been converted to short-term-care hospital beds. The change in the category of bed use at the two hospitals caused part of the excess short-term-care hospital beds shown in the 1971 State plan. (See pp. 20 to 22.)

PHS does not have adequate authority to require that health facilities be used for the purpose specified in the Hill-Burton grant applications, and the Hill-Burton Act does not effectively preclude reclassification of such facilities so long as they are used for one of the types of health facilities specified in the act.

To minimize future conversion of health care facilities from one category to another, the State agency established a policy in April 1970, which required that an applicant certify that a facility would be used for the purpose stated in the Hill-Burton grant application and that a petition substantiating the need for a change in category be submitted to the State agency if a facility desired to make such a change.

GAO found that there was some sharing of specialized medical and other services among hospitals. There was a potential, however, for more sharing of such services. It was noted that more could be done in the sharing of maternity and pediatric beds and in the utilization of cobalt facilities. (See pp. 27 to 29.)

GAO believes that, before this potential can be fully realized, studies will be required to determine what services can be shared and how such sharing can be accomplished to benefit all concerned. The greatest opportunity to achieve the benefits of sharing appears to be in planning for new facilities.

CHAPTER 1

INTRODUCTION

At the request of the Chairman of the Subcommittee on Executive Reorganization, Senate Committee on Government Operations, the General Accounting Office examined into the coordination among Federal and State agencies and local organizations in planning and constructing short-term-care hospitals and skilled-nursing-care facilities in certain metropolitan areas. We did not review the quality of care being provided by the short-term-care hospitals and skilled-nursing-care facilities. We considered the actions taken to effect the sharing of certain facilities and equipment among hospitals.

Metropolitan areas covered by our reviews included Baltimore, Cincinnati, Denver, Jacksonville, San Francisco, and Seattle. These areas were selected on the basis of the Federal financial participation in the construction of short-term-care hospitals and skilled-nursing-care facilities and on the basis of the wide dispersion of the cities throughout the United States. This report presents the results of our review in the Cincinnati health service area.

HILL-BURTON PROGRAM

Title VI of the Public Health Service Act (42 U.S.C. 291), commonly known as the Hill-Burton program, authorizes the Public Health Service to make grants to States for the construction of medical facilities. PHS, under the Hill-Burton program, requires each State to designate a single agency to administer the program and to prepare annually a State plan projecting the need for medical facilities and comparing that projected need with the resources expected to exist in each designated health service area of the State.

The Ohio Department of Health, herein referred to as the State agency, is designated to administer the Hill-Burton program in Ohio. In accordance with the method prescribed in PHS guidelines, the State agency annually estimates the need for short-term-care hospital beds and

skilled-nursing-care facilities for the ensuing 5 years for the State of Ohio.

We did not evaluate the appropriateness of the methodology used in arriving at these estimates. We accepted the State plan estimates of the status and projected need of medical facilities in the Cincinnati health service area. The State plan estimates are arrived at, in accordance with PHS guidelines, without considering the bed capacities of the PHS, Veterans Administration, or military hospitals.

The basic data used by the State agency to project the need for short-term-care hospitals and skilled-nursing-care facilities in the Cincinnati health service area consists of (1) current and projected population figures furnished by the Bureau of the Census, (2) hospital utilization data furnished by the hospitals, and (3) estimates of occupancy for skilled-nursing-care facilities furnished by areawide planning agencies in four major Ohio cities.

To arrive at a projected average daily census of patients, the State agency multiplies the projected population by the use rate (the number of days of inpatient care for a year for each 1,000 population) and divides the result by 365. For hospitals the projected average daily census is divided by 80 percent and increased by 10 beds to arrive at a total estimate of beds needed, assuming 80-percent occupancy of hospital facilities. The projected average daily census for skilled-nursing-care facilities is divided by 90 percent and increased by 10 beds to arrive at an estimate of beds needed, assuming 90-percent occupancy of skilled-nursing-care facilities. The result of these calculations provides a vacancy rate to meet emergencies of about 20 percent for short-term-care hospitals and 10 percent for skilled-nursing-care facilities.

The State agency has established special priorities for the distribution of Hill-Burton grant funds to be used for construction of buildings to accommodate city health departments; shared facilities when two or more hospitals agree to share; outpatient facilities serving the needs of the disadvantaged in low-income areas; and hospitals with research and training programs that are owned by, or affiliated with, medical schools.

The State agency is also responsible for licensing maternity and psychiatric hospitals and maternity and psychiatric units of hospitals. Hospitals and units of hospitals are not licensed, except for these types of facilities. The State agency, however, requires hospitals to register annually and to submit reports which provide most of the data for the State plan. Nursing homes are licensed by the State, except in three cities, including Cincinnati, where licensing authority is delegated to city health departments.

The State of Ohio was allotted, under the Hill-Burton program during fiscal years 1965 through 1970, $68 million in funds in the following categories. The Cincinnati health service area was allotted $7.2 million of this $68 million.

Category	Amount (000,000 omitted)
Hospitals and public health centers	$34
Long-term care (includes skilled nursing care)	18
Rehabilitation	3
Modernization	8
Diagnostic or treatment centers	5
Total	$68

During fiscal year 1970 the State of Ohio was allotted $7.7 million. The Cincinnati health service area was not allocated funds for fiscal year 1970.

CINCINNATI HEALTH SERVICE AREA

The State agency divided Ohio's 88 counties into 66 health service areas by designating selected cities as hospital centers, with the county or counties surrounding the cities forming the boundary lines for the health service areas. Counties with small populations or without hospitals were combined, in whole or in part, with adjacent counties after determining what medical facilities the residents of the counties were using.

Cincinnati, located in the southwest corner of Ohio in Hamilton County, is bordered on the south by Kentucky and

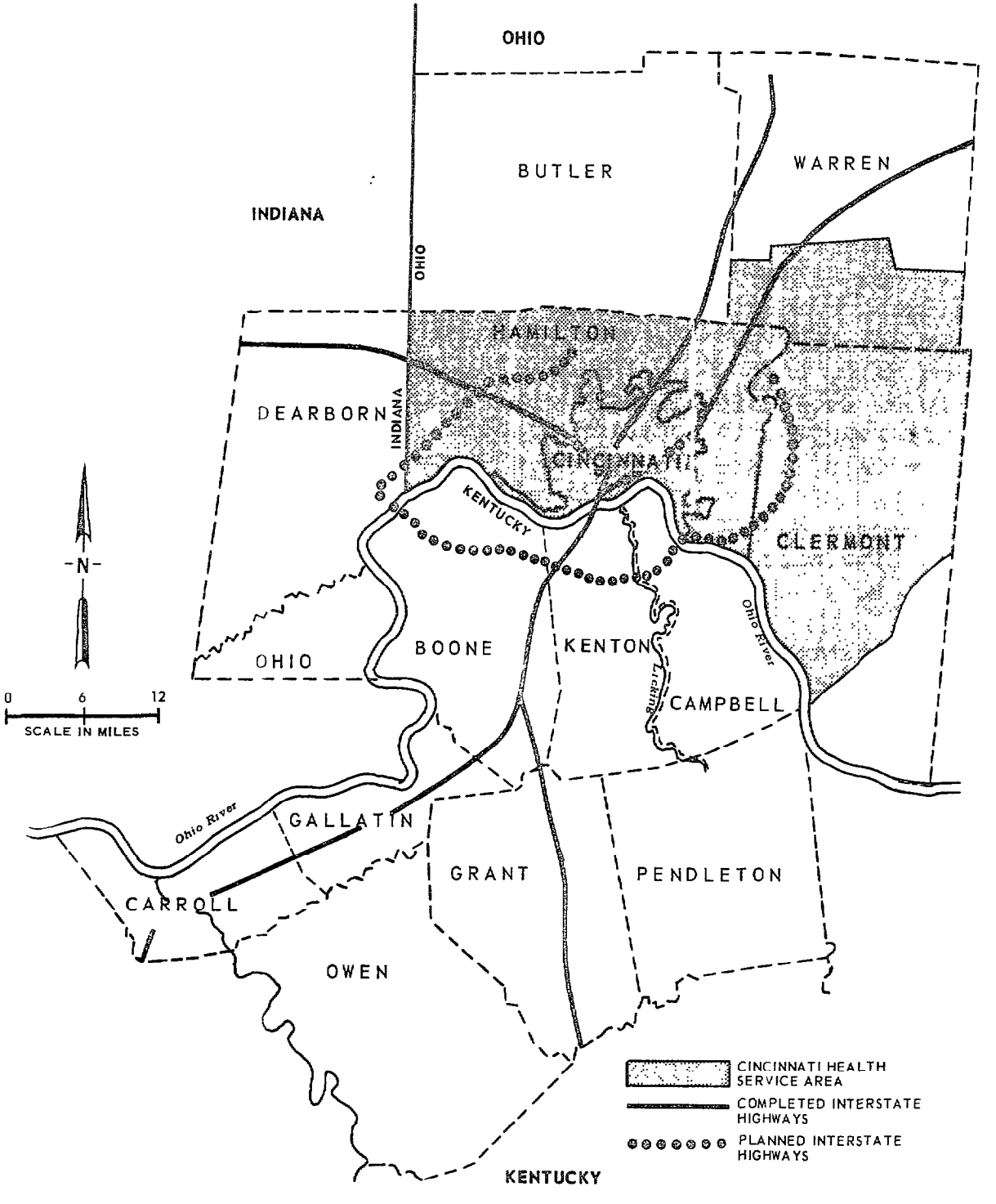
on the west by Indiana. Ohio counties adjacent to Hamilton are Butler and Warren to the north and Clermont to the east. A map of the area is shown on page 8. The Cincinnati health service area includes Hamilton County, the western part of Clermont County, and the southern part of Warren County. The Cincinnati health service area is represented by the shaded areas on the map.

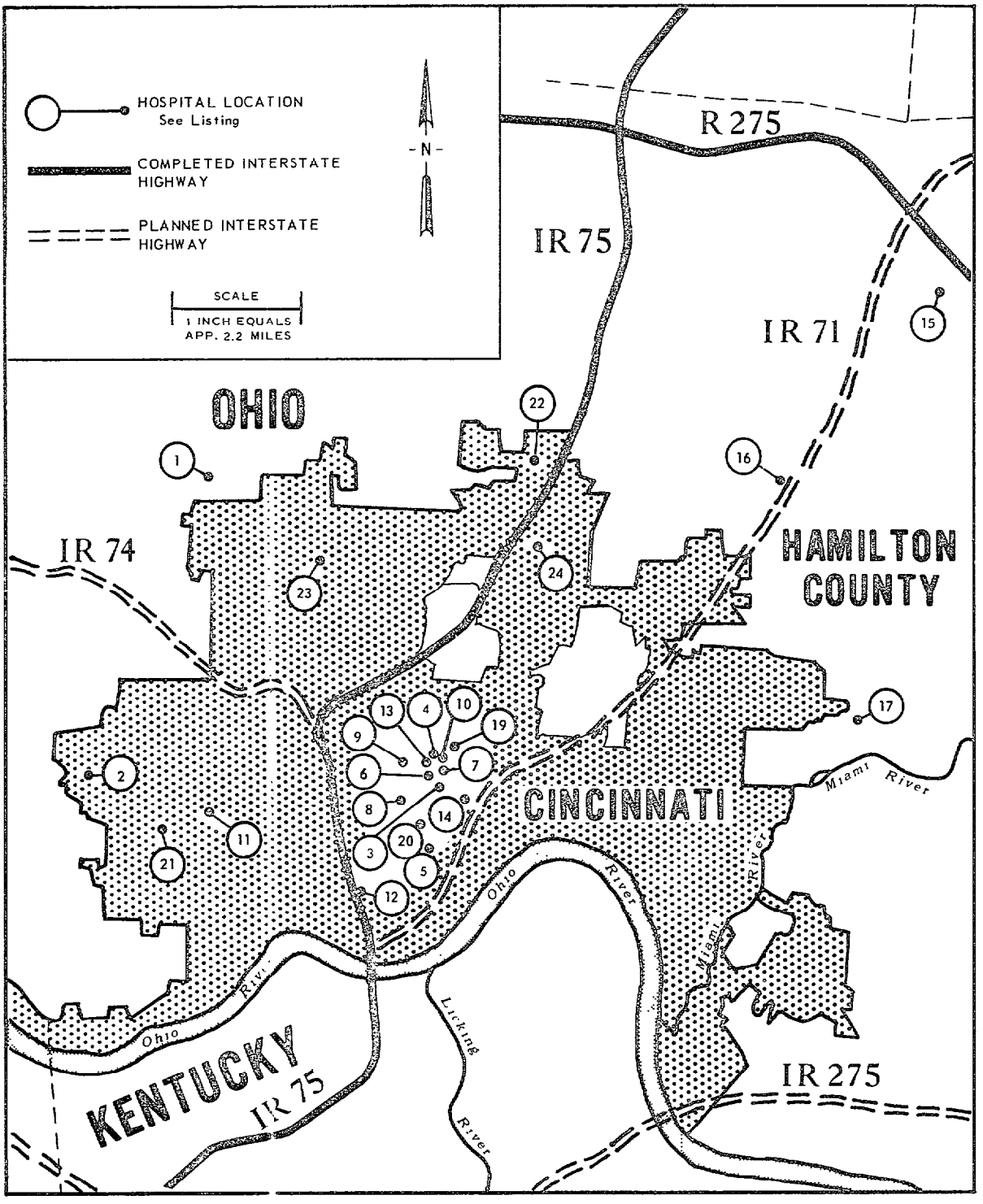
As of December 31, 1970, there were 22 hospitals in the Cincinnati health service area. Of these 22 hospitals, 16 are short-term-care hospitals (see ch. 2 for discussion), including a hospital operated by the Veterans Administration; two are long-term-care hospitals which provide skilled nursing care, (see ch. 3 for discussion); and four are psychiatric or tuberculosis hospitals, which are not discussed in this report. In addition to the existing 16 short-term-care hospitals, there are two short-term-care hospitals under construction, one of which will replace an existing short-term-care hospital. The locations of the hospitals within the Cincinnati health service area are shown on the map on page 9.

Generally there are two types of nursing homes--those which provide care for convalescent or chronic-disease patients requiring skilled nursing care and are under the general direction of persons licensed to practice medicine or surgery in the State and those which provide primarily domiciliary care. Only the homes providing skilled care qualify for Hill-Burton grants. Our review covered only those nursing homes providing skilled nursing care. There are 100 skilled-nursing-care facilities (two long-term-care hospitals, three units of hospitals, and 95 separate nursing homes) in the Cincinnati health service area, many of which are located near the hospitals in the Cincinnati health service area.

Diagnostic and treatment centers provide services for outpatients. A public health center is a community outpatient facility which provides services to prevent disease, prolong life, and maintain a high degree of physical and mental efficiency. These centers were not included in our review.

CINNCINNATI AND THE SURROUNDING AREA




HOSPITAL LOCATION
See Listing
COMPLETED INTERSTATE HIGHWAY
PLANNED INTERSTATE HIGHWAY
N
SCALE
1 INCH EQUALS APP. 2.2 MILES
R 275
IR 75
IR 71
OHIO
HAMILTON COUNTY
IR 74
CINCINNATI
Miami River
Ohio River
Licking River
KENTUCKY
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Hospitals in the Cincinnati Health Service Area

Short-term-care hospitals:

1. Providence Hospital (under construction)
2. St. George Hospital
3. Shriners Burns Institute
4. Children's Hospital
5. Christ Hospital
6. Christian R. Holmes Hospital
7. Cincinnati General Hospital
8. Deaconess Hospital
9. Good Samaritan Hospital
10. Jewish Hospital
11. St. Francis Hospital
12. St. Mary Hospital (to be replaced by the Providence Hospital)
13. Veterans Administration Hospital
14. Bethesda Hospital
15. Bethesda North Hospital (opened in June 1970)
16. Otto C. Epp Memorial Hospital
17. Our Lady of Mercy Hospital
18. Clermont County Community Hospital (not shown on map; under construction and will be located about 15 miles east of Our Lady of Mercy Hospital)

Long-term-care and psychiatric hospitals:

19. Rollman Psychiatric Hospital

20. Convalescent Hospital for Children

21. Dunham Hospital of Hamilton County (tuberculosis)

22. Daniel Drake Memorial Hospital

23. Emerson A. North Hospital (psychiatric)

24. Longview State Hospital (psychiatric)

Statistics for the 12 months ended March 31, 1967, indicate that most patients admitted to the Cincinnati area hospitals resided in Hamilton County. These were the most recent statistics available at the time of our review. Because the Cincinnati health service area has a large, centrally located hospital complex which includes the College of Medicine, University of Cincinnati, it receives specialized medical cases from surrounding counties of Ohio, Indiana, and Kentucky. About 12 percent of the patients admitted to the Cincinnati hospitals reside in surrounding counties.

In 1957 the Greater Cincinnati Hospital Council was established to coordinate hospital planning. The hospital council is composed of the hospital administrator and a representative of the board of trustees from each of the member hospitals in an eight-county area. The hospital council was formed for the following purposes.

--To promote voluntary cooperation among member hospitals in dealing with common administrative and operational problems by a free exchange of ideas, policies, and information regarding methods of administration.

--To coordinate the efforts of hospitals, in general, in the fields of civil defense, disaster, and general community health problems.

--To serve as an instrument for promoting and devising training and recruiting programs and improving administrative functions of hospitals.

The activities of the hospital council are limited to promoting cooperation. It has no direct or indirect control or authority over finances, policies, and internal procedures or practices of its members. Through planning efforts of the hospital council partially financed under section 318 of the Public Health Service Act for areawide health facility planning, an extensive series of construction programs were initiated between 1960 and 1965 with financing from bonds issued by Hamilton County and the city of Cincinnati, gifts, private borrowings, and Hill-Burton funds.

Public Law 89-749, approved in November 1966, established comprehensive health planning. It authorized the Surgeon General, PHS, to make grants to States and local communities to plan for health services, facilities, and manpower relating to physical, mental, and environmental health.

Comprehensive health planning is a continuous process which requires the participation of both providers and consumers of health services to identify health needs and resources, establish priorities, and recommend courses of action. In 1967 the Governor of Ohio designated the Ohio Department of Health and its Office of Comprehensive Health Planning to carry out the program. As of December 1970, 11 areawide agencies, involving all but seven of Ohio's 88 counties, had been established.

The Cincinnati areawide comprehensive health planning agency was established in July 1968. This agency, known as the Health Planning Association of the Central Ohio River Valley (CORVA), serves four counties in Ohio, eight in Kentucky, and two in Indiana. CORVA is an independent, nonprofit corporation chartered under the laws of Ohio and registered and recognized in Kentucky and Indiana. Since 1968 the agency has been supported for organizational purposes by Federal grants of about $271,000 and by matching non-Federal funds. The map on page 8 shows the 14 counties in Ohio, Indiana, and Kentucky served by CORVA.

CORVA's primary goal is to provide the local community with a mechanism to participate in the plans and development of health programs. The hospital council served as the primary community health planning organization until CORVA was

established. CORVA has contracted with the hospital council to assist in hospital facilities planning in the Cincinnati area. The hospital council no longer receives funds under section 318 of the Public Health Service Act, repealed in November 1966 with the passage of Public Law 89-749.

CHAPTER 2

PLANNING, CONSTRUCTION, AND USE OF SHORT-TERM-CARE HOSPITALS

According to the 1971 State plan, the Cincinnati health service area will need 4,494 short-term-care hospital beds by 1975[1] and the projected capacity of non-Federal, short-term-care hospital beds in 1975 is 4,694 beds or 200 beds in excess of the projected need. In addition, two hospitals were planning a total of 100 additional beds, but completion dates and financing arrangements were indefinite. Therefore by 1975 the Cincinnati health service area could have 300 beds in excess of the need now projected in the State plan. The State plan shows that, of the 66 health service areas in the State of Ohio, the Cincinnati health service area is 50th in priority for construction of short-term-care hospitals.

The State plan shows also that, of the projected 4,694 bed spaces by 1975, 341 bed spaces in four of the 16 non-Federal, short-term-care hospitals do not conform to Hill-Burton construction standards. We noted that 285 of the 341 bed spaces did not meet Hill-Burton construction standards because the buildings were not constructed of fire-resistant materials, had wooden roofs, or had exit doors not as wide as required by Hill-Burton standards.

Although these beds did not conform to Hill-Burton construction standards, Cincinnati's Building Department and the Fire Prevention Bureau approved their continued operation because the facilities met the building code requirements when they were constructed and because safety precautions existed, such as sprinkler systems. Local fire inspection officials stated that these facilities were

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[1] On March 1, 1971, the State plan for fiscal year 1971 had not yet been published. The information included in this report was furnished to us by the State agency from its most recent draft of the 1971 State plan.

relatively safe for patient care. The State plan recognizes that these beds are available to meet current and future patient-care needs.

The number of beds in short-term-care hospitals in the Cincinnati health service area has been increasing, and the number of nonconforming beds has been decreasing since 1964 when the hospital council's Committee on Hospital Facilities Research completed a plan for expansion and modernization of hospitals in Hamilton County. That planning effort was funded partly by PHS through section 318 of the Public Health Service Act, which section authorized grants to local organizations for areawide health facilities planning. Section 318 was repealed in November 1966 with the passage of Public Law 89-749.

Since 1964 construction programs have been undertaken which will total about $100 million. Funds were provided primarily by city and county bond issues ($34.2 million) and through private means ($58 million); the Hill-Burton program contributed $7.2 million over a period of 6 years.

HOSPITAL OCCUPANCY

According to the annual reports submitted to the State agency by the non-Federal, short-term-care hospitals, the beds in the Cincinnati health service area averaged 87-percent occupancy during calendar year 1969. Beds designated for medical and surgical use averaged 89-percent occupancy, while beds designated for maternity or pediatric use averaged 74- and 78-percent occupancy, respectively.

The hospital council realized, through its statistical programs, that the birth rate had been dropping from 1957, which caused a need for fewer maternity and pediatric beds. Actions taken by the hospital council to reduce the number of maternity beds and the possibility of reducing or consolidating pediatric services are discussed in chapter 4.

The following table shows the 1969 occupancy data for the 15 non-Federal, short-term-care hospitals that were in operation in 1969.

Hospital Beds in Use in Calendar Year 1969 and Average Short-Term-Care Hospital-Bed Occupancy for 1969 as Reported by Cincinnati Health Service Area Hospitals to the Ohio Department of Health

Hospital	Medical and surgical		Maternity		Pediatric		Total	
	Beds	Percent occupancy	Beds	Percent occupancy	Beds	Percent occupancy	Beds	Percent occupancy
Bethesda	377[a]	75	80	78	-	-	457	76
Catherine Booth (note b)	-	-	24	35	-	-	24	35
Children's	-	-	-	-	215	77	215[c]	77
Christ	524	88	56	56	25[d]	59	605	84
Christian R. Holmes	83	96	-	-	-	-	83	96
Cincinnati General	455	81	62	74	24[e]	76	541	80
Deaconess	224	101	-	-	-	-	224	101
Good Samaritan	513	95	85	85	75	82	673	92
Jewish	367	95	50	90	23	80	440[f]	93
Otto C. Epp Memorial	60	88	-	-	-	-	60[g]	88
Our Lady of Mercy	75	104	28	74	-	-	103	96
St. George	75	92	-	-	-	-	75	92
St. Francis	210	95	-	-	-	-	210	95
St. Mary	152	80	-	-	2	62	154	80
Shriners Burns Institute	-	-	-	-	30	98	30	98
Total	3,115	89	385	74	394	78	3,894	87

[a]Although 377 beds were in use on December 31, 1969, about 100 of that total were opened in June 1969. The average occupancy of beds available for use would, therefore, be greater than 75 percent.

[b]Closed in September 1969.

[c]In 1972 a 45-bed addition and space for another 36 beds will be completed.

[d]The hospital administrator said that there were 68 pediatric beds but that only 25 were in use.

[e]Cincinnati General Hospital has 66 pediatric beds but reported only 24 in use.

[f]In 1970, 22 beds were opened for service.

[g]In 1970, 50 beds were completed.

A State agency official told us that an 80-percent occupancy rate was desirable and allowed efficient operations. The executive secretary of the hospital council and Cincinnati Blue Cross officials said that a hospital should operate at 95-percent occupancy to be efficient, because hospitals staffed for a higher rate of operation than they normally experienced. Other estimates given to us by administrators of hospitals in the Cincinnati health service area were between 85- and 97-percent occupancy. We were unable to obtain a consensus as to an occupancy rate which would enable a hospital to operate most efficiently.

Many factors influence the occupancy of hospitals, including the availability of health insurance coverage for alternative methods of care and the willingness of the physicians to transfer patients to nursing homes. The hospital council, in studies of patients in hospitals, concluded that 17 to 20 percent of the patients in hospitals could have been transferred to skilled-nursing-care homes for treatment. Cincinnati Blue Cross officials said that they were aware of estimates made by physicians and hospital administrators that from 10 to 30 percent of hospital patients could receive needed care in nursing homes. In that connection, the president of the Cincinnati Academy of Nursing Homes stated in a letter to GAO dated January 22, 1971, that:

> "At the present time, existing Nursing Homes have 1,000 beds that are vacant and it is generally felt that this is due to the policy of local hospitals retaining patients for hospital care, who could be transferred to a nursing home."

The executive secretary of the hospital council and the president of the Academy of Medicine informed us that, because most health insurance plans did not provide coverage for nursing-home or outpatient care or for care in physicians' offices, patients often were admitted to hospitals so that the costs of treatment would be covered. These officials said the system of hospital insurance payment provided no incentive to use the least costly means of treatment.

In July 1970 Blue Cross, in an attempt to reduce hospitalization, began a 6-month experiment in southwestern Ohio, providing payment for cobalt treatments on an outpatient basis. In January 1971 Blue Cross was continuing the experiment while evaluating the results of the test.

USE OF PRIVATE FUNDS IN HOSPITAL CONSTRUCTION

The executive secretary of the hospital council informed us that some construction was undertaken which had not been contemplated in the expansion and modernization plan prepared by its research committee. He said, however, that the hospital council had no control over the use of construction funds. In its expansion and modernization plan, the research committee commented:

> "Questions have arisen concerning the professed plans of certain hospitals to go on their own initiative beyond the limits recommended by the overall hospital plan. Your Subcommittee recognizes the danger inherent in any policy restricting expansion of facilities where such expansion is to be accomplished with funds provided by the institution."

The research committee recommended that facilities constructed with public funds be stringently held to the overall hospital plan but that hospitals not be restricted in privately financed expansion and modernization. The research committee urged, however, that every hospital undertake only expansion that was consistent with community needs.

State agency officials stated that control did not exist over privately funded construction but that, when Federal funds were used, some control could be exercised. If construction of a proposed hospital or skilled-nursing-care facility is to be financed with Federal assistance, the State Hill-Burton agency must determine that there is a need for the facility before Federal assistance is given.

The need for a new facility in a health service area is based on a comparison of the current bed capacity of facilities (in service and under construction) with the projected need as shown in the State plan. In this way the State Hill-Burton agency can prevent the construction of excess medical facilities which are financed directly or indirectly with Federal assistance.

The executive secretary of the hospital council stated that, because Ohio had no hospital licensing or franchising

law which required that a community need be demonstrated before hospital beds could be constructed, the organizations which, in his opinion, could assist in preventing overconstruction were those which paid for health care services. He also said that these organizations should establish policies of not paying for any part of a construction program (the cost of which is included in the health insurance reimbursement rate structure) unless construction was approved by the areawide comprehensive health planning agency.

Blue Cross of Southwest Ohio and Medicare pay about 75 percent of hospital costs in the Cincinnati area. In this regard, officials of Blue Cross stated that they hoped to issue such a policy in the near future, if it was determined to be allowable by State law, to assist in reducing rising hospital costs. (See p. 22 for a discussion of the effect of overconstruction on a hospital's operating costs.)

CONVERSION OF MEDICAL FACILITIES CONSTRUCTED WITH FEDERAL GRANTS TO USES NOT SPECIFIED IN FEDERAL GRANT APPLICATIONS

The State agency awarded Hill-Burton grants to two hospitals in the Cincinnati health service area to construct skilled-nursing-care facilities. One grant was for 120 skilled-nursing-care beds in the Cincinnati General Hospital. The other grant was for the St. George Hospital which was to be a 75-bed, chronic-disease, skilled-nursing-care hospital. The 120 skilled-nursing-care beds completed in September 1969 at the Cincinnati General Hospital, however, had not been used for skilled-nursing-care patients, and the 75-bed, skilled-nursing-care facility, which was completed in November 1968 at the St. George Hospital, was being used as a short-term-care facility.

In July 1965 Cincinnati General Hospital was awarded a Hill-Burton grant of $500,000 to assist in construction of the 120-bed, skilled-nursing-care unit, on the basis of the need for these beds shown in the 1965 State plan, as part of its 650-bed, short-term-care hospital. The 1970 State plan indicated that the hospital changed the category of the skilled-nursing-care beds to short-term-care beds.

According to a State agency official, the beds had not been used for skilled nursing care but the change in category was approved.

A State agency official told us that, when construction was under way, hospital officials decided that skilled-nursing-care space was available in the Daniel Drake Memorial Hospital, and therefore skilled-nursing-care beds at Cincinnati General Hospital would not be needed for extended-type patient care.

In June 1965 St. George Hospital was awarded a Hill-Burton grant of $700,000 to assist in constructing a chronic-disease, skilled-nursing-care hospital. In September 1970 the State agency inquired into the overall use of the hospital, because the hospital's annual reports indicated that it was being used as a short-term-care facility.

State agency officials said that a petition, which included information concerning the need for a change, would be necessary to change the hospital to a short-term-care facility because Hill-Burton funds were involved. The hospital administrator replied that many of the patients were chronic-disease patients but that increasing demands were being made on the facility for emergency and short-term-care cases. The administrator requested the State agency to change the hospital's classification to a short-term-care hospital. The State agency said that the request would be reviewed by CORVA and advised the hospital, as follows:

> "The proof of need to change the type of facility including proof of the greatest need in the community is required. In other words proof that a general hospital is more needed in the area than a long-term-care facility. Also the effect such a change would have on adjoining existing hospitals which have been meeting needs over the years must be considered."

State agency officials told us in January 1971 that they and CORVA were studying the situation.

PHS does not have adequate authority to require that health facilities be used for the purpose specified in Hill-

Burton grant applications, and the Hill-Burton Act does not effectively preclude reclassification of such facilities so long as they are used for one of the types of health facilities specified in the act. The PHS General Counsel ruled that a grantee could reclassify beds as long as (1) the facility was not sold or transferred to an ineligible program applicant and (2) the hospital continued to qualify as a public or nonprofit hospital.

Through Hill-Burton grants the Government can contribute to the construction of hospital facilities which can become part of the overall excess bed capacity in the area. By the conversion of Hill-Burton-financed skilled-nursing-care beds to short-term-care beds, which were not necessary to meet the overall needs in the area, it could be argued that Government funds indirectly contributed to the construction of excess short-term-care hospital bed capacity in the area. In this regard, changing the category of bed use at the two hospitals from skilled nursing care to short-term care caused part of the excess short-term-care hospital beds shown in the 1971 State plan.

Low utilization, which is a natural result of excess medical facilities, generally results in higher operating costs for each patient-day. Since the Government reimburses hospitals and skilled-nursing-care facilities under the Medicare and Medicaid programs, the Government can be expected to share in the higher operating costs.

To minimize future conversion of health care facilities from one category to another, the State agency established a policy in April 1970 that required an applicant's governing body, upon award of a Hill-Burton grant, to certify that the facility would be used for the purpose stated in the Hill-Burton grant application. The policy required also that, if the facility desired to change the category of use--as did the St. George Hospital--the facility submit to the State agency a petition substantiating the need for such a change in category.

CHAPTER 3

PLANNING, CONSTRUCTION, AND USE OF SKILLED-NURSING-CARE FACILITIES

According to the 1971 State plan, the Cincinnati health service area will need 6,839 skilled-nursing-care beds by 1975. As of December 31, 1969, 6,441 skilled-nursing-care beds were in service in 100 non-Federal nursing homes and hospitals. In two facilities 398 additional beds were under construction. According to the 1971 State plan, the 6,441 beds in service and the 398 under construction will meet the needs of the health service area in 1975. We have some reservations, however, as to the validity of the State plan data for skilled-nursing-care facilities, since it is based on estimates of use which may not be reliable.

PHS guidelines state that skilled nursing care is 24-hour care which is sufficient to meet the total nursing needs of all patients. This care requires the employment of at least one registered professional nurse responsible for the total nursing service and of a registered nurse or licensed practical nurse in charge of each tour of duty. Facilities providing primarily domiciliary care were not included in our review.

The 1971 State plan noted that 3,968 bed spaces, in use or available for use in 79 of the 100 skilled-nursing-care facilities in the Cincinnati health service area, did not conform to Hill-Burton construction standards, because the buildings were not constructed of fire-resistant materials or did not meet other Hill-Burton fire and safety requirements. These beds are recognized in the State plan as being available to meet current and future patient-care needs and are licensed to operate by the Ohio Department of Health or by the Cincinnati Health Department. Officials of the Ohio Department of Health informed us that these facilities were safe for patient care, according to their standards which required inspections for building and fire safety by the State Fire Marshall.

Federal involvement in construction of skilled-nursing-care facilities in the Cincinnati health service area has been very limited in recent years. Most skilled-nursing-care facilities in the area are operated for profit, although Hill-Burton assistance is available only to nonprofit organizations. In recent years (1967-70), the Federal Housing Administration has insured only two mortgages for skilled-nursing-care facilities and the Small Business Administration has guaranteed only one loan for a skilled-nursing-care facility. One skilled-nursing-care facility received a Hill-Burton grant in 1963.

STATE PLAN FOR SKILLED-NURSING-CARE FACILITIES

To determine whether additional facilities are required, the 1971 State plan for skilled-nursing-care facilities projects the gross need for facilities for each designated health service area for the ensuing 5 years and compares such needs with facilities, in existence or under construction, that conform to Hill-Burton construction standards. To determine the gross need, the past year's use of skilled-nursing-care facilities is related to the current population of persons 65 years of age or over to determine the number of patient-days used for each 1,000 population. The formula assumes that an increase in the population of persons 65 years of age or over will result in a proportionate increase in the use of skilled-nursing-care facilities.

Although data to project gross need is available on the use of long-term hospitals and units of hospitals, we have found that it is not readily available for nursing homes which make up a major part of the total skilled-nursing-care beds in the Cincinnati health service area. A State agency official said that nursing homes were required to submit monthly occupancy reports but that only 60 percent of the nursing homes submitted the reports. He said also that the requirement had not been enforced because the State agency believed that emphasis should be placed on establishing a system of good patient care rather than on reviewing reports.

A State agency official told us that the data on use of nursing homes in the State plan was estimates based on information obtained from areawide planning agencies in four major Ohio cities. The State plans for fiscal years 1969 and 1970 were based on estimates of 95-percent occupancy, and the State plan for fiscal year 1971 was based on 90-percent occupancy. State agency officials said they had had difficulty in deciding what estimate to use for nursing-home occupancy for the 1971 State plan. The first draft of the plan was based on 100-percent occupancy, but, after some deliberation, the occupancy rate was revised to 90 percent.

The only occupancy data for nursing homes prepared regularly by a central source includes only those beds certified as extended-care facilities for Medicare. The hospital council has maintained data on the use of those facilities since 1967. According to that data the occupancy of extended-care facilities was maintained at a level of about 90 percent through July 1969. By December 1969 the occupancy rate had declined to about 87 percent.

The Cincinnati Academy of Nursing Homes, an organization of proprietary nursing homes, surveyed Cincinnati nursing homes to determine the occupancy rates and reported in January 1971 that the average occupancy was about 80 percent. In accordance with PHS guidelines, a 90-percent occupancy factor was used in the State plan for estimating future bed needs. The following chart, using different levels of occupancy, compares the bed-need determination with the inventory of facilities to be available in 1975 in the Cincinnati health service area.

Percent of occupancy	Projected bed need	Available	Bed need or excess(—)
80	6,179	6,839	—660
90	6,839	6,839	-
95	7,169	6,839	330
100	7,496	6,839	657

Without more reliable data concerning occupancy rates in skilled-nursing-care facilities, the PHS formula cannot be used properly to determine whether a health service area

has too many beds or needs more beds for skilled nursing care. We believe that there is a need on the part of the State agency to properly accumulate and analyze data from the community, to enable the preparation of a more meaningful planning document for use as part of the State plan.

CHAPTER 4

COORDINATION AMONG ORGANIZATIONS FOR SHARING MEDICAL FACILITIES

We obtained information on the extent to which certain medical facilities and services were shared among the Cincinnati area hospitals. Our review included maternity and pediatric beds and cobalt units. We also examined into the use of group-purchasing arrangements as a means of reducing hospital costs.

Although we found that there was some sharing of specialized medical and other services among hospitals in the Cincinnati area, we believe that there is a potential for more sharing of such services. We believe also that, before this potential can be fully realized, studies will be required to determine what services can be shared and how such sharing can be accomplished to benefit all concerned. We believe that the greatest opportunity to achieve the benefits of sharing appears to be in planning for new facilities.

Under the provisions of section 113 of Public Law 91-296, which amends the Public Health Service Act, States are entitled to receive Hill-Burton grant funds up to 90 percent of a project's cost if the project offers "potential for reducing health care cost through shared services among health care facilities" or "through interfacility cooperation." It appears that this legislation, which increases Federal financial participation in those projects which involve sharing, should provide hospitals which are seeking Federal grant funds with a strong incentive to share services.

MATERNITY BEDS

In August 1970 a committee, composed of administrators of hospitals having obstetrical units and members of the Cincinnati Obstetrical and Gynecological Society, was established to plan the future obstetrical-care needs of the community. The possibility of a central obstetrical and gynecological center at Bethesda Hospital was discussed. The

executive secretary of the hospital council said that Bethesda Hospital could become one of the outstanding obstetrical and gynecological hospitals in the country if such centralization were to take place. The administrator of Bethesda Hospital said that many problems which obstructed centralization existed but that a very extensive study would be needed before a decision could be made on the feasibility of centralization.

The administrator of Good Samaritan Hospital, which has a maternity service that exceeds Bethesda Hospital's, was opposed to centralization because Good Samaritan had a good occupancy rate in its maternity unit which was operated in conjunction with a large pediatric unit.

PEDIATRIC BEDS

In December 1970 five hospitals in the Cincinnati health service area had 384 pediatric beds in use, 71 pediatric beds under construction, and 73 pediatric beds not in service in two of the five hospitals because of low occupancy of pediatric beds. (See p. 16.)

The executive secretary of the hospital council said that pediatric services could be centralized into one or two of the area hospitals, which would result in more efficient use of bed space, more efficient operation, and better patient care. Relative to consolidation at the hospital which serves primarily children, he commented that many physicians were forced to use pediatric facilities at other hospitals because of problems with scheduling surgery at the hospital. He explained that, at this hospital, faculty members of the University of Cincinnati College of Medicine were given preferential treatment and that other physicians had difficulty in scheduling patients for surgery. In addition, he said that higher educational requirements were imposed on physicians seeking to practice at this hospital.

COBALT UNITS

In response to an inquiry from two hospitals in surrounding counties concerning the desirability of adding cobalt equipment, the hospital council reviewed and reported on the use of cobalt equipment in the Cincinnati hospitals.

In June 1970 the hospital council reported that five cobalt units in Cincinnati hospitals were being used at 44.6 percent of capacity. The study was based on an estimate that a cobalt device with a fresh charge feasibly could provide 60 treatments a day. Using 20 days a month as a base, the hospital council estimated that the cobalt units in existence in June 1970 could provide 18,000 treatments over a 3-month period. The five hospitals, however, in the first 3 months of 1970, provided 8,024 treatments, or less than 45 percent of capacity. Use of a sixth cobalt unit, in a private physician's office in Cincinnati, was not included in the study. A seventh cobalt unit, which was approved by the hospital council, was put into service in December 1970 and will probably lower the overall utilization of cobalt units in the area.

As a result of the study, the assistant executive secretary of the hospital council said that two hospitals in surrounding counties had decided not to add cobalt equipment but to use cobalt units in the Cincinnati hospitals.

COMMON-PURCHASE AGREEMENTS

In October 1968 the hospital council began a study of possible savings through group-purchasing of liquid oxygen. The following data provided by the executive secretary prompted the study.

Thousand of cubic feet a month	Price for each 100 cubic feet	
	High	Low
Under 25	$0.90	$0.64
25 to 75	.82	.42
75 to 125	.75	.313
Over 125	.50	.285

Five suppliers responded to the hospital council's invitation to quote prices under a common-purchase agreement, and the lowest bidder was accepted as the supplier for the participating hospitals. The accepted bid was at a rate of $0.275 for each 100 cubic feet for quantities up to 100,000 cubic feet a month with further graduated reductions.

The assistant executive secretary of the hospital council said that three hospitals initially had entered into the common-purchase agreement and that later additional hospitals had joined in the agreement. He stated that other hospitals which had contracts with the successful bidder also received the benefit of the lower rates. As a result of the common-purchase agreement, some suppliers not participating in the agreement also reduced their prices.

The hospital council estimated that hospitals in its eight-county area will save about $75,000 annually through the common-purchase agreement.

CHAPTER 5

SCOPE OF REVIEW

We reviewed the coordination among Federal and State agencies and local organizations in planning and constructing short-term-care hospitals and skilled-nursing-care facilities in the Cincinnati health service area. We reviewed the planning for and construction of medical facilities, primarily short-term-care hospitals, financed either with private and community funds or through Federal financial assistance. We compared the existing and planned capacity of short-term-care hospitals and skilled-nursing-care facilities with the projected needs as determined by the State planning agency. We also considered the actions taken to effect the sharing of certain facilities and equipment among hospitals.

The information in this report was based, for the most part, on discussions with officials of Federal and State health agencies, local planning organizations, hospitals, and other health-related organizations. The review concentrated on the Hill-Burton program, and therefore more of the information was obtained from the Ohio Department of Health, Columbus, which is the State Hill-Burton agency.

U.S. GAO Wash., D.C.