SECTION II - THE COMMUNITY PROGRAM

INTRODUCTION

In the preceding section we have given consideration to the Survey Area's growth, characteristics, and vital statistics, and to the hospital and health facilities now available.

The detail of these findings, as well as the conclusions and recommendations made, is the basis for a planned community program that will evaluate present plans for expansion and give just consideration to the development of the Texas Medical Center.

It is believed that the program should be developed in well organized stages, each preceded by a careful review of the variable factors which have guided us in basic recommendations. To aid in making these periodic reviews, we have shown the estimated "bed requirements" each decade, and have given sufficient explanation so that the "common denominator", used in the majority of estimates, may be projected against known conditions at any stage of Harris County growth.

In this section we proceed to set forth the future "bed requirements", developing each general type of "hospital care" separately, and then more fully by the medical specialties thereunder.

We give consideration in a generalized manner to the location of future facilities and deal with other specifications which we feel must be weighed if the community is to receive the full value of the program.

We deal with teaching and research programs as important, in fact, essential counterparts of good medical and hospital care. These too must undergo continuous surveillance to assure that they keep pace with over-all growth, remain flexible enough to absorb each proven advancement, and coordinate in a manner that will stimulate growth and leadership.
Finally, we point out certain steps which, if taken, would ordinarily lead to a strengthened position in the community and which would seem to add to the guarantee of success of this whole program.

Several important aspects of this section preclude knowledge in some detail of the plans now being formulated, their scope, financing and potentiality. Before entering into discussion of the Community Program, we pause to record facts about certain of these plans that have been developed to the point where they can be treated as eventualities.

Hermann Hospital:

The Board of Trustees of Hermann Hospital have plans now in the process of development which call for construction of a seven story hospital building located adjacent to the present hospital. Although subject to change, these plans reflect a bed capacity of 370; fifty beds to be reserved for obstetric care and 320 beds for medical and surgical care, with the possible use of eighty of these for psychiatric care. However, the Board has actually approved the use of only twenty-eight beds for psychiatric work at the present writing.

Plans reflect construction of a complete general hospital with a 370 bed capacity and all ancillary departments and facilities.

Hermann Hospital has plans for the erection of a professional building fourteen stories in height that is to be equipped to house 125 doctors' offices, examining rooms, and necessary complementary areas at an approximate cost of $1,965,000. It is estimated that there will be an annual net revenue of $225,000 and plans are to be made for repayment to capital funds over a period of forty years of the amount borrowed from the Estate for this building purpose.
Other additions proposed by the Trustees of Hermann Hospital include:

A - Addition to the present interne quarters, which would add a necessary forty beds to the present twenty-seven, and although there are no plans drawn for this addition, it is estimated that such a structure would cost $100,000.

B - The construction of a 100 bed addition to the present nurses dormitory, bringing to 250 the number of facilities available. These plans are in sketches only, and it is estimated that the cost will approximate $500,000.

C - A new power plant building which would be equipped to furnish facilities to all Hermann owned buildings. No plans or sketches have been made on this project.

To recapitulate the above building programs:

1. New Hospital Building $4,000,000
2. Professional Building 1,956,000
3. Interne's Quarters 100,000
4. Nurses' Dormitory 500,000
5. Power Plant (included in Hospital Cost)

Total: $6,556,000

It has been learned that Hermann Hospital has available for construction approximately $5,000,000, which includes a recent promise from the Anderson Foundation of $500,000. It is hoped that the balance can be secured through a public drive for a $2,000,000 building fund.

Upon completion of building programs as outlined above, it is intended that the present hospital building be remodeled for use by free and part-pay teaching patients, and it is estimated that this remodeling can be accomplished at a cost of $250,000.
Methodist Hospital:

The new Methodist Hospital to be constructed in the Texas Medical Center on an eight acre site which has been conveyed to the Trustees of Methodist Hospital by the Texas Medical Center is to be a 300 to 350 bed general hospital, excluding provisions for bassinets. It is to be eight stories, air-conditioned throughout, and include all facilities necessary to the operation of a general hospital, as well as accommodations for 22 internes and residents.

It is to be mentioned that the Anderson Foundation has agreed to give to the hospital fifty cents for each dollar its fund raising campaign secured.

St. Luke's Episcopal Hospital:

Plans have carried through the primary drawing stages which will result in a five story building plus a two story tower and will accommodate 250 patients; beds arranged in such a manner that expansion to 300 may be quite easily executed. All facilities necessary to the operation of a large general hospital have been included.

It is estimated the cost of construction will approximate $3,000,000, and it is learned that there is now available for building $1,200,000. A committee has been organized for the purpose of raising the necessary finances, and this committee will set $1,000,000 as its goal and per agreement with the Anderson Foundation this will automatically be matched with $500,000 from the Foundation on the basis of 50¢ for each dollar raised.

San Jacinto Memorial Hospital:

The San Jacinto Memorial Hospital is to be located in the Tri-Cities area comprising the incorporated cities of Pelly and Goose Creek and the unincorporated village of Baytown.
The hospital is to be a general hospital of 100 beds with provisions made to add an additional floor of 50 beds. It is to be fully air-conditioned above the basement level. Construction will begin this month under guidance of a non-profit association with trustees representing the three communities and the Humble Oil Company, and this organization has received a total of $1,250,000 in gifts from the Humble Oil Company to finance building construction.

It is expected that a certain amount of indigent care will be given to alleviate the necessity of sending such cases to Jefferson Davis Hospital, and support will be expected from the County for its fair share. The site chosen and purchased by general subscription money lies at the intersection of Texas Avenue and Decker Drive easily accessible to the three communities and approximately equi-distant from each.

St. Elizabeth's Negro Hospital:

This hospital is in the process of being constructed in the center of the colored district of the old Fifth Ward at 4500 Lyons Avenue and is to be owned and operated by the Missionary Sisters of the Immaculate Conception. The building will require approximately four months work to complete, and will accommodate 60 patients, but has been constructed so that an additional floor may be added as well as wings to accommodate an additional 90 beds. Facilities such as kitchens, laboratory, et cetera have been built to a size that will allow for the contemplated expansion.

The cost of the present structure is estimated at $335,000 exclusive of the equipment which for the most part is already purchased and is in storage in Houston. The hospital is to serve Negro patients exclusively, and it is to be staffed by colored nurses to supplement the limited number of Sisters available for supervisory work. It is contemplated that both Negro and white physicians will be in attendance.
No funds are available to off-set future operating expenses and income must come for patient service, which will be geared to admit pay, part-pay and free patients. It is to be opened as a general hospital accepting medical, surgical, obstetric, and pediatric cases, and there is a small emergency unit provided in the present structure. Expansion to 150 beds and provision of facilities for out-patient care will not be undertaken until sufficient proof is in hand as to the need and ability to support these additional facilities.

City Tuberculosis Hospital:

In 1941 a Bond Issue in the amount of $650,000 was voted by the City of Houston with the intention of expanding facilities and developing surgical areas at the present Houston Tuberculosis Hospital.

Between the approval of the Issue and the time for the expenditure of the funds, plans for the Texas Medical Center came under discussion with the net result that no building program as intended was undertaken. In 1946 another Bond Issue in the amount of $1,150,000 was approved, bringing to $1,800,000 the total now available. The Texas Medical Center has proposed location of the new hospital in the Center, and this has met with general approval by City Officials to the end that a site has been determined, but as yet not deeded to the City. It is understood that the Anderson Foundation has suggested that $350,000 would be available if the total amount of the bond issues fell short of the cost of erecting a 250 bed hospital. It is apparent that the County intends to make no capital investment in this hospital and that its method for payment for County patients will parallel that now used in the agreement existing in the City-County Hospitals whereby the County pays a flat annual sum or a percent of costs with an established maximum.
Discussions are under way as to proper disposition of the present Houston Tuberculosis Hospital, and at this writing it has reached the point where it has been determined that 5$\frac{1}{2}$ acres of the present property, as well as the Autrey Memorial School in the center of this site will be retained and continue to function as a preventorium under City Management.

M. D. Anderson Hospital For Cancer Research:

The M. D. Anderson Hospital for Cancer Research to be located in the Texas Medical Center is planned for 200 beds, to be available to indigent, part-pay and pay patients in need of care for cancer. The program of the Hospital will be carried out in cooperation with the Medical College of the University of Texas, the Dental School, and other units of the Texas Medical Center.

The Anderson Foundation has given $500,000 to start the building fund of this hospital, and the State of Texas has appropriated $215,000. A substantial part of the balance necessary for the construction of the Hospital is to be provided from a drive being conducted by the University of Texas. $4,000,000 of the $6,250,000 goal has been subscribed, and it is understood and one third is designated for the Cancer Research unit.

Recently, the University of Texas received from the Rosalie Hite Will approximately $500,000 which will be used in the erection of a Hite Laboratory Building connected with the M. D. Anderson Hospital.

The M. D. Anderson Hospital for Cancer Research is the 14th hospital to be built in the United States for the exclusive purpose of cancer study. Major emphasis of the entire program is upon basic scientific
medical research in cancer, the second-rank disease in causes of death in the United States.

An institution so highly specialized in character will draw its patients from throughout the State and in fact, the region. For this reason the bed facilities of the Hospital will not influence the calculation of additional beds required for the Houston Hospital Area.

The benefits to be drawn from such an institution will be even more far-reaching than the area from which its patients come, as its opportunities for significant contributions to the cancer problem are unlimited.

Primary emphasis is upon causes and possibilities for cure. Experience with research departments isolated from the care of patients has proved that far better results may be expected through a combining of research with clinical practice. The size of the Hospital assures a sufficient volume of material to provide adequate clinical material for research on treatment as well as upon causes. Clinical research within the institution may be enhanced through interchange of information with general hospitals and other hospitals devoting their energies to this special disease, and this study of results in the various cancer hospitals is simplified through a uniform record system developed by the American College of Surgeons.

A program of education for the entire State is another significant part of the Hospital’s program. Already the Foundation has made a valuable contribution to the doctors of the State by the publishing of a scientific and clinical review of the significant findings from intensive study of cancer over a period of years.
One of the greatest educational values of the institution lies in its availability for exposure of medical students to the cancer problem, to the extent that they may be conscious of the need for special study of cancer if they are to cope with its problems in their future practice. Likewise the internes and residents assigned to the Cancer Hospital for a part of their service may be oriented to the approach on cancer care in a more intensive way than is possible in the average general hospital, and they too may be impressed with the need for further study in this field.

In addition to the post-graduate study available to pathologists, radiologists and other specialists, short "refresher" periods may be planned for doctors in the area.

Future planning might also include assistance in clinics over the state in the diagnosing of cancer, and the coordination of efforts with other clinics in the follow-up of cancer patients, which is very significant in effective treatment. Assistance may also be given in the care of cancer patients in the general hospitals in the area, as well as in the Center itself.
A - Patient Bed Facilities - By Medical Type

1 - Acute General Hospital Care

a - Needs

Until recently an estimate of the number of acute general hospital beds needed in a community such as this would have required that we multiply an "accepted" ratio, such as 5 beds per 1,000 population, by the population expressed in 1,000's. The "accepted" ratio would, of course, have been the controversial point and whatever the logic of our "degree of departure" it would still have been from a controversial point.

Fortunately, we now have in hand a formula, currently proposed but well founded in fact, advanced jointly by the American Hospital Association and by the Commission on Hospital Care with which to check our estimations and judgments.

We first proceeded to weigh the various local conditions and establish an estimate of the "degree of departure" from five beds per thousand population. The detail of this procedure is not reproduced herein, but summarized it led to the conclusion that Houston should have hospital facilities in an amount approximating 5.25 acute general beds per thousand population; that 50% of the Area's remaining population could be served by four beds per thousand, and the balance by two beds per thousand. Hence, accounting for a population of 642,167, a ratio of 4.35 beds per thousand seemed indicated.

The above mentioned formula is based upon the fact that the need for general hospital beds can be related to the crude
birth and death rates modified by bed-births and bed-death ratios. Detailed application of this formula is not shown herein, but summarized led to the conclusion that in Harris County, with its crude death rate of 7.6, its crude birth rate of 21.8, deaths in hospitals will increase from a present 46% to 60%, and births in hospitals will increase from a present 58% to 85%. We further agreed that the obstetric length of stay will approximate 9 days or .0243 of a bed year, and that the national average of 250 days of general hospital care for each hospital death, or a bed-death ratio of .70 applies to the Area.

These factors, used in the formula, reflected a ratio of 4.37 beds per thousand as necessary to Harris County and gave credibility to the ratio of 4.35 arrived at through a distinctly different method.

There follows a table that gives consideration to the increasing population as determined earlier in the report, and to the factors of increased overall "use" and increased "use" by non-residents of Harris County.

Non-Harris Residents in 1945 occupied approximately 6% of available facilities (estimated from analysis of Admissions), and we have allotted the same proportion in 1950. In 1960 we have made an arbitrary allowance of 5% of "required beds" and in 1970, looking toward the greater drawing power of the Texas Medical Center made an allowance of 7% of "Required Beds".

We have gradually increased the ratio of beds per 1000 population from the present 4.35 to 5.00 in 1950 to 5.10 in
1960 and to 5.2 in 1970. This is indeed conservative but the factors relating to the increased use of hospitals for births and deaths has already been accounted for in the formula as explained in items 5 and 6 of the bed-birth-death discussion. What we are showing here is the result of gradual educational processes resulting in familiarity and greater "use" of hospital facilities.

<table>
<thead>
<tr>
<th></th>
<th>1945</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>642,000</td>
<td>695,505</td>
<td>1,017,461</td>
<td>1,474,456</td>
</tr>
<tr>
<td>General Beds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per 1000 Population</td>
<td>4.65</td>
<td>5.0</td>
<td>5.1</td>
<td>5.2</td>
</tr>
<tr>
<td>Beds Required</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harris Residents</td>
<td>2,985</td>
<td>3,477</td>
<td>5,189</td>
<td>7,867</td>
</tr>
<tr>
<td>Bed Allowance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Harris Residents</td>
<td>114</td>
<td>172</td>
<td>259</td>
<td>537</td>
</tr>
<tr>
<td>TOTAL ACUTE BEDS</td>
<td>3,099</td>
<td>3,649</td>
<td>5,448</td>
<td>8,204</td>
</tr>
</tbody>
</table>

There remains the problem of dividing the total into the requirement of each component medical service represented by the ratios of 4.65 to 5.2 acute general beds per thousand population. Rather than complicate this procedure unduly, we have used 5 beds/1000 for the four periods but retained the actual total beds. The error in so doing is too slight to warrant the more complicated procedure.
Obstetric Bed Requirements

The Commission on Hospital Care states that all available statistics point to use of one bed an obstetric case for every 7 beds available in general hospitals and therefore we use 14.3 per cent of the total acute bed requirement as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Bed Requirement</th>
<th>Obstetric Factor</th>
<th>Obstetric Bed Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>3099</td>
<td>.143</td>
<td>443</td>
</tr>
<tr>
<td>1950</td>
<td>3649</td>
<td>.143</td>
<td>522</td>
</tr>
<tr>
<td>1960</td>
<td>5448</td>
<td>.143</td>
<td>779</td>
</tr>
<tr>
<td>1970</td>
<td>8204</td>
<td>.143</td>
<td>1173</td>
</tr>
</tbody>
</table>

Pediatric Bed Requirement

It is frequently suggested that .5 beds per 1000 population, when that population does not exceed 25% (See Population Characteristics 23.4%) in the Age Group under 15, allows for the minimum number of pediatric beds. For our purpose, the .5 beds reflects 10% of all acute beds and therefore is shown as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Bed Requirement</th>
<th>Pediatric Factor</th>
<th>Pediatric Bed Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>3099</td>
<td>.10</td>
<td>310</td>
</tr>
<tr>
<td>1950</td>
<td>3649</td>
<td>.10</td>
<td>365</td>
</tr>
<tr>
<td>1960</td>
<td>5448</td>
<td>.10</td>
<td>545</td>
</tr>
<tr>
<td>1970</td>
<td>8204</td>
<td>.10</td>
<td>820</td>
</tr>
</tbody>
</table>

Specialty Bed Requirement

Using as a guide, work being done in New York City under auspices of the United Hospital Fund, we have shown in the following schedule estimates of the beds required to meet the need of eight of the Medical Specialties, representing in total 1.5 acute general beds per population of 1000.
The 1.5 acute specialty beds per 1000 population represent 30% of all bed requirements and expressed in individual percentages of the total required beds appear in the following:

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Beds/1000</th>
<th>% of 5 Acute Beds Per 1000</th>
<th>1945</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopedics &amp; Fractures</td>
<td>.40</td>
<td>.080</td>
<td>257</td>
<td>276</td>
<td>427</td>
<td>634</td>
</tr>
<tr>
<td>Gynecology</td>
<td>.24</td>
<td>.048</td>
<td>154</td>
<td>165</td>
<td>256</td>
<td>380</td>
</tr>
<tr>
<td>Otorhinolaryngology</td>
<td>.22</td>
<td>.045</td>
<td>144</td>
<td>155</td>
<td>240</td>
<td>357</td>
</tr>
<tr>
<td>Neurology</td>
<td>.16</td>
<td>.032</td>
<td>103</td>
<td>110</td>
<td>171</td>
<td>254</td>
</tr>
<tr>
<td>Urology</td>
<td>.14</td>
<td>.026</td>
<td>90</td>
<td>107</td>
<td>149</td>
<td>222</td>
</tr>
<tr>
<td>Dermatology</td>
<td>.13</td>
<td>.026</td>
<td>83</td>
<td>97</td>
<td>139</td>
<td>206</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>.11</td>
<td>.022</td>
<td>71</td>
<td>76</td>
<td>117</td>
<td>174</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>.10</td>
<td>.020</td>
<td>64</td>
<td>69</td>
<td>107</td>
<td>158</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.50</td>
<td>.301</td>
<td>966</td>
<td>1055</td>
<td>1606</td>
<td>2385</td>
</tr>
</tbody>
</table>

General Service Requirement

Having assigned estimated bed requirement to Obstetrics, Pediatric, and eight Specialties, the balance of the required acute general beds may assume to be necessary for general medical and surgical cases. We plan to consider the concentration of cancer beds as relating to research while any cancer case falling outside that...
category would be included under general services. The following therefore reflects the assignment to General Services and at the same time recapitulates the Acute Bed Requirement. It is suggested that a degree of interchangeability be allowed in the planning of Medical and Surgical Assignments but that a pattern of approximately two Surgical Beds for each Medical Bed be followed.

<table>
<thead>
<tr>
<th>Service</th>
<th>% Of 5 Beds Per 1000</th>
<th>Acute Beds Per 1000</th>
<th>Estimated Beds Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Obstetrics</td>
<td>.143</td>
<td>.715</td>
<td>443 522 779 1173</td>
</tr>
<tr>
<td>2. Pediatrics</td>
<td>.100</td>
<td>.500</td>
<td>310 355 545 820</td>
</tr>
<tr>
<td>3. Specialties</td>
<td>.301</td>
<td>1.50</td>
<td>966 1055 1506 2355</td>
</tr>
<tr>
<td>A. Orth. &amp; Fract.</td>
<td>.080</td>
<td>.40</td>
<td>257 276 427 634</td>
</tr>
<tr>
<td>B. Gynecology</td>
<td>.048</td>
<td>.24</td>
<td>154 135 256 330</td>
</tr>
<tr>
<td>C. Otorhin</td>
<td>.045</td>
<td>.22</td>
<td>144 155 240 357</td>
</tr>
<tr>
<td>D. Neurology</td>
<td>.032</td>
<td>.16</td>
<td>103 110 171 254</td>
</tr>
<tr>
<td>E. Urology</td>
<td>.028</td>
<td>.14</td>
<td>90 107 149 222</td>
</tr>
<tr>
<td>F. Dermatology</td>
<td>.026</td>
<td>.13</td>
<td>83 97 139 206</td>
</tr>
<tr>
<td>G. Neurosurgery</td>
<td>.022</td>
<td>.11</td>
<td>71 76 117 174</td>
</tr>
<tr>
<td>H. Ophthal</td>
<td>.020</td>
<td>.10</td>
<td>64 69 107 155</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0%</td>
<td>5.0</td>
<td>3099 3549 5448 8204</td>
</tr>
</tbody>
</table>

b - Present And Proposed Facilities

In general hospitals studied there are a total of 1790 beds but the following number should be deducted to preserve comparability with the type beds set forth above: 57 contagious beds at Jefferson Davis;
10 contagious beds at St. Joseph's and 19 psychiatric beds at Memorial. This reflects a net acute bed figure of 1705.

In hospitals not studied there are 168 after deduction of 35 psychiatric beds at Montrose Hospital.

In hospitals being planned there are to be acute beds added in the following approximate amounts:

1. Hermann Hospital (370-26 psychiatric) 342
2. Methodist Hospital (300-136 in old hospital) 164
3. St. Luke's Hospital 250
4. San Jacinto Memorial Hospital 100
5. St. Elizabeth's Negro Hospital 60

916

These factors establish a net figure of 2,789 acute general beds available after completion of the building programs now definitely known to exist.

**Summary**

At present then, and after completion of building programs, which are evaluated in the 1950 consideration of "needs" and "shortages", we may conclude the following:

| Year | Acute Bed Requirement | Acute Beds "Available" | Acute Bed "Shortage"
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>3099</td>
<td>1073</td>
<td>1226</td>
</tr>
<tr>
<td>1950</td>
<td>3649</td>
<td>2789</td>
<td>860</td>
</tr>
<tr>
<td>1960</td>
<td>5448</td>
<td>2789</td>
<td>2659</td>
</tr>
<tr>
<td>1970</td>
<td>8204</td>
<td>2789</td>
<td>5415</td>
</tr>
</tbody>
</table>

2 - Hospital Care Of Tuberculosis

a - Needs

The Committee on Sanatorium Standard of the National
Tuberculosis Association recommend as a minimum requirement that there should be 2.5 beds per annual tuberculosis death. In the section on Vital Statistics under the discussion on Deaths from Principal Causes, we pointed out that more complete trends were accessible on a state-wide basis than for the county and here in calculating tuberculosis bed requirements we refer to State rates showing an almost uninterrupted decline in tuberculosis deaths per 100,000 population since 1931.

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate (1931)</th>
<th>Rate (1936)</th>
<th>Rate (1941)</th>
<th>Rate (1945)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931</td>
<td>77.0</td>
<td>70.6</td>
<td>66.0</td>
<td></td>
</tr>
<tr>
<td>1932</td>
<td>72.4</td>
<td>68.6</td>
<td>53.1</td>
<td></td>
</tr>
<tr>
<td>1933</td>
<td>71.6</td>
<td>65.5</td>
<td>47.1</td>
<td></td>
</tr>
<tr>
<td>1934</td>
<td>66.4</td>
<td>61.5</td>
<td>44.1</td>
<td></td>
</tr>
<tr>
<td>1935</td>
<td>66.6</td>
<td>59.1</td>
<td>43.1</td>
<td></td>
</tr>
</tbody>
</table>

There is every reason to believe that the rate of decrease will continue, and we might expect that in 1950 the rate would be 39.0; in 1960, 30.0; and in 1970 possibly a rate of 20.0 tuberculosis deaths per 100,000 population.

If this condition materializes the bed requirement can be shown as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Tuberculosis Deaths Per 100,000 Population</th>
<th>Total Tuberculosis</th>
<th>Proposed Beds Per Annual Tuberculosis Death</th>
<th>Beds Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>642,000</td>
<td>43.1</td>
<td>277</td>
<td>2.5</td>
<td>692</td>
</tr>
<tr>
<td>1950</td>
<td>695,505</td>
<td>39.0</td>
<td>271</td>
<td>2.5</td>
<td>677</td>
</tr>
<tr>
<td>1960</td>
<td>1,017,461</td>
<td>30.0</td>
<td>305</td>
<td>2.5</td>
<td>762</td>
</tr>
<tr>
<td>1970</td>
<td>1,474,466</td>
<td>20.0</td>
<td>295</td>
<td>2.5</td>
<td>737</td>
</tr>
</tbody>
</table>
There were actually 223 deaths in Harris County (See Vital Statistics Deaths from Principle Causes) which reflects a lower death rate than the one used. However, it will serve as a factor of safety against the possibility of not making the progress estimated in reducing deaths.

b - Present And Proposed Facilities

Although in hospitals studied a total of 174 tuberculosis beds are listed as available, the 50 such beds in the Autry Memorial unit of the Houston Tuberculosis Hospital are of a "preventorium" nature and have not been considered in this calculation. Therefore, the area would appear to have 124 tuberculosis beds at present and prospect of a 250 bed hospital to be erected by the city in the Medical Center. However, this results in a net increase of only 126 beds in that the present tuberculosis hospital most certainly will be closed coincidental with the opening of the new hospital.

c - Summary

From the above it may be judged that there is an immediate shortage of 568 tuberculosis beds, reduced to 427 in 1950 through construction of the new City tuberculosis hospital. In 1960 the shortage of beds will amount to 612, and in 1970 the shortage will drop to 487 as the decrease in tuberculosis death rates exceed the rate of increase in population.

Many general hospitals of the Survey Area refuse admission to tuberculosis patients and many insist upon the removal of patients
whenever diagnostic study discloses the presence of this disease, yet advances made in the treatment of tuberculosis, particularly through surgical procedures make it possible for the general hospital to admit many such patients, particularly in certain phases of the illness, without undue concern. This does not imply that tuberculosis sanatoria will not be needed, but only that general hospitals could materially assist in care and in the campaign for the further reduction of tuberculosis. Routine x-ray examinations of all patients upon admission, now being done by only one hospital in the Survey Area, would greatly assist in "case finding" practices. Many of these patients would require only short periods of hospitalization which could readily be provided by the general hospital.

Although there is apparent need for additional beds in the Survey Area for the care of tuberculosis patients, the marked decrease in the incident and death rate from tuberculosis does not seem to justify the construction of additional tuberculosis hospitals in rural areas or away from general hospital facilities. Experience has shown that sanatoria located at considerable distances from cities operate at great inconvenience to patients and visitors. They often encounter difficulty in securing employees and frequently cannot provide the consultant service for non-tuberculosis conditions which are often required.

3 - Hospital Care of Communicable Diseases

a - Need

A standard, frequently applied to the calculation of the contagious beds necessary in a community is .2 beds per 1,000 population, or expressed in terms of needs in the Survey Area 128 beds
in 1945; 139 in 1950; 222 in 1960; and 295 contagious beds required by 1970.

b - Present and Proposed Facilities

In the Survey Area there would seem to be only 57 contagious beds at Jefferson Davis and 10 at St. Joseph's although almost all the hospitals occasionally find themselves coping with a contagious case, but under the most adverse conditions.

This suggests an immediate shortage of 61 beds for this type of care; a shortage of 72 beds by 1950, inasmuch as no presently considered building programs have specifically allotted beds for this purpose; a shortage of 155 by 1960; and a shortage of 228 contagious beds by 1970.

c - Summary

In the past, the care of contagious disease has most frequently been relegated to special institutions. However, with improved control of the contributing illnesses combined with declining morbidity rates we find less demand for, in fact idle facilities in many such institutions.

In the light of improved nursing techniques and present knowledge of methods for the control of cross infections in hospitals, there seems little reason why such diseases cannot be cared for in the general hospital. Certain special facilities would be required, but material benefit would accrue to patients and personnel alike if the techniques practiced in the care of communicable diseases were followed in general hospital service.
The problems arising relate to the traditions built up in the general hospitals, to administrative procedures, and to attitudes of the general public.

Nursing costs may be expected to increase slightly in view of the additional burden of isolation techniques, but the increased cost would be far less than represented by the maintenance of special institutions.

Special facilities and equipment in limited amounts are necessary for proper isolation of communicable disease in a general hospital. Accommodations for such patients should be arranged so as to provide readily for segregation and for prompt conversion to the type of accommodation that can be utilized for general acute illnesses.

Educational programs should be instituted if general hospitals accept the care of communicable disease. We must reassure the general public that proper techniques were being maintained to prevent cross infection, and that it is a logical step in full accord with the advance in medical science and nursing service.

4. Hospital Care of Nervous and Mental Diseases
   a. Needs

   No general rule of particular merit is known to exist by which the total Psychiatric bed requirement can be divided between State responsibility and voluntary enterprise. We do know that Texas has 2.7 beds per 1000 population for the care of this disease and is the 35th. lowest among all states, with New York having the highest ratio of 7.1. We also know that nationally, 84% of all psychiatric
patients are in state institutions and from these facts we make the following estimates, based upon:

1. An increasing ratio to raise the present 2.7 beds per 1000 population to more nearly U.S. average or 5.0 beds per thousand in 1970.

2. The conviction that state responsibility should continue to meet its responsibility in proportion to the growth in population and maintain 66% of all psychiatric beds.

3. That the balance of the needs must be met by general "voluntary" and "proprietary" hospitals.

Interpreting these factors into Survey Area needs can best be expressed in the following table:

<table>
<thead>
<tr>
<th></th>
<th>1945</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>642,000</td>
<td>695,505</td>
<td>1,017,461</td>
<td>1,474,456</td>
</tr>
<tr>
<td>Psychiatric Beds Per 1000 Fop.</td>
<td>2.7</td>
<td>3.0</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Total Bed Requirement</td>
<td>1,733</td>
<td>2,087</td>
<td>4,070</td>
<td>7,370</td>
</tr>
<tr>
<td>State Responsibility</td>
<td>1,456</td>
<td>1,753</td>
<td>3,419</td>
<td>6,191</td>
</tr>
<tr>
<td>Beds Required (Voluntary, Proprietary Hos.)</td>
<td>227</td>
<td>334</td>
<td>651</td>
<td>1,179</td>
</tr>
</tbody>
</table>

b - Present And Proposed Facilities

In the hospitals studied there are 108 psychiatric beds available, eighteen in Memorial, 40 in Greenwood's Sanatorium, and 50 in the Keightly Hospital. There are 35 beds in "approved" hospitals.
not studied, and in present building programs Hermann Hospital has indicated assignment of 28 beds for the care of this type of patient.

- Summary

The present number of beds available (143) reflects an immediate shortage of 84 beds and a 1950 shortage, after completion of the presently proposed building program of 163. By 1960 the shortage will amount to 460, and by 1970, with overall "need" increased to five beds per thousand population, a shortage of 1,008 beds for psychiatric care.

We repeat that this is the "need" to be met by voluntary and proprietary hospitals representing only 16% of the total community need. The remaining 84% will, it is hoped, be met by County and State programs.

Several general hospitals of the Survey Area now make no provision for the admission or care of the psychiatric patient. However, there are many forms of mental illness which can be and will be better cared for in the general hospital than in an institution which devotes its service only to the care of nervous and mental diseases. It is true that some special facilities are required and that other functions now performed for non-psychiatric cases must be better developed, but these provisions can readily be made and should not deter the general hospital in developing this service.

The custodial care and long-term care required for many patients with mental diseases is primarily the responsibility
of the State government.

However, if the citizens of the area are to receive adequate service in mental diseases, and if the community is to be saved unnecessary expense, more opportunities must be made available for the practice of preventive medicine in mental diseases. Early diagnosis and treatment in this illness as in all other illnesses are of great importance. Many psychiatric conditions become chronic and disabling because of belated diagnosis and treatment. Complete diagnosis and the prompt administration of therapy would materially reduce the number of patients that it would be necessary to admit to state mental institutions.

Many individuals in need of medical assistance of a psychiatric nature do not receive it because of the stigma attached to being committed to a specialized psychiatric institution. A far greater percentage of the population would receive adequate mental therapy if it were more readily available in general hospitals. There are many "borderline" cases that are of short duration and can be cared for better in the general hospital. Transient mental aberrations of the toxic, post-operative and traumatic patients as well as the psychiatric could be cared for in the general hospital mental facilities.

There is general recognition that much can be done for the patient in the very early stages of mental illness; that there is an interrelationship between mental and organic illness; and that a need exists for psychiatric consultation in many instances in which
symptoms of organic illness appear to be of paramount importance. Similarly, diagnostic facilities are needed for patients with symptoms of mental disturbances.

5 - Hospital Care of Chronic Diseases

a - Needs

The generally accepted figure of two beds per thousand population is probably a reliable index to the number of beds needed for long term care of chronically ill patients. Applying this figure to the estimated population of Harris County we have an immediate "Bed Requirement" of 1,290 increased to 1,400 by 1950, to 2,000 by 1960, and to 3,000 by 1970.

b - Present And Proposed Facilities

There are in Harris County two governmentally operated institutions for the care of patients suffering from long term illness, the convalescent home operated by the Houston-Harris County Board of Public Welfare on the top floor of the old Jefferson Davis Hospital, with a capacity of 45 patients, and the Harris County Home for the Aged, with a capacity of 100, which is located approximately 12 miles out of the City of Houston.

There are four institutional homes in the community operated on a not-for-profit basis and offering some degree of care for disabled people. They include St. Anthony's Home for the Aged with 54 beds, the Maria Boswell Flake Home with 9 beds, the Home for Aged Sons and Daughters of Israel with 15 beds, and the Sheltering Arms with 10 beds.
The tendency of small proprietary nursing homes to spring up overnight and vanish almost as rapidly makes it difficult to determine exactly how many such homes there are in the community. The number seems to fall somewhere between 30 and 35, with a total bed capacity of, roughly, 800. A few of the homes, not more than 20 or 30 per cent of the total, offer care which is good from the point of view of pleasant surroundings, cleanliness, and adequate physical attention.

This represents a total of approximately 1,050 beds, but a large number of the 800 mentioned should in the opinion of the observer be improved or replaced. For the purpose of our tabulations we have calculated shortages based upon a present 600 beds. This suggests an immediate shortage of 690; a shortage of 800 by 1950, inasmuch as there would seem to be no consideration of immediate building programs; a shortage of 1,400 by 1960; and a shortage of 2,400 chronic beds by 1970.

Summary

It is strongly to be hoped that successful efforts will be made to counteract the persistently upward trend in the amount of chronic illness and invalidism. There are two chief factors which explain this upward trend: (1) the increasing age of the population plus the higher incidence of the chronic diseases in the upper age groups; and (2) the steadily increasing rates of illness and death from heart disease, other circulatory disorders, cancer, and crippling arthritis. Little can be done directly to change the first of these.
The hope for control of the problem must, therefore, lie in efforts to prevent and control the specific disease. How much can - and will - be accomplished in this direction in the immediate future is problematical. It may be that during the next 25 years, much will be accomplished. It is to be hoped that between now and 1970 there will be at least enough progress in control of these diseases to counteract the other factors which tend to increase the amount of chronic illness and invalidism. Assuming that this occurs and the incidence of invalidism remains approximately at its present level, Harris County may still anticipate marked increases in the number of invalids needing care. The rapid increase in population of the county will bring increasing numbers of invalids.

There is urgent need for more and better facilities in Houston and Harris County to help families care for invalids in their own homes. The Houston Visiting Nurses Association is providing excellent service. It is obvious, however, that their services are touching only a very small number of all the patients needing care. The Visiting Nurse Association reports a total of 600 visits during 1945 to 60 chronically ill patients. Although the Association is prepared to serve all economic groups, there is some question as to whether its facilities are being used to any considerable extent by families which are financially independent and able to pay the full costs of the service. The excellent quality of care given would seem to justify a considerably larger service than is now in use. There are, of course,
many reasons why more service was not given in 1945. One of them undoubtedly was limitations on available personnel to staff the Association for a larger program. There is a need in the community for a great expansion of this service, however, and it is to be hoped that the Visiting Nurse Association services to chronically ill patients in their homes will expand markedly in the near future.

6 - Recapitulation Of Bed Requirements And Shortages

We have in the preceding pages dealt in turn with the Survey Area's "requirement" and "shortage" of Acute, Contagious, Tuberculosis, Psychiatric and Chronic hospital beds, and in the following tables have summarized these factors but made no attempt to reflect bed "shortages" in the specialty fields under Acute Hospital Care.

Accurate statistics on current assignment of beds to these specialties could not be obtained because of the practice of interchanging facilities to meet daily needs of incoming patients. However, we have shown estimated bed "requirements" for each of eight major specialties, not with the thought of suggesting inflexible units of a given size, but to serve as a guide to the "need" as well as expected "use" of specialty facilities.

The estimates indicate that certain specialties have a limited "incident" of hospitalization and, therefore, supply only limited teaching and research material. It may prove desirable to protect this supply by concentrating it in one or two hospitals so that what is available may be used to the fullest possible extent in the conduct of undergraduate and graduate teaching.
## ESTIMATED BED REQUIREMENT

<table>
<thead>
<tr>
<th>Category</th>
<th>1945</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. &quot;Acute&quot; Diseases:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Obstetrics</td>
<td>443</td>
<td>522</td>
<td>779</td>
<td>1173</td>
</tr>
<tr>
<td>2. Pediatrics</td>
<td>310</td>
<td>385</td>
<td>545</td>
<td>820</td>
</tr>
<tr>
<td>3. Specialties</td>
<td>966</td>
<td>1055</td>
<td>1306</td>
<td>2365</td>
</tr>
<tr>
<td>a. Orthopedics and Fractures</td>
<td>257</td>
<td>276</td>
<td>427</td>
<td>634</td>
</tr>
<tr>
<td>b. Gynecology</td>
<td>154</td>
<td>165</td>
<td>256</td>
<td>380</td>
</tr>
<tr>
<td>c. Otorhinolaryngology</td>
<td>144</td>
<td>155</td>
<td>240</td>
<td>357</td>
</tr>
<tr>
<td>d. Neurology</td>
<td>103</td>
<td>110</td>
<td>171</td>
<td>254</td>
</tr>
<tr>
<td>e. Urology</td>
<td>90</td>
<td>107</td>
<td>149</td>
<td>222</td>
</tr>
<tr>
<td>f. Dermatology</td>
<td>83</td>
<td>97</td>
<td>139</td>
<td>206</td>
</tr>
<tr>
<td>g. Neurosurgery</td>
<td>71</td>
<td>76</td>
<td>117</td>
<td>174</td>
</tr>
<tr>
<td>h. Ophthalmology</td>
<td>64</td>
<td>69</td>
<td>107</td>
<td>158</td>
</tr>
<tr>
<td>4. Gen. Medicine &amp; Surgery</td>
<td>1380</td>
<td>1707</td>
<td>2518</td>
<td>3626</td>
</tr>
<tr>
<td>Total &quot;Acute&quot; Bed Requirement:</td>
<td>3099</td>
<td>3649</td>
<td>5448</td>
<td>8204</td>
</tr>
<tr>
<td><strong>B. Tuberculosis:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>692</td>
<td>677</td>
<td>762</td>
<td>737</td>
</tr>
<tr>
<td><strong>C. Communicable Diseases:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>128</td>
<td>139</td>
<td>222</td>
<td>295</td>
</tr>
<tr>
<td><strong>D. Nervous and Mental Diseases:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>227</td>
<td>334</td>
<td>651</td>
<td>1179</td>
</tr>
<tr>
<td><strong>E. Chronic Diseases:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1290</td>
<td>1400</td>
<td>2000</td>
<td>3000</td>
</tr>
<tr>
<td>Grand Total Bed Requirement:</td>
<td>5436</td>
<td>6189</td>
<td>9083</td>
<td>13415</td>
</tr>
</tbody>
</table>

## ESTIMATED BED SHORTAGE

<table>
<thead>
<tr>
<th>Category</th>
<th>1945</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Acute&quot; Diseases</td>
<td>1226</td>
<td>860</td>
<td>2659</td>
<td>5415</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>568</td>
<td>427</td>
<td>512</td>
<td>487</td>
</tr>
<tr>
<td>Communicable Diseases</td>
<td>61</td>
<td>72</td>
<td>155</td>
<td>223</td>
</tr>
<tr>
<td>Nervous and Mental Diseases</td>
<td>84</td>
<td>163</td>
<td>480</td>
<td>1003</td>
</tr>
<tr>
<td>Chronic Diseases</td>
<td>690</td>
<td>800</td>
<td>1400</td>
<td>2400</td>
</tr>
<tr>
<td>Grand Total Bed Shortage:</td>
<td>2629</td>
<td>2322</td>
<td>5208</td>
<td>9538</td>
</tr>
</tbody>
</table>

CP-29
Hospital Bed Requirements
Harris County
1945 - 1970

KEY:
- Communicable
- Tuberculosis
- Nervous + Mental
- Chronic
- Acute

RED - Shortage
Black - Existing & Planned
B - Patient Bed Facilities by Type and Distribution

Plans for an integrated hospital-health program for the community must of necessity give consideration to a distribution of facilities that will best meet the characteristics of the Area, the population growth, and the contemplated growth of the Texas Medical Center; they must consider concentration of patients for medical education and the adequacy of facilities for specialized research; and lastly, they must consider the coordination of physician activity to the end that the entire plan may be implemented.

In the table that follows we show the 1970 bed requirement for the county divided proportionately on the basis of population between metropolitan Houston and the balance of the county. It is realized that certain factors apply that would tend to render "use" of facilities in the latter case less than proportionate. On the other hand, smaller rural hospitals and health centers, lacking the physical ability to adapt to each changing condition, are known to require a "stand-by" protection in beds which is so frequently reflected in their low occupancy rates.

With these considerations in mind we hesitate to inject another complicating ratio even though it might correct the slight error likely to occur from use of the above proportionment.

Instead, we accept the population estimate for the metropolitan area as developed in an earlier section of the report, determine that it represents 87.7% of the county population, and relegate the remaining 12.3% of the population and of the beds to the non-metropolitan area.
TOTAL BED REQUIREMENT
--- 1970 ---

<table>
<thead>
<tr>
<th>Population</th>
<th>Total County</th>
<th>Metropolitan Houston</th>
<th>Other Locations</th>
<th>Non-Metropolitan Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,474,456</td>
<td>1,295,383</td>
<td>3,494</td>
<td>1,010</td>
<td></td>
</tr>
<tr>
<td>(100%)</td>
<td>(87.7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bed Requirement

- Acute General: 8,204
- Contagious: 295
- Tuberculosis: 737
- Psychiatric: 1,179
- Chronic: 3,000

Total: 13,415

1 - The Non-Metropolitan Area

It is not considered a premise of this survey to attempt actually to locate and describe in detail the type and size of individual facilities as there will undoubtedly be migrations and centralizations of population that cannot now be foreseen.

In general, however, we visualize the probable need for two types of hospitals in the non-metropolitan area; namely, a Community Hospital and a Public Health and Medical Service Center type.

The Community Hospital would be of 50 or possibly more beds serving at least 15,000 to 20,000 persons who otherwise would be required to travel in excess of 20 miles to a good hospital. Such hospitals should not be expected to provide more than 50 to 70% of the hospital service needed within the community service inasmuch as certain patients will invariably go to the larger centers for hospital care.
The Health Center would be expected to give the necessary coverage to the balance of the county population residing in areas in which the density does not justify construction and operation of even a small hospital. It would have the functions of providing services normally furnished by the public health agency and by the hospitals. It is believed that a community as small as 500 if located 20 to 25 miles from a hospital would need a service center such as we describe.

We believe it would logically carry out all of the following activities:

1. Such centers would serve as the focal point about which public and voluntary agencies could coordinate their efforts in carrying on effective educational activities in matters pertaining to the general health of the area.

2. Such centers could serve as the headquarters for the official public health agency with offices for health officer, sanitarian, and public health nurses, carrying out their programs in immunization, early diagnosis of tuberculosis, control and treatment of venereal diseases, maternal and infant care activities, etc.

3. Provisions could be made for the conduct of routine clinical laboratory tests and for x-ray services of the type which every physician should be able to perform. The physician himself or a nurse trained in the techniques of the more commonly used diagnostic tests and examinations could operate these facilities. However, it would be economically impractical to supply the full complement of diagnostic facilities found in large hospitals.
4. Offices and examining rooms might be provided for the physician who could be available at appointed hours or upon call, and this might be provided for the one or more physicians who were resident in the community and who could utilize the center's diagnostic and other facilities.

5. The provision of proper sterilization and delivery room facilities and a few beds for the care of normal obstetrical cases would be highly desirable. Prenatal examinations and attention for the expectant mother, as well as post-natal service to mother and infant could be provided.

6. These centers would provide temporary facilities for treating emergency cases until suitable arrangements could be made for transfer of the patient to a general hospital. A definite affiliation should be developed with a conveniently located general hospital.

7. A regional ambulance service should be established for the transportation of patients from these centers to the affiliated general hospital, and the ambulances should be dispersed and located centrally.

These two types of facilities, judiciously located and properly affiliated could be expected to care for a large proportion of the less complicated medical and surgical needs of the non-metropolitan population of Harris County. They could be expected to "feed" into the large general and special hospitals of the Medical Center and of Houston valuable clinical and teaching material, and yet in that process tend to "screen" out the routine case for prompt and near-home treatment.
We have shown need for a total of 1,651 beds of all types to serve the non-metropolitan area of an estimated 181,000 population, and we believe it desirable to incorporate within general community hospitals and in Public Health and Medical Service Centers, as described, the entire needs except for the 370 chronic beds.

Furthermore, we believe that the larger of the community type hospitals should plan for a sufficient concentration of general medicine, general surgery, pediatrics, and maternity beds so that a training program can be carried out if desired.

We feel that both types of hospitals defined herein should be affiliated with hospitals of the Medical Center or with large hospitals near them, and that this affiliation should provide for administrative and professional assistance. The medical staffs of the large hospitals should provide consulting, diagnostic, and supervisory services, and formulate systems by which the staff of outlying hospitals may benefit from exchange of ideas and experiences through conferences, clinics, and staff meetings.

Conversely, medical interns and residents from the larger hospitals will benefit by an organized field experience in small hospitals where varied types of "organization of service" may be studied.

2 - Metropolitan Houston

A preceding tabulation reflected a 1970 bed requirement of 11,764 for the metropolitan area, and we have indicated that of this number at least 5,000 should be located in the Medical Center. As mentioned elsewhere, we have treated the capacity of the proposed M. D. Anderson Hospital for Cancer Research as separate from overall bed requirements, and in this instance its proposed 200 beds would be in addition to the above 5,000.
We believe this number reflects a concentration of facilities that will permit unhampered training of undergraduates in the desired number and adjoining the medical school. In addition, it should provide a cross section of patients with average abnormalities and unusual medical conditions that would assure a nucleus for graduate training which could then be supplemented by affiliation with Area hospitals.

This would require the Houston metropolitan area, other than the Medical Center, to be equipped with 8,764 hospital beds of all types by 1970. We reiterate that metropolitan Houston, as considered in this survey, includes the incorporated areas of West University Place, Pasadena, Galena Park, Bellaire, Southside Place and South Houston, as well as the non-incorporated areas of Garden Oaks, Lindale, Oakwood, Kashmere Gardens, Clinton Park, Meadowbrook, Garden Villas, Brookhaven, and Shady Acres.

This necessary and substantial increase in facilities will not be accomplished without inroads by privately owned profit-making organizations.

We now find an unusually large number of privately-owned small hospitals operating for profit, seven among those studies, five more in hospitals registered but not studied, and at least seven small institutions offering bed care from an unapproved level. Additionally, we find some 35 homes caring for chronic patients on the same unapproved, profit-making plans.

From our experience in the community we believe that a fair proportion of these organizations have sprung from a genuine need for hospital facilities and that physicians have banded together to assure themselves that facilities would be available when needed, but that actual operation of a hospital has neither appeal nor profit.

It would seem desirable to take all possible action to keep the number of such institutions at a minimum.
We cannot delineate with exactness the size of hospitals which should be constructed to meet this deficit in hospital beds. Certainly there will be no need of the Public Health and Community Service Center type, and the small community hospital of a 50 to 75 bed capacity should receive endorsement only in limited instances. In general, hospitals of 250 to 500 beds, prepared to accept any patients responsive to curative measures and not rightfully the charge of the government would seem the most economical units in operation and the best adapted to teaching programs.

During the years of rapid population growth culminating in the 1970 estimate of "Bed Requirements", the City and County will be faced with expansion of their currently adequate general hospital facilities. This may be accomplished through building programs or through contracts with non-profit hospital organizations, and we believe the latter method preferable if capital funds can be made available.

It would be expected that affiliations leading to close integration of service and teaching between hospitals, medical and dental schools and research units of the Texas Medical Center and the hospitals and public health units of the metropolitan area be devised and carried forward through each phase of expansion.

C - Special Patient Services

1 - Negro Hospital Facilities

At present there are 238 general hospital beds in Harris County available for the care of approximately 112,350 colored persons, or a ratio of beds per thousand population of 2.11. The number of available beds is 13.3% of total beds, while the colored population is approximately 17.5% of total population.
From discussions on Vital Statistics and Population Characteristics of the report, we choose the following comparisons to reflect the weight of this problem on the community:

1. The colored death rate is 11.8 per 1,000, or 4.8 per 1,000 higher than the white death rate.

2. The colored stillbirths rate is 51.9 per thousand as compared to 16.7 per thousand for whites.

3. Maternal deaths among colored amounted to 2.8 per thousand while among white 1.8 per thousand.

4. Deaths of infants under 1 year of age amounted to 73.9 per 1,000 live births as against 27.9 per thousand among white infants.

This is an alarming picture, despite the progress which has been made and is reflected in the various exhibits used in this report. However, we are not recommending that special formulas of "beds needed" be evolved for the colored population, but we strongly recommend that they share in the overall development and expansion in proportion to their numerical strength in the community.

In future planning it must be considered that the white population has grown proportionately far more rapidly than the negro population, and that while in 1870 the colored represented 39.3% of the total Harris County population, in 1940 it represented only 26.8%. It has continued decreasing through 1940 and through the war years so that by 1945 the colored population is estimated as representing 17.5% of the total population.

We feel that population growth in the colored group will continue to lose proportionately, but not in such substantial amounts as in the past,
and in the following table we show this moderate percentage decline through 1970:

<table>
<thead>
<tr>
<th>Year</th>
<th>1945</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>642,000</td>
<td>695,505</td>
<td>1,017,461</td>
<td>1,474,456</td>
</tr>
<tr>
<td>Per cent Negro</td>
<td>17.5</td>
<td>17.0</td>
<td>16.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Negro Population</td>
<td>112,350</td>
<td>118,236</td>
<td>162,794</td>
<td>221,168</td>
</tr>
</tbody>
</table>

We are not setting down a table of each actual "need", but simple application of above percentages to tables appearing elsewhere will supply the detail.

We are not proposing that this need be thought of as "negro hospital" facilities, but that wherever expedient, facilities on an inter-racial basis be considered. Other things being equal, this philosophy should tend to raise as well as assure the standard of care given the colored.

We recommend that in addition to due consideration of facilities as to medical type and quantity that a fair proportion be of a private and semi-private type rooms that would enable, in fact encourage, the negro who is able to pay for his choice of accommodation, to do so.

Plans are now being conceived for the expansion of the Houston Negro Hospital, with the possibility of a City Health Unit operated in conjunction with it, and the whole, coupled with expanded medical and dental educational programs under joint auspices of the University of Texas and the Medical School of Baylor University.

Members of the Medical School faculty through their consultation work are in effect offering valuable post-graduate teaching to the negro staff members. The picture is encouraging, and in large part success rests with the negroes' continued interest, enthusiasm and support.
2 - Dental Care

This area, like most areas in the United States, has been slow to recognize the full contribution which a well organized hospital Dental Service can make in the care of the sick. Moreover, it is relatively an expensive service; therefore, it is not surprising to find that none of the general hospitals in this area have an organized dental service for its constituent patients. In recent years as the general hospital has become accepted as the Health Center of the community and as these units have become more universally used for diagnostic purposes, it is apparent that a real physical examination cannot be complete without a careful study of all conditions. Most large metropolitan general hospitals now have an organized service. There is a growing recognition of the far reaching effects of dental conditions as they relate to infections, functions and appearance, so that it is rapidly becoming obligatory for a modern, first-class hospital to have an effective dental department, not only to treat the sick, but to assist in the prevention of disease.

a - General Hospital

The kind of service in general hospitals naturally differs between hospitals. In general, it is limited to the diagnosis and treatment of dental diseases and injuries of the mouth and adjacent parts which include acute and chronic infection, removal of teeth and tumors, fractures of jaws and facial bones, and consultation with other divisions of the Medical Staff. No strictly dental work such as fillings or restorations is ordinarily done. Naturally, relief of pain is afforded, but service is also rendered to the sick whose oral condition is such as to be a contributing factor in systemic disease, or whose masticatory function or whose appearance is
such as to hinder him from becoming a healthful and economically independent member of Society. As additional effects, it brings the medical and dental professions closer together for the benefit of the patients. It lowers the cost of dental care to the community and its logical channel whereby low cost dental service of a high standard can be made available to the public. It shortens the period of hospitalization and convalescence. Of prime importance is the Prenatal and Postnatal service, both in examination and care of expectant mothers' dentition and in prevention by education as to the care and importance of preserving the child's primary dentition. It affords an opportunity for the training of medical, dental and nursing students as well as medical and dental research which could not be secured otherwise (see dental education). Therefore, it is recommended that a dental service, not including fillings or restorative work, be established in cooperation with the University of Texas Dental School, in all the hospital and out-patient units of the area. Dental examinations should be made of all patients admitted to the hospitals except when the physician in charge pronounces the procedure unnecessary or impractical. These examinations should be directed toward the discovery and diagnosis of dental and oral infections which may be related to systemic disease.

Professional Staff

The additions of dentists to the Medical Staffs of hospitals creates organizational problems; therefore, it is suggested that such organizational plans meet the basic standards of the American Dental Association and assistance be secured in such planning from the Dental School. The Dental Staff
should be a distinct section of the Medical Staff; either functioning as a separate division or as a section of the Surgical Division admitting some patients directly to the Dental Service, treating some patients jointly with other members of the Medical Staff and acting as consultants for oral conditions. It is recommended that the Dental Staff be organized as a distinct section of the Medical Staff (either as a separate division or as a section of the surgical division) in accordance with the basic standards of the American Dental Association. The Dental Service should be organized and controlled so that only members of the staff who are of proven competency would be permitted to perform surgical procedures.

b - Small Hospitals and Health Centers

The small hospitals and the health centers located in the outlying sections of the area would not be able to afford a complete dental service as described above; however, the organization of part-time dentists assisted by dental students from the Dental School would be able to furnish to the small community a periodic and low cost service which can be secured now only by traveling many miles. Such experience would be of especial value to the student in learning the associated environment and the significance of prevention as well as restoration. It is recommended that arrangements be made with the Dental School and the metropolitan hospitals whereby a part-time dental service may be maintained in a small hospital and public health center.

c - City Clinics

Dental service in the five city clinics should be furnished for the indigent in cooperation with the Dental School. Such service should be complete in all phases of dentistry both for children and adults.
d - Special Hospitals

Because the majority of the patients in the special hospitals will be long stay cases, the dental service should be more complete including fillings and restorative work. Such service would require also at least one full-time dentist and assistance should be secured by the rotation of dental internes from the general hospitals. It is recommended that a complete dental service including fillings and restorative work in charge of a full time dentist be established in each of the long-stay special hospitals.

3 - Veterans' Care

The Veteran's Administration has recently announced approval of the construction of a 1,000 bed hospital to be built in Houston near the site of the present Naval Hospital. It is expected that work will be started by June 1, 1947, and although originally planned as a Neuro-Psychiatric Hospital, it has been decided that about 400 of the total beds will be set aside for general medical and surgical services.

For the purpose of our survey of general hospital bed requirements, consideration has been given to the extent to which veteran residents of Harris County will seek hospital care at government expense in this hospital. While under existing law, eligibility for care in this hospital for non-service disability is presumed to be based upon the veteran's ability to pay, this criteria is so liberally interpreted by the Veteran's Administration that very few if any applicants are likely to be denied admission for that reason.

On a national basis, it is estimated that veterans represent approximately 15% of the population, but a number of well-known counter-acting influences will probably tend to lessen the demand for use of such facilities.
by veteran residents. At best we believe that the erection of this hospital will not afford any major relief of acute hospital bed shortage in the County.

4 - Convalescent Care and Rehabilitation

There has been general acknowledgment of the need for broader consideration of the problems, medical and social, that accompany a patient's period of convalescence from an acute illness.

Frequently "convalescent care" has been confused with "chronic care" and this in turn has suggested long-stay patients of nominal clinical value and even less income value to the general hospitals. Possibly this has deterred the field from developing an interest and enthusiasm which would have fostered the necessary study and analysis.

It has been the progress and accomplishments of the medical staffs of the military services using techniques in early ambulation coupled with organized rehabilitation programs that has focused attention on the need for this type facility.

The advocates of early patient ambulation and rehabilitation are now returning to staff positions in the hospitals of the community and there is every reason to believe their training will find its expression in changed hospital routines and demands for facilities that will meet their requirements.

Considerably more emphasis should be placed on these needs and possibilities by this community and its hospitals. There are some evidences that interest in the subject is growing. The recent developments under which the Anti-Tuberculosis League has employed a staff member to do "rehabilitation service among tuberculous patients" is a step in the right direction.
Some activities are being carried on through the Harris County Association for the Blind. Work is provided in the Light House maintained by the Association and this is undoubtedly of value. It is probably true here also, however, that the possibilities of a really constructive rehabilitation program have not been fully grasped, or at least have not been fully translated into the practice of the agency.

The special classes for handicapped children in the public schools perform a valuable service in teaching these children to live intelligently with their handicaps. The services of the State Board of Rehabilitation also have value, as do those of the State Commission for the Blind, Houston Training School for the Blind, the Goodwill Industries, and the privately operated school for spastic children.

However, the Baruch Committee on Physical Medicine, studying the rehabilitation need indicated that here as elsewhere the efforts must be doubled and trebled to stay abreast of the need. The Committee attempts the transition from war-associated rehabilitation to peace-time need and points out that while there were 17,000 amputations in the Army during the war there were 120,000 major amputations from disease and accidents in our civilian population in the same period; that while there were 11,000 soldiers wounded during the first 10 days after "D-Day" there were twice that number of civilian automobile casualties in the same ten days; that when demobilization is completed and the disabled veterans are returned to their communities we must think in terms of approximately eight million males of working age
who are disabled to the point of requiring physical or vocational rehabilitation. This represents one person in 16 in our general population, and one in seven in our male working population. Applied to the Survey Area, there would be at least 43,000 persons needing this service in 1950; 63,000 persons by 1960 and 92,000 persons by 1970.

Surely the need is here and what has been done by the military can be done by the combined efforts of hospitals and community agencies. The Office of Vocational Rehabilitation demonstrated the benefits when, with 44,000 persons whose average annual wage was only $146.00, they were able through rehabilitation to increase this amount to $176.00 per year. The cost of this program averaged $300 per case and was non-recurring while the annual cost to the taxpayer in general public assistance had been between $300 and $500 per case.

The Baruch Committee is continuing its work by drafting ideas rather than standards of physical requirements, personnel organizations, and equipment schedules for rehabilitation centers and urging that these be integrated with existing facilities and altered to fit local conditions.

We are suggesting that consideration be given to such a community Rehabilitation Service and Center and that the Texas Medical Center should prove an ideal location, possibly integrated with the central out-patient clinic, or with the proposed chronic hospital. It is estimated that the building would cost $275,000 and the equipment about $15,000.
With a load of 1500 patients per year and an average treatment period of two months, the unit cost for physical therapy, occupational therapy, vocational testing, guidance and retraining, and psycho-social evaluation and treatment would approximate $125 per patient. However, it is believed that such a unit could be made self-supporting after the initial capital investment had been made. There would be referrals of full or part fee patients by industry of compensation cases, referrals by insurance companies of liability cases and additional fee patients from the state vocational rehabilitation service and the Veterans' Administration.

Couple this with good administration and the backing of the medical profession and the project should successfully fill a real community need.

The potential value of such a service is especially great in Houston because of its extensive industrial development. We recommend:

That a community Rehabilitation Center and Service, in accordance with standards of the Baruch Committee on Physical Medicine be integrated with the Texas Medical Center in connection with the Chronic Hospital Unit and the Central Out-Patient Unit.

5 - Chronic Care

Special study on chronic care appears in Section IV.

6 - Children's Hospital Facilities

In the conduct of the Survey we met with frequent
reference to the need of a children's hospital or center for Harris County. The first planned program was introduced by the Shrine organization in their drive for financial support of the Arabia Temple Crippled Children's Hospital. This was in the amount of $500,000, and the drive met with unqualified success. However, it was never the intention of the Shriners to build and operate a unit solely for the care of crippled children and so consideration was given to plans for correlating their efforts and resources with those of an operating hospital first to acquire experienced management, and second, to avoid the expensive duplication of numerous supporting facilities.

For the present these plans are being held in abeyance, thereby affording us an opportunity of drawing from the experiences gained during the Survey. In the State of Texas in 1940, there were 12,497 deaths of children under 15 years of age, and regardless of population, births, trends, or ratios, deaths in this amount warrant our most constructive consideration.

First, we estimate a 1950 pediatric bed requirement of 365 growing to 820 by 1970, and in an earlier exhibit of estimated beds assigned by medical service we show 195 pediatric beds scattered in 9 of the 11 general hospitals studied. Giving full value to every bed assigned, there would seem to be an immediate shortage of 170 beds, and a 1970 shortage of 650 beds for the care of all types of children's diseases. This would be rendered somewhat lower by virtue of inclusion in present building plans of an
undetermined but limited number of pediatric beds.

Strong arguments can be advanced on both sides of the problem as to whether or not pediatrics, including psychiatric, contagious and orthopedic care of children should be integrated with general adult services. There are working examples indicating that it can be done successfully either way, but there would seem to be a corollary between size, either outright or proportionate, of the undertaking and its success. For instance, although there are 195 beds in the area now available, they are scattered in such a manner that in each of the five of the nine contributing hospitals there are less than 15 pediatric beds.

In view of the tremendously high death rate for children in Texas, we believe unusual emphasis should be placed upon the development of medical and hospital service for patients under the age of 15 years. Elsewhere in this abstract we recommend the establishment in the Texas Medical Center of a Children's Center, including at the start at least 200 beds, combining the services of child guidance, general pediatrics, orthopedic, contagious and psychiatric care of well, sick and handicapped children. Herein should be conducted undergraduate and postgraduate teaching programs and research in metabolism, in the growth and development of children, in child behavior and in preventative medicine.

Such a development need in no way to interfere with the normal development of pediatric units in the other general hospitals in the Area, both in the Medical Center and elsewhere. Moreover, for the good of the community as a whole, the efforts of the various
community agencies, which have so splendidly recognized this acute problem, should be coordinated toward this mutual objective which will do more to help solve the child problem than anything else.

It is believed that financial support of such a hospital, which in function would parallel a children's center, might be forthcoming from groups that have already shown interest. If such groups could be led to finance pediatric-medical units and certain research developments, while the Shriners would sponsor an orthopedic unit combining therein all necessary surgical units, a nucleus would be assured.

If, in addition, the bulk of the work carried by the Bureau of Mental Hygiene, as well as its financial support by the Community Chest, could be transferred to the Children's Hospital, a start toward a Neuro-Psychiatric unit would be achieved and the evident inadequacies of the Bureau alleviated.

The initial size and scope of this centralization are in large part contingent upon the financial support available, but it is hoped that a minimum of 200 beds would be planned for and constructed in a manner making possible increase to 400 beds as the need presents itself. This would meet the 1950 shortage of beds in this field and give promise of a more coordinated service to patients and teaching programs. Furthermore, a location in the Medical Center, if available, would have any number of apparent advantages.
community agencies, which have so splendidly recognized this acute problem, should be coordinated toward this mutual objective which will do more to help solve the child problem than anything else.

It is believed that financial support of such a hospital, which in function would parallel a children's center, might be forthcoming from groups that have already shown interest. If such groups could be led to finance pediatric-medical units and certain research developments, while the Shriners would sponsor an orthopedic unit combining therein all necessary surgical units, a nucleus would be assured.

If, in addition, the bulk of the work carried by the Bureau of Mental Hygiene, as well as its financial support by the Community Chest, could be transferred to the Children's Hospital, a start toward a Neuro-Psychiatric unit would be achieved and the evident inadequacies of the Bureau alleviated.

The initial size and scope of this centralization are in large part contingent upon the financial support available, but it is hoped that a minimum of 200 beds would be planned for and constructed in a manner making possible increase to 400 beds as the need presents itself. This would meet the 1950 shortage of beds in this field and give promise of a more coordinated service to patients and teaching programs. Furthermore, a location in the Medical Center, if available, would have any number of apparent advantages.
Health Education

Most of the active health education for adults in the community seems to be done by the Houston Anti-Tuberculosis League. Its regular and special radio broadcasts on health have given an excellent community service. The health education activities of the City Health Department also have had value but have been less extensive than should be true in a community of this size.

With the exception of those in the field of tuberculosis the community has had very few health education activities directed toward early diagnosis and competent treatment of particular chronic diseases. With the establishment of the Texas Division of the American Cancer Society, much more work of this kind in the field of cancer is in prospect.

It is proposed that the suggested Health Department establish a full time division of health education which can be a highly effective weapon to save community health expense. The efforts of the other existing agencies in this regard should be augmented and coordinated with the above unit and the proposed School of Public Health can become the spearhead in the development of this vitally needed community effort.

Medical Education

The responsibility for undergraduate training of medical students in the Area rests formally with the Medical
various fields of medicine as follows:

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Requirement</th>
<th>Total Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>250</td>
<td>600</td>
<td>41.6%</td>
</tr>
<tr>
<td>General Surgery</td>
<td>250</td>
<td>1,200</td>
<td>20.0%</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>100</td>
<td>400</td>
<td>25.0%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>100</td>
<td>500</td>
<td>20.0%</td>
</tr>
<tr>
<td>Specialties</td>
<td>225</td>
<td>1,000</td>
<td>22.5%</td>
</tr>
<tr>
<td>Neuro-Psychiatry</td>
<td>75</td>
<td>300</td>
<td>25.0%</td>
</tr>
<tr>
<td>Contagious</td>
<td>0</td>
<td>100</td>
<td>0%</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>0</td>
<td>400</td>
<td>0%</td>
</tr>
<tr>
<td>Chronic</td>
<td>0</td>
<td>500</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,000</strong></td>
<td><strong>5,000</strong></td>
<td><strong>20.0%</strong></td>
</tr>
</tbody>
</table>

We believe that the undergraduate training program could be carried most satisfactorily were it confined to the physical limits of the Texas Medical Center thereby limiting problems of travel and guaranteeing at the same time a maximum uniformity in teaching techniques and standards. Drawing from tabulations of the estimated number of beds by medical service within the Medical Center, we reflect the degree of 1970 sufficiency as follows:

From this we can see that the original estimated allocation of beds to the Medical Center would carry the undergraduate program if the hospitals would assign a maximum

CP-53
average of 25% of all patients to meet the needs of the training program. Exception to this is in general medicine, but here the 41.8% would be materially reduced if the medical patients in the 1,000 beds representing contagion, tuberculosis, and chronic were in part used for teaching.

In general, we feel the undergraduate program can be assured of the necessary clinical material without depending upon hospitals outside the center, and we point out that the percentages shown are not necessarily synonymous with equal percentages of "free" or even "ward" patients. It is entirely possible and in keeping with current trends to develop teaching programs in the private and semi-private units of the hospital. The success of such an effort will be in direct proportion to the hospital's success in public relations and education coupled with careful indoctrination of the student and full-time medical staff.

The Medical School of Baylor University has indicated that the training of these one hundred students of third and fourth year levels requires out-patient experience, and believes that this would be adequately furnished in a clinic providing for the care of 200 patients per day. The operation as well as organization of the central out-patient department is dealt with in detail in the following section of the report. Suffice to indicate at this point that our recommendations suggest facilities in an amount that will permit of a much greater volume.

Post Graduate

If the physicians of this Area are to complete their
education for eligibility to the Medical Specialty Boards and are to keep up with modern medical practice, it will be necessary to establish continuation courses of a review or refresher nature. These educational endeavors could primarily be undertaken by the University of Texas Post-Graduate Medical School Unit on the site of the Texas Medical Center.

The facilities will be available in the Center for systematic instruction as provided by the medical, other educational institutions, and medical laboratories. Some courses of postgraduate study could be offered by lectures, demonstrations, clinics, ward-rounds, symposiums and conferences in the associated hospitals located at the Center. The length of these courses would vary from a short review course of five or more days to intensive courses extending over one year and, in some instances, two years. The subject matter offered would undoubtedly include basic sciences and selected clinical fields contained within the provinces of the 15 Medical Specialty Boards and their many more numerous sub-specialties. The specific selections would depend greatly upon the needs and the interests of the personnel within the Area as well as the special skills and interests of the available instructors.

Undoubtedly the Medical Center and its associated units would offer also excellent opportunities for the conduct of periodic clinical conferences, symposiums, or graduate assemblies in various specialties covered by available clinical material, opportunity for practical work and for scientific exhibits.

Medical research, especially in those diseases particularly
prevalent within the Area, would be necessary for and stimulated by the conduct of this special post-graduate study.

Internes

With the exception of an isolated few instances in which the medical internship is in fact the fifth year of the medical school curriculum, this most important phase of educational development of the potential physician becomes the responsibility of hospital attending staffs and administrators.

At present there are but three hospitals in the Area approved by the Council on Medical Education and Hospitals of The American Medical Association for interne training; namely, Hermann Hospital, Jefferson Davis, and Methodist. This limited number argues strongly for an honest evaluation of procedure and practice in the unapproved hospitals to determine their insufficiencies and to develop programs to correct, expand, and improve their function.

Primarily such approvals, including that of "minimum standards" by the American College of Surgeons, deal with staff organization, including the frequency and content of staff conferences, and the ethical standards of staff members. It measures the adequacy and completeness of medical records, and the adequacy and usage of diagnostic facilities. Internes and resident training additionally requires measure of the quantity of service rendered and the proportion available for teaching purposes. The percentage
of autopsies performed is reviewed as are other "yardsticks" of clinical interest.

It can readily be seen that these factors are basic to a good hospital, not refinements which would be "nice to acquire". Again, we suggest internal appraisal by administrators and medical staffs which might start with study of individual patients and medical records, proceeding through review of causes of death, institutional infections, wrong diagnoses, and errors in dosages, treatments, et cetera. The appraisal should include study and recording of the qualifications of attending physicians and surgeons and, finally, the establishment of effective means for maintaining high quality medical care.

Unfortunately, these various approvals do not guarantee good internships. It is quite possible for a hospital to bring about conditions meeting approval and yet fail completely to perceive its responsibility in the field of medical education.

It is important that hospitals assume responsibility, not principally, for housing and feeding interns, but for conceiving and organizing the internship to stimulate, to strengthen through disciplined thinking, and to afford unrestricted opportunities for observation and conferences without the excessive burden of repetitive procedures. Afford the opportunity of contact with good clinicians who enjoy teaching, and these factors will add up to assurance of good educational experience.
Residents And Fellows

Much the same criteria of hospital ratings apply for those wishing to assume responsibility for graduate training of residents and fellows. Actually the hospital assumes less responsibility for guidance and formative procedure, and more responsibility for making available good facilities and opportunities; first, to pursue scientific study, and second, to perfect clinical skill.

Five hospitals of the Area are approved by the Council of Medical Education and Hospitals of the American Medical Association, and although these represent only 33-1/3% of hospitals studied, actual conditions and attitudes lead us to conclude that with the possible exceptions of Memorial and Houston Negro Hospitals none of the other would prove fertile fields for the resident or fellow.

At present there are 42 residents and two fellows training under approved conditions in the Area, and it is apparent that the hospitals could do a great deal toward extension of programs. This is increasingly important in view of trends toward specialist training and examination which would appear destined to include large proportions of the younger physicians.

2 - Dental Education

The organization of the undergraduate and the graduate training of dental students in the Area will be conducted formally by the Dental Branch of the University of Texas and informally by the practicing physicians, dentists, and hospitals in Harris County.

CP-58
It has been determined to provide facilities in the Texas Medical Center for a Dental School of 240-300 dental students, a postgraduate and graduate school of Dentistry and Stomatology of 100-150 physicians and dentists; a College of Dental Nursing of 100-150 students, and an Institute of Orthodontics for Research in jaw and facial deformities. It is not our province in this study to duplicate the effort of these decisions, but rather, to suggest ways of integration with the hospital facilities of the area. Reference should be made to Section II, C 1, Dental Care, for the purposes, functions, and organizations of the dental service in the community.

Professional Staff Of Dental Services

Aid should be given by the Dental Branch of the University of Texas to the hospitals and the out-patient units of metropolitan Houston in the organization and appointment of dentists to the respective professional staffs for dental service. In all units to be used for teaching, the Dental School should grant clinical faculty appointments to the men conducting such service. This procedure should result in the maintenance of an excellent standard of service to the patients, and a uniformity to the quality of clinical teaching.

a - Undergraduate Teaching

All hospitals and out-patient units that establish divisions of dental service which meet the minimum basic standards of the American Dental Association should arrange for clinical
teaching of any undergraduate students in accordance with the standards of, and under the supervision of, the Faculty of the Dental Branch. The size of student bodies contemplated above should require the clinical work of the patients available in all of the Dental Services which could be established within the Area. It is important that some of this undergraduate teaching occur in the specialized hospitals of the Medical Center so as to afford the dental student with opportunities for viewing conditions not usually common in the Dental School Clinics. Therein, a broadened knowledge of oral and systemic relations in Health and Disease may be attained and emphasis may be appreciated of the significance of dentistry in the field of public health. Particularly is this important in the psychiatric, communicable disease, cancer research and chronic hospitals where an understanding may be gained of the relation of mouth diseases and irregularities of teeth to mental disturbances, invalidism, and deficiency diseases as well as early recognition of communicable maladies.

b - Internships and Residencies

Dental internships should be established in all metropolitan hospitals of the area where the minimum requirements in hospital census and an oral surgical service are maintained. Arrangements should be made whereby these internes are rotated for appropriate periods of time from general hospitals through the dental services of the out-patient unit and the special hospitals
of the Texas Medical Center as well as the dental services of the City Dental Clinics, and as well as the Health Centers and small community hospitals established throughout the County.

Dental residencies (second year internships) should be established in all metropolitan hospitals where the minimum requirements in hospital census and an oral surgical service is maintained.

Arrangements should be made whereby some period of the service must occur in the hospital of long stay patients.

c - Research

No profession fulfills its obligation to Society unless it advances the knowledge of its science as the result of research. All teaching programs are greatly enhanced by association with progressive research programs. No field offers more opportunity for research than does dentistry. Therefore, it would seem wise to develop a research program in connection with the Dental School focused particularly in the Medical Center. However, it should not be confined to jaw and facial deformities solely. We suggest that research efforts be developed as well in facial infections in relation to medicine and surgery, acute infection of dental origin, fractures of maxilla and mandible, and oral manifestations of all disease.

d - The Postgraduate School of Dentistry And Stomatology

It is recognized that one of the chief obligations of a Medical Center is the education of those individuals who are
practicing one of the health service professions. The Postgraduate School of Dentistry and Stomatology should provide these services to physicians and dentists in the area. The important aspects of postgraduate education are those which will provide continuous education and intensive short course education for the practicing dentists. These courses should be planned so that they will not interfere to too great an extent with the practice of the individual dentist, so that it will be possible for the majority of them to avail themselves of this type of teaching without discontinuing their practice. For those who are prepared for graduate education in the specialties, the school should provide facilities through the graduate School of the University of Texas whereby graduate degrees may be granted in the specialties such as orthodontics, oral surgery, pedodontics, prosthetics, periodontics, and so forth. It is expected that there will be more and more diplomate boards established in the specialty areas and that they will require that one has a graduate degree in the specialty. The Graduate School in connection with the Institute of Orthodontics should establish fellowships for research which will do much to enhance the value of the Postgraduate School. The facilities of the Postgraduate School should be available to all graduate students, whether in medicine or dentistry for recognition courses at least for those who may be taking special graduate studies in the Medical School in pediatrics,
orthopedics and kindred courses. Also, the Graduate students that are attending the graduate school in dentistry and stomatology should have the opportunity to avail themselves of all the facilities in the Center.

- **The College of Dental Nursing**

If the needed service in this area is to be adequately met it cannot be done by dentists solely. The volume of service required is too great to be mastered; therefore, it will be necessary to delegate to personnel of less skill and knowledge the performance of many of the functions now imposed upon the professional dentists. We presume to call this person a dental nurse. She would be trained to perform the functions of the dental hygienist and some routine now performed by the dentist.

In general, her functions would be to relieve the dentist of the routine duties by the making of dental casts, the setting up of teeth for artificial dentures, the curing and finishing of acrylic dentures, the waxing and casting of partial dentures, the giving of prophylactic treatments, the closing of a cavity after it has been completed by the dentist, performing the technical functions of dental x-ray, the casting of the dental patterns and polishing of inlays. Such a specialist would be in considerable demand not only in the offices of practicing dentists, but also in School Dental Service, Public Health Departments and out-patient clinics.

A present graduate professional nurses' training is not sufficient; therefore, it is proposed that the School of Dental Nursing be established in the University of Texas with ultimately
a four year course culminating in a Bachelor of Science Degree in dental nursing, requiring a high school diploma for entrance. The student would undertake two years of cultural and basic subjects in Austin to be followed by two years in the Dental School in Houston. The small amount of instruction required in the general nursing field could be secured during the last two years from the proposed College of Nursing to be located in the Medical Center. Clinical instruction can be conducted in the Dental School, in the hospitals and outpatient service of the Medical Center, in the public Health Centers of the City, and in the Public Health Centers of the Area. It would be advisable to secure concurrently the passage of a state licensing law for the examination and registration of dental nurses to insure a sufficient minimum standard and regulation to protect the public users of this service. Moreover, it would seem advisable to start with a small student body, gradually enlarging it to 100-150 students in accordance with the evidenced demand for its graduates.

3 - School of Public Health

The special study on School of Public Health appears in Section IV.

4 - School of Nursing

The special study on the School of Nursing appears in Section IV.

5 - School of Hospital Administration

Hospitals as a group constitute today one of the major
enterprises of America. The increased utilization of hospital service, the multiplication of facilities and personnel for providing that service, and the growing complexity of the service itself make administration of hospitals one of the most exacting responsibilities in the modern world.

The demand for competent and experienced hospital administrators far exceeds the available supply. There is no likelihood that the supply will be adequate for many years, especially in view of the increasing demand occasioned by the Federal program of financial assistance in hospital construction. No section of the country will experience a greater growth than the South and Southwest sections.

Many of the larger institutions have relied on administrators who have learned on an apprentice basis, but the number so trained is grossly below the number of positions available. The result has been that many administrators have come to their duties with inadequate background, which means inefficiency with resultant waste of public money during the "training-on-the-job" period through which the untrained administrator must inevitably pass.

An active need exists for additional courses in hospital administration at the university level. Experience in other administrative fields, notably business, has shown the value of formal academic training at the graduate level preparatory to an administrative career. While many persons have advanced and will continue
to advance to positions of major responsibility without formal training, many administrative fields recognize the value of formal training and advance such graduates to positions of responsibility faster than they advance those without such training.

Similarly, universities have recognized that administrative training may be given at the graduate level and that such advanced preparation merits recognition by the awarding of a suitable Master's Degree. Five universities now offer such special curricula in hospital administration: University of Chicago, Columbia University, University of Minnesota, Northwestern University and Washington University. Two other courses are to begin next fall: one at Yale University and one at Toronto, Canada.

The particular department of the university to which the course in hospital administration is assigned varies with universities. The current emphasis is to establish the course in a school of public health. There are very significant advantages to having the course located within a university which has schools of business, medicine, public health and nursing, as well as readily accessible hospital facilities. Cooperation from the heads of the various schools and colleges with the director of the hospital administration course is very essential to the development of a curriculum which will accomplish the full purpose of the course and thus offer the best preparation possible to the student of hospital administration.

The seminar method of teaching has been found most
effective for this graduate work. Because of the varieties of background of this type of students, large classes are ineffective. Best results are obtained from classes of about twenty maximum enrollment.

At the present time the number of well qualified applicants is many times the number that can be accepted in existing courses. With ideal locations for schools of hospital administration as limited as is the number of universities operating all the various schools mentioned, it is not likely that the courses now available and likely to be established will be able to meet the demands for this type training within the near future.

There are no graduate degree courses now available in the South or Southwest, and there are very few graduates of hospital administration courses located in hospitals in this section of the country. Some advantage from this point of view would result from a course in the Southwest, as it seems reasonable that a larger percent of students trained in the section would choose to remain in the area. This has been the experience in other sections of the country.

Twenty-one months of training has been established as the minimum time for adequate preparation, nine months to be devoted to academic study and twelve months to an administrative residency in a hospital approved by the university. A degree is conferred following the year's residency.

The additional faculty required for such a course may
be limited to one professor and an associate professor. As the 
comment on location of training suggests, faculty members from 
allied fields are utilized in the orientation of students to the 
general health field and to the various professions with which he 
will work in the hospital. Although we have not listed as essential 
to the hospital administration course the other allied courses for 
the training of dietitians, pharmacists, x-ray, clinical laboratory, 
occupational therapy and physical therapy technicians, and medical 
record librarians—nevertheless, each such training course is ben-
eficial to the student of hospital administration. The more extensive 
the teaching of professions within the university, the richer the 
field of learning will be for the hospital administration student. 
Likewise, each of the other training courses is improved by the 
interchanging of lecturers among the various professional groups.

The use of lecturers from other courses and from among 
the outstanding persons in hospital administration over the country 
brings a broadened point of view to the student in hospital adminis-
tration and further enhances the value of his training. Although such 
outside lecturers are not considered a part of the faculty, an est-
ablished honorarium and travelling expenses should be paid such guests; 
and the title of "Lecturer" is sometimes conferred upon those making 
distinct contributions to the course.

The cost of a course in hospital administration such as 
described here for fifteen to twenty students would be approximately 
$20,000 for the nine months of academic training plus the university
supervision of the administrative residency period. Three of the courses now existing have been started under the financial sponsorship of the W. K. Kellogg Foundation, which has underwritten the financing of each course for a three year period, with the understanding that the university will continue the course and assume the financial responsibility at the end of that time.

Within the Texas Medical Center there will be concentrated a wealth of clinical and "field" material for students in hospital administration—general and special hospitals of varying sizes and types of control; medical, dental, nursing and public health education, and special courses in various other allied professions. The Center will provide a unique setting for the training of hospital administrators for the Southwest's hospitals of tomorrow. Moreover, its location affords an opportunity for students from Latin-America.

We accordingly recommend that such a graduate course be established in the School of Public Health located in the Texas Medical Center; that the course be of twenty-one months' duration, and that the Degree of Master of Hospital Administration be conferred upon completion of the full course.

6 - School for Clinical Laboratory Technicians

At the present time two hospitals of the Area operate schools for the training of clinical laboratory technicians, Jefferson Davis with an enrollment of eight and St. Joseph's with two students. Both courses are approved by the Council of Medical Education and
Hospitals of the American Medical Association; the first for the training of a maximum of 12 students, and the latter for 7 students.

Jefferson Davis' course is affiliated with the University of Houston, and its graduates are, therefore, more likely to satisfy the minimum requirements of the Registry of Technologists of the American Society of Clinical Pathologists which is the source of examination and registration.

Both courses require a minimum prerequisite of two years of college, but the credit received by the student at Jefferson Davis through affiliation with the University of Houston, if acceptable to the parent college, is the difference between compliance and non-compliance with minimum standards for registration.

Many hospitals operating such a course and having university affiliation require two years of college education, if the college will give the students credit for the years spent in technician's training. Otherwise, they require an A.B. or B.S. Degree as an entrance prerequisite.

If both existing schools operated to capacity incurring only the normal number of separations from the course, we might expect from 15 to 18 graduates per year. From this number a few will take positions as technicians in physician's offices. Others may leave the Area, and on the basis of these surmises we recommend that at least one, and preferably two additional hospitals consider courses of training of clinical laboratory technicians. If two 300 bed hospitals were to assume this responsibility, we suggest, of course, accreditation.
plus consideration of an affiliation patterned after the Jefferson Davis course, but designed to guarantee eligibility for registration to the successful graduating students.

These hospitals might do well to limit their enrollment to six students per year until the demand becomes apparent. They should plan with the university's guidance a rotation of students through Clinical Bacteriology, Serology, Histological Techniques, Clinical Pathology and Physiological Chemistry.

7 - School for Hospital Dietitians

At present no hospitals of the Survey Area conduct a course for the training of student dietitians, and we feel that this condition should be studied with a view to establishing at least one such course in a large general hospital.

It is understood that Hermann Hospital has given the matter considerable thought, and it is our opinion that a course could be established and with benefit to the Area hospitals and to Hermann Hospital. The hospital is of sufficient size, is approved by the American College of Surgeons as an accredited training school for nurses, and has the nucleus of a dietary staff, all of which are essential to approval by the American Dietetic Association.

However, the interest shown by this one hospital does not obviate consideration by others, and there would seem to be four general hospitals eligible on basic points at least to apply for this approval which we believe should be considered a necessity.

Courses have been designed around groups of hospitals wherein selection of students, planning of seminars, lectures, etc. have been undertaken by a representative group. This could be undertaken in the
Medical Center, but we are inclined to recommend that no particular benefit would accrue to student or hospital, and that if the parent organization needs supplementary teaching material, this might better come from properly arranged affiliation.

It is not deemed necessary to cite the essential instruction and experience that must be afforded the student. These are easily obtained, and although flexible to a degree still indicate clear-cut lines to be followed. However, we wish to suggest that certain educational stimulus might be brought into being for these graduate students if the University of Houston will evaluate the 12 months' hospital experience and apply such evaluation toward a Masters Degree in Home Economics.

8 - School for X-Ray Technicians

Four hospitals in the Survey Area train x-ray technicians and at present there are nine students. Only the course at St. Joseph's infirmary is approved by the Council on Medical Education and Hospitals of the A.M.A. St. Joseph's has only 2 students at present although approved for four and their admission requirements allow entrance of high school graduates. The course is designed for 24 months; hence graduates are eligible for registration examination at its conclusion in accordance with approved criteria which indicates two years of training and experience for registration with the American Registry of X-Ray Technicians.

The other three hospitals, Hermann, Methodist and Jefferson Davis, give instruction to seven students and should make an earnest bid for Council approval. It is suggested that the Medical Center
constituents give consideration to a central school, thereby guaranteeing a maximum diversity of patient material, and the benefits of training under more than one staff.

9 - School of Pharmacy

Elsewhere in the survey report we recommend the consideration of a central Pharmaceutical Manufacturing Unit for the Texas Medical Center and for such other non-profit hospitals of the area as wish to participate.

We have indicated certain potentialities and advantages not the least of which is its use as a training ground for student pharmacists and more particularly for the student interested in the pharmacology of hospitals and of all public health activities.

The educational facilities in this field, now extended by the University of Texas, at Austin, would seem of sufficient scope and size to meet the greater part of the general needs for which the course was designed. Our interest, however, is in designing methods by which the already small segment of the student body interested in hospital work becomes no smaller and, if possible, grows to meet the expanding area need.

Certain benefits would accrue from careful indoctrination of students and from association with the stimulating environment of a Medical Center. Additionally, there would be benefit from establishing ways and means of promptly capitalizing upon whatever results from the drawing-power the Center exerts.

These indicate the need of a close working relationship with the University of Texas School of Pharmacy and consideration of a
branch of the School being located in the Medical Center. If such an
undertaking could be accomplished and the manufacturing laboratory
placed under the auspices of the University of Texas with a Pharma-
cologist from their faculty as head of the unit, the benefits above
mentioned could be realized.

It is not intended that this branch of the School be pre-
pared to give the basic undergraduate courses but only those advanced
courses in manufacturing and in hospital pharmacy work and it would be
hoped that these facilities would furnish many research topics for
graduate students as well.

For the student vitally interested in hospital pharmacy
work an internship in one of the general hospitals of the Center
should be available, and certain of the pharmacists be on the faculty
of the School. This would bring about a desirable integration of
practice and teaching to the end that the student receives a well-
rounded education and indoctrination under approved conditions.

10 - School for Physical Therapy Technicians

At present no hospital in the Survey Area conducts a
school for the training of physical therapy technicians, in fact the
overall attention to this service, represented by the numbers of
trained personnel and the inadequacy of equipment, suggests the need
for considerable study.

It is believed that the demands for this service and hence
for well-trained personnel will increase in the near future as more
attention is focused upon patient rehabilitation, and it is suggested
that a school be established by the Baylor University School of Medicine
in connection with the proposed Out-Patient Unit and Rehabilitation Center at the Medical Center, and that such school conform to the standards for approval by the Council on education and hospitals.

The output of the course conducted by the University of Texas School of Medicine at Galveston is limited to 6 every 9 months but with the proposed expansion of facilities the number available to this area might well be insufficient.

The course should be established in accordance with standards promulgated by the Council on Medical Education and Hospitals of the American Medical Association. It suggests that the minimum length of the course should be 36 weeks but most hospitals and universities find difficulty in establishing a curriculum that will accomplish the required and desirable training in less than 12 months. This includes courses in Anatomy, Pathology, Physiology and Psychology as well as all the practice in procedures in electrotherapy, hydrotherapy, massage and therapeutic exercise necessary to medical, surgical, orthopedic and neurological patients.

The majority of present day schools, not considering those still existing from an emergency war-time program, have requirements for admission calling for graduation from an accredited school of nursing or of physical education or two years of approved college training with satisfactory science courses.

The course should be under the direction of a physician qualified in physical therapy and must have, to gain accreditation, at least one full time qualified physical therapy technician for six students enrolled.
It is our opinion shared by many that medical social work in hospitals, in clinics and in the related health agencies is becoming increasingly important to the complete and economic care of patients.

We know that many social elements play an important role in the incidence and control of disease and physicians have come to recognize the value of the social worker's interpretation of his patients' environment, obligations, problems and ability to understand and cooperate in a plan of medical treatment. It has added another dimension to the physician's work and brought "individuals" rather than "patients" under his surveillance.

Medical social work has developed in hospitals as a service to patients, physicians and administrators and we believe its value in public relations and public education is beyond estimation.

We realize that graduates of a good school of social work have many opportunities, outlets and interests beyond that of medical social work which at the moment is our major concern but, similarly, we realize that the development of the School must precede the development of ways and means of strengthening the hospital field to guarantee a sufficiency of trained workers.

Present demands far exceed the number of qualified applicants as can be attested to by hospitals and social agencies. The 32 schools approved by the American Association of Schools of Social Work fall far short of graduating the required number and in 1945 a national shortage of between 80,000 and 100,000 trained workers was reported.
The situation in the Survey Area is made additionally acute by reason of the fact that Tulane University School of Social Work alone represents the facilities of the entire area south of St. Louis, Missouri, excepting California. The proposed hospital program will need greatly augmented Medical Social Service staffs. It would be desirable if such staffs were appreciative and sensitive to the social factors inherent in southern communities.

We understand that the Southeast Texas Chapter of the American Association of Social Workers has recommended that a school be located in Houston under the auspices of a University. We are strongly in accord with the need and with the manner of affiliation as guaranteeing educational standards as well as financial support.

Many existing schools have had to operate under curtailed programs because of the lack of sufficient field work of approved quality for their students. Certainly, this would present no problem in Houston with its well organized Council of Social Agencies, Settlement Association, Family Service Bureau, offices of the State Department of Public Welfare, its City-County Welfare Department, and now the proposed Texas Medical Center.

Field work is here in abundance and from the contacts we have made, we judge them to be staffed in a manner acceptable to any such training program. In fact there are many individuals experienced in teaching of social work on the staffs and these might become valued adjuncts to the full-time University teaching staff.

Such a course should cover two years of academic work on a graduate level. It should conform to standards promulgated by the
American Association of Schools of Social Work and develop curricula meeting at the same time the standards of the American Association of Medical Social Workers.

It should consider enrollment of men as well as women and the degree granted should not be peculiar to social work but rather a Master of Science or Master of Arts degree.

Briefly, and suggested merely as a guide, the first year of the full-time course would consist of about 10 hours of class work and two days of supervised field work per week. In the second year more time would be devoted to field work and to intensive preparation for work in a specialized aspect of social work.

The training of a professional social worker is an integral process. It cannot be accomplished by simple exposure to any amount of unrelated class or field experience, but rather must have a distinctive factor of leadership and guidance.

The student bodies of the existing schools range from 200 to 500 full-time and part-time students. However, the first few years should not contemplate such enrollment.

The physical plant requirements of a large school for offices, class rooms and library would require a large investment. However, a small school in its beginning probably could be integrated into existing University plants.

The operating budget would also be determined primarily by the number of students. A small school could operate with three full-time teachers and the additional faculty members secured from existing community agencies and other departments of a University. The annual budget with such a staff would be approximately $30,000.
It is generally realized that trained medical record librarians are too few in number to fill the required need, and that existing schools are so limited in capacity that only slight help on a national level can be expected from them.

These facts, coupled with the plans for expansion and overall scope of this Area's community program, lead to consideration of whether or not a School for Medical Record Librarians is justified or necessary. Certainly there is no dearth of teaching material and within the proposed function of the Medical Center there will be a wealth and variety of material exceeding that available to students in any presently operated school. It has been contended that a medical record librarian's training should encompass the public health field, and have a working knowledge of all allied health and social agencies of a community so that in her hands the medical record interpreted becomes a useful guide to intelligent medico-social work.

There are, generally, two basic methods of training medical record librarians. The method prevailing throughout the country is that which establishes a nine to 12 month course of study within the hospital. It is a course which includes instruction on analysis of medical records, duties and responsibilities of the medical record librarian, principles of filing and cross indexing, and general nomenclature of diseases and operations. It is a study which can adequately combine theoretical and practical instruction in a manner acceptable to the Educational Board of the American Association of Medical Record Librarians, which in turn has advisory assistance from the American Medical Association, The American College of Surgeons, and the American Hospital Association.
The student, upon completion of the course, is entitled to take the registration examination which, if satisfactory, leads to membership in the American Association of Medical Record Librarians.

The second method of training is that offered by a hospital affiliated with a university which grants a B.S. degree at the completion of a four-year program.

It is evident that this method offers far deeper study into the field of Medical Record Librarian Science than the first method, with the resulting fuller more complete academic and practical experience.

This course is usually constructed to give the student three years at the university in study of the arts and sciences necessary to comply with the B.S. degree, while the fourth year is devoted to a combination of theory and practice in Medical Record Librarian science. The student is subjected to the routine and methods of the Medical Record Department in the hospital and learns to apply his theoretical teaching. Also, in the senior year the student studies medical ethics, medical terminology, operating room dictation, theory of history taking, and the other relevant subjects. At the completion of this course the student is qualified to receive a B.S. degree.

Here again the approval of the American Association of Medical Record Librarians is possible through following the basic courses outlined by their Educational Board.

It is suggested that consideration of such a training program be given by the University of Houston in connection with the Out-Patient Department of the Medical Center, with the thought that the resulting advantages to the University, to the Medical Center, and to the whole southwest would far overwhelm the operational difficulties.
E - **Medical Library**

The Academy of Medicine is planning to erect a library building in the Center to house the combined libraries of the Academy, the Baylor University College of Medicine, The Texas University College of Dentistry, and the M. D. Anderson Hospital for Cancer Research. A museum of clinical exhibits is to be included in the program. The Library is giving consideration to the operation of a school for graduate librarians.

This venture should not only affect the medical science in the Area but will have a significant influence on the medical development of Texas.

It would seem feasible that the libraries in other units of the Medical Center might desire to place in the Library's custody numerous of their reference books, retaining standard texts and current literature for daily use.

F - **The Texas Medical Center**

A major aspect of the coordinated Community "hospital-health" Program for Harris County is the contemplated development of The Texas Medical Center. Details of this huge undertaking are dealt with in a separate section of the report because of its complexing structure and the importance of its scope.

We visualize the Medical Center with its large general and special hospitals; its medical, dental, public health, nursing and other schools; and its numerous facilities and affiliations for research and study as the hub of this community program.

As its component units develop they can be expected to assist or direct, in almost unlimited spheres, the activity and progress of outlying organizations seeking improved standards. Within their fields they
can mold public opinion and direct public education of benefit to all agencies and all organizations working for the improved health standards of the Area.

Facilities, coupled with a spirit of education, research, and high purpose, will draw trained specialists seeking outlots for their experience and study. Others will follow recognizing these scientists and teachers as additional assets, and so on down the line until an overall infectious atmosphere prevails which more than anything else designates the "medical center" of today and creates real lasting benefits to the health of the communities it serves. Its influence can never be truly evaluated and undoubtedly it will not be confined to the Area, Texas, or even the Southwest.

G - Group Community Action

1 - Hospital Council of Houston

The general and governmental hospitals of the area must, of course, carry the bulk of the burden and responsibility incidental to coordination and expansion of facilities, and we believe they are eager to do so and that in larger part they are aware of their shortcomings. This has been evident in meetings and in appointment of study groups within the community and within institutions.

We believe that these hospitals, particularly in view of the multitudinous problems apparent in the next few years, would benefit from a closer working relationship, exchange of ideas and conformity in group action, often made possible through the medium of a strong Hospital Council.

With this in mind we urge that consideration be given to the
abandonment of the present council, and the organization of a Houston Hospital Council with a full time director and a plan of organization and purposes which are briefly outlined below:

Membership to the Council might consist of:

A. Member Hospitals - which we would suggest be limited to non-profit hospitals of the Metropolitan Houston Area.

B. Corresponding Member Hospitals - which might include any non-profit hospital located outside the Metropolitan Houston Area.

C. Personal Members - which might include the presiding officer of the Board of Trustees or the Chairman of the Advisory Board of each member hospital.

D. Other Memberships - which might be approved by the Trustees of the Council giving representation to agencies or individuals that may be directly interested in the health of the community.

In general, the purposes of such a council might briefly be outlined as follows:

1. To arrange for meetings for discussion of hospital problems.

2. To assist in the development of uniform procedure for hospitals.

3. To act as a medium for information on subjects pertaining to hospitals including the compilation and collection of reports, statistics, and such other information as from time to time might be deemed desirable.

4. To negotiate and cooperate with the Council of Social Agencies, with the Health Committee of the Chamber of Commerce and with City and County Health Officials in an effort to protect and/or further the interests of Member Hospitals.
5. To operate a central purchasing service.

6. To operate a central collection and investigation service.

These are but a few of the fields available for constructive enterprise by a council aggressively eager to provide themselves with group services and the benefits therefrom, and we suggest that there are several successful hospital councils in large cities of the country from which the pattern of organization and procedure might be copied.

Specifically, the hospital council discussed above might well have given consideration to the support or lack of support by the Houston Community Chest for free and part-pay work carried by member hospitals over the years.

We have reviewed most carefully the work recently completed by C. W. Pheiffer and Associates for the Community Chest and Council of Social Agencies, and we wish to record an aspect of that study upon which we place more and basically different emphasis.

The following excerpts are taken from the above mentioned survey:

TABLE V

PER CENT OF HOUSTON CHEST LOCAL APPROPRIATIONS
BY TYPE OF SERVICE 1940-1946

<table>
<thead>
<tr>
<th>Appropriation</th>
<th>1946</th>
<th>1944</th>
<th>1942</th>
<th>1940</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care of the Aged</td>
<td>3.1</td>
<td>3.0</td>
<td>3.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Care of Children</td>
<td>28.6</td>
<td>28.6</td>
<td>28.6</td>
<td>27.5</td>
</tr>
<tr>
<td>Family Service and General Dependency</td>
<td>23.8</td>
<td>17.2</td>
<td>24.3</td>
<td>22.2</td>
</tr>
<tr>
<td>Hospital Care</td>
<td>1.1</td>
<td>2.2</td>
<td>1.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Health, Other Than Hospitals</td>
<td>10.0</td>
<td>10.8</td>
<td>12.7</td>
<td>14.0</td>
</tr>
<tr>
<td>Leisure Time</td>
<td>35.4</td>
<td>37.0</td>
<td>29.7</td>
<td>30.3</td>
</tr>
<tr>
<td>Total:</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

CP-84
### TABLE VI

**CHEST APPROPRIATIONS TO LOCAL AGENCIES**

**PER CENT OF TOTAL GOING TO EACH TYPE OF SERVICE**

89 Chests, 1945

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Grand Total Including Hospitals</th>
<th>Grand Total Without Hospitals</th>
<th>13 Chests Raising Including Hospitals</th>
<th>13 Chests Raising Without Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Chests</td>
<td>48</td>
<td>41</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Appropriation</td>
<td>$28,503,635</td>
<td>$9,643,270</td>
<td>$18,886,779</td>
<td>$1,333,407</td>
</tr>
<tr>
<td>Care of Aged</td>
<td>1.6</td>
<td>1.1</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Care of Children</td>
<td>13.4</td>
<td>17.5</td>
<td>18.2</td>
<td>18.2</td>
</tr>
<tr>
<td>Family Service and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Dependency</td>
<td>20.6</td>
<td>25.2</td>
<td>22.2</td>
<td>22.2</td>
</tr>
<tr>
<td>Hospital Care</td>
<td>19.2</td>
<td>-</td>
<td>18.5</td>
<td>-</td>
</tr>
<tr>
<td>Health Other Than Hospital</td>
<td>9.3</td>
<td>11.0</td>
<td>9.4</td>
<td>9.5</td>
</tr>
<tr>
<td>Leisure Time</td>
<td>34.4</td>
<td>43.3</td>
<td>31.5</td>
<td>45.2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2.1</td>
<td>1.3</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Chests classified according to amount raised in campaigns for 1945, excluding National War Appeals.

In commenting on the allocation of Houston Chest money as compared to proportionate allocations in other cities, the Pfeiffer Report deals with the entire matter in the following paragraph:

"**Health, Aside From Hospitals, Has Normal Allocation**

"Appropriations for hospital care are not comparable for the reason that excepting for the maintenance of the Negro Hospital, no chest money is used for this purpose. The percentage of total funds devoted to health services, other than hospital, follows very closely the national averages. As noted in Chapter II, some Chest money is now being used to finance activities which are the responsibility of the City Health Department. Any money that may be saved by such transfer will be needed to expand other appropriate health activities of Chest agencies."
The first sentence of the above paragraph would not seem to
give proof of "lack of comparability", but rather to raise the question
as to why only 1.1% of the total appropriation is made to hospitals.
Inasmuch as the percentage allocated to "Health Other Than Hospitals"
is only a fraction higher than the same allotment reflected in the
average of 39 chests and again the average of 13 larger chests, it would
indicate no juxtaposition of funds within the overall health field, but
merely a much lower percentage than common practice denotes.

We have shown here Community Chest Allocations to hospitals
in various cities with which we are somewhat familiar:

<table>
<thead>
<tr>
<th>City</th>
<th>% of Total Allocated to Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington, D. C.</td>
<td>15.12</td>
</tr>
<tr>
<td>New York, New York</td>
<td>30.0</td>
</tr>
<tr>
<td>Rochester, New York</td>
<td>12.0</td>
</tr>
<tr>
<td>Cleveland, Ohio</td>
<td>12.0</td>
</tr>
<tr>
<td>Boston, Massachusetts</td>
<td>23.0</td>
</tr>
<tr>
<td>Philadelphia, Pennsylvania</td>
<td>23.0</td>
</tr>
<tr>
<td>Average</td>
<td>21.4</td>
</tr>
</tbody>
</table>

It would seem from the above that thought should also be
given by the hospitals carrying medically indigent work and by the
Community Chest, to revising the presently used formula of allocating
funds. In this connection, it is pointed out that there is a growing
tendency to arrive at "per Diem" and "per out-patient visit" rates of
reimbursement for Free and Part-Fay Cases. This method is gradually
replacing the practice of alloting a flat annual sum, as is now being
done in the case of the Houston Negro Hospital, the only hospital
receiving Community Chest support.

In Dayton, Ohio, the Community Chest has an arrangement with the hospitals whereby it appropriates a large sum of money each year which is kept in a reserve to pay the hospitals for each Free and Part-Pay case admitted to their hospital during the year. Because these are prosperous times and the number and amount involved in such free work is not very large, there is an unused balance. This balance is kept in permanent reserve for the time when the volume of such work will increase and when the Community Chest appropriation might not be sufficient to meet all needs. The share of Community Chest Funds going for such work is thereby stabilized and with the funds in reserve, may be adequate to meet the changing volume required by the hospitals.

It is believed that through increased emphasis on outright hospital care of the medically indigent, the Community Chest may actually strengthen its position in the eyes of the community.

2 - Integration of Public Health Units

The sub-committee on Health of the Houston Chamber of Commerce has recently decided to take the action necessary to bring about the integration of City, County and Public School health units.

This action requires legislation that will permit creation of such a governmental unit on a county-wide basis and allow a special health tax to give it support.

We find the premises upon which the proposal is based to be sound and wish merely to recommend that further thought be given to the possibilities inherent in a close tie-up between the proposed county-wide
Both the hospitals and public health unit have need of laboratory facilities, x-ray equipment, etc. Both operate out-patient departments. Their programs dealing with maternity patients, infants, tuberculosis and venereal disease patients overlap, as do their programs of health education, preventive medicine, visiting nurse service, and social service.

It can readily be seen that by locating the health department in or adjacent to a City of County general hospital, a program of continuous care would result which, for instance might start in a prenatal period, continue through delivery, through the well baby clinic stage into the school health programs of immunization and examination.

It may be seen that through joint operation of an out-patient department the hospital benefits through extension in the quantity of work, hence in the clinical material supplied, while the public health unit benefits through the use of more adequate facilities than are usually furnished and through the interest of physicians trained in diversified specialties.

3 - An Inclusive Rate System For Hospitals

The majority of well-versed hospital administrators need no introduction to the benefits of inclusive rate systems as used in many hospitals throughout the country. To the uninitiated, however, we must explain that this is not a discussion of an abstract accounting technique but rather of a "theory of operation" rooted in the premise that "service" must be the keynote of the general elmsosmary institution.

We recommend that consideration be given to introducing systems
of inclusive rates in Survey Area hospitals, pointing out that the present system of "day rate plus charges for special services" does in effect penalize the paying patient inasmuch as the physician, thinking of the cost to the patient, often hesitates to order needed special services that he would freely order for the non-paying patient.

An inclusive rate system enables the physician to discuss exact costs with the patient before hospitalization and enables him to obtain all essential special service without further concern over his patient's ability to pay, and we are convinced that the medical profession and the public, after a brief introduction, will prefer to think in terms of a single charge for a given type of service in a particular accommodation for a given length of time.

We believe that hospitals should offer a completely integrated service rather than a room and a group of disconnected, unrelated services, and suggest that inclusive rates be established after careful study and analysis of presently operating plans; that unnecessary variety of rates be eliminated; and that there be a minimum of variables in the rates which cannot be controlled by patients and their physicians. Such inclusive rate plans can be introduced while present plans remain in effect, and patients can be allowed to select, after proper explanation, the plan of their choice. When a safe period of indoctrination has been passed, the single system may be invoked.

4-Group Hospital Service Plan

The State of Texas is credited with authorizing the first group
hospital service plan on a non-profit level, and although we cannot herein give the background and justification for the splendid potentiality of the idea, we can in our limited time raise a few questions in the hope of fostering subsequent discussion.

In various metropolitan areas where similar group hospital service plans, referred to as Blue Cross Plans when approved by the American Hospital Association, are in existence enrollments have reached 50% and in a few instances 80% of total population. Such growth has not been made without meeting problems and suffering set backs, but the ultimate value to subscribers and to participating hospitals has been proved many times over.

Enrollment in the State of Texas in June of this year amounted to slightly less than 3% of the population, and in the Houston Area slightly less than 4%. There is, of course, a history to the development of the plan in Texas. Suffice to say, however, that it is spotted with changes in policy, retraction of contracts, and losses in "good-will". These are still felt by current administrators of the plan although genuine progress is just now being realized.

Our immediate concern is with the role of Area hospitals now participating in the plan only to the extent of accepting subscribers. We feel that this is a plan of and for the hospital; that complete support entails use of the plan within hospital organizations, and the conduct of educational programs outside the organization.

At the moment no hospital in Houston has personnel coverage under the plan, primarily because they must guarantee 100% enrollment,
by reason of a purportedly high incidence of illness among hospital employees. This unusual requirement is not completely offset by the application of a formula for refund of the unused subscription costs.

The fact that participating hospitals themselves do not subscribe to the plan creates an unfavorable impression on other potential groups, and indirectly the hospitals continue to suffer from low enrollment percentages.

We suggest that participating hospitals or representatives therefrom meet with directors of the plan in an effort to remedy this situation. This is suggested with full knowledge of the fact that two Houston hospital superintendents are members of the Board of Directors of the Plan.

The question of the need for 100% enrollment of hospital employees should again be raised and experience in other areas introduced to prove that hospital employees are not the "bad risks" they are contended to be.

What ever proves to be the final decision, we urge the hospitals to consider the long-range benefits accruing through greatly increased coverage of the Area population, and to remove all obstacles to this progress.

5 - Ambulance Service In The Area

During our work in the hospitals of the Area it was made evident that certain aspects of the emergency ambulance service as operated in Houston and environs left much to be desired. This might be expected in view of the lack of concerted action by the voluntary
hospitals to bring regulations and procedures to bear upon the pri-

vately operated ambulance service.

Memorial Hospital in its downtown location has been the butt
evidently of unwarranted usage and has been placed in the unfortunate
position of having to refuse what it considers to be the unfair pro-
portion.

In a very rapidly growing industrial and business area such
as this, the number of accidents and emergency treatments in a twenty-
four hour period are likely to become quite staggering and we are re-
commending that a committee of hospital executives prepare and propose
a plan that will meet these exigencies based upon consideration of the
following discussion.

We would not contend that the operator of a private ambulance
service has no place in the scheme of things but we do believe that the
primary responsibility should rest with the Police Department of the City,
under the immediate supervision of the Police Surgeon with the ambulance
units manned by officers well-trained in first aid located at strategic
hospital locations throughout the City.

It is also possible, and has proved workable in other large
cities, that the Police Department could have charge of the service but
in turn delegate the responsibility to operate and man the units to care-
fully chosen hospitals in order to guarantee the utmost "immediate coverage".
In New York City, for instance, the delegation of this responsibility is
accompanied by a yearly endowment of each vehicle, amounting to $7,000 for
one located in a hospital of the downtown area. It is known that this
amount does not always pay for the investment, maintenance, chauffeur, and attendant but the hospital recovers somewhat from the charges for care rendered in the accident ward and frequently on the in-patient services.

We believe that the City of Houston's theory of non-payment for indigent care as long as ample city-owned facilities are available, should not be projected into discussions of emergency service. Such services should be paid for by the City whenever rendered, if the patient is unable to pay.

All emergency calls for ambulance service should be cleared through the Police Department and their ambulance headquarters could logically be located at Jefferson Davis hospital.

If an accident occurred beyond the boundaries predetermined to be those of the area to be served by the Jefferson Davis unit, the call should be referred to the hospital serving that particular area.

As a suggestion, but of course subject to detailed study of vehicular and industrial accidents, units in Jefferson Davis Hospital, in the Texas Medical Center, in Park View Hospital and in the new St. Elizabeth's Hospital would circle the dangerously congested area.

We recommend:

That the Houston Police Department organize, operate and financially support an emergency ambulance service with units located at Jefferson Davis Hospital, in the Texas Medical Center, in Park View Hospital and in the new St. Elizabeth's Hospital.
II - Recommendations

19. That by 1950 the acute general hospital bed requirement of the Survey Area be accepted as 3,649 beds and that, assuming completion of building programs now considered by Hermann, Methodist, St. Luke's, San Jacinto and St. Elizabeth's, a shortage of 860 beds be recognized.

20. An acute general hospital bed requirement of 5,448 by 1960 and a bed requirement of 8,204 by 1970 after consideration of increased population and with allowance made for the increased drawing power of the Medical Center upon out-of-area population, as well as increase in the rate of use of hospitals which by then should be apparent through the educational measures inherent in the development of the Medical Center.


22. That 14.3% of the total acute bed requirement be allotted for obstetric care, reflecting a bed requirement of 522 by 1950, increasing to 1,173 by 1970.

23. That 10% of the total acute bed requirement be allotted for pediatric care, reflecting a bed requirement of 365 by 1950, increasing to 820 by 1970.

24. That 30% of the total acute bed requirement be reserved for the requirement of the eight medical specialties studied, reflecting a bed requirement of 1,055 by 1950, increasing to 2,325 by 1970.

25. That the balance of acute general bed requirements be assigned for general medical and surgical patient cases (following a pattern of
approxi\textit{mately two surgical beds for each medical bed}), reflecting a bed requirement of 1,707 by 1950, increasing to 3,326 by 1970.

26. That in addition to the above allowance for acute medical care, contagious beds required are in the amount of 139 by 1950, with the requirement increasing to 295 by 1970 in proportion to the growth in population.

27. That the shortage of contagious beds, 72 by 1950, increasing to 228 by 1970, be alleviated not by new specialized beds but by location in acute general hospital beds, with consideration to the possible inroads that medical science will surely make in the field of contagious diseases.

28. That educational programs be instituted to reassure personnel, public and patients of the logic and safety of the plan for contagious cases, and that it is in full accord with the advances in medical science and nursing techniques.

29. That, at present, 692 tuberculosis beds are required for the Area, and that this need will increase to 737 by 1970 following the pattern of increasing population, but with full consideration of a decreasing death rate resulting from the advancement of medical science and the increase in preventive controls. However, this requirement will reflect only a shortage of 427 in 1950 after completion of the proposed City Tuberculosis Hospital, and by 1970 the shortage will be 467 as the decrease in tuberculosis death rates exceeds the rate of increase in the population.

30. That acute general hospitals provide facilities for the care of
private tuberculosis patients and in addition seek methods whereby
governmental agencies now providing care would subsidize in general
hospitals the care that represents future needs, rather than build
additional sanatoria.
31. That failing to agree upon a contractual relationship, governmental
agencies should be encouraged to locate their tuberculosis sanatoria near
large general hospitals where they may readily be adapted to other use
as the need for tuberculosis care diminishes.
32. That the psychiatric bed requirements of local responsibility be
considered 334 by 1950, increasing to 1,179 by 1970. These estimates
give consideration to the increased population and assume that the State
and County will increase their beds for custodial care so that this area
may more nearly approach the United States average in furnishing facilities
for this type patient.
33. That inasmuch as the local responsibility of voluntary and proprie-
tary hospitals for mental cases should represent only 14% of the total
need, effort should be made to stimulate County and State governments
into accepting their responsibility.
34. That the acute general hospitals provide facilities for the dia-
nosis and treatment of short-stay mental patients not in need of long-term
institutional care.
35. That by 1950 there will be a minimum requirement of 1,400 beds for
the care of the chronically ill patients, increasing to 2,000 by 1960
and to 3,000 by 1970.
36. That of the maximum 1,030 beds now available for the chronically ill in present institutions and nursing homes, at least 430 beds should be replaced or markedly improved.

37. That the bed shortage for the chronically ill should be met by the development of units as integral parts of general hospitals, but specialized units could operate effectively provided close working relationships were maintained with general hospitals.

38. That there is need for a Community Rehabilitation Center closely correlated with out-patient services and with the facilities for the long-term care of chronically ill patients.

39. That present agencies expand their programs or new agencies be created to emphasize preventive measures in the field of geriatrics through increased medical research, social and economic research, professional education, and general public health education.

40. That the proposed consolidated Public Health Department not only keep pertinent vital statistics of chronic diseases, but that aggressive licensing procedures be invoked to improve rapidly the physical facilities and the quality of care in units furnishing service to the chronically ill.

41. That, as a means of retarding the chronic problem, community services be developed on a visiting basis to families caring for invalids in their homes, in the following specialties: housekeeping aides, nutrition advisors, diet therapists, occupational therapists, and recreational workers.

42. That a coordinating agency be created to promote the above activities for the chronically ill in the community.
43. That an immediate effort be made to bring about the removal of the State Constitution limit on the amount of public assistance which may be paid to needy individuals so as to permit the chronically ill to receive adequate medical and hospital care.

44. That a total hospital bed requirement, including Acute, Contagious, Tuberculosis, Psychiatric and Chronic Diseases, of 13,400 be accepted as the 1970 community goal, and that it be recognized that this requirement will reflect a community shortage of approximately 9,500 beds when all the presently proposed hospitals are constructed.

45. That the community plan to meet this need by locating 5,000 beds in The Texas Medical Center, 8,800 in the Metropolitan Area other than in the Medical Center, and 1,600 beds in the Non-Metropolitan Area. This distribution considers population growth, characteristics, and concentration of patients for purposes of medical education and research.

46. That the bed capacity of the M. D. Anderson Hospital for Cancer Research be considered as additional to the above allocation of beds to the Texas Medical Center.

47. That all undergraduate medical students of Baylor University College of Medicine be trained by 1970 in the hospital located in The Texas Medical Center.

48. That the inevitable need for more City-County hospital care should be met by contracting with non-profit hospitals for the care of the indigent instead of by construction of more governmental facilities.

49. That the bed requirement in non-metropolitan areas be met by the construction of "Community Hospitals" of 80 or more beds, serving populations of at least 15,000.

50. That the bed requirement in non-metropolitan areas, in communities
as small as 500 population, be met by the establishment of "Public Health and Medical Service Centers" prepared to furnish, in a limited manner, combined public health and hospital care.

51. That of the total hospital facilities a portion be reserved for the care of the Negro so as to equal 17% in 1950, 16% in 1960, and 15% in 1970.

52. That the number of separate Negro hospitals be kept to a minimum, and that wherever feasible such Negro facilities be established in the same institutions as the white facilities, even though segregated.

53. That when establishing Negro facilities, a fair proportion be of a private and semi-private type accommodation, allowing and encouraging the Negro to pay for and receive his choice.

54. That general hospitals and out-patient units should establish, in cooperation with the University of Texas Dental School, a dental service, not including fillings or restorative work.

55. That small hospitals and health centers, located in the outlying sections of the Area, should arrange with the Dental School and the metropolitan hospitals a part-time dental service.

56. That city clinics should furnish the indigent patients in co-operation with the Dental School, a complete service in all phases of dentistry both for children and adults.

57. That special hospitals with long-stay patients should establish a complete dental service, including fillings and restorative work, in charge of a full time dentist, assisted by the dental interns from the general hospitals.
58. That the proximity of the Veteran's Hospital should not be depended upon to afford any major relief to the acute hospital bed shortage of the Areas.

59. That consideration should be given to the establishment of convalescent units in or adjacent to the larger general hospitals, restricted in use to short-term convalescent patients, and integrated with the activities of the Community Rehabilitation Center.

60. That a Children's Hospital and Research Institute of at least 200 beds to be located in The Texas Medical Center be established to offer child guidance, general pediatric, orthopedic, contagious and psychiatric care of children.

61. That every effort be made to correlate the interests and resources of the Arabia Temple Crippled Children's Organization and the Bureau of Mental Hygiene, as well as other local groups having interest in supporting pediatric care and research.

62. That the proposed Public Health Department, in cooperation with the proposed School of Public Health, conduct a continuous, greatly expanded, program of Health Education.

63. That as a means of raising the level of medical care received, hospitals be encouraged to establish teaching programs among private and semi-private patients, after proper indoctrination of the students and the respective medical staffs.

64. That a complete program of post-graduate training in medicine and dentistry be developed at The Texas Medical Center.

65. That internes and residency in medicine training now carried by
three hospitals of the Area be expanded as rapidly as possible, both
in the number of approved internships and in the number of hospitals
approved for internship.

66. That dental internships and residencies be established, in co-
operation with the University of Texas Dental Branch, in all metropol-
itan hospitals where minimum requirements can be met.

67. That a College of Dental Nursing be established at the Medical
Center.

68. That a School of Public Health be established at the Medical Center.

69. That an undergraduate course in public health nursing be established
in the School of Public Health.

70. That certain functions of the proposed Public Health Department,
one of the City District Health Centers and certain non-official com-
munity health agencies should be located in the Medical Center.

71. That one or two vocational schools of nursing should be established
in the community.

72. That a state licensing law should be enacted for the regulation of
vocational or practical nurses.

73. That at least two of the existing professional schools of nursing
should join with a university to become a College of Nursing, offering
a four-year program leading to a Baccalaureate Degree.

74. That endowment be sought to maintain the College of Nursing in
order to provide this education to young women at a reasonable tuition
charge.
75. That advanced programs of study in public health nursing, nursing education, and special clinical fields, all leading toward an advanced degree, be established as a part of a university and located at the Medical Center.

76. That a school be established for Negro student nurses in a college or university and using clinical facilities in existing hospitals and units in proposed hospitals, clinics, and health units at the Medical Center.

77. That all possible use be made of educational facilities of the Medical Center for preparation of practical nurses, professional nurses on both basic and advanced levels to the end that fine nursing services be available for the Medical Center and that the Medical Center fulfill its educational obligations in the Southwest.

78. That the following schools be established as part of the respective programs of available universities, and that these schools be located at The Texas Medical Center: School of Hospital Administration, School for Clinical Laboratory Technicians, School for Hospital Dietitians, School for X-Ray Technicians, School for Hospital Pharmacists, School for Physical Therapy Technicians, School for Medical Social Workers, School for Medical Record Librarians.

79. That consideration be given to adoption by the various hospitals of an inclusive rate plan of hospital charges that would eliminate the majority of special service charges to patients and permit physicians the use of facilities as required rather than on the basis of the patient's ability to pay.
80. That the present Houston Hospital Council be reorganized, incorporated and placed under the guidance of a full time executive director.

81. That the Hospital Council embody a central purchasing service for member hospitals, and that at an appropriate time it consider group service in the field of collection and investigation of hospital accounts.

82. That the Hospital Council be an autonomous body with primary representation by hospitals acting for them, but in cooperation with existing groups in the Council of Social Agencies and in the Chamber of Commerce.

83. That a hospital committee be appointed from the non-profit institutions to study, with the Community Chest organization and the health unit of the Council of Social Agencies, the present absence of financial support to the hospitals caring for the medically needy and to make recommendations for securing adequate annual financial assistance. Hospitals should be paid on a service rendered basis, but the plan should permit the Community Chest to establish a reserve for the unusual load which occurs during economic depressions.

84. That the study of consolidating the City and County and the School District Health units be pursued by the Chamber of Commerce Health Committee and the consolidation be brought about.

85. That the Chamber of Commerce Health Committee also consider for recommendations the added advantages of a close alliance between the
proposed Health Department and the Jefferson Davis Hospital to
further programs of economy through effective use of the hospital's
out-patient facilities and staff.
86. That hospitals in the Area, now participating in the voluntary
Blue Cross Plan for hospitalization only to the extent of accepting
subscribers, consider more carefully the long-range advantages to
supporting the Plan without reservation in an endeavor to enroll a
larger proportion of the population.
87. That a special committee of the proposed Hospital Council prepare
and propose a plan for a consolidated emergency ambulance service
operated by the Houston Police Department in cooperation with the
hospitals.