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ABSTRACT

This study, requested by the Community Hospital Education Council, was undertaken to provide guidance in the allocation of state resources in support of internship and residency programs. An attempt is made to establish goals of physician manpower in each of the major specialty groups and to indicate the excess or deficit now extant in Florida. Findings are: (1) 884 more general/family practitioners are needed; (2) 774 more internists are needed; (3) 165 general pediatricians are needed; (4) more psychiatrists, anesthesiologists, plastic surgeons and otorhinolaryngologists are needed; and (5) there is an adequate supply, and in some cases an oversupply, in other specialty areas of medicine. (Author/KE)

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STATE UNIVERSITY SYSTEM OF FLORIDA  
107 W. Gaines Street, Tallahassee 32304

THIS STUDY

was requested by the COMMUNITY HOSPITAL EDUCATION COUNCIL to provide guidance in the allocation of state resources in support of internship and residency programs. The report was prepared by the staff director.

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This public document was produced at a cost of \$309 or \$0.48 per copy to provide information about Florida's physician manpower needs.

## SUMMARY

There are as of early 1976 a total of 14,808 physicians (M.D. and D.O.) practicing in Florida. Numbers by specialty and by location (Health Service Areas) are presented.

An effort has been made to establish goals of physician manpower in each of the major specialty groups, and to indicate the excess or deficit now extant in Florida.

The major findings are:

- \* We now need 884 more general/family practitioners to meet the goal established.
- \* We now need 774 more internists to provide primary care.
- \* We are short 165 general pediatricians.
- \* We have a somewhat less than optimal number of psychiatrists, anesthesiologists, plastic surgeons and otorhinolaryngologists.
- \* We are apparently about adequately supplied, or in some cases perhaps over supplied, with the other speciality areas of medicine.

This report does not attempt to deal with the problem of geographic distribution except to present the physician census by HSA districts of the state.

## PREFACE

Planning began for this survey more than a year ago. The following assembled as an Ad Hoc committee to update the data on physician distribution in Florida on 15 April 1975:

Robert P. Lawton, Executive Vice President, Rhode Island Health Science Education Council, formerly with Florida RMP and author of a similar study in early 1973.

Charles E. Barner, Jr., Bureau Chief, Records Administration, Department of Professional and Occupational Regulation.

Charles Beck, Administrative Assistant, Bureau of Records Administration, Department of Professional and Occupational Regulation.

Gary Cooper, Research Economist, Department of Administration.

Philip H. Gilbert, Florida Medical Association.

Eugene Nixon, Florida Medical Association.

Charles Smith, Bureau of Comprehensive Health Planning, Department of Health and Rehabilitative Services.

John Wagner, Division of Planning, Department of Administration.

Kenneth E. Penrod, Staff Director, Community Hospital Education Program.

A second meeting was convened 19 June 1975 with additional participation of:

Marshall Church, Systems Analyst Supervisor, Computer Services, Department of Health and Rehabilitative Services.

John Brandenburgh, Executive Director, Florida Board of Osteopathic Medical Examiners.

George Palmer, Executive Director, Florida Board of Medical Examiners.

Several others, too numerous to mention, have been helpful in assembling and reviewing the data, and making suggestions for its presentation.

K. E. P.

## PART I

The determination of the number of physicians providing care in a geographical area too large to rely on personal acquaintance is a difficult task.

Florida has begun a program of demographic data storage derived from a questionnaire accompanying the license renewal for all physicians. When this program is completed, and reliable data are available on all physicians holding a current license to practice in Florida, a major step will have been taken toward easy retrieval of a good (but not perfect) indication of the effective physician manpower in the state.

For the present study the data now available in the computer file of the Department of Professional and Occupational Regulation (DPOR) provided the basic source. Unfortunately, an unknown number of active physicians have not yet submitted personal data, and there are many retired, inactive, or "in other than patient care" physicians who continue to maintain a current license. So, while there were 12,972 M.D.'s and 792 D.O.'s licensed to practice and giving Florida addresses as of 25 February 1976, it cannot be presumed that all are in active patient care. Using a variety of data sources, principally state and county medical society records, those known to be retired, or inactive, were eliminated. No record was kept of this number.

At the same time total membership in the Florida Medical Association was 10,342 and in the Florida Osteopathic Medical Association, 650. Likewise most, but by no means all, active physicians belong to their respective county medical societies.

Florida has a number of military base hospitals with physician staffs who provide a significant amount of care to the indigenous population, in uniform and dependents. Some of these, we found, hold the Florida license, but these represent a small minority of the total and care has been taken not to count twice. With the aid of personnel at the several institutions a reasonably accurate census of these physicians has been obtained.

A similar situation exists with regard to the five veterans administration hospitals in the state. The state hospitals and universities' health services all have medical staffs providing much care to citizens who are counted in the population of the area, but only a portion of these appear on the licensed physician list.

A further complication was faced when the effort was made to separate physicians according to specialty. For the licensure data file each physician is requested to list his primary, secondary and (if appropriate) tertiary specialty, choosing among the 69 specialty groups proposed in the American Medical Association list. The choice is made "according to the number of hours per week usually spent in each." These classifications are not always consistent with the records of the state and local medical societies to which he or she belongs nor with records of the respective specialty societies. Likewise, since not all physicians returned that form, or filled it out completely, other sources had to be consulted to assign a primary specialty in some cases, and in a remaining few it became impossible to label the type of practice.

It is clear that to make a reasonable approximation of a physician census by specialty a considerable amount of cross referencing of a variety of sources of data is necessary. There is no mechanized way to do this.

The author is most appreciative of the help obtained from many sources, especially representatives of the local medical societies as well as the state associations, staff of DPOR, military and veterans administration personnel and a host of others. The data presented herein represent a best effort attempt that is believed to be reasonably accurate but complete accuracy has never been claimed!

Although DPOR licensure data are available by county, the mailing address on file for each physician is not specific as to practice or home address. In a number of areas of the state where a large metropolitan district may lie near the county border, this can cause a considerable distortion to county data. In addition, in some instances the value of such data by county can be questioned since patients are generally oblivious to county lines.

Hence, the decision was made that the most appropriate way to present meaningful data was by the Health Service Areas which have now been officially designated under the National Health Planning and Resources Development Act of 1974 (PL93-641). Since in each of these areas it is planned to have a local health planning function, with a professional staff, they will likely be in a position to carry these data further, defining within their area smaller physician service areas or patient flows, and hence better define physician manpower adequacy and shortcoming.

Each Health Service Area (HSA) was assigned an "official" population when it was designated. The figures used in this report are, however, updated to the latest estimates available and are taken from the Governor's Budget Request for 1976-77. The source is the Division of Population Studies, Bureau of Economic and Business Research, College of Business Administration, University of Florida. The county population estimates for 1 July 1975 and 1 July 1976 were averaged to represent those of 1 January 1976.

TABLE 1

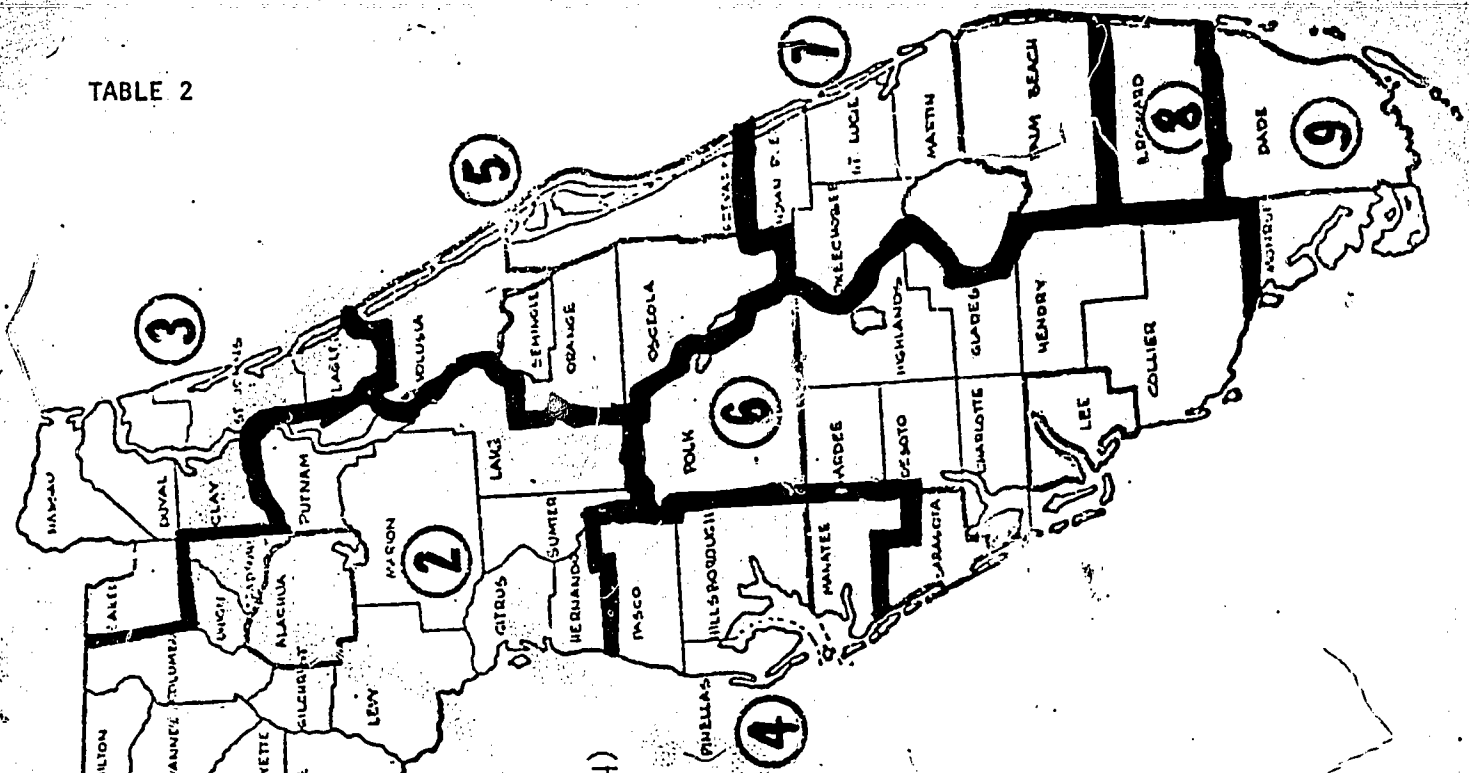
## PHYSICIANS (MD &amp; DO) IN FLORIDA BY SPECIALTY

SPRING 1976

|                                | <u>Practice</u> | <u>Medical<br/>Faculty</u> | <u>Interns/<br/>Residents</u> | <u>Federal</u> | <u>State</u> |
|--------------------------------|-----------------|----------------------------|-------------------------------|----------------|--------------|
| <u>Primary Care</u>            |                 |                            |                               |                |              |
| GP/FP/EM                       | 2741            | 22                         | 182                           | 167            | 43           |
| IM                             | 1522            | 99                         | 405                           | 75             | 14           |
| PD                             | 589             | 58                         | 156                           | 32             | 23           |
| OBG                            | 751             | 31                         | 115                           | 29             | 8            |
| Allergy                        | 56              | 2                          | 1                             | 2              | 2            |
| Cardiovascular                 | 273             | 16                         | 14                            | 3              | -            |
| Pediatric Cardiology           | 11              | 10                         | 1                             | -              | -            |
| Dermatology                    | 196             | 13                         | 19                            | 8              | -            |
| Gastroenterology               | 76              | 10                         | 8                             | 1              | -            |
| Pulmonary Diseases             | 51              | 6                          | 10                            | 3              | -            |
| General Surgery                | 905             | 35                         | 197                           | 40             | 6            |
| NeuroSurgery                   | 100             | 9                          | 12                            | 2              | -            |
| Plastic Surgery                | 117             | 2                          | 17                            | -              | -            |
| ColonRectal Surgery            | 47              | -                          | -                             | -              | -            |
| Thoracic & Vascular<br>Surgery | 158             | 7                          | 8                             | 4              | -            |
| Urology                        | 330             | 7                          | 29                            | 14             | -            |
| Orthopedic Surgery             | 484             | 15                         | 67                            | 26             | -            |
| Ophthalmology                  | 446             | 30                         | 67                            | 13             | -            |
| Otorhinolaryngology            | 233             | 6                          | 15                            | 16             | -            |
| Anesthesiology                 | 485             | 39                         | 81                            | 13             | -            |
| Neurology                      | 123             | 20                         | 26                            | 5              | -            |
| Psychiatry                     | 585             | 56                         | 93                            | 47             | 77           |
| Pathology                      | 382             | 34                         | 70                            | 23             | 1            |
| Public Health                  | -               | -                          | -                             | -              | 93           |
| Radiology                      | 605             | 32                         | 73                            | 41             | -            |
| Other Specialities             | 152             | 4                          | -                             | 28             | 7            |
| Unclassified                   | 191             | 4                          | -                             | 67             | 33           |
| Total Physicians               | 11,609          | 567                        | 1666                          | 659            | 307          |



TABLE 2



STATE OF FLORIDA  
 HEALTH SERVICE AREAS AS DESIGNATED UNDER P.L. 93-641  
 (NATIONAL HEALTH PLANNING AND RESOURCES DEVELOPMENT ACT OF 1974)

| AREA | SQ. MI. | 1-1-76<br>POPULATION | 1980 EST.<br>POPULATION |
|------|---------|----------------------|-------------------------|
| #1   | 13,085  | 814,059              | 905,600                 |
| #2   | 11,043  | 562,149              | 658,900                 |
| #3   | 3,685   | 720,707              | 789,000                 |
| #4   | 2,783   | 1,552,094            | 1,790,800               |
| #5   | 4,598   | 1,088,087            | 1,258,100               |
| #6   | 10,202  | 821,291              | 990,900                 |
| #7   | 4,446   | 675,781              | 823,000                 |
| #8   | 1,219   | 892,498              | 1,076,300               |
| #9   | 3,076   | 1,507,800            | 1,653,100               |
|      |         | 8,634,466            | 9,945,700               |



## SPECIALTY ABBREVIATIONS

|     |                                      |
|-----|--------------------------------------|
| GP  | GENERAL PRACTICE                     |
| FP  | FAMILY PRACTICE                      |
| EM  | EMERGENCY MEDICINE                   |
| A   | ALLERGY                              |
| CD  | CARDIOVASCULAR DISEASES              |
| D   | DERMATOLOGY                          |
| GE  | GASTROENTEROLOGY                     |
| IM  | INTERNAL MEDICINE                    |
| PD  | PEDIATRICS                           |
| PDC | PEDIATRIC CARDIOLOGY                 |
| PUD | PULMONARY DISEASES                   |
| GS  | GENERAL SURGERY                      |
| NS  | NEUROLOGICAL SURGERY                 |
| OBG | OBSTETRICS AND GYNECOLOGY            |
| OPH | OPHTHALMOLOGY                        |
| ORS | ORTHOPEDIC SURGERY                   |
| OTO | OTORHINOLARYNGOLOGY                  |
| PS  | PLASTIC SURGERY                      |
| CRS | COLON AND RECTAL SURGERY             |
| TS  | THORACIC SURGERY                     |
| U   | UROLOGY                              |
| AM  | AEROSPACE MEDICINE                   |
| AN  | ANESTHESIOLOGY                       |
| N   | NEUROLOGY                            |
| OM  | OCCUPATIONAL MEDICINE                |
| P   | PSYCHIATRY                           |
| PTH | PATHOLOGY                            |
| PM  | PHYSICAL MEDICINE AND REHABILITATION |
| GPM | GENERAL PREVENTIVE MEDICINE          |
| PH  | PUBLIC HEALTH                        |
| R   | RADIOLOGY                            |

PHYSICIANS (MD & DO) IN FLORIDA BY HEALTH SERVICE AREAS  
 SPRING 1976

| HSA #  | PRACTICE | MEDICAL<br>FACULTY | INTERNS/<br>RESIDENTS | FEDERAL | STATE | TOTAL  |
|--------|----------|--------------------|-----------------------|---------|-------|--------|
| 1      | 631      | 2                  | 59                    | 154     | 90    | 936    |
| 2      | 475      | 196                | 339                   | 39      | 13    | 1062   |
| 3      | 817      |                    | 175                   | 131     | 50    | 1174   |
| 4      | 1746     | 96                 | 232                   | 197     | 22    | 2293   |
| 5      | 1253     |                    | 88                    | 78      | 26    | 1439   |
| 6      | 1043     |                    |                       |         | 32    | 1075   |
| 7      | 903      |                    |                       |         | 14    | 917    |
| 8      | 1453     |                    | 8                     |         | 35    | 1496   |
| 9      | 3288     | 273                | 764                   | 60      | 31    | 4416   |
| TOTALS | 11,609   | 567                | 1666                  | 659     | 307   | 14,808 |

TABLE 4

| HSA # 1        | Practice | Medical Faculty | Interns/Residents | Federal | State | Total |
|----------------|----------|-----------------|-------------------|---------|-------|-------|
| GP/FP/EM       | 164      | 1               | 36                | 34      | 13    | 248   |
| A              | 7        |                 |                   |         |       | 7     |
| CD             | 13       |                 |                   | 1       |       | 14    |
| D              | 14       |                 |                   | 3       |       | 17    |
| GE             | 6        |                 |                   |         |       | 6     |
| IM             | 51.5     | 1               | 7                 | 17      | 6     | 82.5  |
| PD             | 38       |                 | 6                 | 12      | 8     | 64    |
| PDC            | 2        |                 |                   |         |       | 2     |
| PUD            | 1        |                 |                   |         |       | 1     |
| GS             | 51       |                 | 3                 | 11      | 3     | 68    |
| NS             | 7        |                 |                   |         |       | 7     |
| OBG            | 47.5     |                 | 7                 | 14      |       | 68.5  |
| OPH            | 29       |                 |                   | 5       |       | 34    |
| ORS            | 25       |                 |                   | 8       |       | 33    |
| OTO            | 18       |                 |                   | 3       |       | 21    |
| PS             | 5        |                 |                   |         |       | 5     |
| CRS            | 1        |                 |                   |         |       | 1     |
| TS             | 9        |                 |                   | 1       |       | 10    |
| U              | 18       |                 |                   | 3       |       | 21    |
| AM             | 5        |                 |                   | 8       |       | 13    |
| AN             | 17       |                 |                   | 5       |       | 22    |
| N              | 7        |                 |                   | 2       |       | 9     |
| OM             | 3        |                 |                   |         |       | 3     |
| P              | 25       |                 |                   | 13      | 19    | 57    |
| P TH           | 25       |                 |                   | 4       |       | 29    |
| PM             |          |                 |                   |         |       |       |
| GPM            | 1        |                 |                   |         | 2     | 3     |
| PH             |          |                 |                   |         | 5     | 5     |
| R              | 36       |                 |                   | 7       |       | 43    |
| OTHER          | 1        |                 |                   |         |       | 1     |
| NOT CLASSIFIED | 4        |                 |                   | 3       | 30    | 37    |
| TOTAL          | 631      | 2               | 59                | 154     | 90    | 936   |

TABLE 5

HSA #2

| Specialty      | Practice | Medical Faculty | Interns/Residents | Federal | State | Total |
|----------------|----------|-----------------|-------------------|---------|-------|-------|
| GP/FP/EM       | 153      | 11              | 11                | 5       | 6     | 186   |
| A              | 1        | 2               | 1                 |         |       | 4     |
| CD             | 8        | 6               | 5                 |         |       | 19    |
| D              | 5        | 2               |                   |         |       | 7     |
| GE             | 2        | 6               | 6                 |         |       | 14    |
| IM             | 36       | 20              | 60                | 11      |       | 127   |
| PD             | 26       | 25              | 35                |         |       | 86    |
| PDC            |          | 4               | 1                 |         |       | 5     |
| PUD            | 1        | 5               | 4                 |         |       | 10    |
| GS             | 46       | 6               | 53                | 5       |       | 110   |
| NS             | 3        | 4               | 2                 |         |       | 9     |
| OBG            | 36       | 14              | 16                |         |       | 66    |
| OPH            | 18       | 6               | 22                |         |       | 46    |
| ORS            | 14       | 6               | 13                |         |       | 33    |
| OTO            | 8        | 4               |                   |         |       | 12    |
| PS             | 3        | 2               | 3                 |         |       | 8     |
| CRS            | 1        |                 |                   |         |       | 1     |
| TS             | 4        | 4               | 4                 | 2       |       | 14    |
| U              | 14       | 3               | 5                 | 1       |       | 23    |
| AM             |          |                 |                   |         |       |       |
| AN             | 17       | 14              | 32                |         |       | 63    |
| N              | 3        | 6               | 8                 |         |       | 17    |
| OM             |          |                 |                   |         |       |       |
| F              | 26       | 17              | 25                | 6       |       | 74    |
| PTH            | 15       | 13              | 11                | 2       |       | 41    |
| PM             | 2        |                 |                   |         |       | 2     |
| GPM            |          |                 |                   |         |       |       |
| PH             |          |                 |                   |         | 6     | 6     |
| R              | 25       | 12              | 22                |         |       | 65    |
| OTHER          |          |                 |                   |         |       |       |
| NOT CLASSIFIED | 8        | 4               |                   | 1       | 1     | 14    |
| TOTAL          | 475      | 196             | 339               | 39      | 13    | 1062  |

TABLE 6

| <u>HSA #3</u>  |          |                    |                       |         |       |       |
|----------------|----------|--------------------|-----------------------|---------|-------|-------|
| Specialty      | Practice | Medical<br>Faculty | Interns/<br>Residents | Federal | State | Total |
| GP/FP/EM       | 147      |                    | 18                    | 39      | 5     | 209   |
| A              | 1        |                    |                       |         |       | 1     |
| CD             | 19       |                    |                       | 1       |       | 20    |
| D              | 8        |                    |                       | 3       |       | 11    |
| GE             | 5        |                    |                       |         |       | 5     |
| IM             | 96       |                    | 43                    | 16      | 1     | 156   |
| PD             | 57       |                    | 37                    | 10      | 1     | 105   |
| PDC            | 2        |                    |                       |         |       | 2     |
| PUD            | 2        |                    |                       |         |       | 2     |
| GS             | 85       |                    | 31                    | 7       |       | 123   |
| NS             | 7        |                    |                       |         |       | 7     |
| OBG            | 72       |                    | 21                    | 8       | 1     | 102   |
| OPH            | 33       |                    | 3                     | 3       |       | 39    |
| ORS            | 32       |                    | 12                    | 8       |       | 52    |
| OTO            | 15       |                    |                       | 5       |       | 20    |
| PS             | 9        |                    | 4                     |         |       | 13    |
| CRS            | 3        |                    |                       |         |       | 3     |
| TS             | 12       |                    |                       |         |       | 12    |
| U              | 22       |                    | 3                     | 2       |       | 27    |
| AM             | 5        |                    |                       |         |       | 5     |
| AN             | 46       |                    |                       | 3       |       | 49    |
| N              | 11       |                    |                       | 1       |       | 12    |
| OM             | 3        |                    |                       |         |       | 3     |
| P              | 38       |                    |                       | 5       | 18    | 61    |
| PTH            | 29       |                    | 4                     | 4       | 1     | 38    |
| PM             |          |                    |                       |         | 1     | 1     |
| GPM            |          |                    |                       |         | 1     | 1     |
| PH             |          |                    |                       |         | 21    | 21    |
| R              | 47       |                    |                       | 3       |       | 50    |
| OTHER          |          |                    |                       |         |       |       |
| NOT CLASSIFIED | 11       |                    |                       | 13      |       | 24    |
| TOTAL          | 817      |                    | 176                   | 131     | 50    | 1174  |

TABLE 7

HSA #4

| Specialty      | Practice | Medical Faculty | Interns/Residents | Federal | State | Total |
|----------------|----------|-----------------|-------------------|---------|-------|-------|
| GP/FP/EM       | 461      | 2               | 26                | 64      | 4     | 557   |
| A              | 4        |                 |                   | 2       |       | 6     |
| CD             | 42       | 2               |                   |         |       | 44    |
| D              | 26       | 1               |                   | 2       |       | 29    |
| GE             | 12       | 1               |                   | 1       |       | 14    |
| IM             | 185      | 24              | 78                | 22      |       | 309   |
| PD             | 81       | 7               | 15                | 5       | 2     | 110   |
| PDC            | 1        | 2               |                   |         |       | 3     |
| PUD            | 7        |                 |                   | 2       |       | 9     |
| GS             | 121      | 11              | 28                | 13      |       | 173   |
| NS             | 16       |                 |                   | 1       |       | 17    |
| OBG            | 108      | 6               | 18                | 4       |       | 136   |
| OPH            | 71       | 9               | 7                 | 4       |       | 91    |
| ORS            | 70       |                 | 5                 | 6       |       | 81    |
| OTO            | 44       |                 | 6                 | 4       |       | 54    |
| PS             | 13       |                 |                   |         |       | 13    |
| CRS            | 6        |                 |                   |         |       | 6     |
| TS             | 30       |                 |                   | 1       |       | 31    |
| U              | 47       |                 | 6                 | 6       |       | 59    |
| AM             | 2        |                 |                   | 4       |       | 6     |
| AN             | 77       |                 |                   | 5       |       | 82    |
| N              | 16       | 3               |                   | 2       |       | 21    |
| OM             | 5        |                 |                   |         |       | 5     |
| P              | 95       | 19              | 20                | 18      | 3     | 155   |
| PTH            | 72       | 9               | 14                | 9       |       | 104   |
| PM             | 5        |                 |                   | 7       |       | 12    |
| GPM            | 1        |                 |                   | 1       |       | 2     |
| PH             |          |                 |                   |         | 13    | 13    |
| R              | 92       |                 | 9                 | 12      |       | 113   |
| OTHER          | 10       |                 |                   | 2       |       | 12    |
| NOT CLASSIFIED | 26       |                 |                   |         |       | 26    |
| TOTAL          | 1746     | 96              | 232               | 197     | 22    | 2293  |

TABLE 8

| <u>HSA #5</u>  |          |                 |                   |         |       |       |
|----------------|----------|-----------------|-------------------|---------|-------|-------|
| Specialty      | Practice | Medical Faculty | Interns/Residents | Federal | State | Total |
| GP/FP/EM       | 327      |                 | 35                | 15      | 2     | 379   |
| A              | 6        |                 |                   |         |       | 6     |
| CD             | 24       |                 |                   |         |       | 24    |
| D              | 21       |                 |                   |         |       | 21    |
| GE             | 1        |                 |                   |         |       | 1     |
| IM             | 138      |                 | 10                | 1       | 1     | 150   |
| PD             | 65       |                 | 3                 | 1       | 2     | 71    |
| PDC            | 1        |                 |                   |         |       | 1     |
| PUD            | 2        |                 |                   |         |       | 2     |
| GS             | 112      |                 | 10                |         |       | 122   |
| NS             | 12       |                 |                   |         |       | 12    |
| OBG            | 98       |                 | 8                 |         | 3     | 109   |
| OPH            | 45       |                 |                   |         |       | 45    |
| ORS            | 67       |                 | 10                | 2       |       | 79    |
| OTO            | 23       |                 |                   | 3       |       | 26    |
| PS             | 13       |                 | 4                 |         |       | 17    |
| CRS            | 4        |                 |                   |         |       | 4     |
| TS             | 16       |                 |                   |         |       | 16    |
| U              | 41       |                 |                   | 1       |       | 42    |
| AM             | 1        |                 |                   | 2       |       | 3     |
| AN             | 47       |                 |                   |         |       | 47    |
| N              | 13       |                 |                   |         |       | 13    |
| GM             | 3        |                 |                   |         |       | 3     |
| P              | 49       |                 |                   | 1       |       | 50    |
| PTH            | 41       |                 | 8                 |         |       | 49    |
| PM             | 2        |                 |                   |         |       | 2     |
| GPM            |          |                 |                   |         |       |       |
| PH             |          |                 |                   |         | 12    | 12    |
| R              | 67       |                 |                   | 2       |       | 69    |
| OTHER          | 1        |                 |                   |         |       | 1     |
| NOT CLASSIFIED | 13       |                 |                   | 50      |       | 63    |
| TOTAL          | 1253     |                 | 88                | 78      | 20    | 1439  |



TABLE 9

HSA #6

| Specialty        | Practice | Medical Faculty | Interns/Residents | Federal | State | Total |
|------------------|----------|-----------------|-------------------|---------|-------|-------|
| GP/FP/EM         | 260      |                 |                   |         | 2     | 262   |
| A                | 6        |                 |                   |         |       | 6     |
| CD               | 13       |                 |                   |         |       | 13    |
| D                | 17       |                 |                   |         |       | 17    |
| GE               | 7        |                 |                   |         |       | 7     |
| IM               | 136      |                 |                   |         | 1     | 137   |
| PD               | 58       |                 |                   |         | 1     | 59    |
| PDC              |          |                 |                   |         |       |       |
| PUD              | 4        |                 |                   |         |       | 4     |
| GS               | 89       |                 |                   |         |       | 89    |
| NS               | 10       |                 |                   |         |       | 10    |
| OBG              | 65       |                 |                   |         |       | 65    |
| OPH              | 47       |                 |                   |         |       | 47    |
| ORS <sup>q</sup> | 40       |                 |                   |         |       | 40    |
| OTO              | 22       |                 |                   |         |       | 22    |
| PS               | 8        |                 |                   |         |       | 8     |
| CRS              | 2        |                 |                   |         |       | 2     |
| TS               | 16       |                 |                   |         |       | 16    |
| U                | 37       |                 |                   |         |       | 37    |
| AM               |          |                 |                   |         |       |       |
| AN               | 46       |                 |                   |         |       | 46    |
| N                | 12       |                 |                   |         |       | 12    |
| OM               |          |                 |                   |         |       |       |
| P                | 39       |                 |                   |         | 14    | 53    |
| PTH              | 30       |                 |                   |         |       | 30    |
| PM               | 1        |                 |                   |         |       | 1     |
| GPM              |          |                 |                   |         |       |       |
| PH               |          |                 |                   |         | 13    | 13    |
| R                | 64       |                 |                   |         |       | 64    |
| OTHER            | 2        |                 |                   |         |       | 2     |
| NOT CLASSIFIED   | 12       |                 |                   |         | 1     | 13    |
| TOTAL            | 1043     |                 |                   |         | 32    | 1075  |

TABLE 10

HSA #7

| Specialty      | Practice | Medical Faculty | Interns/Residents | Federal | State | Total |
|----------------|----------|-----------------|-------------------|---------|-------|-------|
| GP/FP/EM       | 182      |                 |                   |         | 3     | 185   |
| A              | 8        |                 |                   |         |       | 8     |
| CD             | 17       |                 |                   |         |       | 17    |
| D              | 18       |                 |                   |         |       | 18    |
|                | 5        |                 |                   |         |       | 5     |
| IM             | 129      |                 |                   |         | 2     | 131   |
| PD             | 41       |                 |                   |         |       | 41    |
| PDC            |          |                 |                   |         |       |       |
| PUD            | 6        |                 |                   |         |       | 6     |
| GS             | 76       |                 |                   |         |       | 76    |
| NS             | 7        |                 |                   |         |       | 7     |
| OBG            | 69       |                 |                   |         |       | 69    |
| OPH            | 43       |                 |                   |         |       | 43    |
| ORS            | 50       |                 |                   |         |       | 50    |
| OTO            | 17       |                 |                   |         |       | 17    |
| PS             | 8        |                 |                   |         |       | 8     |
| CRS            | 2        |                 |                   |         |       | 2     |
| TS             | 14       |                 |                   |         |       | 14    |
| U              | 25       |                 |                   |         |       | 25    |
| AM             |          |                 |                   |         |       |       |
| AN             | 34       |                 |                   |         |       | 34    |
| N              | 8        |                 |                   |         |       | 8     |
| OM             | 2        |                 |                   |         |       | 2     |
| P              | 41       |                 |                   |         |       | 41    |
| PTH            | 29       |                 |                   |         |       | 29    |
| PM             | 6        |                 |                   |         | 1     | 7     |
| GPM            |          |                 |                   |         |       |       |
| PH             | 1        |                 |                   |         | 8     | 9     |
| R              | 45       |                 |                   |         |       | 45    |
| OTHER          | 2        |                 |                   |         |       | 2     |
| NOT CLASSIFIED | 18       |                 |                   |         |       | 18    |
| TOTAL          | 903      |                 |                   |         | 14    | 917   |

TABLE 11

HSA #8

| Specialty      | Practice | Medical Faculty | Interns/Residents | Federal | State | Total |
|----------------|----------|-----------------|-------------------|---------|-------|-------|
| GP/FP/EM       | 329      |                 | 8                 |         | 3     | 340   |
| A              | 7        |                 |                   |         |       | 7     |
| CD             | 23       |                 |                   |         |       | 23    |
| D              | 33       |                 |                   |         |       | 33    |
| GE             | 11       |                 |                   |         |       | 11    |
| IM             | 243      |                 |                   |         |       | 243   |
| PD             | 65       |                 |                   |         | 3     | 68    |
| PDC            |          |                 |                   |         |       |       |
| PUD            | 3        |                 |                   |         |       | 3     |
| GS             | 94       |                 |                   |         | 1     | 95    |
| NS             | 14       |                 |                   |         |       | 14    |
| OBG            | 83       |                 |                   |         | 2     | 85    |
| OPH            | 52       |                 |                   |         |       | 52    |
| ORS            | 64       |                 |                   |         |       | 64    |
| OTO            | 37       |                 |                   |         |       | 37    |
| PS             | 16       |                 |                   |         |       | 16    |
| CP             | 7        |                 |                   |         |       | 7     |
| TS             | 17       |                 |                   |         |       | 17    |
| U              | 45       |                 |                   |         |       | 45    |
| AM             | 1        |                 |                   |         |       | 1     |
| AN             | 66       |                 |                   |         |       | 66    |
| N              | 20       |                 |                   |         |       | 20    |
| OM             | 2        |                 |                   |         |       | 2     |
| P              | 51       |                 |                   |         | 23    | 74    |
| PTH            | 43       |                 |                   |         |       | 43    |
| PM             | 4        |                 |                   |         |       | 4     |
| GPM            | 3        |                 |                   |         |       | 3     |
| PH             |          |                 |                   |         | 2     | 2     |
| R              | 82       |                 |                   |         |       | 82    |
| OTHER          | 4        |                 |                   |         |       | 4     |
| NOT CLASSIFIED | 34       |                 |                   |         | 1     | 35    |
| TOTAL          | 1453     |                 | 8                 |         | 35    | 1496  |

TABLE 12

| HSA #9 | Specialty      | Practice | Medical Faculty | Interns/Residents | Federal | State | Total |
|--------|----------------|----------|-----------------|-------------------|---------|-------|-------|
|        | GP/FP/EM       | 718      | 8               | 48                | 10      | 5     | 789   |
|        | A              | 16       |                 |                   |         | 2     | 18    |
|        | CD             | 114      | 8               | 9                 | 1       |       | 132   |
|        | D              | 54       | 10              | 19                |         |       | 83    |
|        | GE             | 27       | 3               | 2                 |         |       | 32    |
|        | IM             | 508      | 54              | 207               | 8       | 3     | 780   |
|        | PD             | 158      | 26              | 60                | 4       | 6     | 254   |
|        | PDC            | 5        | 4               |                   |         |       | 9     |
|        | PUD            | 25       | 1               | 6                 | 1       |       | 33    |
|        | GS             | 231      | 18              | 72                | 4       | 2     | 327   |
|        | NS             | 24       | 5               | 10                | 1       |       | 40    |
|        | OBG            | 173      | 11              | 45                | 3       | 2     | 234   |
|        | OPH            | 108      | 15              | 35                | 1       |       | 159   |
|        | ORS            | 122      | 9               | 27                | 2       |       | 160   |
|        | OTO            | 50       | 2               | 9                 | 1       |       | 62    |
|        | PS             | 42       |                 | 6                 |         |       | 48    |
|        | CRS            | 21       |                 |                   |         |       | 21    |
|        | TS             | 40       | 3               | 4                 |         |       | 47    |
|        | U              | 81       | 4               | 15                | 1       |       | 101   |
|        | AM             | 6        |                 |                   |         | 1     | 7     |
|        | AN             | 135      | 25              | 49                |         |       | 209   |
|        | N              | 34       | 11              | 18                |         |       | 63    |
|        | OM             | 6        |                 |                   |         |       | 6     |
|        | P              | 220      | 20              | 48                | 5       |       | 293   |
|        | PTH            | 98       | 12              | 33                | 4       |       | 147   |
|        | PM             | 20       |                 |                   | 3       |       | 23    |
|        | GPM            | 6        | 1               |                   |         | 1     | 8     |
|        | PH             |          |                 |                   |         | 9     | 9     |
|        | R              | 149      | 20              | 42                | 11      |       | 222   |
|        | OTHER          | 32       | 3               |                   |         |       | 35    |
|        | NOT CLASSIFIED | 65       |                 |                   |         |       | 65    |
|        | TOTAL          | 3288     | 273             | 764               | 60      | 31    | 4416  |

TABLE 13

COMPARISON OF PHYSICIAN MANPOWER  
 AMONG HSA's. (#/100,000 Population)

| HSA       | PRACTICE | MED. FAC.<br>I&R | ALL<br>PHYSICIANS |
|-----------|----------|------------------|-------------------|
| 1         | 77.5     | 7.5              | 115.0             |
| 2         | 84.5     | 95.2             | 189.0             |
| 3         | 113.4    | 24.4             | 163.0             |
| 4         | 112.5    | 21.2             | 147.7             |
| 5         | 115.2    | 8.1              | 132.3             |
| 6         | 127.0    | --               | 131.0             |
| 7         | 133.6    | --               | 135.7             |
| 8         | 162.8    | 0.9              | 167.6             |
| 9         | 218.1    | 68.8             | 292.9             |
| Statewide | 134.4    | 25.9             | 171.5             |

## PART II

At some point the number of people served by a physician practicing a given specialty comes into appropriate balance. The limits of the range of this proportion are availability within a short time period from the public's point of view and a reasonable workload from the physician's point of view.

Economists describe physician availability in (at least) three terms: money cost, travel cost and waiting time cost. These are likely to be interrelated, but in the end will determine the size of a population group necessary to support a medical practitioner of a given specialty.

Physicians, in addition to their need for a minimum number of patients to maintain the sharpness of their skills, have both a large overhead cost of "doing business" and a recognized standard of living. These require a certain level of income, which in turn is number of patients times the charge per visit.

The range between the number of patients per physician needed to provide a satisfactory income to that physician at a price patients are willing to pay and the number of citizens willing to share the same physician is probably not very wide and should be definable.

One hard-to-measure factor in the physician/population ratios is how many of a given population will use that physician's services how many times during the year. There are many factors influencing this variable such as age of the population and even the practice philosophy of the physician himself (frequency of follow-up visits).

The very nature of medical practice obscures quantitative expression of need by specialty. All physicians have a basic training in medical care and a great many, although highly specialized, now provide varying amounts of primary care to a limited number of patients. If primary and continuing care were more readily available from generalists, other specialists would be freed to devote full time to their specialty. The impact of this in the number of physicians needed in some of the specialties might be considered.

In consequence, it may not be possible to predict with much accuracy how many physicians of a given specialty are needed in our society. There are too many variables in the equation. The one unquestioned conclusion is, however, that a great many more primary care physicians are needed almost everywhere.

Nevertheless, all of the above notwithstanding, those responsible for providing physician manpower must have some target figures, however tenuous they may be. It is in this spirit that the remainder of this report is undertaken.

Robert P. Lawton in his excellent monograph "A Report on Physician Distribution in Florida" prepared in 1973 for the Community Hospital Education Council while a member of the staff of the Florida Regional Medical Programs, carefully developed what he termed the Florida Baseline Physician Ratios. Since that time he has tested and continued to refine those ratios both here and elsewhere. Meanwhile several other authors, using somewhat different assumptions and methods, have published similar "optimum ratios" of physicians to population by specialty. (See Table 14)

The figures used herein for comparison with the count in Florida are essentially those developed by Lawton, in a few cases modified slightly in view of evidence produced by others.

They are as follows:

| Primary Care*              | 90/100,000 Population |
|----------------------------|-----------------------|
| All Medical Subspecialties | 10                    |
| Anesthesiology             | 7                     |
| Dermatology                | 2                     |
| General Surgery            | 12                    |
| Neurology                  | 1.5                   |
| Neuro-Surgery              | 1.2                   |
| Ophthalmology              | 5                     |
| Otorhinolaryngology        | 3.5                   |
| Orthopedics                | 5                     |
| Pathology                  | 4                     |
| Plastic Surgery            | 2                     |
| Psychiatry                 | 10                    |
| Radiology                  | 7                     |
| Thoracic/CV Surgery        | 1                     |
| Urology                    | 3                     |
| <b>TOTAL</b>               | <b>164.2</b>          |

\*The specialties generally included under heading of Primary Care are: family practice, general practice, emergency medicine, general internal medicine, general pediatrics, and obstetrics/gynecology.

The most appropriate distribution among the several primary care disciplines is not well agreed upon. The need for pediatricians and for obstetrics/gynecologists is most frequently cited as 10 per 100,000 each. Accepting these figures means the number of general/family practitioners plus internists should be 70 per 100,000 (1:1430). The proportion of each making up the 70 is the source of debate. For the purposes of this report mid-range figures will be assumed, these being:

45 general/family practitioners/100,000  
25 general internists/100,000.



The sum of the physicians needed in each specialty computed above is less than the total number now active in the state according to Table 13 (164.2 v 171.5). It should be noted that several specialties of medicine are not listed in the table above (one notable omission: Public Health). If the need for all specialties and subspecialties of medicine were summed, the total number of physicians needed in Florida would likely be greater than the total now available.

The important point is that these data underscore again that it is not in total numbers that Florida lags, rather in both specialty and geographic maldistribution.

SUMMARY OF EFFORTS TO DETERMINE OPTIMAL  
PHYSICIAN/POPULATION RATIOS

TABLE 14

|                     | Lawton<br>1973 | Texas Med.<br>Ass'n. 1974 | Steinle<br>1973 | Bennett<br>1973 | Rhode Island<br>1975 | Kansas RMP<br>1974 | Med. Econ.<br>1967 |
|---------------------|----------------|---------------------------|-----------------|-----------------|----------------------|--------------------|--------------------|
| <u>Primary Care</u> | <u>90</u>      | <u>79</u>                 | <u>64.1</u>     | <u>67</u>       | <u>89.5</u>          | <u>90</u>          | <u>89.1</u>        |
| FP/GP               |                | (40)                      | (33.3)          |                 |                      |                    | (50)               |
| Int. Med.           |                | (20)                      | (14.2)          |                 |                      |                    | (20)               |
| Gen'l. Peds.        | (10)           | (10)                      | (8.3)           |                 | (10)                 | (10)               | (10)               |
| OBG                 | (10)           | (9)                       | (8.3)           | (9.5)           | (9.5)                | (10)               | (9.1)              |
| Allergy             |                | 4                         |                 |                 |                      |                    | 4                  |
| Cardiovascular      |                | 1.3                       |                 |                 |                      |                    | 1                  |
| Dermatology         | 2              | 2                         |                 | 2.5             | 2                    | 2                  | 2                  |
| General Surgery     | 15             | 10                        | 12.5            | 9               | 15                   | 15                 | 10                 |
| Neurological Surg.  | 1              | 1.3                       |                 | 1               | 1.2                  |                    | 1                  |
| Ophthalmology       | 5              | 5                         | 4               | 2.5             | 4.5                  | 5                  | 5                  |
| Otolaryngology      | 3              | 3                         | 2               | 3               | 3.5                  | 3                  | 4                  |
| Orthopedics         | 5              | 3                         | 4.5             | 3.5             | 5                    | 5                  | 3.3                |
| Plastic Surgery     |                | 2                         |                 |                 |                      |                    | 2                  |
| Thoracic Surgery    |                | 1                         |                 |                 |                      |                    | 1                  |
| Urology             | 3              | 3                         | 4               | 1.8             | 3                    | 3                  | 3.3                |
| Anesthesiology      |                | 7                         | 3.3             | 7.3             | 7                    |                    | 6.7                |
| Neurology           | 1              | 1.3                       |                 | .8              | 1.5                  | 1                  | 1.3                |
| Psychiatry          | 10             | 7                         | 8.3             | 9.9             | 12                   | 10                 |                    |
| Pathology           |                | 3                         | 3.3             | 1.3             | 4                    |                    | 5                  |
| Radiology           |                | 5                         | 3.3             | 3.5             | 7                    |                    | 6.7                |
| Total Physicians    | 151            | 138                       | 109.3           | 113.1           | 156.4                | 150                | 155.4              |

## PART III

How adequate is the physician count shown in Part I to serve Florida's needs? Some attempts to answer this question are undertaken in this section of the report.

Physicians have been divided into five groups--active practice (usually but not exclusively private), medical school faculties, house-staff, federally employed (VA and military) and state employed (health departments, state hospitals, universities, administration).

Who is counted and who is excluded in physician manpower computations involves some arbitrary decisions. Inasmuch as the population figures used represent a count of all people where they are residing at the time of the census, it will include those in the various hospitals and institutions, state and federal, and at the several military bases, including both uniformed personnel and dependents.

Not all physicians are equally productive of patient care. The data available at this time do not break down this variable and only certain broad assumptions may be made. On the whole, it is assumed that with large groups, at least, this variable will tend to average out. But one assumption made throughout is that medical school faculties and all interns and residents are less available for patient care than is a full time practitioner. Education shares their time with patient care. After consultation with a number of knowledgeable people, a factor of one-half has been generally assigned to these groups.

In the following an attempt has been made to quantitate, within reasonable bounds, the adequacy or inadequacy of the present physician manpower in Florida, by specialty, when compared against norms derived in the previous section. The basis for the figures derived is explained in each case so that the reader may form his own opinion of the validity --or lack of--for each specialty.

### Primary Care Physicians

"A primary care physician (or group of physicians) is one who establishes a relationship with an individual or a family for which he provides continuing surveillance of their health care needs, comprehensive care for the acute and chronic disorders which he is qualified to care for, and access to the health care delivery system for those disorders requiring the services of other specialists." (Report of the Coordinating Council on Medical Education, January 1975).

In the previous section of this report the following figures were selected as representative of an optimum, or target, number of

physicians in each of the primary care specialties to serve a given population:

|                           |           |     |         |            |
|---------------------------|-----------|-----|---------|------------|
| General/Family Practice   | 45        | per | 100,000 | population |
| General Internal Medicine | 25        | "   | "       | "          |
| General Pediatrics        | 10        | "   | "       | "          |
| Obstetrics/Gynecology     | 10        | "   | "       | "          |
| TOTAL                     | <u>90</u> | "   | "       | "          |

Comparing the count of physicians shown in Part I with the figures above can give a measure of adequacy of the physician manpower as of this time.

A. General/Family Practice, Emergency Medicine

The total number in Florida is:

|      |                       |
|------|-----------------------|
| 2741 | Active Practice       |
| 22   | Medical Faculty       |
| 182  | Interns and Residents |
| 167  | Federally Employed    |
| 43   | State Employed        |

Assumptions:

i. The medical faculty and intern-resident group should each be counted at 25% of a full time practitioner. All others should count full time in patient care.

$$\frac{22 + 182}{4} = 51$$

|          |   |           |                                 |
|----------|---|-----------|---------------------------------|
| Practice | = | 2741      |                                 |
| Federal  | = | 167       |                                 |
| State    | = | <u>43</u> |                                 |
| TOTAL    |   | 3002      | Full time practice equivalents. |

The number needed in Florida to provide 45/100,000 population is 3886 (for a population of 8,634,466).

|             |   |
|-------------|---|
| 3886        | Target figure   |
| <u>3002</u> | Present number  |
| <u>884</u>  | Number of General/Family Practitioners we are now SHORT |

B. Internists

Those in practice (Total 1984) divide themselves into 1347 who indicate a majority of time in Internal Medicine and 637 who indicate a majority of time is spent in a subspecialty.

**Assumptions:**

1. The 1347 spend 75% in primary care, 25% in a subspecialty.
2. The 637 spend 25% in primary care, 75% in a subspecialty.
3. The medical faculty and intern-resident group spend 50% in primary care, 50% in subspecialty care but see only half as many patients as a full time practitioner.
4. The federally employed internists spend 75% in primary care, 25% in subspecialty.
5. The state employed likewise spend 75% in primary care, 25% in subspecialty.

The number of full time equivalent internists in primary care then becomes:

$$\begin{array}{l} \text{Practice} \\ \text{Group} \end{array} \left\{ \begin{array}{l} 1347 \times 75\% = 1010 \text{ F.T.E.} \\ 637 \times 25\% = 159 \end{array} \right.$$

$$\begin{array}{l} \text{Faculty,} \\ \text{I\&R} \\ \text{Group} \end{array} \quad 571 \times 50\% \times \frac{1}{2} = 143$$

$$\text{Federal Group} \quad 82 \times 75\% = 61$$

$$\text{State Group} \quad 16 \times 75\% = \underline{12}$$

$$\text{TOTAL} \quad 1385 \quad \text{Full time equivalent Internists providing Primary Care.}$$

The number needed in Florida to provide 25/100,000 population is 2159.

$$\begin{array}{r} 2159 \text{ Target Figure} \\ 1385 \text{ Present Number} \\ \hline 774 \text{ Number of Generalist Internists} \\ \hline \text{we are now SHORT} \end{array}$$

**C. Pediatrics**

The number providing pediatric care in Florida is:

|                   |     |
|-------------------|-----|
| Practice          | 589 |
| Faculty           | 58  |
| Interns/Residents | 156 |
| Federal           | 32  |
| State             | 23  |

**Assumptions:**

1. The care provided by the medical faculty and interns/residents is 25% primary, the remainder secondary and tertiary.

2. The federal and state employees practice essentially like a private practice pediatrician and can be counted full time.

|          |            |                                |
|----------|------------|--------------------------------|
| Practice | 589        |                                |
| Faculty  | 54         | (214 x 25%)                    |
| Federal  | 32         |                                |
| State    | 23         |                                |
|          | <u>698</u> | Full time practice equivalents |

The number needed in Florida to provide 10/100,000 population is 863.

|            |  |
|------------|--|
| 863        | Target Figure  |
| 698        | Present Number                                       |
| <u>165</u> | Number of Generalists Pediatricians we are now SHORT |

#### D. Obstetrics and Gynecology

The total number in Florida is:

|                   |     |
|-------------------|-----|
| Practice          | 751 |
| Faculty           | 31  |
| Interns/Residents | 115 |
| Federal           | 29  |
| State             | 8   |

Assumptions:

1. Faculty, interns and residents provide care for about half of a private practitioner's load. Hence should count as 0.5 full time equivalent.
2. All others count full time.

$$\frac{31 + 115}{2} = 73$$

$$\begin{aligned} \text{Practice} &= 751 \\ \text{Federal} &= 29 \\ \text{State} &= 8 \end{aligned}$$

861 Full time practice equivalents.

The number needed in Florida to provide 10/100,000 population is 863.

We now appear to be in excellent balance with regard to the number of OBG specialists in Florida.



The interdependency among the several groups comprising the primary care physicians is apparent. For each group we have computed above, in full time practice equivalency units:

|            |            |
|------------|------------|
| GP/FP/EM   | 3002       |
| General IM | 1385       |
| General PD | 698        |
| OBG        | <u>861</u> |
| TOTAL      | 5946       |

To provide 90 primary care physicians per 100,000 population at this time would require a total of 7771.

|             |   |
|-------------|---|
| 7771        | No. Primary Care Physicians Needed            |
| <u>5946</u> | No. Primary Care Physicians Now<br>In Florida |
| 1825        |   |

This shortfall, 1825, represents the total number of Primary Care Physicians needed in Florida now. This figure does not, of course, reflect future needs to provide for replacement and for the growth of the state. These subjects will be dealt with in a later report.

#### Non-Primary Care Physicians

Although it is recognized that nearly all physicians provide some care that can be properly labeled "primary," for the purposes of this report the nationally accepted definitions will be employed.

On page 11-2 of this report target, or so-called "optimal" figures were presented for many of the specialties of medicine. Comparisons of these numbers with the number now in practice in Florida is set out below.

#### A. The Subspecialties of Internal Medicine

Separating the primary care and the referral care of the internists is a very difficult undertaking. In computing a value for the primary care component of their efforts certain assumptions were made on page 111-3. Applying these same assumptions in a reciprocal way, the subspecialty effort of this group is computed below:

|                    |   |                                 |  |
|--------------------|---|---------------------------------|--|
| Practice Group     | { | 1347 x 25% = 337                |  |
|                    |   | 637 x 75% = 478                 |  |
| Faculty, I&R Group |   | 571 x 50% x $\frac{1}{2}$ = 143 |  |
| Federal Group      |   | 82 x 25% = 21                   |  |
| State Group        |   | 16 x 25% = <u>4</u>             |  |
| TOTAL              |   | 983                             | Full time equivalent Internists<br>in Subspecialty care. |



The number needed in Florida to provide 10 per 100,000 population is 863.

On the basis of the above calculations it would appear that we have an EXCESS of 120 Internists in the sub-specialties.

#### B. Selected Specialties of Medicine and Surgery.

The following table, 15, shows the apparent excess or deficit in the physician manpower of several specialties. It should be noted from Table 1 that there were a total of 191 physicians in other specialties not listed and 295 physicians whose specialties were not determined.

This report is addressed to statewide totals of physicians (MD and DO) although the basic census data are presented by Health Service Areas in Part I. The problems of geographic distribution, growth and replacement needs, and special concerns such as unusual composition of population groups and for the large tourist demands will be the subject of subsequent reports. Meanwhile the basic data herein may be useful to others in making specialized calculations.

TABLE 15

**NON-PRIMARY CARE PHYSICIANS IN FLORIDA.  
COMPARISON OF PRESENT NUMBER WITH THEORETICAL REQUIREMENT**

| SPECIALTY                    | "OPTIMAL NUMBER" (1)<br>PER 100,000 | TOTAL | OBSERVED<br>NUMBER (2) | EXCESS OR<br>(DEFICIT) |
|------------------------------|-------------------------------------|-------|------------------------|------------------------|
| Anesthesiology               | 7                                   | 604   | 558                    | (46)                   |
| Dermatology                  | 2                                   | 173   | 220                    | 47                     |
| General Surgery <sup>3</sup> | 12                                  | 1036  | 1114                   | 78                     |
| Neurology                    | 1.5                                 | 130   | 151                    | 21                     |
| Neuro Surgery                | 1.2                                 | 104   | 112                    | 8                      |
| Ophthalmology                | 5                                   | 432   | 507                    | 75                     |
| Otorhinolaryngology          | 3.5                                 | 302   | 259                    | (43)                   |
| Orthopedic Surgery           | 5                                   | 432   | 551                    | 119                    |
| Pathology                    | 4                                   | 345   | 458                    | 113                    |
| Plastic Surgery              | 2                                   | 173   | 127                    | (46)                   |
| Psychiatry                   | 10                                  | 863   | 784                    | (79)                   |
| Radiology                    | 7                                   | 604   | 698                    | 94                     |
| Thoracic/CV Surgery          | 1                                   | 86    | 169                    | 83                     |
| Urology                      | 3                                   | 259   | 362                    | 103                    |

<sup>1</sup> Refer to Part II of this report for development of figures used.  
Statewide population = 8,634,466.

<sup>2</sup> For this purpose medical faculty and interns/residents are counted as one-half practice. All others considered full time.

<sup>3</sup> Includes all but the surgical specialties listed.