

DOCUMENT RESUME

ED 080 810

CE 000 023

TITLE A Plan of Action for Selected Health Manpower; A Supplementary Manpower Report to Alabama Comprehensive Health Planning.

INSTITUTION Alabama State Dept. of Public Health, Montgomery. Comprehensive Health Planning Administration.

PUB DATE Jul 71

NOTE 100p.

EDRS PRICE MF-\$0.65 HC-\$3.29

DESCRIPTORS Dentists; Health Facilities; *Health Occupations; Health Occupations Education; *Health Personnel; *Hospital Personnel; Medical Education; Medical Laboratory Assistants; Nurses; Optometrists; Pharmacists; Physical Therapists; Physicians; Physicians Assistants; Radiologic Technologists; *Statewide Planning

IDENTIFIERS *Alabama

ABSTRACT

Fourteen categories of manpower, comprising 75 percent of the total health work force requiring formal training of six months or more in Alabama, are studied in this preliminary report. They are physicians, dentists, optometrists, pharmacists, medical technologists, certified laboratory assistants, sanitarians, medical records clerks, radiologic technologists, family practice physician assistants, nurse midwives, registered nurses, licensed practical nurses, and physical therapists. Manpower needs, supplies, and goals are tabulated for each category by Alabama county and district. Approved medical education programs in the state, with their student capacities and requirements, are listed for each occupation. A series of priorities and implementation responsibilities for the state as a whole and in each category has been drawn up. Several projects in innovative health manpower development are described. The appendix contains the number of hospital beds by county and district and tables of selected demographic data. A listing by district of vacant health manpower positions in hospitals is also given. (MS)

FILMED FROM BEST AVAILABLE CO

ED 080810

A PLAN OF ACTION FOR SELECTED HEA (A Supplementary Manpower Re ALABAMA COMPREHENSIVE HEALTE

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY



ALABAMA STATE BOARD OF HEALTH STATE DEPARTMENT
COMPREHENSIVE HEALTH PLANNING ADMINISTRATION MONTGO

CE 000 023

FILMED FROM BEST AVAILABLE CO

ON FOR SELECTED HEALTH MANPOWER
plementary Manpower Report to
OMPREHENSIVE HEALTH PLANNING)



ARD OF HEALTH STATE DEPARTMENT OF PUBLIC HEALTH

PLANNING ADMINISTRATION MONTGOMERY, ALABAMA July 1971

This publication is financed in part by a federal grant from the U. S. Department of Health, Education and Welfare through the "Comprehensive Health Planning Act," P.L. 89-749, Section 314(a).



ALABAMA ADVISORY COUNCIL FOR
COMPREHENSIVE HEALTH PLANNING

Mailing Address:
State Office Building
Montgomery, Alabama 36104
Telephone (205) 269-6376

IRA L. MYERS, M.D.
CHAIRMAN

W. T. WEATHINGTON, M.D.
DIRECTOR

MEMBERS

JUL 21 1971

July 16, 1971

Mrs. Colleen Beale
Montgomery
Elizabeth W. Cleino, Ph.D.
Tuscaloosa
Miss Jane Culbreth
Leeds
C. W. Dugette, Jr.
Gadsden
Milton R. Durrett
Birmingham
E. E. Eddleman, Jr., M.D.
Birmingham
Henry W. Foster, M.D.
Tuskegee
Roy W. Gilbert
Birmingham
Mrs. Jimmie H. Goodman
Montgomery
Judge Hoyt B. Hamilton
Pell City
S. Richardson Hill, Jr., M.D.
Birmingham
William E. Jennings, D.V.M.
Auburn
John LeFlore
Mobile
Mrs. Lillian G. Meade
Birmingham
Mrs. Marjorie M. Meredith
Tuscaloosa
Miss Mary Proctor
Montgomery
G. W. Robertson
Gallion
W. H. Russell, D.D.S.
Chickasaw
Sen. A. C. Shelton
Jacksonville
Barrett C. Shelton
Decatur
Jim F. Smith
Brewton
Stonewall B. Stickney, M.D.
Montgomery
Lester Thagard, Jr.
Birmingham
Mrs. Mary George Waite
Centre
James V. Walters, Ph.D.
Tuscaloosa
W. C. Williamson
Montgomery
Louis J. Willie
Birmingham
Rev. James P. Woodson
Auburn
R. Floyd Yarbrough
Birmingham

MEMORANDUM

To: Mr. Earl Wright, Director
Regional Office of Comprehensive Health Planning

From: C. Preston Blanks, Jr.
Health Planning Administrator

Subject: Alabama 314(a) Activity in Area of Health Manpower Planning

1. The Alabama 314(a) Agency has just completed the attached manpower plan and report. It will be presented to our Advisory Council on July 16, 1971 for their approval. We expect to expand this plan as time permits to cover additional health occupations.
2. Alabama Comprehensive Health Planning in conjunction with the Alabama Hospital Association and the Alabama Nursing Home Association conducted a manpower survey of all hospitals and nursing homes in the State. The responses covered approximately 87% of the total beds of the State. The report of this survey is now being reproduced and will be forwarded to you.
3. Two years ago, our Advisory Council recommended a technical panel of health specialists to serve as an advisory group to the State Board of Education. Interest has accelerated and implementation of a joint health and education advisory committee should be accomplished within the near future. This will serve to implement the attached plan.
4. Effort is continuing to convert health manpower licensure data to electronic format. Knowing exactly and currently the numbers and distribution of health manpower as compared to need is considered a prerequisite for developing training capabilities.
5. We have signed a contract this week with the Southern Research Institute in the amount of \$66,667 to design a model of a health data repository system. This will include health manpower on a current recurring basis, along with other health data.
6. The person responsible for manpower planning in our office is Loren C. Miller, State Plans Coordinator.

cc: Ira L. Myers, M.D.

Areawide Comprehensive Health
Planning Directors

CONTENTS

I.	Introduction	VI.	Priorities
II.	Administration of the Alabama Comprehensive Health Manpower Plan	VII.	Implementation
	Legal basis for plan	VIII.	Innovative and
	Responsible agency	IX.	Evaluation
	Organizational structure for preparing and maintaining plan	X.	Appendices
III.	Broad Summary of Scope		Selected Demographic
IV.	Approach Philosophy		Hospital Bed
	Short-range		Total Manpower
	Long-range		Manpower Categories
V.	Assessment of Needs - Supply - Goals		
	Categorical Definitions		
	Manpower Supply by County and District with Comparative Data Supporting Need		
	Education and Training Resources		

CONTENTS

- VI. Priorities
- VII. Implementation Responsibilities
- VIII. Innovative and Special Health Manpower Programs
- IX. Evaluation
- X. Appendices
 - Selected Demographic Data
 - Hospital Bed and Distribution Data
 - Total Manpower Needs in Hospitals
 - Manpower Categories and Identification Code

the Alabama Comprehensive
Plan
plan
ency
structure for preparing and
n
Scope
ny
ds - Supply - Goals
Definitions
y by County and District
ve Data Supporting Need
Training Resources

I. INTRODUCTION

This is an interim and preliminary health manpower plan for Alabama which, when completed, will be the basic Health Manpower Plan for the State, covering in excess of 100 categories of health workers.

While this initial effort describes only 14 categories of health manpower, it should be borne in mind that these categories comprise approximately 75 percent of the total work force for which formal training of six months or more is required for entry into the field.

Effort is continuing on the major manpower plan, but several additional months will be required for its completion due to the absence of interpretive data concerning many of the specialty groups.

The health field contains considerable fragmentation of data which identify activities and describe how and by whom services are delivered. Further complications are imposed by arbitrary definitions of job titles, questionable realism in licensure laws, and training thrusts based on limited knowledge of need.

For those specialties delineated in the following pages, this interim plan will provide a measure of visibility heretofore unobtainable. Hopefully, it will also elicit comment and counsel concerning how this and similar documents can be made more meaningful and useful to the health providers.

II. ADMINISTRATION OF THE ALABAMA COMPREHENSIVE HEALTH MANPOWER PLAN

1. Legal basis.

Alabama Act 446 (1966 Special Session of the Legislature) implements Comprehensive Health Planning objectives set out in PL 89-749. This Law and the amendments thereto are also referred to as the Partnership for Health program. Health manpower planning is an integral and principal portion of the overall planning function.

2. Responsible Agency.

Alabama Act 446 designates the State agency for conduct of the State.

3. Organizational structure plan.

Preparation of the Comprehensive Health Planning vision thereto will be executed by the Comprehensive Health Planning State Health Department, with agencies. The plan will reflect related agencies, institutions Alabama Advisory Council for organization, see Chapter 00. Planning, published April 1971 endorses all elements of the Board of Health for final approval.

III. SCOPE OF PLAN

This preliminary plan covers previously stated. Four of the categories in which the independent capacity as a private

These are:

Physicians
Dentists

The remaining 10 categories of included in this report are:

Medical Technologists
Certified Laboratory Ass't.
Sanitarians
Medical Records Clerks
Radiologic Technologists

2. Responsible Agency.

Alabama Act 446 designates the State Board of Health as the sole State agency for conduct of Comprehensive Health Planning in the State.

3. Organizational structure for preparing and maintaining the plan.

Preparation of the Comprehensive Health Manpower Plan and revisions thereto will be executed through staff components of the Comprehensive Health Planning Administration, a bureau of the State Health Department, with assistance of other appropriate agencies. The plan will reflect input from the many health related agencies, institutions and organizations in the State. The Alabama Advisory Council for Comprehensive Health Planning (for organization, see Chapter 00.20, Alabama Comprehensive Health Planning, published April 1971 by CHP Administration) reviews and endorses all elements of the plan prior to submittal to the State Board of Health for final approval.

III. SCOPE OF PLAN

This preliminary plan covers 14 categories of health manpower, as previously stated. Four of the 14 are licensed professional categories in which the individual usually works in an independent capacity as a private practitioner.

These are:

Physicians
Dentists

Optometrists
Pharmacists

The remaining 10 categories of supportive health manpower included in this report are:

Medical Technologists
Certified Laboratory Ass't.
Sanitarians
Medical Records Clerks
Radiologic Technologists

Family Practice Physician Ass't.
Nurse Midwives
Registered Nurses
Licensed Practical Nurses
Physical Therapists

For each of the categories, selected basic information is provided to answer questions concerning needs, supply, resources, and known efforts to bring disparities into balance.

The appendix section provides supplemental data which will assist regional and specialty planners to further augment health manpower planning.

IV. APPROACH PHILOSOPHY

From its inception, Comprehensive Health Planning in Alabama has sought to strengthen the planning capabilities within each of the health manpower specialties. This assistance has been provided in many different ways, ranging from staff technical assistance to financial support through cooperative agreements or direct contracts. In addition, chapters of the overall Comprehensive Health Plan have been prepared for many specialty areas.

A considerable amount of progress toward independent planning is evident in several of the health manpower specialties. Notable is the progress in the nursing profession, which has established a separate planning function known as the Commission for Nursing. The conversion of manpower data to electronic processing will afford a realistic look at needs and supply in this critical manpower specialty.

Progress toward planning is not so evident in many of the other specialties in spite of the fact that a category may have been recognized for a number of years and represented by an association or society.

Recognizing that development of a reasonable base line for comprehensive planning will take an extended period of time, two concurrent manpower planning thrusts were initiated. These are presented in detail below.

Short-Range - Initial Planning Effort

Initial planning effort is predicated upon the assumption that the widely publicized and apparently universal shortage of health manpower does, in fact, exist and exists to the point of national concern. Recognizing the urgent need, data readily available

have been utilized with liability as desirable. mobility data are not between certified and n groups.

Long-Range - The long-range on mechanis

- (a) provide a routine
- (b) develop high sensi ditions, and
- (c) provide feedback fo assessment of the process.

The long-range planning being converted to compu to continue with other

The long-range effort w mobility, distribution of for obtaining sufficient Such long-range effort w several years.

V. ASSESSMENT OF NEEDS

- (a) Definitions of the plan.
- (b) Manpower supply by supporting needs.
- (c) Education and Train

information is provided, supply, resources, into balance.

al data which will
to further augment health

Planning in Alabama has
ilities within each of the
stance has been provided
aff technical assistance
e agreements or direct
e overall Comprehensive
specialty areas.

Independent planning
power specialties. Not-
fession, which has es-
known as the Commission
r data to electronic pro-
needs and supply in

ent in many of the other
category may have been
presented by an asso-

nable base line for
ended period of time,
s were initiated.

pon the assumption that
iversal shortage of health
to the point of national
data readily available

have been utilized without as much in depth analysis of re-
liability as desirable. As an example, employment trends and
mobility data are not included. Neither are there separations
between certified and non-certified workers in the allied health
groups.

Long-Range - The long-range manpower planning effort will focus
on mechanisms which would:

- (a) provide a routine flow of current data,
- (b) develop high sensitivity to changing health manpower con-
ditions, and
- (c) provide feedback for evaluation of progress and internal
assessment of the reliability and validity of the planning
process.

The long-range planning effort is under way. Manpower data are
being converted to computer format. Arrangements have been made
to continue with other licensed health categories.

The long-range effort would include studies of employment trends,
mobility, distribution of educational resources, and potential
for obtaining sufficient numbers of qualified student candidates.
Such long-range effort will require a developing process for
several years.

V. ASSESSMENT OF NEEDS - SUPPLY - GOALS

- (a) Definitions of the categories included in this preliminary
plan.
- (b) Manpower supply by county and district with comparative data
supporting needs.
- (c) Education and Training resources:

(a) DEFINITIONS OF THE CATEGORIES INCLUDED IN THIS PRELIMINARY PLAN

INDEX

- 4b - Medical Technologist
- 4f - Certified Laboratory Assistant
- 5a - Dentist
- 7g - Sanitarians
- 13c - Medical Records Clerks
- 14a - Physicians, M.D. and D.O.
- 14c - Family Practice Physician's Assistant
- 15b - Nurse-Midwife
- 17a - Registered Nurses
- 17i - Licensed Practical Nurses
- 20a - Pharmacist
- 21a - Physical Therapist
- 23a - Radiologic Technologist
- 28b - Optometrists

CATEGORICAL DEFINITIONS

4b Medical Technologist:

College graduates who perform various chemical, microscopic, bacteriologic, and related tests. Alternate titles: medical laboratory technologist, chemistry technologist, hematology technologist, microbiology technologist. The minimum educational requirements for the medical technologist are three years of college plus twelve months of specialized training in a school of medical technology approved by the American Medical Association Council on Medical Education. For purposes of this report, only persons registered with the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists-MT (ASCP), or eligible for registry, are included. Approximately one third of the 1,015 medical technologists listed are members of the Alabama State Society of Medical Technologists.

4f Certified Laboratory Assistant:

A skilled laboratory worker who performs many routine laboratory procedures such as collecting blood specimens, typing blood counts, urinalysis, and blood chemistry. These workers are certified by the ASCP and the American Society of Medical Technologists. Certified laboratory assistants must have a high school education plus twelve months of practical and technical training in a school approved by the AMA Council on Medical Education in collaboration with the Board of Schools of the ASCP and the ASMT.

5a Dentist:

Dental practitioner licensed under Alabama law, Act No. 100.

7g Sanitarians:

The sanitarian is one of the specialists in the field of public health and preventive medicine. His work is primarily inspectional for purpose of promotion and enforcement of sanitary laws

and regulations. The of sanitarians; however, in industry. Sanitations require grad university with major course

13c Medical Records

There is no commonly worker. For purposes persons who perform clerical knowledge of medical may be employed in industry. Except in doctors' private works under the supervision of medical records technician

14a Physicians, M.D.

Those persons licensed as recomplied, Title 4 of the physician data federal physicians practice as reported by the AMA

14c Family Practice

This is a category of do some of the procedures which are often very tedious necessarily require the physicians spend many are always under the direction. The period of training of both academic and practical candidates for training in returning servicemen and medical or general health

and regulations. The State of Alabama is the principal employer of sanitarians; however, an increasing number are finding employment in industry. Sanitarians are licensed by the State. Qualifications require graduation from a four year college or university with major course work in the general sciences.

chemical, microscopic, bacteriologist, hematology technician

The minimum educational requirements for a bacteriologist are three years of specialized training in a school of public health or the American Medical Association.

For purposes of this report, the Board of Registry of the American Society of Clinical Pathologists, the American Society of Medical Technologists, and the American Society of Medical Technologists are included. Applicable regulations of the American Society of Medical Technologists are included.

forms many routine laboratory procedures, typing blood specimens, typing blood smears. These workers are certified by the American Society of Medical Technologists. Applicants must have a high school diploma and technical training in medical laboratory science. Council on Medical Education in Alabama and the American Society of Medical Technologists are included.

Alabama law, Act No. 100.

ists in the field of public health work is primarily inspection and enforcement of sanitary laws

13c Medical Records Clerks:

There is no commonly accepted definition for this category of worker. For purposes of this report, the category includes persons who perform clerical and typing operations which require knowledge of medical records systems. Persons in this category may be employed in institutions or in private doctors' offices. Except in doctors' private offices, the medical records clerk works under the supervision of a medical records librarian or medical records technician.

14a Physicians, M.D. and D.O.:

Those persons licensed to practice medicine under Alabama Code, as recompiled, Title 46 and pertinent sections thereto. Some of the physician data in this report are based on numbers of non-federal physicians providing patient care as of December 31, 1969, as reported by the AMA.

14c Family Practice Physician's Assistant:

This is a category of individuals who are especially trained to do some of the procedures which physicians customarily do and which are often very technical and exacting, but which do not necessarily require the broad judgment the attainment of which physicians spend many years in training to try to acquire. They are always under the direct supervision of a licensed physician. The period of training is approximately two years and is composed of both academic and preceptorship training. Selection of candidates for training is quite rigid and preference is given to returning servicemen and other individuals with considerable medical or general health experience.

15b Nurse-Midwife:

A registered nurse practicing midwifery. There is no legal definition at present. Common usage defines qualifications as successfully completing one year of specialized education in midwifery beyond attainment of registered nurse status.

17a Registered Nurses:

Those persons who have successfully completed the State board examination for license to practice nursing as a registered nurse. There are three levels of preparation for registered nurses: associate degree programs, diploma programs and baccalaureate degree programs. Preparation time required is two, three, and four years, respectively.

17i Licensed Practical Nurses:

This individual has successfully completed the State board examination for license to practice as a practical nurse. The period of training is twelve months of classroom theory and clinical practicum. The licensed practical nurse works under the direct supervision of a registered nurse or physician.

20a Pharmacist:

A licensed professional under the laws of the State of Alabama, the pharmacist prepares and dispenses prescriptions from doctors. Preparation time is five years of college, of which two years are devoted to pre-pharmacy courses which may be taken at any four year college or junior college, and three years of pharmacy courses which must be taken at an accredited school of pharmacy. There are two accredited pharmacy schools in Alabama: one at Auburn University and one at Samford University.

21a Physical Therapist:

Physical therapists practice only upon the referral of a licensed physician or a licensed dentist. They evaluate neuro-

muscular, musculoskeletal, vascular and respiratory function and implement initial and basis of test findings and physician or dentist with of the patient. Physical

23a Radiologic Technologist:

Radiologic technologists, technicians, operate x-ray of a physician who is usually consists of two years of training certified radiologist in a approved by the AMA Council full completion of a registration becomes a registered radio

28b Optometrists:

The optometrist is a specialist eyes to detect disease or correct lenses or exercises, but does not prescribe. Normal time for preparation

ere is no legal def-
alifications as suc-
education in mid-
status.

d the State board
as a registered
n for registered
programs and bac-
e required is two,

he State board exam-
al nurse. The
room theory and
nurse works under the
physician.

e State of Alabama,
ptions from doctors.
f which two years
y be taken at any
ee years of phar-
dited school of
schools in Alabama:
University.

referral of a lic-
evaluate neuro-

muscular, musculoskeletal, sensory motor, and related cardio-vascular and respiratory functions of the patient. They plan and implement initial and subsequent treatment programs on the basis of test findings and within the referral of the licensed physician or dentist with only main contact regarding the care of the patient. Physical therapists are licensed by the State.

23a Radiologic Technologist:

Radiologic technologists, also called x-ray technologists or technicians, operate x-ray equipment under the general direction of a physician who is usually a radiologist. Preparation consists of two years of training under the supervision of a board certified radiologist in a school of radiologic technology approved by the AMA Council on Medical Education. Upon successful completion of a registration examination, the candidate becomes a registered radiologic technologist (RT-ARRT).

28b Optometrists:

The optometrist is a specialist in vision analysis, examining the eyes to detect disease or defects. He prescribes for corrective lenses or exercises, but does not prescribe drugs or supply lenses. Normal time for preparation is six years.

(b) MANPOWER SUPPLY BY COUNTY AND DISTRICT WITH COMPARATIVE DATA SUPPORTING NEEDS.

DISTRICT-COUNTY COMPOSITION AND POPULATION

District 1 (Tennessee Valley) Population 702,783

Colbert	Lawrence
Cullman	Limestone
DeKalb	Madison
Franklin	Marion
Jackson	Marshall
Lauderdale	Morgan
	Winston

District 2 (Tuscaloosa) Population 207,292

Bibb	Hale
Fayette	Lamar
Greene	Pickens
	Tuscaloosa

District 3 (Birmingham) Population 819,263

Blount	St. Clair
Chilton	Shelby
Jefferson	Walker

District 4 (Gadsden) Population 400,943

Calhoun	Coosa
Chambers	Etowah
Cherokee	Randolph
Clay	Talladega
Cleburne	Tallapoosa

District 5 (Montgo

Autauga
Bullock
Butler
Crenshaw
Elmore

District 6 (Selma)

Choctaw
Clarke
Conecuh
Dallas
Marengo

District 7 (Dothan)

Barbour
Coffee
Covington

District 8 (Mobile)

Baldwin
Escambia
Mobile

Total State Populat

* Planning/Developm
July 24, 1970, ex
District #6 inste

DISTRICT-COUNTY COMPOSITION AND POPULATION*

702,783

District 5 (Montgomery) Population 442,242

Autauga	Lee
Bullock	Lowndes
Butler	Macon
Crenshaw	Montgomery
Elmore	Pike
	Russell

District 6 (Selma) Population 223,862

Choctaw	Monroe
Clarke	Perry
Conecuh	Sumter
Dallas	Washington
Marango	Wilcox

263

District 7 (Dothan) Population 236,184

Barbour	Dale
Coffee	Geneva
Covington	Henry
	Houston

43

District 8 (Mobile) Population 411,596

Baldwin
Escambia
Mobile

Total State Population 3,444,165

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District #6 instead of District #2.

HEALTH MANPOWER SUPPLY (SUMMARY)

CATEGORY	NATION ⁽¹⁾	STATE ⁽²⁾	DISTRICT 1	2	3	4	5	6	7	8
4b Med. Technologist	38,400	1,015	125	40	449	66	134	29	41	131
4f Certified Lab. Ass't	4,338	41	2	2	26	3	1	0	6	1
5a Dentist	100,000	1,079	192	57	347	89	124	49	60	134
7g Sanitarian		255	40	14	60	31	48	15	15	32
13c Med. Record Clerk	unknown									
14a Non-federal(3) Physician, M.D. & D.O. (providing patient care)	247,508	2,627	397	132	1,033	211	260	95	121	378
14c Family Practice Physician Ass't	unknown	24	-	-	-	-	-	-	-	-
15b Nurse-Midwife	unknown	-0-	-	-	-	-	-	-	-	-
17a Registered Nurse (active)	680,000	7,281	1,190	437	2,303	799	936	267	328	1,021
17f Licensed Prac. Nurse	345,000	7,813	1,682	428	2,266	733	812	316	521	1,055
20a Pharmacist	124,500	1,765	339	82	510	206	208	88	120	212
21a Physical Therapist	13,500	80	9	4	36	5	11	2	2	11
23a Radiologic Technologist	37,900	750	104	63	241	89	100	11	31	111
28b Optometrist	16,205	174	38	4	34	24	22	10	18	24

- (1) Source: Health Resources Statistics - 1969, Dept. of Health, Education, & Welfare, Public Health Service. Also, see (3) below.
- (2) From current rosters of active health manpower, except see (3) below.
- (3) 1969. Source: Distribution of Physicians, Hospitals, and Hospital Beds in the U.S.-1969, American Medical Association, Chicago, 1970.

RATES PER 100,000 POPULATION

CATEGORY	NATION ⁽¹⁾	STATE ⁽²⁾	DISTRICT 1 (2)	2	3	4	5	6	7	8
4b Med. Technologist	19	29	18	19	55	16	30	13	17	32
4f Certified Lab. Ass't	2.2	1.1	0.2	0.9	3.1	0.7	0.2	0	3	0.2
5a Dentist	51	31	27	28	42	22	28	22	25	33
7g Sanitarian		7	6	7	7	8	11	7	6	8
13c Med. Record Clerk	-	-	-	-	-	-	-	-	-	-
14a Non-federal Physician, M.D. & D.O. (providing patient care)	125	76	56	64	126	53	59	42	51	92
14c Family Practice Physician Ass't	-	0.6	-	-	-	-	-	-	-	-
15b Nurse-Midwife	-	-	-	-	-	-	-	-	-	-
17a Registered Nurse	344	211	169	211	281	199	212	119	139	248
17f Licensed Practical Nurse	175	227	239	207	277	183	184	141	221	254
20a Pharmacist	63	51	48	40	62	51	47	39	51	51
21a Physical Therapist	7	2.3	1.2	2	4	1.2	2.4	0.8	0.8	3
23a Radiologic Technologist	19	22	15	30	29	22	23	5	13	27
28b Optometrist	8	5	5	2	4	6	5	4	9	6

4f	Certified Lab.Ass't	4,338	41	2	2	26	3	1	0	6	1
5a	Dentist	100,000	1,079	192	57	347	89	124	49	60	134
7g	Sanitarian		255	40	14	60	31	48	15	15	32
13c	Med. Record Clerk	unknown									
14a	Non-federal(3) Physician, M.D. & D.O. (providing patient care)	247,508	2,627	397	132	1,033	211	260	95	121	378
14c	Family Practice Physician Ass't	unknown	24	-	-	-	-	-	-	-	-
15b	Nurse-Midwife	unknown	-0-	-	-	-	-	-	-	-	-
17a	Registered Nurse (active)	680,000	7,281	1,190	437	2,303	799	936	267	328	1,021
17i	Licensed Prac. Nurse	345,000	7,813	1,682	428	2,266	733	812	316	521	1,055
20a	Pharmacist	124,500	1,765	339	82	510	206	208	88	120	212
21a	Physical Therapist	13,500	80	9	4	36	5	11	2	2	11
23a	Radiologic Technologist	37,900	750	104	63	241	89	100	11	31	111
28b	Optometrist	16,205	174	38	4	34	24	22	10	18	24

- (1) Source: Health Resources Statistics - 1969, Dept. of Health, Education, & Welfare, Public Health Service. Also, see (3) below.
- (2) From current rosters of active health manpower, except see (3) below:
- (3) 1969. Source: Distribution of Physicians, Hospitals, and Hospital Beds in the U.S.-1969, American Medical Association, Chicago, 1970.

RATES PER 100,000 POPULATION

CATEGORY	(1) NATION	(2) STATE	DISTRICT 1 (2)	2	3	4	5	6	7	8
4b Med. Technologist	19	29	18	19	55	16	30	13	17	32
4f Certified Lab.Ass't	2.2	1.1	0.2	0.9	3.1	0.7	0.2	0	3	0.2
5a Dentist	51	31	27	28	42	22	28	22	25	33
7g Sanitarian	-	7	6	7	7	8	11	7	6	8
13c Med. Record Clerk	-	-	-	-	-	-	-	-	-	-
14a Non-federal Physician, M.D. & D.O. (providing patient care)	125	76	56	64	126	53	59	42	51	92
14c Family Practice Physician Ass't	-	0.6	-	-	-	-	-	-	-	-
15b Nurse-Midwife	-	-	-	-	-	-	-	-	-	-
17a Registered Nurse	344	211	169	211	281	199	212	119	139	248
17i Licensed Practical Nurse	175	227	239	207	277	183	184	141	221	254
20a Pharmacist	63	51	48	40	62	51	47	39	51	51
21a Physical Therapist	7	2.3	1.2	2	4	1.2	2.4	0.8	0.8	3
23a Radiologic Technologist	19	22	15	30	29	22	23	5	13	27
28b Optometrist	8	5	5	2	4	6	5	4	8	6

- (1) 1968 supply; 1968 population of 197,571,000. Source: Health Resources Statistics - 1969, Dept. of Health, Education, and Welfare, Public Health Service.

- (2) Source: U.S. Census of Population - 1970.

CODE	MANPOWER CATEGORY	(2) SUPPLY	ADD'L (2) NEED	CURRENT STUDENT CAPACITY OR GRADUATIONS
4b	Medical Technologist	1015	54	Capacity 161
4f	Certified Laboratory Ass't	41	unknown	Capacity 53
5a	Dentist	1079	170	72 per class
7g	Sanitarians	255	34	open
13c	Medical Records Clerks	2964	591	none
14a	Physicians, M.D. & D.O.	2627 ⁽¹⁾	259	Capacity 125 per class
14c	Family Practice Phys. Ass't	22	157	Capacity 60 (1975)
15b	Nurse-Midwife	-0-	259	Pending Capacity 12 per year
17a	Registered Nurses	7281	1262	Graduations 1970 - 466
17f	Licensed Practical Nurses	7813	383	Graduations 1970 - 699
20a	Pharmacist	1765	-0-	Graduations 151
21a	Physical Therapist	80	115	Graduations 1971 - 13
23a	Radiologic Technologist	750	128	Capacity 225
28b	Optometrists	174	59	Capacity 25 per class

(1) 1968--non-federal physicians providing patient care.

(2) See respective category displays for method of calculation. Need does not consider replacement for erosion of existing work force through retirement, death, and net out-migration.

* Planning/Development Districts per Executive Order 23 dated July 24, 1970 except that Sumter County is reflected in District 6 instead of District 2. ** Excludes VA beds.

(1) From roster supplied by Lynda White, membership chairman ASSMT, June 1971; includes ASSMT members and eligible non-members.

(2) CHP Hospital /Nursing Home Manpower Survey 1971.

	ASSMT Members	Non- Members	NO. ACTIVE BY COUNTY & DISTRICT							
			1	2	3	4	5	6	7	8
AUTAUGA	3	3					6			
BALDWIN	3	10								13
BARBOUR	1	1							2	
BIBB	1			1						
BLOUNT		1			1					
BULLOCK										
BUTLER	2	2					4			
CALHOUN	7	12				19				
CHAMBERS	1	4				5				
CHEROKEE										
CHILTON										
CHOCTAW		1							1	
CLARKE		5							5	
OLAY		1				1				
CLEBURNE										
COFFEE	2	6							8	
COLBERT	1	4	5							
CONECUH		1							1	
COOSA										
COVINGTON		4							4	
CRENSHAW	1	2					3			
CULMAN	1	1	2							
DALE	4	6							10	
DALLAS	4	7							11	
DEKALB	1	3	4							
ELMORE	4	5					9			
ESCAMBIA	2	2								4
ETOWAH	19	17				36				
FAYETTE	1	1		2						
FRANKLIN		1	1							
GENEVA		1							1	
GREENE	1	2		3						
HALE		2		2						
HENRY	1	1							2	
HOUSTON	7	7							14	
JACKSON										
JEFFERSON	145	275			420					
LAMAR										
LAUDERDALE	2	9	11							
LAWRENCE	1	2	3							
LEE	5	13					18			
LESTONE		3	3							
WINDES	1						1			
MACON	3	7					10			

DISTRICT*	1	2	3	
SUPPLY(1)	125	40	449	
POP./MT	5622	5182	1824	60
HOSP./MT**	28	24	9	
ADD'L NEED @ 1 MT PER 10 HOSP.				
BEDS**	224	57		1
REPORTED OPEN POSITIONS IN HOSP. (2)	5	3	24	

SELECTED COMPARISON

MEDICAL TECHNOLOGIST-4b

Development Districts per Order 23 dated July 24, at that Sumter County is in District 6 instead of District 1. ** Excludes VA beds. ** supplied by Lynda membership chairman ASSMT, includes ASSMT members. Excludes non-members. Total /Nursing Home Manpower 71.

SELECTED COMPARISONS BY PLANNING DISTRICTS*									
DISTRICT*	1	2	3	4	5	6	7	8	TOTAL
SUPPLY(1)	125	40	449	66	134	29	41	131	1015
POP./MT	5622	5182	1824	6074	3300	7719	5760	3141	3393
HOSP./MT**	28	24	9	30	15	27	25	15	16
ADD'L NEED @ 1 MT PER 10 HOSP.	224	57	130	69	50	62	67	659	
BEDS**									
REPORTED OPEN POSITIONS IN HOSP. (2)	5	3	24	2	3	4	4	9	54
BLOUNT	1								
BULLOCK									
BUTLER	2	2							
CALHOUN	7	12							
CHAMBERS	1	4							
CHEROKEE									
CHILTON									
CHOCTAW		1							
CLARKE		5							
CLAY		1							
CLEBURNE									
COFFEE	2	6							
COLBERT	1	4	5						
CONECUH		1							
COOSA									
COVINGTON		4							
CRENSHAW	1	2							
CULLMAN	1	1	2						
DALE	4	6							
DALLAS	4	7							
DEKALB	1	3	4						
ELMORE	4	5							
ESCAMBIA	2	2							
ETOWAH	19	17							
FAYETTE	1	1	2						
FRANKLIN		1	1						
GENEVA		1							
GREENE	1	2	3						
HALE		2	2						
HENRY	1	1							
HOUSTON	7	7							
JACKSON									
JEFFERSON	145	275							
LAMAR									
LAUDERDALE	2	9	11						
LAWRENCE	1	2	3						
LEE	5	13							
LIMESTONE		3	3						
LOWNDES	1								
MACON	3	7							
MADISON	14	65	79						
MARENGO		3							
MARION	1	1	2						
MARSHALL	2	4	6						
MOBILE	36	78							
MONROE	2	1							
MONTGOMERY	38	35							
MORGAN	4	5	9						
PERRY	2	1							
PICKENS	1		1						
PIKE	2	3							
RANDOLPH		1							
RUSSELL	1	4							
ST. CLAIR	2	3							
SHELBY	6	10							
SUMTER		1	1						
TALLADEGA	1	2							
TALLAPOOSA		1							
TUSCALOOSA	10	20	30						
WALKER	4	3							
WASHINGTON									
WILCOX		2							
WINSTON									

NO. ACTIVE BY COUNTY & DISTRICT

	1	2	3	4	5	6	7	8
AUTAUGA								
BALDWIN								
BARBOUR								
BIBB		1						
BLOUNT								
BULLOCK								
BUTLER								
CALHOUN								
CHAMBERS								
CHEROKEE								
CHILTON			1					
CHOCTAW								
CLARKE								
CLAY								
CLEBURNE				1				
COFFEE								
COLBERT								
CONECUH								
COOSA								
COVINGTON								
CRENSHAW								
CULLMAN								
DALE								
DALLAS								
DEKALB								
ELMORE								
ESCAMBIA								
ETOWAH								
FAYETTE								
FRANKLIN								
GENEVA								
GREENE								
HALE								
HENRY								
HOUSTON							6	
JACKSON								
JEFFERSON			23					
LAMAR								
LAUDERDALE								
LAWRENCE								
LEE								
LIMESTONE								

SELECTED COMPAR

DISTRICT* 1 2 3

SUPPLY(1) 2 2 26

* Planning and Development Districts per Ex
Sumter County is reflected in District 6
(1) From roster supplied by Lynda White, memb

CERTIFIED LABORATORY ASSISTANT-41

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICT*	1	2	3	4	5	6	7	8	TOTAL
SUPPLY(1)	2	2	26	3	1	0	6	1	41

* Planning and Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.
 (1) From roster supplied by Lynda White, membership chairman of ASSMT, June 1971.

BULLOCK									
BUTLER									
CALHOUN									
CHAMBERS									
CHEROKEE									
CHILTON		1							
CHOCTAW									
CLARKE									
CLAY									
CLEBURNE		1							
COFFEE									
COLBERT									
CONECUH									
COOSA									
COVINGTON									
CRENSHAW									
CULLMAN									
DALE									
DALLAS									
DEKALB									
ELMORE									
ESCAMBIA									
ETOWAH									
FAYETTE									
FRANKLIN									
GENEVA									
GREENE									
HALE									
HENRY									
HOUSTON									6
JACKSON									
JEFFERSON			23						
LAMAR									
LAUDERDALE									
LAWRENCE									
LEE									
LIMESTONE									
LOWNDES									
MACON									
MADISON									
MARENGO									
MARION									
MARSHALL									
MOBILE									1
MONROE									
MONTGOMERY									1
MORGAN	2								
PERRY									
PICKENS									
PIKE									
RANDOLPH									
RUSSELL									
ST. CLAIR									
SHELBY			1						
SUMTER									
TALLADEGA				2					
TALLAPOOSA									
TUSCALOOSA		1							
WALKER			1						
WASHINGTON									
WILCOX									
WINSTON									

NO. ACTIVE BY COUNTY & DISTRICT

1 2 3 4 5 6 7 8

AUTAUGA					5			
BALDWIN							11	
BARBOUR						6		
BIBB		1						
BLOUNT			4					
BULLOCK					1			
BUTLER					5			
CALHOUN				26				
CHAMBERS				3				
CHEROKEE				2				
CHILTON			6					
CHOCTAW						1		
CLARKE						7		
CLAY				1				
CLEBURNE				1				
COFFEE						10		
COLBERT	13							
CONECUH						3		
COOSA				1				
COVINGTON						10		
CRENSHAW					2			
CULLMAN	9							
DALE						4		
DALLAS						19		
DEKALB	6							
ELMORE					7			
ESCAMBIA							11	
ETOWAH				30				
FAYETTE		4						
FRANKLIN	6							
GENEVA						5		
GREENE		1						
HALE		2						
HENRY						6		
HOUSTON						19		
JACKSON	7							
JEFFERSON			341					
LAMAR		2						
UDERDALE	22							
WRENCE	3							
LEE					17			

DISTRICT*	1	2	3
SUPPLY(1)	192	57	374
POP./DENTIST	3660	3636	2191
ADD'L NEEDS(2)	41	13	-

* Planning/Development Districts per Executive County is reflected in District 6 instead
 (1) Source: Directory, Board of Dental Examining
 (2) Number required to reach ratio of 3000 Pop areas for purposes of student loan assistance

SELECTED COMPARI

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICT*	1	2	3	4	5	6	7	8	TOTAL
SUPPLY(1)	192	57	374	89	124	49	60	134	1079
POP./DENTIST	3660	3636	2191	4505	3566	4569	3936	3072	3192
ADD'L NEEDS(2)	41	13	-	45	23	26	19	3	170

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

(1) Source: Directory, Board of Dental Examiners, Jan. 1, 1971.

(2) Number required to reach ratio of 3000 Pop./Dentist set by HEW to determine critical shortage areas for purposes of student loan assistance.

BARBOUR									6
BIBB		1							
BLOUNT			4						
BULLOCK					1				
BUTLER					5				
CALHOUN				26					
CHAMBERS				3					
CHEROKEE				2					
CHILTON			6						
CHOCTAW						1			
CLARKE						7			
CLAY				1					
CLEBURNE				1					
COFFEE						10			
COLBERT	13								
CONECUH					3				
COOSA				1					
COVINGTON						10			
CRENSHAW					2				
CULLMAN	9					4			
DALE									
DALLAS					19				
DEKALB	6								
ELMORE					7				
ESCAMBIA								11	
ETOWAH				30					
FAYETTE		4							
FRANKLIN	6								
GENEVA						5			
GREENE		1							
HALE		2							
HENRY						6			
HOUSTON						19			
JACKSON	7								
JEFFERSON			341						
LAMAR		2							
LAUDERDALE	22								
LAWRENCE	3								
LEE					17				
LIMESTONE	9								
LOWNDES					4				
MACON					3				
MADISON	68								
MARENGO						5			
MARION	4								
MARSHALL	15								
MOBILE								112	
MONROE						5			
MONTGOMERY					72				
MORGAN	25								
PERRY						4			
PICKENS		4							
PIKE						6			
RANDOLPH				2					
RUSSELL					2				
ST. CLAIR			6						
SHELBY			6						
SUMTER							2		
TALLADEGA				13					
TALLAPOOSA				10					
TUSCALOOSA		43							
WALKER			11						
WASHINGTON						2			
WILCOX						1			
WINSTON	5								

NO. ACTIVE BY COUNTY & DISTRICT

	1	2	3	4	5	6	7	8
AUTAUGA					1			
BALDWIN								8
BARBOUR							1	
BIBB								
BLOUNT								
BULLOCK					2			
BUTLER					1			
CALHOUN				9				
CHAMBERS				1				
CHEROKEE				1				
CHILTON			1					
CHOCTAW						1		
CLARKE						1		
CLAY				1				
OLEBURNE								
COFFEE							2	
COLBERT	4							
CONECUH						1		
COOSA				2				
COVINGTON							2	
CRENSHAW					2			
CULLMAN	1							
DALE							1	
DALLAS						3		
DEKALB	2							
ELMORE					2			
ESCAMBIA								2
ETOWAH				11				
FAYETTE		1						
FRANKLIN	1							
GENEVA							1	
GREENE						1		
HALE		1						
HENRY							1	
HOUSTON							7	
JACKSON	2							
JEFFERSON			55					
LAMAR		1						
LAUDERDALE	4							
LAWRENCE	1							
LEE					5			
LIMESTONE	3							
LOWNDES								
MAYON					1			
MONROE	11							
MORGAN						1		
MARTIN	1							

* Planning/Development Districts per Executive Order 21
 County is reflected in District 6 instead of District
 (1) Source: Roster supplied by A.C. Mullins, Feb. 1970.
 (2) Ratio considered minimum for public health plus private

SUPPLY (1)	40	14	60	31
POP./SANITARIAN	17570	14807	13654	12934
ADD'L NEED @ 1:				
12,500 POP. (2)	16	3	6	1

DISTRICT*	1	2	3	4
SELECTED COMPARISONS BY PL				

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICT*	1	2	3	4	5	6	7	8	TOTAL
SUPPLY (1)	40	14	60	31	48	15	15	32	255
POP./SANITARIAN	17570	14807	13654	12934	9213	14924	15745	12862	13506
ADD'L. NEED @ 1:									
12,500 POP. (2)	16	3	6	1		3	4	1	34

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

(1) Source: Roster supplied by A.C. Mullins, Feb. 1970.

(2) Ratio considered minimum for public health plus private industry employment.

BIBB									
BLOUNT									
BULLOCK				2					
BUTLER				1					
CALHOUN				9					
CHAMBERS				1					
CHEROKEE				1					
CHILTON			1						
CHOCTAW					1				
CLARKE									
OLAY			1						
OLEBURNE									
COFFEE						2			
COLBERT	4								
CONECUH					1				
COOSA			2						
COVINGTON						2			
CRENSHAW				2					
CULLMAN	1								
DALE						1			
DALLAS					3				
DEKALB	2								
ELMORE				2					
ESCAMBIA								2	
ETOWAH				11					
FAYETTE		1							
FRANKLIN	1								
GENEVA						1			
GREENE						1			
HALE		1							
HENRY						1			
HOUSTON						7			
JACKSON	2								
JEFFERSON				55					
LAMAR		1							
LAUDERDALE	4								
LAWRENCE	1								
LEE					5				
LIMESTONE	3								
LOWNDES									
MACON					1				
MADISON	11								
MARENGO					1				
MARION	1								
MARSHALL	3								
MOBILE								22	
MONROE						2			
MONTGOMERY					31				
MORGAN	6								
PERRY									
PICKENS		1							
PIKE					1				
RANDOLPH				1					
RUSSELL					2				
ST. CLAIR				1					
SHELBY				1					
SUMTER						2			
TALLADEGA					4				
TALLAPOOSA					1				
TUSCALOOSA		10							
WALKER				2					
WASHINGTON						2			
WILCOX						1			
WINSTON	1								

ESTIMATED SUPPLY ESTIMATED NEED

Hosp. Phy. Off. Total @ 120% Supply

AUTAUGA		5	5	6
BALDWIN	2	19	21	25
BARBOUR		12	12	14
BIBB		5	5	6
BLOUNT		5	5	6
BULLOCK	1	5	6	7
BUTLER	2	9	11	13
CALHOUN	10	56	66	79
CHAMBERS	1	17	18	22
CHEROKEE		6	6	7
CHILTON		7	7	8
CHOCTAW		4	4	5
CLARKE	1	14	15	18
CLAY		5	5	6
CLEBURNE	1	2	3	4
COFFEE	4	20	24	29
COLBERT	3	31	34	41
CONECUH		4	4	5
COOSA		1	1	1
COVINGTON	6	18	24	29
CRENSHAW	1	5	6	7
CULLMAN	4	16	20	24
DALE		14	14	17
DALLAS	7	41	48	58
DEKALB		13	13	16
ELMORE	3	14	17	20
ESCAMBIA		19	19	23
ETOWAH	21	70	91	109
FAYETTE		4	4	5
FRANKLIN	4	14	18	22
GENEVA		8	8	10
GREENE		4	4	5
HALE		3	3	4
HENRY		3	3	4
HOUSTON	5	46	51	61
JACKSON	2	15	17	20
JEFFERSON	117	977	1094	1313
LAMAR		6	6	7
LAUDERDALE	6	50	56	67
LAWRENCE		8	8	10
LEE		28	28	34
LIMESTONE	2	13	15	18
LOWNDES		2	2	3
MACON		8	8	10
MADISON	17	133	150	180
MARENGO		9	9	11

SELECTED COMPARISONS BY P

DISTRICTS*	1	2	3	4
Est. supply(1)	454	157	1159	256
Est. add'l need(2)	91	31	232	51

* Planning/Development Districts per Executive Order
 County is reflected in District 6 instead of District
 (1) Calculated at 1 MRC per active physician plus report
 hospitals (Ala. CHP Hospital/Nursing Home Manpower
 (2) Based on need at 120% estimated supply.

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICTS*	1	2	3	4	5	6	7	8	TOTAL
Est. supply(1)	454	157	1159	256	277	103	136	422	2964
Est. add'l need(2)	91	31	232	51	55	20	27	84	591

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.
 (1) Calculated at 1 MRC per active physician plus reported full-time and part-time employees in hospitals (Ala. CHP Hospital/Nursing Home Manpower Survey, Jan. 1971).
 (2) Based on need at 120% estimated supply.

BLOUNT		5	5	6
BULLOCK	1	5	6	7
BUTLER	2	9	11	13
CALHOUN	10	56	66	79
CHAMBERS	1	17	18	22
CHEROKEE		6	6	7
CHILTON		7	7	8
CHOCTAW		4	4	5
CLARKE	1	14	15	18
CLAY		5	5	6
CLEBURNE	1	2	3	4
COFFEE	4	20	24	29
COLBERT	3	31	34	41
CONECUH		4	4	5
COOSA		1	1	1
COVINGTON	6	18	24	29
CRENSHAW	1	5	6	7
CULLMAN	4	16	20	24
DALE		14	14	17
DALLAS	7	41	48	58
DEKALB		13	13	16
ELMORE	3	14	17	20
ESCAMBIA		19	19	23
ETOWAH	21	70	91	109
FAYETTE		4	4	5
FRANKLIN	4	14	18	22
GENEVA		8	8	10
GREENE		4	4	5
HALE		3	3	4
HENRY		3	3	4
HOUSTON	5	46	51	61
JACKSON	2	15	17	20
JEFFERSON	117	977	1094	1313
LAMAR		6	6	7
LAUDERDALE	6	50	56	67
LAWRENCE		8	8	10
LEE		28	28	34
LIMESTONE	2	13	15	18
LOWNDES		2	2	3
MACON		8	8	10
MADISON	17	133	150	180
MARENGO		9	9	11
MARION	2	8	10	12
MARSHALL	5	26	31	37
MOBILE	42	340	382	458
MONROE		7	7	8
MONTGOMERY	9	164	173	208
MORGAN	11	65	76	91
PERRY		4	4	5
PICKENS		6	6	7
PIKE	1	8	9	11
RANDOLPH	1	5	6	7
RUSSELL		12	12	14
ST. CLAIR	2	7	9	11
SHELBY	2	11	13	16
SUMTER		5	5	6
TALLADEGA	7	29	36	43
TALLAPOOSA	4	20	24	29
TUSCALOOSA	25	104	129	150
WALKER	5	26	31	37
WASHINGTON		3	3	4
WILCOX		4	4	5
WINSTON	1	5	6	7

NO. ACTIVE BY COUNTY & DISTRICT

1 2 3 4 5 6 7 8

AUTAUGA					5			
BALDWIN							19	
BARBOUR						12		
BIBB		5						
BLOUNT			5					
BULLOCK					5			
BUTLER					9			
CALHOUN				56				
CHAMBERS				17				
CHEROKEE				6				
CHILTON			7					
CHOCTAW						4		
CLARKE						14		
CLAY				5				
OLEBURNE				2				
COFFEE						20		
COLBERT	31							
CONECUH						4		
COOSA				1				
COVINGTON						18		
CRENSHAW					5			
CULLMAN	16							
DALE						14		
DALLAS						41		
DEKALB	13							
ELMORE					14			
ESCAMBIA							19	
ETOWAH				70				
FAYETTE		4						
FRANKLIN	14							
GENEVA						8		
GREENE		4						
HALE		3						
HENRY						3		
HOUSTON						46		
JACKSON	15							
JEFFERSON			977					
LAMAR		6						
LAUDERDALE	50							
LAWRENCE	8							
LEE					28			
LIMESTONE	13							
LOWNDES					2			
MACON					8			
MADISON	123							

SELECTED COMPARISONS BY

DISTRICT*

1

2

3

4

SUPPLY (1)

397

132

1033

211

POP./PHYS.

1770

1570

793

1900

HOSP. BED/PHYS. (2)

8.2

7.4

4.0

5.3

ADD'L. NEED @

72

6

-

56

1:1500 POP. (3)

72

6

-

56

* Planning/Development Districts per Executive Order

(1) County is reflected in District 6 instead of District 1

(2) Non-federal physicians providing patient care. See and Hospital Beds in the U.S., 1969, Vol. 1, Registration, Chicago, 1970.

(3) Non-federal physicians providing patient care. See critical shortage areas for purposes of student 10

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICT*	1	2	3	4	5	6	7	8	TOTAL
SUPPLY (1)	397	132	1033	211	260	95	121	378	2627
POP./PHYS.	1770	1570	793	1900	1700	2356	1951	1088	1311
HOSP. BED/PHYS.(2)	8.2	7.4	4.0	9.3	7.8	8.2	8.5	5.2	6.2
ADD'L NEED @ 1:1500 POP.(3)	72	6	-	56	35	54	36	-	259

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

(1) Non-federal physicians providing patient care. Source: Distribution of Physicians, Hospitals, and Hospital Beds in the U.S., 1969, Vol. 1, Regional, State, County; American Medical Association, Chicago, 1970.

(2) Excludes VA beds.

(3) Non-federal physicians providing patient care. Ratio of 1:1500 established by HEW to identify critical shortage areas for purposes of student loan assistance.

BIBB	5								
BLOUNT		5							
BULLOCK				5					
BUTLER				9					
CALHOUN			56						
CHAMBERS			17						
CHEROKEE			6						
CHILTON		7							
CHOCTAW				4					
CLARKE				14					
CLAY			5						
CLEBURNE			2						
COFFEE						20			
COLBERT	31								
CONECUH				4					
COOSA			1						
COVINGTON					18				
CRENSHAW				5					
CULLMAN	16								
DALE					14				
DALLAS				41					
DEKALB	13								
ELMORE				14					
ESCAMBIA						19			
ETOWAH			70						
FAYETTE		4							
FRANKLIN	14								
GENEVA					8				
GREENE		4							
HALE		3							
HENRY					3				
HOUSTON					46				
JACKSON	15								
JEFFERSON			977						
LAMAR		6							
LAUDERDALE	50								
LAWRENCE	8								
LEE				28					
LIMESTONE	13								
LOWNDES				2					
MACON				8					
MADISON	133								
MARENGO					9				
MARION	8								
MARSHALL	26								
MOBILE						340			
MONROE					7				
MONTGOMERY				164					
MORGAN	65								
PERRY					4				
PICKENS		6							
PIKE				8					
RANDOLPH				5					
RUSSELL					12				
ST. CLAIR		7							
SHELBY		11							
SUMTER					5				
TALLADEGA				29					
TALLAPOOSA				20					
TUSCALOOSA	104								
WALKER				26					
WASHINGTON						3			
WILCOX						4			
WINSTON	5								

**ACTIVE GENERAL PRACTICE PHYSICIANS
BY COUNTY AND DISTRICT**

	1	2	3	4	5	6	7	8
AUTAUGA					4			
BALDWIN								13
BARBOUR							9	
BIBB		4						
BLOUNT			4					
BULLOCK					3			
BUTLER					5			
CALHOUN				10				
CHAMBERS				8				
CHEROKEE				5				
CHILTON			7					
CHOCTAW						4		
CLARKE						9		
CLAY				3				
CLEBURNE				2				
COFFEE							8	
COLBERT	11							
CONECUH						3		
COOSA				1				
COVINGTON							14	
CRENSHAW					4			
CULLMAN	11							
DALE							8	
DALLAS						8		
DEKALE	9							
ELMORE					12			
ESCAMBLA								15
ETOWAH				18				
FAYETTE		3						
FRANKLIN	5							
GENEVA							8	
GREENE		4						
HALE		3						
HENRY							3	
HOUSTON							9	
JACKSON	11							
JEFFERSON			10					
LAMAR		6						
LAUDERDALE	9							
LAWRENCE	5							
LEE					12			
LIMESTONE	9							
LOWNDES					2			
MACON					2			
MAZON	35							
MENGO						8		
MARION	7							

DISTRICT*	SELECTED COMPARISONS BY PI			
	1	2	3	4
NUMBER OF GENERAL PRACTICE PHYSICIANS	159	45	143	78
NEED FOR FP PHYSICIAN ASS'TS @ 25% GP PHYSNS.	40	12	36	20

* Planning and Development Districts per Executive Order
Sumter County is reflected in District 6 instead of 1

FAMILY PRACT

FAMILY PRACTICE PHYSICIAN ASSISTANT-14c

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICT*	1	2	3	4	5	6	7	8	TOTAL
NUMBER OF GENERAL PRACTICE PHYSICIANS	159	45	143	78	80	50	59	91	704
NEED FOR FP PHYSICIAN ASS'TS @ 25% GP PHYSNS.	40	12	36	20	20	13	15	23	179

* Planning and Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

ELOUNT			4						
BULLOCK				3					
BUTLER				5					
CALHOUN			10						
CHAMBERS			8						
CHEROKEE			5						
CHILTON		7							
CHOCTAW					4				
CLARKE					9				
CLAY			3						
CLEBURNE			2						
COFFEE						8			
COLBERT	11								
CONECUH					3				
COOSA			1						
COVINGTON						14			
CRENSHAW				4					
CULLMAN	11								
DALE						8			
DALLAS					8				
DEKALE	9								
ELMORE				12					
ESCAMBIA							15		
ETOWAH			18						
FAYETTE		3							
FRANKLIN	5								
GENEVA						8			
GREENE		4							
HALE		3							
HENRY						3			
HOUSTON						9			
JACKSON	11								
JEFFERSON			101						
LAMAR		6							
LAUDERDALE	9								
LAWRENCE	5								
LEE				12					
LIMESTONE	9								
LOWNDES				2					
MACON				2					
MADISON	35								
MARENGO					8				
MARION	7								
MARSHALL	22								
MOBILE							63		
MONROE					5				
MONTGOMERY				24					
MORGAN	21								
PERRY					4				
PICKENS		5							
PIKE				6					
RANDOLPH			4						
RUSSELL				6					
ST. CLAIR			7						
SHELBY			8						
SUMTER					3				
TALLADEGA				12					
TALLAPOOSA				15					
TUSCALOOSA		20							
WALKER			15						
WASHINGTON					3				
WILCOX					3				
WINSTON	4								

RESIDENT LIVE BIRTHS BY COUNTY AND DISTRICT

	1	2	3	4	5	6	7	8
AUTAUGA					454			
BALDWIN								1065
BARBOUR							449	
BIBB		268						
BLOUNT			429					
BULLOCK					232			
BUTLER					435			
CALHOUN				1977				
CHAMBERS				724				
CHEROKEE				242				
CHILTON			454					
CHOCTAW						375		
CLARKE							624	
CLAY				232				
CLEBURNE				153				
COFFEE							750	
COLBERT	861							
CONECUH						303		
COOSA				197				
COVINGTON							602	
CRENSHAW					222			
CULLMAN	805							
DALE							1222	
DALLAS						1283		
DEKALB	684							
ELMORE					655			
ESCAMBIA								709
ETOWAH				1699				
FAYETTE		255						
FRANKLIN	443							
GENEVA							404	
GREENE		205						
HALE		310						
HENRY							247	
HOUSTON							1180	
JACKSON	755							
JEFFERSON			10727					
LAMAR		250						
LAUDERDALE	1195							
LAWRENCE	536							
LEE					1240			
LIMESTONE	855				291			
LOWNDES					428			
MONROE								
OSORIO	3771							
RENGO						559		

RESIDENT LIVE BIRTHS (1)
EST. UNCOMPLI-
CATED DELIVERIES
@ 80%
NEED FOR NURSE
MIDWIVES @ 200
DELIVERIES PER
NURSE

13,056
3,705
13,814
7,673
8

10,445
2,964
11,051
6,138
6

52
15
55
31

* Planning/Development Districts per Executive Order 23
County is reflected in District 6 instead of District
(1) State of Alabama, Bureau of Vital Statistics.

DISTRICT*	1	2	3	4
SELECTED COMPARISONS BY PLA				

NURSE-MIDWIFE-15b

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICT*	1	2	3	4	5	6	7	8	TOTAL
RESIDENT LIVE BIRTHS (1)	13,056	3,705	13,814	7,673	8,703	4,273	5,478	8,003	64,705
EST. UNCOMPLETED DELIVERIES @ 80%	10,445	2,964	11,051	6,138	6,962	3,418	4,382	6,402	51,764
NEED FOR NURSE MIDWIVES @ 200 DELIVERIES PER NURSE	52	15	55	31	35	17	22	32	259
* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2. (1) State of Alabama, Bureau of Vital Statistics.									
BLOUNT									
BULLOCK									232
BUTLER									435
CALHOUN									1977
CHAMBERS									724
CHEROKEE									242
CHILTON			454						
CHOCTAW									375
CLARKE									624
CLAY									232
CLEBURNE									153
COFFEE									750
COLBERT	861								
CONECUH									303
COOSA									192
COVINGTON									602
CRENSHAW									222
CULLMAN	805								
DALE									1222
DALLAS									1283
DEKALB	684								
ELMORE									655
ESCAMBIA									709
ETOWAH									1699
FAYETTE		255							
FRANKLIN	443								
GENEVA									404
GREENE		205							
HALE		310							
HENRY									247
HOUSTON									1180
JACKSON	755								
JEFFERSON									10727
LAMAR		250							
LAUDERDALE	1195								
LAWRENCE	536								
LEE									1240
LIMESTONE	855								
LOWNDES									291
MACON									428
MADISON	3771								
MARENGO									559
MARION	384								
MARSHALL	931								
MOBILE									6229
MONROE									442
MONTGOMERY									3181
MORGAN	1504								
PERRY									264
PICKENS		371							
PIKE									536
RANDOLPH									363
RUSSELL									1029
ST. CLAIR									532
SHELBY									677
SUMTER									331
TALLADEGA									1418
TALLAPOOSA									668
TUSCALOOSA	2046								
WALKER									995
WASHINGTON									369
WILCOX									347
WINSTON	332								

STATE OF ALABAMA REGISTERED NURSES BY COUNTY (INCLUDES INACTIVE)

	TOTAL	INST'L	ED.	P.H.	PRIV.	OFF.	IND.	SCH.	N.A.	OTR.	N.S.	MIL.
AUTAUGA	57	27		2	4	2	2	1	14	3	2	
BALDWIN	152	71	3	5	3	6	4	2	46	11	1	
BARBOUR	26	13		4	1	3			4	1		
BIBB	16	9		1		1	1		4			
BLOUNT	23	12		3					2	5	1	
BULLOCK	12	8		1		1			2			
BUTLER	23	16		1	1				4	1		
CALHOUN	261	154	10	2	2	15	9	1	47	14	7	
CHAMBERS	70	39	1	3	1	1	9	2	9	5		
CHEROKEE	8	5		1		1	1					
CHILTON	35	18		3		3			9	1		1
CHOCTAW	19	11		1			3	1	3			
CLARKE	49	19	1	2	1	4	2	2	14	4		
CLAY	21	12		2		1			4	2		
CLEBURNE	5	2				1			1	1		
COFFEE	63	33	1	2		6	2	2	13	3	1	
COLBERT	125	65	4	4	5		10	1	22	12	2	
CONECUH	14	4		2					7	1		
COOSA	21	12		4		1			3	1		
COVINGTON	67	36	2	3		2	2	1	13	7	1	
CRENSHAW	12	5		2	1	2			1	1		
CULLMAN	76	40	1	4		4	1	3	15	5	2	1
DALE	68	38	2	5	1	2		1	13	5		1
DALLAS	137	77	2	9	1	13	2	2	18	9	4	
DEKALB	37	20	1	6		2			5	2		1
ELMORE	61	34	1	2	2	3	1		14	4		
ESCAMBIA	63	34		3	1	1	1		14	9		
ETOWAH	269	179	7	12		9	8		37	13	4	
FAYETTE	19	11		1					4	2	1	
FRANKLIN	27	15	1	3	1	1	1		3	1	1	
GENEVA	26	12	1	3	1	2		1	2	4		
GREENE	9	6	1			1			1			
HALE	15	10		2		2			1			
HENRY	13	6		3				1	3			
HOUSTON	152	64	6	8	11	8	1	2	39	11	1	1
JACKSON	38	14		2		2	4	1	9	6		
JEFFERSON	2579	1479	129	80	86	66	51	10	461	148	65	4
LAMAR	14	6		2		1	1		3	1		
LAUDERDALE	158	97	2	4	4	2	11	4	21	10	2	1
LAWRENCE	15	7		2	1				1	2	2	
LEE	116	62	6	6	2	6	6	3	16	3	6	
LIMESTONE	49	27	4	3	1	3	3		5	3		
LOWNDES	4	1	1	1					1			
MACON	123	82	6	6		2		3	12	6	6	
MADISON	589	326	18	16	8	37	20	5	118	18		
MENGO	33	14	1	2		2	3	1	7	3	21	2
MONROE	30	17	1	2		2	1		4	2	1	
MARSHALL	89	48		5	2	3		2	15	8	5	1

Legend - N.A. = Not Active
 Inst. = Institutional
 P.D. = Private Duty
 Off. = Office
 P.H. = Public Health
 Ind. = Industrial
 Sch. = School
 Mil. = Military

Legend - N.A. = Not Active

Inst. = Institutional

P.D. = Private Duty

Off. = Office

P.H. = Public Health

Ind. = Industrial

Sch. = School

Mil. = Military

REGISTERED NURSE-17a

BLOUNT	23	12		3					2	5	1	
BULLOCK	12	8		1		1			2			
BUTLER	23	16		1	1				1	1		
CALHOUN	261	154	10	2	2	15	9	1	47	14	7	
CHAMBERS	70	39	1	3	1	1	9	2	9	5		
CHEROKEE	8	5		1		1	1					
CHILTON	35	18		3		3			9	1		1
CHOCTAW	19	11		1			3	1	3			
CLARKE	49	19	1	2	1	4	2	2	14	4		
CLAY	21	12		2		1			4	2		
CLEBURNE	5	2				1			1	1		
COFFEE	63	33	1	2		6	2	2	13	3	1	
COLBERT	125	65	4	4	5		10	1	22	12	2	
CONECUH	14	4		2					7	1		
COOSA	21	12		4		1			3	1		
COVINGTON	67	36	2	3		2	2	1	13	7	1	
CRENSHAW	12	5		2	1	2			1	1		
CULLMAN	76	40	1	4		4	1	3	15	5	2	1
DALE	68	38	2	5	1	2		1	13	5		1
DALLAS	137	77	2	9	1	13	2	2	18	9	4	
DEKALB	37	20	1	6		2			5	2		1
ELMORE	61	34	1	2	2	3	1		14	4		
ESCAMBIA	63	34		3	1	1	1		14	9		
ETOWAH	269	179	7	12		9	8		37	13	4	
FAYETTE	19	11		1					4	2	1	
FRANKLIN	27	15	1	3	1	1	1		3	1	1	
GENEVA	26	12	1	3	1	2		1	2	4		
GREENE	9	6	1			1			1			
HALE	15	10		2		2			1			
HENRY	13	6		3				1	3			
HOUSTON	152	64	6	8	11	8	1	2	39	11	1	1
JACKSON	38	14		2		2	4	1	9	6		
JEFFERSON	2579	1479	129	80	86	66	51	10	461	148	65	4
LAMAR	14	6		2		1	1		3	1		
LAUDERDALE	158	97	2	4	4	2	11	4	21	10	2	1
LAWRENCE	15	7		2	1				1	2	2	
LEE	116	62	6	6	2	6	6	3	16	3	6	
LIMESTONE	49	27	4	3	1	3	3		5	3		
LOWNDES	4	1	1	1					1			
MACON	123	82	6	6		2		3	12	6	6	
MADISON	589	326	18	16	8	37	20	5	118	18		
MARENGO	33	14	1	2		2	3	1	7	3	21	2
MARION	30	17	1	2		2	1		4	2	1	
MARSHALL	89	48		5	2	3		2	15	8	5	1
MOBILE	1072	590	42	22	42	63	27	9	206	51	17	3
MONROE	25	11	2	2		2	1		6	1		
MONTGOMERY	593	308	24	31	48	25	3	4	94	43	12	1
MORGAN	190	89	5	8	3	7	14	2	41	18	3	
PERRY	12	6		1		1			4			
PICKENS	30	17		3		3		1	4	1	1	
PIKE	48	25	2	3	2			1	10	3		2
RANDOLPH	31	19		2		1		2	5	2		
RUSSELL	60	37		4	1	2	4		5	5	2	
ST. CLAIR	43	21	1	4		3	1		9	4		
SHELBY	56	26	4	3	3	3	1	2	14			
SUMTER	24	8	1	3		2	3		6		1	
TALLADEGA	188	106	11	4	7	12	9		27	11	1	
TALLAPOOSA	68	44		2		4		1	10	6	1	
TUSCALOOSA	425	271	22	11	6	17	6	2	74	14	2	
WALKER	74	40	1	6	5	6			12	3		1
WASHINGTON	14	4		2			2		5	1		
WILCOX	11	6		1			1		1	1		1
WINSTON	27	14		3		2	1	4	1	1		1
TOTAL	8879	4939	328	355	258	377	233	80	1598	513	176	22

Source: Alabama Board of Nurses May, 1971

NUMBER OF REGISTERED NURSES

DISTRICT*	1	2	3	4	5	6	7	8	STATE TOTAL
Total Licensed (1)	1,450	528	2,810	942	1,109	338	415	1,287	8,879
Active	1,190	437	2,303	799	936	267	328	1,021	7,281
Not Active	260	91	507	143	173	71	87	266	1,598
Not Active % of Total	18	17	18	15	16	21	21	21	18
Employed by Institutions	779	330	1,596	572	605	160	202	695	4,939
Reported Open Positions (2)	131	28	293	74	125	22	77	86	836
Estimated Total Open Positions (3)	200	43	438	112	189	35	117	128	1,262
1970 New Graduates	23	13	217	69	66	0	0	78	466
Pop/Total RNs	591	474	356	502	473	838	720	403	473
Hospital Beds**/Total RNs	2.9	2.2	1.8	2.4	2.2	2.9	3.1	1.9	2.3
Hosp. Beds**/Institutional RNs	4.5	2.9	2.6	3.4	3.3	4.9	5.1	2.8	3.3
RNs/Physician	3.0	3.3	2.2	3.8	3.6	2.8	2.7	2.7	2.8

* Planning and Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

** Excludes VA Beds.

(1) Licensed in and resident of Alabama. Source: State Board of Nursing, June 1971.

(2) Per Ala. CHP Hospital/Nursing Home Manpower Survey, Jan. 1971, scaled up 13% to adjust for institutions not reporting.

(3) Based on institutional need at 67% of total.

DISTRIBUTION OF REGISTERED NURSES
LICENSED BY ALABAMA AND
RESIDING IN STATE

TOTAL	8879
NOT ACTIVE	1598
PERCENT NOT ACTIVE	17.9

ACTIVE REGISTERED NURSES

TYPE OF EMPLOYMENT	NUMBERS	PERCENT OF TOTAL
TOTAL	<u>7281</u>	<u>100-</u>
Institutional	4939	67.8
Education	328	4.5
Public Health	355	4.9
Private Duty	258	3.5
Office Practice	377	5.2
Industrial	233	3.2
School	80	1.1
Other	513	7.1
Not Stated	176	2.4
Military	22	.3

NO. ACTIVE BY COUNTY & DISTRICT Reported(3)

Vacant

1 2 3 4 5 6 7 8 Positions

	1	2	3	4	5	6	7	8	Hosp.	N.H.
AUTAUGA					33					
BALDWIN								100		
BARBOUR							28			
BIBB		15								
BLOUNT			32							2
BULLOCK					8					3
BUTLER					62					
CALHOUN				217						
CHAMBERS				77						1
CHEROKEE				20						
CHILTON			41							
CHOCTAW						24				
CLARKE						35			7	
CLAY				15						
CLEBURNE				7						
COFFEE							68			
COLBERT	195								2	
CONECUH						27				
COOSA				9						
COVINGTON							96		2	
CRENSHAW					29					
CULLMAN	112								5	
DALE							81			
DALLAS						117			2	
DEKALB	53									
ELMORE					55					4
ESCAMBLA								85		
ETOWAH				181					23	
FAYETTE		28								
FRANKLIN	77								3	
GENEVA							53			
GREENE		9								1
HALE		12								
HENRY							32			
HOUSTON							163		21	1
JACKSON	67								5	5
JEFFERSON			1896						109	10
LAMAR		31								
LAUDERDALE	256								6	
LAWRENCE	38									
LEE					66					
LIMESTONE	70									
LOWNDES					6					
MACON					56				26	
MADISON	300								24	
MARENGO						34				
MARION	62									
MARSHALL	110									
MOBILE								870	54	
MONROE						19			9	
MONTGOMERY					423				9	4
MORGAN	304									2
PERRY						16				
PICKENS		22							3	
PIKE					37				10	
RANDOLPH				25						
RUSSELL					37				10	
T. CLAIR			74							1
WELBY			68							
WINTER						14				

* Planning and Development Districts per Executive Order 23 dated July 24, 1970, Sumter County is reflected in District 6 instead of District 2.
 (1) Source: State Board of Nursing - June 1971. (2) Excludes VA hospital beds.
 (3) Source: Ala. CHP Hospital/Nursing Home Manpower Survey, Jan. 1971, (87% total by survey returns).

SUPPLY (1)	POP./LPN	RN/LPN	HOSP. BED/LPN(2)	REPORTED VACANT POSITIONS (3)
1,682	418	0.7	2.1	52
428	484	1.0	2.3	14
2,266	362	1.0	1.8	127
733	547	1.1	2.7	28
812	545	1.1	2.5	66
316	708	0.8	2.5	18
521	453	0.6	2.0	24

DISTRICT *	1	2	3	4	5	6	7
------------	---	---	---	---	---	---	---

SELECTED COMPARISONS BY PLANNING DISTRICTS*

LICENSED PRACTICAL

LICENSED PRACTICAL NURSE-171

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICT *	1	2	3	4	5	6	7	8	TOTAL
SUPPLY (1)	1,682	428	2,266	733	812	316	521	1,055	7,813
POP./LPN	418	484	362	547	545	708	453	390	441
RN/LPN	0.7	1.0	1.0	1.1	1.1	0.8	0.6	1.0	0.9
HOSP. BED/LPN(2)	2.1	2.3	1.8	2.7	2.5	2.5	2.0	1.9	2.1
REPORTED VACANT POSITIONS (3)	52	14	127	28	66	18	24	54	383

* Planning and Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.
 (1) Source: State Board of Nursing - June 1971. (2) Excludes VA hospital beds.
 (3) Source: Ala. CHP Hospital/Nursing Home Manpower Survey, Jan. 1971, (87% total beds covered by survey returns).

BARBOUR									28
BIBB	15								
BLOUNT		32							2
BULLOCK				8					3
BUTLER				62					
CALHOUN			217						
CHAMBERS			77						1
CHEROKEE			20						
CHILTON		41							
CHOCTAW					24				
CLARKE					35		7		
OLAY			15						
CLEBURNE			7						
COFFEE					68				
COLBERT	195							2	
CONECUH					27				
COOSA			9						
COVINGTON					96			2	
CRENSHAW				29					
CULLMAN	112							5	
DALE					81				
DALLAS					117			2	
DEKALB	53								
ELMORE				55					4
ESCAMBIA							85		
ETOWAH			181					23	
FAYETTE		28							
FRANKLIN	77							3	
GENEVA					53				
GREENE		9							1
HALE		12							
HENRY					32				
HOUSTON					163			21	1
JACKSON	67							5	5
JEFFERSON			1896					109	10
LAMAR		3							
LAUDERDALE	256							6	
LAWRENCE	23								
LEE				66					
LIMESTONE	70								
LOWNDES				6					
MACON				56				26	
MADISON	300							24	
MARENGO					34				
MARION	62								
MARSHALL	110								
MOBILE								870	54
MONROE					19			9	
MONTGOMERY				423				9	4
MORGAN	304								2
PERRY					16				
PICKENS		22						3	
PIKE				37				10	
RANDOLPH				25					
RUSSELL				37				10	
ST. CLAIR			74						1
SHELBY			68						
SUMTER					14				
TALLADEGA			118					3	
TALLAPOOSA			64					1	
TUSCALOOSA	311							10	
WALKER			155						5
WASHINGTON					22				
WILCOX					8				
WILKINSON	38								

Legend - N.A. = Not Active
 Inst. = Institutional
 P.D. = Private Duty
 Off. = Office
 P.H. = Public Health
 Ind. = Industrial
 Sch. = School
 Mil. = Military

	TOTAL	N.A.	ACTIVE	INST.	P.O.	OFF.	P.H.	IND.	SCH.	OTR.	N.S.	MIL.
AUTAUGA	36	3	33	27	1	1					4	
BALDWIN	111	11	100	68	5	4					23	
BARBOUR	36	8	28	17	4	3					4	
BIBB	18	3	15	11				1			3	
BLOUNT	38	6	32	23		5					4	
BULLOCK	9	1	8	8								
BUTLER	65	3	62	40		3		1			18	
CALHOUN	244	27	217	151	7	17		1	1	1	39	
CHAMBERS	89	12	77	63	1	5					8	
CHEROKEE	24	4	20	14	1	4					1	
CHILTON	48	7	41	37	1						3	
CHOCTAW	26	2	24	13		3					8	
CLARKE	40	5	35	20		2		1			12	
OLAY	17	2	15	14							1	
CLEBURNE	8	1	7	3		1					3	
COFFEE	73	5	68	43	1	7					17	
COLBERT	223	28	195	147	15	10				2	21	
CONECUH	28	1	27	21						1	5	
COOSA	9		9	6		1					2	
COVINGTON	99	3	96	68	3	5	1				19	
CRENSHAW	31	2	29	20		1					8	
CULLMAN	120	8	112	80	1	2		1			28	
DALE	99	18	81	49	1	6					25	
DALLAS	124	7	117	84	5	4	2				21	1
DEKALB	57	4	53	31	1	6					15	
ELMORE	64	9	55	30	1	6				1	17	
ESCAMBIA	23	8	85	58	2	7	1			2	15	
ETOWAH	212	31	181	131	11	17		1			21	
FAYETTE	30	2	28	22	1						5	
FRANKLIN	84	7	77	55	1	10					11	
GENEVA	59	6	53	37	1	2					13	
GREENE	10	1	9	6							3	
HALE	15	3	12	9	1	1					1	
HENRY	37	5	32	24		3					5	
HOUSTON	201	38	163	116	19	14		2			12	
JACKSON	72	5	67	55		6					6	
JEFFERSON	2096	200	1896	1384	169	67	14	10		6	246	
LAMAR	33	2	31	19	1	1					10	
LAUDERDALE	292	36	256	178	22	16					40	
LAWRENCE	45	7	38	28	1	4					5	
LEE	81	15	66	48		4			1		13	
LIMESTONE	76	6	70	50	1	7					12	
LOWNDES	8	2	6	1			1			1	3	
MACON	58	2	56	45							11	
MADISON	353	53	300	185	13	26					76	
MARENGO	38	4	34	26		2		1			5	
MONROE	70	8	62	43	1	8					10	
MURRAY	121	11	110	78	4	11		1		1	15	
MURRAY	984	114	870	579	78	43	2	4		2	159	

LICEN

= Not Active	Off. = Office	Sch. = School
= Institutional	P.H. = Public Health	Mil. = Military
= Private Duty	Ind. = Industrial	

ERIC
Full Text Provided by ERIC

July 1971

DISTRIBUTION OF LICENSED PRACTICAL NURSES
LICENSED BY ALABAMA AND
RESIDING IN STATE

TOTAL	8,760
NOT ACTIVE	947
PERCENT NOT ACTIVE	11

ACTIVE LICENSED PRACTICAL NURSES

TYPE OF EMPLOYMENT	NUMBERS	PERCENT OF TOTAL
TOTAL	<u>7813</u>	<u>100</u>
Institutional	5487	70
Private Duty	475	6
Office	446	6
Public Health	32	0.3
Industrial	39	0.4
School	6	-
Other	26	0.3
Not Stated	1298	17
Military	4	-

A-PHARMACIST

B-PHARMACY

	No.	Per B	Pop. Per A	Hosp. Beds Per A		Sq. Mi. Per B	Pop. Per B	Hosp. Beds Per B
AUTAUGA	9	1.5	2717	7.6	6	99.8	4076	11.3
BALDWIN	28	1.3	2120	6.4	21	75.1	2827	8.6
BARBOUR	12	1.5	1878	6.2	8	112.4	2817	9.3
BIBB	4	1.0	3453	9.0	4	156.3	3453	9.0
BLOUNT	6	1.0	4475	13.0	6	106.4	4475	13.0
BULLOCK	3	1.0	3941	10.3	3	205.0	3941	10.3
BUTLER	6	1.0	3667	16.0	6	128.8	3667	16.0
CALHOUN	50	1.8	2061	8.8	28	21.8	3681	15.7
CHAMBERS	20	1.4	1817	11.0	14	42.8	2596	15.7
CHEROKEE	4	1.3	3901	15.0	3	200.0	5202	20.0
CHILTON	9	1.5	2797	6.7	6	116.5	4196	10.0
CHOCTAW	4	1.0	4147	16.3	4	229.5	4147	16.3
CLARKE	17	1.7	1572	6.7	10	123.8	2672	11.4
OLAY	6	1.2	2106	5.5	5	120.6	2527	6.6
CLEBURNE	2	.6	5498	15.0	3	191.3	3665	10.0
COFFEE	11	1.4	3170	14.7	8	84.6	4359	20.3
COLBERT	29	1.6	1711	12.2	18	31.1	2757	19.7
CONECUH	6	2.0	2607	7.3	3	283.3	5215	14.7
COOSA	3	1.0	3554		3	216.7	3554	
COVINGTON	23	1.4	1481	12.1	16	61.5	2129	17.4
CRENSHAW	3	1.0	4396	17.7	3	203.7	4396	17.7
CULLMAN	25	1.9	2097	4.4	13	57.2	4034	8.3
DALE	13	1.4	4072	5.5	9	62.1	5882	7.9
DALLAS	26	2.2	2126	9.8	12	81.3	4608	21.2
DEKALB	24	1.5	1749	3.5	16	48.6	2623	5.3
ELMORE	11	1.2	3048	3.5	9	69.3	2726	4.2
ESCAMBIA	22	1.7	1586	8.3	13	74.0	2685	14.1
ETOWAH	64	2.0	1471	10.4	32	17.3	2942	20.8
FAYETTE	4	4.0	4063	15.5	1	627.0	16252	62.0
FRANKLIN	8	1.3	2991	12.5	6	107.3	3988	16.7
GENEVA	16	2.3	1370	3.4	7	82.4	3132	7.7
GREENE	1	.5	10650	20.0	2	320.0	5325	10.0
HALE	5	1.7	3176	7.8	3	220.7	5293	13.0
HENRY	5	1.0	2650	8.8	5	113.0	2650	8.8
HOUSTON	40	1.9	1414	8.6	21	27.5	2694	16.3
JACKSON	21	1.3	1866	6.3	16	67.4	2450	8.3
JEFFERSON	448	2.2	1439	8.2	201	5.6	3208	18.4
LAMAR	6	.9	2391	7.5	7	86.4	2047	6.4
LAUDERDALE	41	1.7	1661	9.1	24	16.1	2837	15.6
LAWRENCE	7	1.2	3897	12.1	6	114.2	4546	14.2
LEE	32	2.1	1914	3.6	15	40.8	4084	7.7
LIMESTONE	10	1.4	4169	10.6	7	77.9	5957	15.1
LOWNDES	2	1.0	6448		2	357.5	6448	
MACON	12	2.0	2070	14.4	6	102.7	4140	28.8
MADISON	75	1.8	2487	13.4	42	19.1	4441	23.9
MARENGO	10	1.7	2381	6.7	6	163.0	3969	11.2
MARION	9	1.3	2643	15.9	7	106.1	3398	20.4
MARSHALL	39	1.9	1390	5.9	21	27.2	2581	10.9
MOBILE	162	1.7	1958	9.9	98	12.7	3237	16.5
NORFOLK	10	1.7	2088	5.4	6	172.0	3480	9.0
NTGOMERY	101	1.8	1661	11.4	55	14.4	3000	20.9
MORGAN	47	1.0	1644	14.0	25	97.8	2888	27.2

BULLOCK	3	1.0	3941	10.3	3	205.0	3941	10.3
BUTLER	6	1.0	3667	16.0	6	128.8	3667	16.0
CALHOUN	50	1.8	2061	8.8	28	27.8	3681	15.7
CHAMBERS	20	1.4	1817	11.0	14	42.8	2596	15.7
CHEROKEE	4	1.3	3901	15.0	3	200.0	5202	20.0
CHILTON	9	1.5	2797	6.7	6	116.5	4196	10.0
CHOCTAW	4	1.0	4147	16.3	4	229.5	4147	16.3
CLARKE	17	1.7	1572	6.7	10	123.8	2672	11.4
CLAY	6	1.2	2106	5.5	5	120.6	2527	6.6
CLEBURNE	2	.6	5498	15.0	3	191.3	3665	10.0
COFFEE	11	1.4	3170	14.7	8	84.6	4359	20.3
COLBERT	29	1.6	1711	12.2	18	31.1	2757	19.7
CONECUH	6	2.0	2607	7.3	3	283.3	5215	14.7
COOSA	3	1.0	3554		3	216.7	3554	
COVINGTON	23	1.4	1481	12.1	16	61.5	2129	17.4
CRENSHAW	3	1.0	4396	17.7	3	203.7	4396	17.7
CULLMAN	25	1.9	2097	4.4	13	57.2	4034	8.3
DALE	13	1.4	4072	5.5	9	62.1	5882	7.9
DALLAS	26	2.2	2126	9.8	12	81.3	4608	21.2
DEKALB	24	1.5	1749	3.5	16	48.6	2623	5.3
ELMORE	11	1.2	3048	3.5	9	69.3	2726	4.2
ESCAMBIA	22	1.7	1586	8.3	13	74.0	2685	14.1
ETOWAH	64	2.0	1471	10.4	32	17.3	2942	20.8
FAYETTE	4	4.0	4063	15.5	1	627.0	16252	62.0
FRANKLIN	8	1.3	2991	12.5	6	107.3	3988	16.7
GENEVA	16	2.3	1370	3.4	7	82.4	3132	7.7
GREENE	1	.5	10650	20.0	2	320.0	5325	10.0
HALE	5	1.7	3176	7.8	3	220.7	5293	13.0
HENRY	5	1.0	2650	8.8	5	113.0	2650	8.8
HOUSTON	40	1.9	1414	8.6	21	27.5	2694	16.3
JACKSON	21	1.3	1866	6.3	16	67.4	2450	8.3
JEFFERSON	443	2.2	1439	8.2	201	5.6	3208	18.4
LAMAR	6	.9	2391	7.5	7	86.4	2047	6.4
LAUDERDALE	41	1.7	1661	9.1	24	16.1	2837	15.6
LAWRENCE	7	1.2	3897	12.1	6	114.2	4546	14.2
LEE	32	2.1	1914	3.6	15	40.8	4084	7.7
LIMESTONE	10	1.4	4169	10.6	7	77.9	5957	15.1
LOWNDES	2	1.0	6448		2	357.5	6448	
MACON	12	2.0	2070	14.4	6	102.7	4140	28.8
MADISON	75	1.8	2487	13.4	42	19.1	4441	23.9
MARENGO	10	1.7	2381	6.7	6	163.0	3969	11.2
MARION	9	1.3	2643	15.9	7	106.1	3398	20.4
MARSHALL	39	1.9	1390	5.9	21	27.2	2581	10.9
MOBILE	162	1.7	1958	9.9	98	12.7	3237	16.5
MONROE	10	1.7	2088	5.4	6	172.0	3480	9.0
MONTGOMERY	101	1.8	1661	11.4	55	14.4	30.0	20.9
MORGAN	47	1.9	1644	14.8	25	22.8	3092	27.9
PERRY	6	1.2	2564	8.7	5	146.8	3077	10.4
PICKENS	5	1.3	4065	12.0	4	221.8	5081	15.0
PIKE	9	1.3	2782	7.7	7	96.1	3576	9.9
RANDOLPH	7	1.4	2618	13.3	5	116.2	3666	18.6
RUSSELL	20	1.7	2269	11.6	12	53.3	3782	19.3
ST. CLAIR	8	1.0	3494	8.5	8	80.0	3494	8.5
SHELBY	14	1.2	2716	6.4	12	66.5	3169	7.5
SUMTER	4	1.3	4243	16.0	3	305.0	5658	21.3
TALLADEGA	33	1.3	1978	6.9	26	28.8	2510	8.8
TALLAPOOSA	17	1.3	1990	10.9	13	54.2	2603	14.3
TUSCALOOSA	57	1.8	2035	12.4	31	43.2	3742	22.8
WALKER	25	1.4	2249	7.0	18	44.9	3124	9.7
WASHINGTON	4	2.0	4060	9.8	2	533.0	8120	19.5
WILCOX	1	1.0	16303	33.0	1	899.0	16303	33.0
WINSTON	4	1.3	4163	17.0	3	211.0	5551	22.7
Total	1765	1.7	1951	9.3	1021	49.8	3373	16.0

SELECTED COMPARISONS BY PLANNING DISTRICTS*

Pharmacists

District*	1	2	3	4	5	6	7	8	Total
Number Pharmacists	339	82	510	206	208	88	120	212	1765
No. per Pharmacy	1.7	1.6	2.0	1.6	1.7	1.7	1.6	1.6	1.7
Pop. per Pharmacist	2073	2527	1606	1946	2126	2543	1968	1941	1951
Hosp. Beds** per Pharmacist	10.3	11.7	8.2	9.5	9.7	8.9	8.6	9.3	9.3

SELECTED COMPARISONS BY PLANNING DISTRICTS*

Pharmacies

District*	1	2	3	4	5	6	7	8	Total
No. Pharmacies	204	52	251	132	124	52	74	132	1021
Sq. Mi. per Pharmacy	44.4	103.5	18.7	47.2	58.6	184.7	65.4	28.6	49.8
Pop. per Pharmacy	3445	3986	3253	3037	3566	4305	3191	3118	3373
Hosp. Beds ** per Pharmacy	17.1	18.5	16.6	14.8	16.3	15.1	13.9	14.9	16.0

* Planning /Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

** Excludes VA Hospitals.

NO. ACTIVE BY COUNTY & DISTRICT

	1	2	3	4	5	6	7	8
AUTAUGA								
BALDWIN							1	
BARBOUR								
BIBB								
BLOUNT			1					
BULLOCK								
BUTLER								
CALHOUN				3				
CHAMBERS								
CHEROKEE								
CHILTON								
CHOCTAW								
CLARKE								
CLAY								
CLEBURNE								
COFFEE								
COLBERT	1							
CONECUH								
COOSA								
COVINGTON								
CRENSHAW								
CULLMAN								
DALE								
DALLAS						2		
DEKALB								
ELMORE								
ESCAMBIA								
ETOWAH				2				
FAYETTE								
FRANKLIN								
GENEVA								
GREENE								
HALE								
HENRY								
HOUSTON							2	
JACKSON								
JEFFERSON			34					
LAMAR								
LAUDERDALE								
LAWRENCE								
LEE					1			
LIMESTONE								
LOWNDES								
MACON					1			
MADISON	7							
MARENGO								
MARION								
MARSHALL	1							
MOBILE								10
MONROE								
MONTGOMERY					9			
MORGAN								
MURPHY								
PICKENS								

SELECTED COMPARISONS BY PLANNING DISTRICTS

DISTRICT*	1	2	3	4	5	6
SUPPLY (1)	9	4	36	5	11	2
POP./PHYS.						
THERAPIST	78,087	51,823	22,757	80,188	40,203	111,931
HOSP. BEDS/PHYS.						
THERAPIST	388	450	129	391	321	393
ADD'L NEED @ 100						
HOSP. BEDS/PHS.						
THERAPIST (2)	26	14	11	15	25	6

* Planning /Development Districts per Executive Order 23 dated July 24, 1970. County is reflected in District 6 instead of District 2.
 (1) Source: Directory, State Licensure Board. (2) Based on Survey of Physical Therapists, City of Birmingham, David Cusic, ARMP - 1970.

PHYSICAL THERAPIST-21a

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICT*	1	2	3	4	5	6	7	8	TOTAL
SUPPLY (1)	9	4	36	5	11	2	2	11	80
POP./PHYS.									
THERAPIST	78,087	51,823	22,757	80,188	40,203	111,931	118,092	37,417	43,052
HOSP. BEDS/PHYS.									
THERAPIST	388	450	129	391	321	393	513	180	240
ADD'L NEED @ 100									
HOSP. BEDS/PHYS.									
THERAPIST (2)	26	14	11	15	25	6	9	9	115

* Planning /Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

(1) Source: Directory, State Licensure Board. (2) Based on Survey of Utilization of Physical Therapists, City of Birmingham, David Cusic, ARMP - 1970.

BIBB									
BLOUNT		1							
BULLOCK									
BUTLER									
CALHOUN		3							
CHAMBERS									
CHEROKEE									
CHILTON									
CHOCTAW									
CLARKE									
CLAY									
CLEBURNE									
COFFEE									
COLBERT	1								
CONECUH									
COOSA									
COVINGTON									
CRENSHAW									
CULLMAN									
DALE									
DALLAS		2							
DEKALB									
ELMORE									
ESCAMBIA									
ETOWAH		2							
FAYETTE									
FRANKLIN									
GENEVA									
GREENE									
HALE									
HENRY									
HOUSTON			2						
JACKSON									
JEFFERSON		34							
LAMAR									
LAUDERDALE									
LAWRENCE									
LEE			1						
LIMESTONE									
LOWNDES									
MACON			1						
MADISON	7								
MARENGO									
MARION									
MARSHALL	1								
MOBILE								10	
MONROE									
MONTGOMERY			9						
MORGAN									
PERRY									
PICKENS									
PIKE									
RANDOLPH									
RUSSELL									
ST. CLAIR									
SHELBY									
SUMTER									
TALLADEGA									
TALLAPOOSA									
TUSCALOOSA	4								
WALKER		1							
WASHINGTON									
WILCOX									
WINSTON									

1 2 3 4 5 6 7 8

SELECTED COMPARISONS BY PLANNING					
DISTRICTS*	1	2	3	4	5
SUPPLY(1)	104	63	241	89	100
POP/RT	3872	3290	3023	4505	4422
HOSP. BED/RT**	34	15	17	22	20.
ADD'L NEED @ 20					
HOSP. ** BEDS/RT(2)	70	-	-	9	-

RALPH

RADIOLOGIC TECHNOLOGIST-23a

SELECTED COMPARISONS BY PLANNING DISTRICTS*									
DISTRICTS*	1	2	3	4	5	6	7	8	TOTAL
SUPPLY(1)	104	63	241	89	100	11	31	111	750
POP/RT	3872	3290	3023	4505	4422	20351	7619	3708	4592
HOSP. BED/RT**	34	15	17	22	20	71	33	18	22
ADD'L NEED @ 20									
HOSP.** BEDS/RT(2)	70	-	-	9	-	29	20	-	128

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2. ** Excludes VA beds.

(1) From American Registry of Radiologic Technologist, Sept. 1970.

(2) Approximates national average of hospital beds per radiologic technologist.

BIBB	2								
BLOUNT		4							
BULLOCK									
BUTLER				1					
CALHOUN			17						
CHAMBERS			6						
CHEROKEE			5						
CHILTON		3							
CHOCTAW				1					
CLARKE				2					
CLAY									
CLEBURNE									
COFFEE					6				
COLBERT	10								
CONECUH				1					
COOSA			1						
COVINGTON					6				
CRENSHAW									
CULLMAN	8								
DALE					5				
DALLAS					5				
DEKALB	3								
ELMORE				7					
ESCAMBLA								4	
ETOWAH				40					
FAYETTE		2							
FRANKLIN	1								
GENEVA						3			
GREENE									
HALE		1							
HENRY									
HOUSTON						10			
JACKSON	4								
JEFFERSON			215						
LAMAR									
LAUDERDALE	10								
LAWRENCE									
LEE					9				
LIMESTONE	1								
LOWNDES					1				
MACON					7				
MADISON	44								
MARENGO									
MARION	3								
MARSHALL	4								
MOBILE								98	
MONROE									
MONTGOMERY					46				
MORGAN	15								
PERRY									
PICKENS		10							
PIKE						2			
RANDOLPH				3					
RUSSELL					18				
ST. CLAIR			1						
SHELBY			8						
SUMTER							1		
TALLADEGA					11				
TALLAPOOSA					6				
TUSCALOOSA		48							
WALKER			10						
WASHINGTON							1		
WILCOX									
WINSTON	1								

NO. ACTIVE BY COUNTY & DISTRICT

	1	2	3	4	5	6	7	8	
AUTAUGA									
BALDWIN								4	
BARBOUR							2		
BIBB									
BLOUNT			1						
BULLOCK									
BUTLER					2				
CALHOUN				7					
CHAMBERS				1					
CHEROKEE									
CHILTON			1						
CHOCTAW						1			
CLARKE						1			
CLAY									
CLEBURNE									
COFFEE							3		
COLBERT	3								
CONECUH						1			
COOSA									
COVINGTON							5		
CRENSHAW					2				
CULLMAN	2								
DALE							1		
DALLAS						3			
DEKALE	2								
ELMORE					1				
ESCAMBIA								3	
ETOWAH				7					
FAYETTE		1							
FRANKLIN	1								
GENEVA									
GREENE									
HALE									
HENRY									
HOUSTON							7		
JACKSON	2								
JEFFERSON			30						
LAMAR									
LAUDERDALE	6								
LAWRENCE									
LEE					3				
LIMESTONE	2								
LOWNDES									
MACON									
MADISON	9								
MARENGO						2			
MARION	1								
MARSHALL	4								
MOBILE								17	

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICTS*	1	2	3	4	5
SUPPLY(1)					
POP./OPTOMETRIST	38	4	34	24	22
ADD'L. NEED(2)	9	10	21	4	7
ADD'L. NEED(2)	18,494	51,823	24,096	16,705	20,102
ADD'L. NEED(2)	9	10	21	4	7

* Planning/Development Districts per Executive Order 23, dated July 15, 1968. County is reflected in District 6 instead of District 2. (1) Source: Directory, State Licensing Board for Optometry. (2) 15,000 pop./optometrist set by HEM to determine critical loan assistance.

SELECTED COMPARISONS BY PLANNING DISTRICTS*

DISTRICTS*	1	2	3	4	5	6	7	8	TOTAL
SUPPLY(1)	38	4	34	24	22	10	18	24	174
POP./OPTOMETRIST	18,494	51,823	24,096	16,705	20,102	22,386	13,121	17,150	19,794
ADD'L NEED(2)	9	10	21	4	7	5	-	3	59

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

(1) Source: Directory, State Licensing Board for Optometry. (2) No. required to reach ratio of 15,000 pop./optometrist set by HEW to determine critical shortage areas for purpose of student loan assistance.

BUTLER									
CALHOUN									
CHAMBERS									
CHEROKEE									
CHILTON									
CHOCTAW									
CLARKE									
OLAY									
CLEBURNE									
COFFEE									
COLBERT	3								
CONECUH									
COOSA									
COVINGTON									
CRENSHAW									
CULLMAN	2								
DALE									
DALLAS									
DEKALB	2								
ELMORE									
ESCAMBIA									
ETOWAH									
FAYETTE									
FRANKLIN	1								
GENEVA									
GREENE									
HALE									
HENRY									
HOUSTON									
JACKSON	2								
JEFFERSON									
LAMAR									
LAUDERDALE	6								
LAWRENCE									
LEE									
LIMESTONE	2								
LOWNDES									
MACON									
MADISON	9								
MARENGO									
MARION	1								
MARSHALL	4								
MOBILE									
MONROE									
MONTGOMERY									
MORGAN	5								
PERRY									
PUCKENS									
PIKE									
RANDOLPH									
RUSSELL									
ST. CLAIR									
SHELBY									
SUMTER									
TALLADEGA									
TALLAPOOSA									
TUSCALOOSA	2								
WALKER									
WASHINGTON									
WILCOX									
WINSTON	1								

July 1971

(c) EDUCATION AND TRAINING RESOURCES

4b Medical Technologist:

The minimum educational requirement is three years of college plus one year of professional education and clinical experience in a hospital laboratory approved by the AMA Council on Education.

Colleges offering a B.S. in Medical Technology

Auburn University, Auburn
Jacksonville State College, Jacksonville
Montevallo University, Montevallo
Samford University, Birmingham
Springhill College, Springhill
St. Bernard College, Cullman
Troy State College, Troy
University of Alabama in Birmingham
University of Alabama in Huntsville

Hospitals offering accredited professional education and clinical experience.

Birmingham:	<u>Student Capacity</u> (1)
Baptist Medical Center	20
Carraway Methodist Hospital	10
St. Vincent Hospital	8
South Highlands Infirmary	5
University of Alabama Hospitals and Clinics	30
Fairfield:	
Lloyd Noland Hospital	10
Gadsden:	
Holy Name of Jesus Hospital	12
Huntsville:	
Huntsville Hospital	12

Mobile:

Mobile Infirmary
Providence Hospital

Montgomery:

St. Margaret's Hospital
Montgomery Baptist Hospital

Tuscaloosa:

Druid City Hospital

Total

The combined schools graduate 161 students per year. Capacity is 161 students.

4f Certified Laboratory

Minimum course of training
minimum of 100 didactic hours

Approved Schools

Birmingham:

Jefferson State College
University of Alabama

Dothan:

Southeast Alabama State College

Gadsden:

Baptist Memorial Hospital

Total

(1) Source: Directory of
Council on Medical Education

Mobile:	<u>Student Capacity(1)</u>
Mobile Infirmary	14
Providence Hospital	4
Montgomery:	
St. Margaret's Hospital	7
Montgomery Baptist Hospital	15
Tuscaloosa:	
Druid City Hospital	14
Total	161

The combined schools graduate approximately 100 students per year. Capacity is 161 students.

4f Certified Laboratory Assistant:

Minimum course of training is 12 months in duration including a minimum of 100 didactic instruction hours.

<u>Approved Schools</u>	<u>Student Capacity(1)</u>
Birmingham:	
Jefferson State Jr. College (18 mo.)	25
University of Alabama (12 mo.)	10
Dothan:	
Southeast Alabama General Hospital (12 mo.)	10
Gadsden:	
Baptist Memorial Hospital (12 mo.)	8
Total	53

(1) Source: Directory of Approved Medical Education Programs,
Council on Medical Education, American Medical Assn., 1971.

July 1971

5a Dentist:

Birmingham:

University of Alabama School of Dentistry

Current Graduation Rate 54

Expected Graduations 1975 72

7g Sanitarians:

Basic requirement is a baccalaureate degree which may be obtained in any four year college or university. The State Department of Public Health provides in-service training for beginning employees.

Schools offering baccalaureate degree in Sanitary Science

Troy: Capacity (Graduates)

Troy State University 1968 - 4

1969 - 4

1970 - 8

Expected Graduations 1975 -20

13c Medical Records Clerks:

None

14a Physicians, M.D. and D.O. :

There are no schools for Doctor of Osteopathy in the State.

Birmingham:

Student Capacity

University of Alabama Medical Center 105 per class

Expected Capacity 1975 - 160 per class

Potential Capacity 1975 - 250 per class

14c Family Pra

Two programs wh
assistants are
tion and serve
out the nation.

DUKE PROGR

1965, this
demic trai
tained may

MEDEX (Med

University
training e
vilian act
in length
remaining
a practici

Modifications o
Alabama Medical
sicians' assist

Graduati

Current

Enrollme

15b Nurse-Midw

There are no or
versity of Alab
OB-GYN has a pe
wife program wi

14c Family Practice Physician's Assistant:

Two programs which have been instituted for training physicians' assistants are noted here as they have gained national recognition and serve as models for establishing like programs throughout the nation.

DUKE PROGRAM - Initiated at Duke University in 1965, this program provides two years of academic training at college level. Credits obtained may be used toward a bachelor's degree.

MEDEX (Medical Extension) - A program at the University of Washington directed toward training ex-medical corpsmen in similar civilian activities. The program is 15 months in length with 3 months being didactic and the remaining 12 months a preceptorship program under a practicing physician.

Modifications of the above are being offered at the University of Alabama Medical Center in Birmingham, the only school for physicians' assistants in the State.

Graduations (to February, 1971)	22
Current Enrollment	12
Enrollment Capacity (1975)	60

15b Nurse-Midwife:

There are no organized programs offered at this time. The University of Alabama Medical Center in Birmingham, Department of OB-GYN has a pending grant application to initiate a nurse-midwife program with a capacity of 10 students each 9 months.

Dentistry

tion Rate

54

tions 1975

72

degree which may be observed at the University. The State Department of Service training for beginning

degree in Sanitary Science

Capacity (Graduates)

1968 - 4

1969 - 4

1970 - 8

tions 1975 -20

teopathy in the State.

Student Capacity

enter 105 per class

1975 - 160 per class

1975 - 250 per class

TRAINING RESOURCES

<u>INSTITUTIONS</u>	<u>Student Capacity 1971</u>	<u>Graduations 1970</u>
BACCALAUREATE: 4 Years		
University of Alabama in Birmingham	404	60
Tuskegee Institute	183	33
Jacksonville State University	8	0
Troy State University	34	0
	629	93
DIPLOMA: 3 Years		
Carraway Methodist Hospital	87	26
Druid City Hospital	63	13
Holy Name of Jesus Hospital	21	43
Baptist Medical Center in Birmingham	128	59
Mobile General Hospital	108	19
Mobile Infirmary	114	45
Providence Hospital	59	14
St. Margaret's Hospital	102	33
St. Vincent Hospital	112	30
Sylacauga Hospital	52	17
	868	289*
ASSOCIATE: 2 Years		
Jefferson State Junior College	154	42
Gadsden State Junior College	63	19
Calhoun State Junior College	133	23
George C. Wallace State Junior College	46	0
Lawson State Junior College	52	0
	448	84

INSTITUTIONS	Capacity	Graduations
	1971	1970
BACCALAUREATE: 4 Years		
University of Alabama in Birmingham	404	60
Tuskegee Institute	183	33
Jacksonville State University	8	0
Troy State University	34	0
	629	93
DIPLOMA: 3 Years		
Carraway Methodist Hospital	87	26
Druid City Hospital	63	13
Holy Name of Jesus Hospital	21	43
Baptist Medical Center in Birmingham	128	59
Mobile General Hospital	108	19
Mobile Infirmary	114	45
Providence Hospital	59	14
St. Margaret's Hospital	102	33
St. Vincent Hospital	112	30
Sylacauga Hospital	52	17
	868	289*
ASSOCIATE: 2 Years		
Jefferson State Junior College	154	42
Gadsden State Junior College	63	19
Calhoun State Junior College	133	23
George C. Wallace State Junior College	46	0
Lawson State Junior College	52	0
	448	84

* Includes 12 graduations from Anniston Memorial Hospital (closed May 1970).

Specialty LICENSED PRACTICAL
NURSES Code 171

TRAINING RESOURCES

INSTITUTIONS	Student Capacity 1971	Graduations 1970
Ayers State Trade School	33	32
Bessemer State Technical Institute	0	32
Birmingham Metropolitan Area Skill Center	44	0
Birmingham Public Schools	103	88
Butler County School of Practical Nursing	12	13
Calhoun Technical Junior College	43	59
Carver State Technical Trade School	22	0
Drake State Technical Trade School	35	11
Gadsden State Technical Trade School	15	10
Hobson State Trade School	24	27
King State Technical Institute	19	16
MacArthur State Trade School	27	22
Muscle Shoals Technical Institute	31	15
Northwest Alabama State Technical Institute	19	20
Nunnelley State Vocational Technical Institute	25	27
Opelika State Vocational Technical Institute	26	32
Patterson State Vocational Technical School	0	22
Phenix City School of Practical Nursing	11	6

INSTITUTIONS	Student	Graduations
	Capacity 1971	1970
Ayers State Trade School	33	32
Bessemer State Technical Institute	0	32
Birmingham Metropolitan Area Skill Center	44	0
Birmingham Public Schools	103	88
Butler County School of Practical Nursing	12	13
Calhoun Technical Junior College	43	59
Carver State Technical Trade School	22	0
Drake State Technical Trade School	35	11
Gadsden State Technical Trade School	15	10
Hobson State Trade School	24	27
King State Technical Institute	19	16
MacArthur State Trade School	27	22
Muscle Shoals Technical Institute	31	15
Northwest Alabama State Technical Institute	19	20
Nunnelley State Vocational Technical Institute	25	27
Opelika State Vocational Technical Institute	26	32
Patterson State Vocational Technical School	0	22
Phenix City School of Practical Nursing	11	6
Reid State Trade School	18	14
Shelton State Technical Institute	15	19
Southwest State Technical Institute	99	91
Sparks State Trade School	7	8
St. Jude Hospital School of Nursing	17	17
Trenholm State Trade School	57	14
Tuscaloosa State Trade School	15	0
Walker County State Trade School	0	9
Wallace State Trade School - Cullman	12	24
Wallace State Tech. Trade School - Dothan	26	21
Wenonah State Technical School	46	36
	801	699*

*Includes 14 Graduations from Good Samaritan Hospital (closed Sept., 1970).

20a Pharmacist:

<u>Schools</u>	<u>Current Annual Graduations</u>
Auburn University	84
Samford University, Birmingham	<u>67</u>
Total	151

The number of graduations is considered sufficient to meet the needs of the State.

21a Physical Therapist:

<u>Schools</u>	<u>Student Capacity</u>	<u>Graduations</u>
University of Alabama Medical Center, Birmingham	20	1970 - 11 1971 - 13
	Expected -	1975 - 30

23a Radiologic Technologist:

<u>Birmingham:</u>	<u>Student Capacity⁽¹⁾</u>
Baptist Medical Center - Montclair	14
Baptist Medical Center - Princeton	14
Carraway Methodist	10
Jefferson State	6
University of Alabama	60
<u>Gadsden:</u>	<u>Student Capacity</u>
Baptist Memorial Hospital	20
Holy Name of Jesus Hospital	8

Current
Annual Graduations

84

67

151

cient to meet the

nt
ity Graduations

1970 - 11

1971 - 13

ted - 1975 - 30

Student Capacity(1)

14

14

10

6

60

Student Capacity

20

8

Huntsville:

Huntsville Hospital

Mobile:

Mobile Infirmary

Providence Hospital

Montgomery:

Montgomery Baptist Hospital

St. Margaret's Hospital

Tuscaloosa:

Druid City Hospital

Total

Student Capacity

20

16

12

11

8

26

225

Note: There is a tendency for hospitals to train only for their own needs.

28b Optometrists:

Schools

Student Capacity

University of Alabama School
of Optometry, Birmingham
1971 Enrollment

25

CHP Recommended Class Level

25

Note: The school was established in 1969; therefore, no students have been graduated.

(1) Directory of Approved Allied Medical Educational Programs, Council of Medical Education, American Medical Assn., 1971.

VI. GENERAL PRIORITIES

There is general agreement that Alabama has a shortage of health manpower. It is questionable whether the problem lies in numbers of workers, proper application and/or distribution, or on excessive demands for health services. Increasing concern is placed on the latter, particularly due to the mounting intervention of vast public programs in the supply-demand balance of our system of personal health services. This demand is expected to accelerate at a rate in excess of our capability to recruit and train health workers in the traditional mode. To meet the increasing demand there are four options:

- (a) sheer increase in numbers trained,
- (b) recruitment of trained workers from outside the State,
- (c) modification of traditional roles and patterns of health delivery, and
- (d) better distribution of manpower.

In regard to option (a), the licensed physician has traditionally been considered the pivotal figure in the delivery of personal health services. Regardless of the degree of delegation of tasks, the ultimate responsibility for the health welfare of the individual rests with the licensed medical practitioner, and the physician-patient relationship must not be abrogated. Similar conditions exist in the other licensed professions, as dentistry, optometry, and podiatry, for example. However, increasing the number of physicians is a long-term affair, usually 12 years in our traditional system. Many of the first echelon support personnel require four or more years of preparation. These include the baccalaureate level nurses, physical therapists, vocational rehabilitation counselors, and some medical technologists, to name a few.

Thus we find some unwieldy time constraints in exercising the option of training key health staff.

Priority #1 -
capacity for phy
for which four y
required.

Competition for top-level
United States, particul
exceptions, Alabama doe
tract leading educators
tion of our trained pro

Priority #2 -
assistance and
grants, encourag
er learning to g
level teaching a
should be placed
medicine, dentis
phasis should be
community health
tenance.

Health delivery pattern
ilar to the rest of the
rigidity and strong mot
Some professional pract
ing conditions and are
little substantive upda
constraint on the optim
skill and training. Th
inition, particularly i
down in assurance of re
petency to perform need

Priority #3 -
of licensure law
permit more dele
of a licensed pr

Priority #1 - Immediately increase the training capacity for physicians and those other categories for which four years or more formal training is required.

Competition for top-level health talent is high throughout the United States, particularly for teaching staff. With but few exceptions, Alabama does not have the natural attributes to attract leading educators and planners. Also, we find out-migration of our trained professionals in an unfavorable balance.

Priority #2 - Through direct State financial assistance and technical assistance in seeking grants, encourage principal institutions of higher learning to greater effort in recruiting top-level teaching and research personnel. Emphasis should be placed on the key health specialties of medicine, dentistry, and nursing. Particular emphasis should be placed on attracting leaders in community health, family practice, and health maintenance.

Health delivery patterns in Alabama, while for the most part similar to the rest of the nation, incur special barriers due to rigidity and strong motivation to preserve a "guild" system. Some professional practice acts have not kept abreast with changing conditions and are considered unduly restrictive with very little substantive updating for several years. The result is constraint on the optimal utilization of the professional's skill and training. There are significant problems in job definition, particularly in the laboratory sciences, and a breakdown in assurance of reasonable comparability of title and competency to perform needed tasks.

Priority #3 - Systematic and thorough assessment of licensure laws and revamping as necessary to permit more delegation of tasks under supervision of a licensed practitioner.

Priority #4 - Establish standardized definitions for all categories of allied health workers with standards for training and demonstration of initial and continuing competency.

Priority #5 - Better distribution of health manpower. A relative low priority is awarded attempts to redistribute our short supply of health manpower. Distribution is principally a matter of economics. The financial and other incentives which would attract personnel to a shortage area are so intermingled with general economic conditions that separate responsibilities cannot be identified.

Implementation

Each of the above priorities should be supported by in depth analysis and interpretation of a wide spectrum of health manpower data. Unfortunately, data in quantities and depth of coverage necessary to effect sound and efficient implementation are not now readily available. While the priorities as listed are prompted through input from a large number of persons knowledgeable in health matters, there is a critical need for detailed reliable data concerning the characteristics, interrelationships, and trends among our some 100 different categories of health manpower.

A General Concurrent Priority - To develop a system for routine acquisition, storage, retrieval, and dissemination of highly standardized and reliable manpower data. Preference is for development of intraspecialty capability for data generation and interpretation. Storage, further analysis, retrieval, and dissemination should be through a central repository serving the entire State.

CATEGORICAL PRIORITIES

This health manpower plan is concerned primarily with the numbers, distribution, and utilization of health manpower. Curriculum development of school administration and internal regulation of a profession or occupation are, in general, outside

the scope of the plan. relationships to supply code numbers for disclosure "Statistics", 1969, published and Welfare, and do not

4b Medical Technology

4f Certified Laboratory

Similar priorities are There is considerable laboratory specialty level of preparation specialty. In addition merits of licensure ve

Priority #1 - titles for the include standard

Priority #2 - licensure vs. chance of finding

Priority #3 - cation links and with other community.

The concurrent priority data system is ex

5a Dentists:

Conditions which contr are:

- (a) insufficient education
- (b) restrictive licensure dental auxiliaries

itions
s with
f initial

lth man-
attempts
manpower.
onomics.
ould
o inter-
hat
ified.

by in depth
health man-
nd depth of
implementation
ties as listed
f persons know-
need for de-
ics, inter-
ferent cate-

lop a
retrieval,
and re-
development
eration
alysis,
rough a
ate.

y with the num-
anpower. Curricu-
ternal regi-
general, outside

the scope of the plan, except where practices have identifiable relationships to supply and demand within the category. The code numbers for disciplines were adapted from "Health Resources Statistics", 1969, published by U.S. Dept. of Health, Education, and Welfare, and do not indicate relative priority.

4b Medical Technologist: and

4f Certified Laboratory Assistant:

Similar priorities are applicable to all laboratory manpower. There is considerable overlap in duties performed by the various laboratory specialty groups and even considerable variation in level of preparation and work tasks performed within a single specialty. In addition, there is divided opinion concerning the merits of licensure versus certification.

Priority #1 - Clarify and standardize category titles for the various laboratory specialties, to include standardization of preparation criteria.

Priority #2 - Continue assessment of merits of licensure vs. certification, and promote acceptance of findings.

Priority #3 - Strengthen liaison and communication links with the State's education system and with other categories within the health community.

The concurrent priority to develop an adequate and readily accessible data system is extremely important for laboratory categories.

5a Dentists:

Conditions which contribute to the shortages of dental manpower are:

- (a) insufficient educational facility capacity,
- (b) restrictive licensure which prevents full utilization of dental auxiliaries, and

- (c) probable excessive demand which could be alleviated by preventive education and fluoridation of water supplies.

Priority #1 - Increase student capacity by strengthening existing school at Birmingham.

Priority #2 - Modernize the dental practice act to permit wider use of dental auxiliaries.

Priority #3 - Stimulate legislation providing for universal fluoridation of public water supplies where natural fluorides are absent.

General priorities concerning adequate data base and attracting leaders in education and research are also applicable to dentistry.

7g Sanitarians:

Sanitarians are having difficulty attracting new personnel, particularly in the field of public health. Principal reasons reported are very low salary ranges and a mixture of duties in which many are below the level for which a baccalaureate degree is required.

Priority #1 - Modify the role of the sanitarian to promote better utilization of required training and skills. This may be accomplished through regionalization of existing work force and provisions for delegation of routine, lower level tasks to supportive personnel.

Priority #2 - Expand the scope of the sanitarian's participation in the health delivery system.

Priority #3 - Establish programs of continuing education.

13c Medical Records Clerks:

Medical records clerks perform much of the routine clerical effort associated with patient records. In larger institutions they work under the supervision of medical records librarians. In

individual physicians' offices, time to patient records, general office duties. The records clerk and the medical degree of effort and a great deal of medical records on the part of the maintenance of highly organized and becoming increasingly important in major health programs. Demands for uniform standards with patient records.

Priority #1 - Study various levels of training patient records most likely will need in educational institutions. Additional impetus to groups having superior registered record

Priority #2 - Provide refresher programs to develop career ladder status at Associate

Priority #3 - Increase multiple competency in individual office title may be Medical

14a Physicians, M.D. & D.

Currently five principal physician shortages:

- (a) a proposal of the Medical Birmingham, for expansion
- (b) a proposed development
- (c) significant trends to practice,

alleviated by
water supplies.

y by
ham.

actice
aries.

roviding
er sup-

se and attracting
licable to den-

ew personnel, par-
cipal reasons re-
e of duties in
calaureate degree

sanitarian
ed training
hrough
and pro-
r level

sanitarian's
ystem.

continuing

outine clerical ef-
per institutions they
ans. In

individual physicians' offices, duties may be devoted only part-time to patient records, with added activity concerned with general office duties. The basic difference between the medical records clerk and the medical office clerk is a transient matter of degree of effort and a greater requirement for familiarity with medical records on the part of the medical records clerk. The maintenance of highly organized and accurate patient records is becoming increasingly important, particularly with the increase in major health programs. Therefore, there will be increased demands for uniform standards of competency for persons working with patient records.

Priority #1 - Strengthen linkages between the various levels of persons responsible for maintaining patient records. Initial responsibility most likely will need to be assumed by the educational institutions, particularly Junior Colleges. Additional impetus should come from the associated groups having supervisory responsibilities; e.g., registered record librarians.

Priority #2 - Provide continuing education and refresher programs for existing work force and develop career ladders to medical records technician status at Associate Degree level.

Priority #3 - Initiate training programs for multiple competency clerical personnel to serve in individual offices and in rural areas. Alternate title may be Medical Office Specialist.

14a Physicians, M.D. & D.O.:

Currently five principal thrusts are under way to alleviate the physician shortage:

- (a) a proposal of the Medical Center, University of Alabama in Birmingham, for expansion of student capacity,
- (b) a proposed development of a new medical school in Mobile,
- (c) significant trends to emphasize community and family practice,

July 1971

- (d) development of first echelon support workers such as physicians' assistants and surgeons' assistants,
- (e) expanded continuing education effort (Regional Medical Programs, and others), and
- (f) reducing length of educational periods required.

Priority #1 - Assure the continuing development and expansion of the existing medical school at UAB through appropriate public funding.

Priority #2 - Re-evaluate the findings of the Booz, Allen and Hamilton report on medical education (1967) and either update or supercede with an alternate plan of long-range development.

Priority #3 - Support the development of physicians' assistants with a goal of one assistant for each four Family Practice Physicians by 1975.

Priority #4 - Stimulate better utilization and increased competency through expanded continuing education.

Concurrent with the above priorities is the development of a comprehensive and routinely maintained data base for medical practice in the State. This is envisaged as a joint effort between the Medical Association of the State of Alabama, the Healing Arts Board, and the Comprehensive Health Planning Administration.

14c Family Practice Physician's Assistant:

The development of the physician's assistant (PA) is proceeding in a restrained and cautious manner pending establishment of an experience base by which to evaluate the merits and success of this category of health manpower.

Priority #1 - Continue to train PAs in numbers sufficient to meet a 1975 goal of one PA for each four Family Practice Physicians.

Priority #2 - graduates, clear standards, and through certification

15b Nurse-Midwife:

In many European countries deliveries are performed. This relieves the burden of concentration on completing trained nurse-midwife would be considered de

Priority #1 - sufficiency of sufficient per year. The in Birmingham is training.

Priority #2 -

Priority #3 - of a Maternal and

Priority #4 - practice of graduate trained nurse-midwife 462 practice presently.

17a Registered Nurses

Priority #1 - nursing manpower

Priority #2 - educators.

Priority #3 - through existing

workers such as phy-
sistants,

(Regional Medical

s required.

ng de-
ting
ropriate

dings of
on medical
or supercede
e development.

ment of physicians'
tant for each
1975.

ilization and
ed continuing

e development of a com-
ase for medical prac-
joint effort between
abama, the Healing Arts
ng Administration.

nt (PA) is proceed-
nding establishment of
e merits and success of

s in numbers
ne PA for each

Priority #2 - Evaluate role and performance of
graduates, clarify performance and competency
standards, and develop regulatory provisions
through certification or licensure.

15b Nurse-Midwife:

In many European countries, the majority of uncomplicated de-
liveries are performed with notable success by a nurse-midwife.
This relieves the burden on the physician and permits his
concentration on complicated births. The utilization of the
trained nurse-midwife for uncomplicated deliveries in Alabama
would be considered desirable.

Priority #1 - Initiate a program for nurse-mid-
wifery of sufficient size to graduate at least 10
per year. The University of Alabama Medical Center
in Birmingham is the preferred location for initial
training.

Priority #2 - Utilize nurse-midwives in hospitals.

Priority #3 - Utilize nurse-midwives as members
of a Maternal and Child Health Team.

Priority #4 - Discontinue County Health Department
practice of granting permits to "granny midwives" as
trained nurse-midwives become available. There are
462 practice permits for "grannies" in effect pre-
sently.

17a Registered Nurses:

Priority #1 - Strengthen the data base for
nursing manpower and education.

Priority #2 - Increase number of nurse ed-
ucators.

Priority #3 - Increase number of RN graduates
through existing institutions.

Priority #4 - Establish firm channels of liaison between the State Board of Nursing, the State Department of Education, and the health service community. (The latter is expected to develop through the Commission for Nursing, which is the planning element for the State Board and the nursing associations.)

Priority #5 - Develop programs for re-activation of nurses licensed but inactive.

Priority #6 - Expand continuing education programs.

171 Licensed Practical Nurses (LPN):

General priorities related to data base, communication, and liaison as listed for registered nurses apply likewise to licensed practical nurses. The growth in numbers of LPNs has exceeded that of the RNs. At present the ratio is approximately 1:1.

Priority #1 - Develop career ladders whereby LPNs may progress to degree programs in nursing or related health occupations.

Priority #2 - Expanded continuing education.

Priority #3 - Maintain an LPN work force at no greater than 1:1 ratio with registered nurses.

20a Pharmacist:

Several trends are evident in pharmacy:

- (a) a trend away from the pharmacist role of joint businessman-professional,
- (b) a trend toward more clinical and institutional emphasis,
- (c) a trend away from small local pharmacies and toward large chain store operations with high volume per unit, and

(d) a trend toward brand names.

There does not appear to be a supply - demand concern is that education of pharmacists.

Priority #1
reflects new institutional

21a Physical Therapist:

Priorities for Physical Therapists in the category of Physiotherapists currently licensed as the PT will be to become physician or dentist assistants. The need to expand the operation of the need for number

Priority #1
cal laureate
1975 goal of

Priority #2
efficient to
Develop second
first year
colleges for

Priority #3
students with
relationship
program.

23a Radiologic Technologist:

The radiologic technology wherein there is a

(d) a trend toward pre-packaged blended drugs marketed under brand names.

There does not appear to be a shortage in numbers of pharmacists. The supply - demand ratio has stabilized and the principal concern is that education be responsive to changing roles for pharmacists.

Priority #1 - Assure that training for pharmacists reflects new role trends toward clinical and institutional pharmacy.

21a Physical Therapist (PT):

Priorities for PTs must be considered in light of the emerging category of Physical Therapy Assistants. Both categories are currently licensed in Alabama. Whereas the principal role of the PT will be to evaluate and treat upon referral from a physician or dentist, the role will be expanded to supervision of PT assistants. The use of assistants (or technicians) will expand the operational effectiveness of the PT and will influence the need for numbers of the latter.

Priority #1 - Continue to educate PTs at baccalaureate level in sufficient numbers to meet a 1975 goal of one per 100 hospital beds.

Priority #2 - Train PT assistants in numbers sufficient to reach a goal of 1:1 with PTs by 1975. Develop second year clinical program to complement first year core curriculum of the various junior colleges for physical therapy assistants.

Priority #3 - Strengthen familiarization of medical students with concepts of physical therapy and the relationship of the therapist and the treatment program.

23a Radiologic Technologist:

The radiologic technologist routinely operates x-ray equipment wherein there is constant danger of over- or under-exposure of

the patient to ionized radiation. (The operation of x-ray devices by unskilled persons poses a serious health hazard.)

Priority #1 - Stabilize standards of competence for all radiologic technologists through licensure, certification, or registration.

Priority #2 - Promote concept that x-ray equipment should be operated only by persons of demonstrated and continuing competence.

Priority #3 - Promote strong programs of continuing education to keep technologists abreast of new techniques and equipment.

28b Optometrists:

The optometric profession in Alabama is experiencing difficulty in maintaining direct responsibility of the licensed practitioner for the welfare of his patient. This is brought about by the influx of corporate chains of stores promoting sale of eyeglasses. Objections are raised to this method of providing vision services because of the emphasis on merchandising and the removal of the licensed practitioner from direct management responsibility. At present court action is in process against some chain store operations.

Priority #1 - Resolve questions concerning corporate practice and strengthen peer review process.

Priority #2 - Encourage continuing education.

VII. IMPLEMENTATION RESPONSIBILITIES

The following section identifies implementation responsibilities in the indicated specialty areas. In general, listing of responsibilities refers to one or more of the noted priorities for each specialty category.

4b Medical Technologist: and

4f Certified Lab

The professional in clarifying definitions for personnel. A major project is scheduled for October 1970. Federal funds. The project will conduct the survey. The survey will be

5a Dentist:

The State Legislature. The University of Alabama. The equipment are to be updated. The Alabama Dental Association update the Dental Board. The dental continue.

The Jefferson County. The promoting fluoride. The received strong support. The comprehensive Health Department. The demands in critical

7g Sanitarians:

The Alabama Association. The department share responsibility. The scope of activity.

13c Medical Records

The Vocational Education. The vocational education is expected. The trade schools to provide. The for this specialty. The vocational training

ration of x-ray de-
health hazard.)

of competence
ough licensure,

x-ray equip-
ons of dem-

ams of contin-
abreast of new

erience difficulty
licensed practition-
brought about by the
ing sale of eye-
thod of providing
merchandising and
om direct management
s in process against

concerning corporate
process.

g education.

n responsibilities in
sting of responsibi-
rities for each speci-

4f Certified Laboratory Assistant:

The professional societies are expected to play a principal role in clarifying definitions, roles, and distribution of laboratory personnel. A major nationwide census of laboratory personnel is scheduled for October 1971. This census will be financed with federal funds. The American Society of Medical Technologists will conduct the survey, using 2,000 enumerators. The scope of the survey will include every laboratory in the United States.

5a Dentist:

The State Legislature will need to appropriate more money for the University of Alabama School of Dentistry if the facility and equipment are to be modernized and the student capacity increased. The Alabama Dental Association currently is attempting to update the Dental Practice Act. This activity is expected to continue.

The Jefferson County Dental Society is sponsoring legislation promoting fluoridation of water supplies. Fluoridation has received strong support from both State level and Areawide Comprehensive Health Planning Agencies since this would decrease the demands in critically short dental manpower.

7g Sanitarians:

The Alabama Association of Sanitarians and the State Health Department share responsibility in promoting the expanded role and scope of activity for those in the sanitary sciences.

13c Medical Records Clerks:

The Vocational Education Division of the State Department of Education is expected to take the lead through junior colleges and trade schools to provide basic training and refresher resources for this specialty group. Involvement by MDTA and other vocational training funding programs should be increased.

15b Nurse-Midwife:

The University of Alabama Medical Center is now seeking grant funds to initiate a program for training ten nurse-midwives each nine months.

17a Registered Nurses:

The State Board of Nursing and the Comprehensive Health Planning Administration have entered into a contract to convert nursing licensure data to electronic format. Continued analysis and dissemination of data will be conducted by these agencies and the Commission for Nursing (the planning organization for nursing). Control of basic data will remain with the Board.

Strengthening liaison between the Board of Nursing, the Planning Commission, and the State Department of Education is expected through shared responsibility of the agencies involved.

The availability of adequate data should encourage several agencies to develop programs for reactivation of nurses licensed but not active. In addition to activity within nursing organizations, follow-through programs are expected as a result of efforts of the Area-wide Comprehensive Health Planning Agencies.

17i Licensed Practical Nurses:

There is considerable interest at junior college level to develop career ladders for LPNs. The State Department of Education and the professional society are expected to assume major responsibility for follow-through.

Nurse shortages appear to follow a geographic pattern, with those counties distant from training resources showing the greatest shortage. There does not appear to be a ready solution to the distribution problem and since a major portion of the problem is related to the lack of mobility of the lower levels of technical staff, no clear-cut responsibilities are identified.

Both the Department of Education and the professional nursing society share responsibility for developing appropriate refresher and continuing education programs.

20a Pharmacist:

The two pharmacy schools are expected to monitor closely and the modes of operation.

21a Physical Therapist:

The University of Alabama is in the process of expanding its physical therapy program to alleviate perceived shortages in the next decade.

The training of physical therapists is expected to have a direct bearing on the need for physical therapists. The University of Alabama and the Alabama Physical Therapy Association have shared information regarding interpreting trends in both.

23a Radiologic Technologist:

There appears to be a growing interest in radiologic technology. This should lead to more state certification and additional potential for the profession.

Increasing emphasis is being placed on radiologic technology nationwide, including the State. The State does not have a large number of operators of x-ray equipment, but an increase is expected.

28b Optometrists:

The State licensing board for the professional society, is attending to management and ethics of the licensed optometrist.

Major delivery programs have been initiated and strong peer review services under the

is now seeking grant
ten nurse-midwives

prehensive Health Planning
act to convert nursing
ntinued analysis and
by these agencies and
organization for nurs-
with the Board.

of Nursing, the Plan-
st of Education is ex-
the agencies involved.

encourage several agen-
on of nurses licensed but
thin nursing organizations,
a result of efforts of
ng Agencies.

r college level to develop
artment of Education and
o assume major responsi-

raphic pattern, with those
s showing the greatest
a ready solution to the
portion of the problem is
lower levels of technical
e identified.

e professional nursing
ping appropriate refresh-

20a Pharmacist:

The two pharmacy schools and the professional society are expect-
ed to monitor closely the changing trends in pharmacy education
and the modes of operation within the profession.

21a Physical Therapist:

The University of Alabama Medical Center in Birmingham is in the
process of expanding student capacity to levels which should
alleviate perceived shortages in physical therapists over the
next decade.

The training of physical therapy assistants is progressing rapid-
ly. The availability of persons in this category will have di-
rect bearing on the needs for and role of physical therapists.
The University of Alabama Medical Center and the professional
associations have shared responsibility for monitoring and inter-
preting trends in both specialty groups.

23a Radiologic Technologist:

There appears to be a trend toward formal curriculum training of
radiologic technologists in educational institutions. This
should lead to more standardized preparation and create add-
itional potential for systematic continuing education.

Increasing emphasis is being placed on environmental matters
nationwide, including control of ionized radiation. At present
the State does not have adequate monitoring capability of the
operators of x-ray equipment. This capability is expected to
increase.

28b Optometrists:

The State licensing board, with strong support of the profes-
sional society, is attempting through State courts to contain
management and ethics responsibility within the purview of the
licensed optometrist. There is reasonable assurance of success.

Major delivery programs such as Medicaid (Title XIX) have in-
itiated strong peer review mechanisms for optometrists provid-
ing services under the program.

July 1971

The new school at Birmingham and the professional society have shared responsibility for continuing education development.

VIII. INNOVATIVE AND SPECIAL HEALTH MANPOWER PROGRAMS

The development of innovative or special health manpower categories is dependent on

- (a) availability of training resources,
- (b) removal of legal barriers, if any, and
- (c) acceptance in the health community.

The Regional Technical Institute (RTI) of the University of Alabama Medical Center in Birmingham was established in the late 1960's to provide technical and clinical experience for allied health students from junior colleges and trade schools. The student returns to the parent school for conferring of degree. The concept behind the RTI is to prevent duplication of expensive equipment in the many small colleges and schools and to make available high quality clinical experience to supplement core curriculums of the various dispersed institutions.

Only a few other novel programs are in existence in the State. As an example, Troy State University is offering a sub-baccalaureate program directed at general orientation in the health sciences.

There are several project programs under way or in final planning stages. These projects only border on innovative status and include such projects as "four-handed dentistry" and nurse-midwifery at the University of Alabama Medical Center.

A principal need is to develop multiple competency technicians. As an example:

Electrocardiograph	}	Technician
Electroencephalograph		
X-Ray		
Laboratory		

Persons with multiple competency are especially in demand in some areas where the manpower area is insufficient to

Another area of need is persons would be trained to route patients in doctor's offices, and perform other

The current push for entry into the field for environmental technicians, portive and technical services, and solid waste disposal

The above and several other lower levels of allied health professions for inclusion in the 1970's institutions in the State. The emergence of a demand for new and different level, clarifying licensing existing practice acts with innovative training programs

The State and Areawide Commission is expected to identify manpower particularly those who will be of health services.

nal society have
development.

PROGRAMS

h manpower cate-

University of Ala-
shed in the late
rience for allied
e schools. The
erring of degree.
ication of ex-
and schools and
ience to supple-
d institutions.

nce in the State.
ing a sub-baccalau-
in the health

or in final plan-
nnovative status
ntistry" and nurse-
al Center.

etency technicians.

Technician

Persons with multiple competencies in these fields would be especially in demand in smaller hospitals where volume in any one area is insufficient to utilize persons full-time.

Another area of need is for medical office assistants. These persons would be trained to accomplish routine procedures in routing patients in doctors' offices, help maintain medical records, and perform other administrative duties.

The current push for environmental control is pointing up the need for environmental technicians. These persons would work as supportive and technical staff in air and water pollution control and solid waste disposal.

The above and several similar categories, principally in the lower levels of allied health occupations, are being considered for inclusion in the 1971-72 programs of several educational institutions in the State. Progress has been partially dependent on the emergence of new federal health programs which create a demand for new and different categories of workers. At State level, clarifying licensure requirements and modernizing existing practice acts will add impetus to the development of innovative training programs.

The State and Areawide Comprehensive Health Planning effort is expected to identify many new needed categories of workers, particularly those who would participate in teams for delivery of health services.

INNOVATIVE ALLIED HEALTH TRAINING PROGRAMS TO BE OFFERED BY REGIONAL T

UNIVERSITY OF ALABAMA MEDICAL CENTER IN BIRMINGHAM, ALAB

<u>Category Description</u>	<u>Length of Course</u>	<u>Student Class Size</u>	<u>Category Description</u>
<u>Medical Data Processing Technician:</u> Training in operation of unit record equipment, key punch, coding, computer including programming and information retrieval.	12 mo.	15	<u>Medical Secretary:</u> Training in special skills including trans medical records and da
<u>Dietetic Technician:</u> Training in menu preparation, food preparation, purchasing and storing foodstuffs, accounting and cost control and sanitation.	12 mo.	20	<u>Medical Office Assistant:</u> Training to expand sco tencies for persons er cal offices. The stud the number of areas in tency is desired.
<u>Recreational Therapist Supervisor:</u> Training in recreational programs for nursing homes.	21 wks.	30	<u>Admissions Clerk:</u> Training to prepare pe in the admitting depart hospital.
<u>Electro-Medical Equipment Repairman & Bio-Medical Equipment Repairman:</u> Training to maintain and service special bio-medical equipment used in hospitals, clinics and doctors' offices.	12 mo.	16	
<u>Health Facility Maintenance Technician:</u> Training to perform first-line general maintenance in a clinic, hospital, nursing home, or health facility. Scope will cover plumbing, heating, cooling, carpentry, electrical, etc.	6 mo.	45	

* Curriculums have been for each of the above contingent upon fundin the categories will be lege linkage program.

TH TRAINING PROGRAMS TO BE OFFERED BY REGIONAL TECHNICAL INSTITUTE*

Y OF ALABAMA MEDICAL CENTER IN BIRMINGHAM, ALABAMA

Length of Course	Student Class Size	Category Description	Length of Course	Student Class Size
mo.	15	<u>Medical Secretary:</u> Training in special secretarial skills including transcription of medical records and data.	6 mo.	15
mo.	20	<u>Medical Office Assistant:</u> Training to expand scope of competencies for persons employed by medical offices. The student may select the number of areas in which competency is desired.	6 mo.	30
wks.	30	<u>Admissions Clerk:</u> Training to prepare persons to work in the admitting department of a hospital.	6 mo.	30
mo.	16			
mo.	45			

* Curriculums have been developed by Regional Technical Institute for each of the above programs. Initiation of training is contingent upon funding through an MDTA pilot project. Some of the categories will be included in a University - Junior College linkage program. Anticipated start-up date, July 1971.

IX. EVALUATION

IX. EVALUATION

Two separate but related evaluations will be conducted.

- (a) This interim report is an effort to present health manpower data in a format which will be useful to health planners and institutions throughout the State. A systematic inquiry will be made to the customary users of this type data to assess the usefulness of the data selected and the appropriateness of the presentation format.
- (b) A concurrent assessment will be made of changes in the health manpower status of the State which could be attributed, all or in part, to the availability of comparative manpower data. Any deviation from historical trends in manpower characteristics should provide a clue to possible impact. However, in view of the many possible contributing variables which do not yield to objective measurement, it may be necessary to rely on qualitative assessment of the value of the presented data.

Evaluation of the design and format should be completed within the first three months after data are distributed. Assessment of impact, if any, is not feasible until at least a 12-month period has elapsed.

X. APPENDICES

Selected Demographic Data

Hospital Bed and Distribution Data

Total Manpower Needs in Hospitals

Manpower Categories and Identification Code

	TOTAL POPULATION 1970	SQUARE MILES 1970	POP. PER. SQUARE MILE 1970	PERCENT NON WHITE 1970	PERCENT OF FAMILIES WITH INCOME LESS THAN \$3,000	PERCENT UNDER 1970
THE STATE	3,444,165	50,856	68	26.6		35.8
AUTAUGA	24,460	599	41	28.5		41.4
BALDWIN	59,382	1,578	38	18.1		37.1
BARBOUR	22,543	899	25	46.3		37.2
BIBB	13,812	625	22	28.5		37.6
BLOUNT	26,853	640	42	2.9		33.8
BULLOCK	11,824	615	19	67.4		41.2
BUTLER	22,007	773	28	39.8		36.6
CALHOUN	103,092	611	169	17.2		33.9
CHAMBERS	36,356	599	61	34.7		34.5
CHEROKEE	15,606	600	26	9.5		32.8
CHILTON	25,180	699	36	13.8		34.2
CHOCTAW	16,589	918	18	43.9		39.7
CLARKE	26,724	1,238	22	43.7		40.1
OLAY	12,636	603	21	17.3		34.3
CLEBURNE	10,996	574	24	6.0		34.9
COFFEE	34,872	677	52	17.5		35.7
COLBERT	49,632	596	83	17.3		36.1
CONECUH	15,645	850	18	44.3		38.0
COOSA	10,662	650	16	35.1		36.1
COVINGTON	34,079	984	35	15.8		33.2
CRENSHAW	13,188	611	22	29.6		33.0
CULLMAN	52,445	743	71	2.6		33.9
DALE	52,938	559	95	14.0		32.9
DALLAS	52,296	976	57	52.4		40.1
DEKALB	41,981	778	54	2.5		32.9
ELMORE	33,535	624	54	28.3		36.1
ESCAMBIA	34,906	962	36	32.0		35.9
ETOWAH	94,144	555	170	14.3		33.5
FAYETTE	16,252	627	30	13.9		33.0
FRANKLIN	23,933	644	37	5.4		32.9
GENEVA	21,924	577	38	13.3		33.2
GREENE	10,650	640	17	74.8		41.5
HALE	15,880	662	24	66.2		41.8
HENRY	13,254	565	23	40.1		34.6
HOUSTON	56,574	577	98	23.8		36.1
JACKSON	39,202	1,079	36	5.6		35.1

(1) Per 1000 population. (2) Per 1000 live births.

Ala. CDP

DEMOGRAPHIC AND VITAL DATA BY C

POP. PER. SQUARE MILE 1970	PERCENT NON WHITE 1970	PERCENT OF FAMILIES WITH INCOME LESS THAN \$3,000	PERCENT UNDER 18 1970	PERCENT 18 - 64 1970	PERCENT 65 AND OVER 1970	BIRTH(1) RATE 1969	INFANT(2) MORTALITY RATE 1969
68	26.6		35.8	54.7	9.5	18.9	26.0
41	28.5		41.4	50.1	7.8	19.2	22.0
38	18.1		37.1	52.2	10.7	18.5	30.0
25	46.3		37.2	51.7	11.1	20.2	29.0
22	28.5		37.6	50.9	11.5	19.6	8.5
42	2.9		33.8	55.5	10.7	16.3	9.3
19	67.4		41.2	46.1	12.7	19.7	43.1
28	39.8		36.6	50.5	12.9	20.5	32.3
169	17.2		33.9	58.2	7.9	19.7	21.8
61	34.7		34.5	54.5	11.0	20.2	26.2
26	9.5		32.8	56.5	10.7	15.7	37.2
36	13.8		34.2	53.8	12.0	18.4	17.6
18	43.9		39.7	49.7	10.6	23.2	34.7
22	43.7		40.1	49.5	10.4	24.0	43.3
21	17.3		34.3	51.4	14.3	19.2	43.1
24	6.0		34.9	54.5	10.6	14.1	32.7
52	17.5		35.7	55.6	8.7	22.2	38.7
83	17.3		36.1	55.0	8.9	17.5	29.0
18	44.3		38.0	47.9	14.1	19.5	36.3
16	35.1		36.1	52.5	11.4	18.7	25.4
35	15.8		33.2	53.9	12.9	18.0	19.9
22	29.6		33.0	52.7	14.3	16.8	27.0
71	2.6		33.9	55.7	10.4	15.9	22.4
95	14.0		32.9	62.2	4.9	25.0	20.5
57	52.4		40.1	50.2	9.7	23.5	31.2
54	2.5		32.9	55.2	11.9	16.8	14.6
54	28.3		36.1	53.1	10.8	20.9	36.6
36	32.0		35.9	54.3	9.8	21.8	22.6
170	14.3		33.5	56.6	9.9	18.4	22.4
30	13.9		33.0	54.8	12.2	16.0	31.4
37	5.4		32.9	55.4	11.7	19.1	45.1
38	13.3		33.2	54.6	12.2	18.6	
17	74.8		41.5	44.8	13.7	19.5	65.3
24	66.2		41.8	44.8	13.4	19.2	67.7
23	40.1		34.6	53.7	11.7	19.2	40.5
98	23.8		36.1	55.0	8.9	21.2	23.7
36	5.6		35.1	55.2	9.7	19.7	15.9

SELECTED DEMOGRAPHIC AND VITAL DATA BY COUNTY

	TOTAL POPULATION 1970	SQUARE MILES 1970	POP. PER. SQUARE MILE 1970	PERCENT NON WHITE 1970	PERCENT OF FAMILIES WITH INCOME LESS THAN \$3,000	PERCENT UNDER 18 1970
THE STATE	3,444,165	50,856	68	26.6		35.8
JEFFERSON	644,991	1,116	578	32.2		34.3
LAMAR	14,335	605	24	14.4		32.4
LAUDERDALE	68,111	662	103	10.7		35.1
LAWRENCE	27,281	685	40	19.2		39.0
LEE	61,268	612	100	28.0		32.0
LIMESTONE	41,699	545	77	17.8		37.3
LOWNDES	12,897	715	18	77.3		46.8
MACON	24,841	616	40	80.7		32.8
MADISON	186,540	803	232	15.7		39.0
MARENGO	23,819	978	24	54.7		40.7
MARION	23,788	743	32	3.2		32.5
MARSHALL	54,211	571	95	2.5		34.6
MOBILE	317,308	1,240	256	32.5		38.3
MONROE	20,883	1,032	20	46.0		40.0
MONTGOMERY	167,790	790	212	36.4		36.6
MORGAN	77,306	570	136	9.8		36.9
PERRY	15,388	734	21	57.9		38.9
PICKENS	20,326	887	23	41.4		38.0
PIKE	25,038	673	37	34.0		32.8
RANDOLPH	18,331	581	32	22.6		33.0
RUSSELL	45,394	639	71	45.6		38.6
ST. CLAIR	27,954	640	44	14.4		36.2
SHELBY	38,037	798	48	17.1		35.5
SUMTER	16,974	915	19	65.4		39.1
TALLADEGA	65,280	750	87	30.8		38.5
TALLAPOOSA	33,840	705	48	27.9		34.2
TUSCALOOSA	116,029	1,338	87	25.1		31.4
WALKER	56,246	808	70	9.0		34.2
WASHINGTON	16,241	1,066	15	30.7		42.0
WILCOX	15,303	899	18	68.2		44.3
WINSTON	16,654	633	26	0.8		33.5

(1) Per 1000 population. (2) Per 1000 live births.

SELECTED DEMOGRAPHIC AND VITAL DATA BY COUNTY

(CONT'D)

POP. PER. SQUARE MILE 1970	PERCENT NON WHITE 1970	PERCENT OF FAMILIES WITH INCOME LESS THAN \$3,000	PERCENT UNDER 18 1970	PERCENT 18 - 64 1970	PERCENT 65 AND OVER	BIRTH ⁽¹⁾ RATE 1969	INFANT ⁽²⁾ MORTALITY RATE 1969
68	26.6		35.8	54.7	9.5	18.9	26.0
578	32.2		34.3	55.6	10.1	16.8	22.6
24	14.4		32.4	54.5	13.1	17.4	32.0
103	10.7		35.1	56.0	8.9	17.9	20.9
40	19.2		39.0	52.2	8.8	19.9	33.6
100	28.0		32.0	61.8	6.2	20.5	20.2
77	17.8		37.3	54.0	8.7	21.0	26.9
18	77.3		46.8	42.7	10.5	22.8	20.6
40	80.7		32.8	55.7	11.5	17.8	39.7
232	15.7		39.0	54.4	4.6	21.1	20.4
24	54.7		40.7	47.7	11.6	24.3	25.0
32	3.2		32.5	55.2	12.3	16.7	26.0
95	2.5		34.6	55.5	9.9	17.5	26.9
256	32.5		38.3	53.9	7.8	19.9	25.8
20	46.0		40.0	48.6	11.4	21.6	29.4
212	36.4		36.6	54.6	8.8	19.5	28.9
136	9.8		36.9	55.1	8.0	20.1	19.9
21	57.9		38.9	48.1	13.0	17.3	22.7
23	41.4		38.0	49.4	12.6	18.4	37.7
37	34.0		32.8	56.3	10.9	22.2	50.4
32	22.6		33.0	53.1	13.9	20.3	35.8
71	45.6		38.6	53.2	8.2	23.0	24.3
44	14.4		36.2	53.8	10.0	19.9	20.7
48	17.1		35.5	55.3	9.2	18.8	22.2
19	65.4		39.1	48.5	12.4	20.2	30.2
87	30.8		38.5	52.7	8.8	22.0	38.8
48	27.9		34.2	54.5	11.3	20.4	40.4
87	25.1		31.4	59.5	9.1	18.5	26.4
70	9.0		34.2	54.2	11.6	17.8	30.2
15	30.7		42.0	49.0	9.0	23.9	35.2
18	68.2		44.3	44.0	11.7	21.6	28.8
26	0.8		33.5	56.7	9.8	20.9	30.1

1000 live births.

ALABAMA HOSPITALS, BEDS, AND AVERAGE DAILY CEN

COUNTY	NO. HOSP. BY COUNTY	NO. BEDS BY DISTRICT								AVERAGE DAILY CEN	
		1	2	3	4	5	6	7	8	1	2
AUTAUGA	1					68					
BALDWIN	3								180		
BARBOUR	1							74			
BIBB	1		36								9
BLOUNT	1			78							
BULLOCK	1					31					
BUTLER	2					96					
CALHOUN	3				439						
CHAMBERS	3				220						
CHEROKEE	1				60						
CHILTON	1			60							
CHOCTAW	1										
CLARKE	3						65				
OLAY	1				33		114				
CLEBURNE	1				30						
COFFEE	3							162			
COLBERT	2	355								249	
CONECUH	1						44				
COOSA	0										
COVINGTON	4							278			
CRENSHAW	1					53					
CULLMAN	1	108								91	
DALE	1							71			
DALLAS	3						254				
DEKALB	1	85								68	
ELMORE	1					38					
ESCAMBIA	3								183		
ETOWAH	3				665						
FAYETTE	1		62								44
FRANKLIN	2	100								87	
GENEVA	1							54			
GREENE	1		20								14
HALE	1		39								23
HENRY	1							44			
HOUSTON	2							343			
JACKSON	2	132								90	
JEFFERSON	18			4170							343
LAMAR	1		45								37
LAUDERDALE	2	375								282	
LAWRENCE	2	85								82	
LEE	1					115					
LIMESTONE	1	106								61	

ALABAMA HOSPITALS, BEDS, AND AVERAGE DAILY CENSUS(1)

BY DISTRICT					ADC BY DISTRICT							
4	5	6	7	8	1	2	3	4	5	6	7	8
68				180					56			
			74								55	110
					9		84					
31									10			
96									73			
39								290				
220								151				
60								39				
						52						
		65								47		
		114								61		
33								26				
30								21				
			162								90	
					249							
	44									28		
			278								188	
53									37			
					91							
			71								49	
		254								191		
					68							
38									38			
				183								111
665								445				
						44						
					87							
		54									49	
						14						
						23						
		44									34	
		343									225	
					90							
							3430					
						37						
					282							
					82							
115									82			
					61							

July 1971

ALABAMA HOSPITALS, BEDS AND AVERAGE DAILY CENSUS

NO. HOSP. BY COUNTY	NO. BEDS BY DISTRICT											
	1	2	3	4	5	6	7	8	1	2	3	
LOWNDES	0											
MACON	3				1398							
MADISON	4	1007							616			
MARENGO	1					67						
MARION	3	143							66			
MARSHALL	3	229							140			
MOBILE	7							1615				
MONROE	1					54						
MONTGOMERY	7				1437							
MORGAN	5	697							446			
PERRY	1					52						
PICKENS	2		60							29		
PIKE	1				69							
RANDOLPH	2			93								
RUSSELL	1				231							
ST. CLAIR	1		68								4	
SHELBY	1		90								7	
SUMTER	2					64						
TALLADEGA	2			230								
TALLAPOOSA	3			186								
TUSCALOOSA	3	1540								1297		
WALKER	2		175								14	
WASHINGTON	1					39						
WILCOX	1					33						
WINSTON	1	68							52			
TOTAL		3490	1802	4641	1956	3536	786	1026	1978	2330	1453	382

(1) Includes General, TB, and VA beds but excludes State Mental Hospitals.

ALABAMA HOSPITALS, BEDS, AND AVERAGE DAILY CENSUS⁽¹⁾

(CONT'D)

NO. BEDS BY DISTRICT

ADC BY DISTRICT

5	6	7	8	1	2	3	4	5	6	7	8	
1398								1233				
	67			616					58			
				66								
				140								
			1615								1223	
	54								43			
1437								977				
				446								
	52								25			
					29							
69								65				
93							70					
231								137				
						40						
						79						
	64								42			
80							193					
86							117					
					1297							
						143						
	39								15			
	33								12			
				52								
56	3536	786	1026	1978	2330	1453	3828	1352	2708	523	690	1444

excludes State Mental Hospitals.

HOSPITAL BEDS

DISTRICT*	TOTAL BEDS (1)	TOTAL ADC	% OCCUPANCY TOTAL BEDS	VA HOSPITALS		LESS VA
				BEDS	ADC	
1	3,490	2,330	67			3,490
2	1,802	1,453	81	833	776	969
3	4,641	3,828	82	479	406	4,162
4	1,956	1,352	69			1,956
5	3,536	2,708	77	1,510(2)	1,334	2,026
6	786	523	67			786
7	1,026	690	67			1,026
8	1,978	1,444	73			1,978
TOTAL	19,215	14,328	75	2,822	14,328	16,393

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

(1) Includes General, VA, TB beds but excludes State Mental Hospitals.

(2) Montgomery and Macon County combined.

DISTRIBUTION OF HOSPITALS AND POPULATION SERVED ALABAMA BY DISTRICTS

DISTRICT*	NO. OF HOSPITALS	POPULATION		SQ. MI./HOSP. BED**
		PER BED	PER ADC	
1	29	201	302	2.6
2	10	115	143	5.6
3	24	177	214	1.1
4	19	205	297	3.2
5	19	125	163	3.6
6	15	285	428	12.2
7	13	230	342	4.7
8	13	208	285	1.9
TOTALS	142	179	240	3.1

* Planning/Development Districts per Executive Order 23 dated July 24, 1970, except that Sumter County is reflected in District 6 instead of District 2.

** Excluding VA hospitals.

REPORTED VACANT HEALTH MANPOWER POSITIONS IN HOSPITALS FOR SELECTED CATEGORIES

Line-No.	Short Title	1	2	3	4
3.0	Clinical Laboratory Scientists	0	0	0	0
3.1	Clinical Laboratory Technologists+	3	2	22	5
3.2	Other Clinical Laboratory Technologists	2	1	2	0
3.3	Clinical Laboratory Technicians+	2	0	5	2
3.4	Other Clinical Laboratory Technicians	0	1	3	0
3.5	Clinical Laboratory Assistants+	2	0	5	2
3.6	Other Clinical Laboratory Assistants	0	3	7	0
3.7	Other Laboratory Personnel (specify)	0	1	2	0
4.0	Dietitians meeting ADA qualifications	3	3	2	1
4.1	Other Dietitians	0	0	0	0
4.2	Dietary Technicians	7	0	3	0
5.0	Medical Librarian+	1	1	1	0
5.1	Other Medical Librarians	0	0	0	0
5.2	Medical Record Librarian+	1	1	2	1
5.3	Other Medical Record Librarians	0	0	0	1
5.4	Medical Record Technicians+	1	2	0	0
5.5	Other Medical Record Technicians	2	0	1	0
5.6	Medical Record Clerks	4	0	11	1
6.0	Registered Nurses	102	23	290	67
6.1	Nurse Anesthetist+	4	1	3	1
6.2	Licensed Practical or Vocational Nurse	45	13	109	27
6.3	Nursing Aides, Orderlies, and Attendants	16	14	95	32
6.4	Ward Clerks	3	1	28	11
7.0	Pharmacists	1	0	15	2
7.1	Pharmacy Assistants and Aides	2	0	11	2
8.0	Radiologic (X-ray) Technologists (Technicians)+	8	0	8	2
8.1	Other Radiologic (X-ray) Technologists (Technicians)	0	0	1	0
8.2	Nuclear Medicine Technologists (Technicians)+	1	0	2	0
8.3	Other Nuclear Medicine Technologists (Technicians)	0	0	0	0
8.4	Radiation Therapy Technologist (Technician)+	0	0	0	0
8.5	Other Radiation Therapy Technologists (Technicians)	0	0	0	0

POWER POSITIONS IN HOSPITALS FOR SELECTED CATEGORIES BY DISTRICT

	1	2	3	4	5	6	7	8	Total
	0	0	0	0	0	0	0	0	0
	3	2	22	5	3	5	5	8	53
ts	2	1	2	0	0	0	0	1	6
	2	0	5	2	6	2	1	1	19
	0	1	3	0	0	2	0	4	10
	2	0	5	2	0	0	2	0	11
	0	3	7	0	0	0	0	0	10
	0	1	2	0	0	0	0	0	3
	3	3	2	1	2	2	2	0	15
	0	0	0	0	0	0	0	0	0
	7	0	3	0	0	0	0	0	10
	1	1	1	0	0	1	2	0	6
	0	0	0	0	0	0	1	0	1
	1	1	2	1	2	0	1	1	9
	0	0	0	1	1	0	1	0	3
	1	2	0	0	0	0	0	0	3
	2	0	1	0	0	0	0	0	3
	4	0	11	1	0	0	0	2	18
	102	23	290	67	119	17	45	64	727
	4	1	3	1	2	1	0	0	12
se	45	13	109	27	55	18	23	54	344
ants	16	14	95	32	166	0	8	6	337
	3	1	28	11	16	7	8	0	74
	1	0	15	2	3	0	1	0	22
	2	0	11	2	0	0	0	0	15
	8	0	8	2	4	2	4	1	29
ts	0	0	1	0	0	1	3	0	5
ns)	1	0	2	0	0	0	0	0	3
nicians)+	0	0	0	0	0	0	0	0	0
(Technicians)	0	0	0	0	0	0	0	0	0
nician)+	0	0	0	0	0	0	0	0	0
s)	0	0	0	0	0	0	0	0	0

REPORTED VACANT HEALTH MANPOWER POSITIONS IN HOSPITALS FOR SELECTED

Line No.	Short Title	1	2	3
8.6	Radiologic Assistants	1	0	2
9.0	Occupational Therapists+	0	2	1
9.1	Other Occupational Therapists	0	0	0
9.2	Occupational Therapy Assistants and Aides	0	1	1
9.3	Physical Therapists	2	2	3
9.4	Physical Therapy Assistants	2	0	2
9.5	Speech Pathologists and Audiologists+	0	0	0
9.6	Other Speech Pathologists and Audiologists	0	0	0
9.7	Recreation Therapists	0	0	0
9.8	Inhalation Therapists+	4	0	14
9.9	Other Inhalation Therapists	2	0	11
10.0	Social Workers--Master's Degree	0	2	1
10.1	Other Social Workers	2	2	0
10.2	Social Work Assistants and Aides	0	1	0
10.9	Hospital Administrators	0	0	0
11.0	Other Hospital Administrators	0	0	0
11.1	Associate or Assistant Administrators and Administrative Assistants	2	0	2
11.2	Other Associate or Assistant Administrators and Administrative Assistants	0	2	0
11.3	Administrative Residents	0	0	0
11.4	Nursing Home Administrators	0	0	0
11.5	Other Nursing Home Administrators	0	0	0
11.6	Nursing Home Assistant Administrators	0	0	0
11.7	Medical Secretaries	6	0	1
11.8	Business Management	3	0	4
11.9	Clerical, Secretarial and Related Services	2	2	98
12.0	Electrocardiographic Technicians	0	0	1
12.1	Electroencephalograph Technicians	0	0	1
12.2	Other Medical Machine Technicians	0	0	0
12.3	Emergency Medical Technicians	4	0	0

MANPOWER POSITIONS IN HOSPITALS FOR SELECTED CATEGORIES BY DISTRICT

(CONT'D)

	1	2	3	4	5	6	7	8	Total
	1	0	2	5	1	0	0	0	9
	0	2	1	1	1	0	0	0	5
	0	0	0	0	0	0	0	1	1
and Aides	0	1	1	0	0	0	0	0	2
	2	2	3	3	3	2	2	1	18
	2	0	2	3	2	1	1	0	11
gists+	0	0	0	0	1	0	0	0	1
audiologists	0	0	0	0	1	0	0	0	1
	0	0	0	0	0	0	0	0	0
	4	0	14	0	4	1	3	2	28
	2	0	11	3	2	1	4	0	23
	0	2	1	2	8	0	1	0	14
	2	2	0	0	0	0	1	0	5
	0	1	0	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
trators and									
e Assistants	2	0	2	0	0	0	1	0	5
administrators and									
ative Assistants	0	2	0	0	1	0	0	0	3
	0	0	0	0	0	0	1	0	1
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
ors	0	0	0	0	0	0	0	0	0
trators	0	0	0	0	0	0	0	0	0
	6	0	1	0	0	0	1	2	10
	3	0	4	0	1	0	0	0	8
ted Services	2	2	98	5	3	9	0	0	119
ns	0	0	1	0	2	0	1	0	4
ans	0	0	1	0	1	0	0	0	2
ans	0	0	0	0	2	0	0	0	2
	4	0	0	0	0	0	0	0	4

REPORTED VACANT HEALTH MANPOWER POSITIONS IN HOSPITALS FOR SELECTED CAT

Line No.	Short Title	1	2	3	4
12.4	Personnel in Other Health Occupations	0	5	0	0
12.5	Trainees not reported in Categories 1.0-12.4	0	0	0	0
13.0	Food Service	4	1	1	6
13.1	Laundry	0	3	1	0
13.2	Housekeeping	5	9	21	6
13.3	Maintenance	2	4	11	3
13.4	All Other Hospital Personnel	0	0	7	2

+ Registered or Certified

Source: CHP Hospital/Nursing Home Survey, January, 1971. Entries represent 87% of hospital beds but excludes nursing home needs except where nursing home is operated by hospital.

PERCENT BEDS REPORTING BY DISTRICT*

<u>District</u>	<u>Percent Reporting</u>	<u>District</u>
1. Tennessee Valley	77.6	5. Montgomery
2. Tuscaloosa	91.2	6. Selma
3. Birmingham	98.7	7. Dothan
4. Gadsden-Anniston	94.0	8. Mobile

* Planning/Development Districts per Executive Order 23 dated July 24, 1968, that Sumter County is reflected in District 6 instead of District 2.

HEALTH MANPOWER POSITIONS IN HOSPITALS FOR SELECTED CATEGORIES BY DISTRICT

(CONT'D)

	1	2	3	4	5	6	7	8	Total
Occupations	0	5	0	0	15	0	0	0	20
Categories 1.0-12.4	0	0	0	0	0	0	0	0	0
	4	1	1	6	124	0	1	3	140
	0	3	1	0	25	0	0	0	29
	5	9	21	6	122	12	2	0	177
	2	4	11	3	38	1	1	0	60
	0	0	7	2	32	0	0	0	41

Home Survey, January, 1971. Entries represent 87% reporting of total General, TB, and VA nursing home needs except where nursing home is operated as an integral part of a hospital.

PERCENT BEDS REPORTING BY DISTRICT*

<u>Percent Reporting</u>	<u>District</u>	<u>Percent Reporting</u>
77.6	5. Montgomery	91.0
91.2	6. Selma	94.6
98.7	7. Dothan	54.7
94.0	8. Mobile	72.4

ment Districts per Executive Order 23 dated July 24, 1970 except
ty is reflected in District 6 instead of District 2.

MANPOWER CATEGORIES AND IDENTIFICATION CODE
FOR INCLUSION IN
ALABAMA COMPREHENSIVE HEALTH MANPOWER PLAN

1. ADMINISTRATION	b. Nutritionist	b. Health Technical Writer
a. Public Health Officer	✓c. Dietary Technician	c. Medical Illustrator
b. Public Health Administrator	d. Food Service Supervisor	11. LIBRARY SERVICES
c. Hospital Administrator	7. ENVIRONMENTAL HEALTH SERVICES	a. Medical Librarian
d. Nursing Home Administrator	a. Public Health Engineer	b. Hospital Librarian
2. BIOMEDICAL ENGINEERING	b. Air Pollution Engineer	12. MATHEMATICAL SCIENCES
a. Biomedical Engineer	c. Water Pollution Engineer	a. Biostatistician
b. Biomedical Engineering Technician	d. Radiological Health Engineer	b. Vital Record Registrar
3. CHIROPRACTIC AND NATUROPATHY	e. Industrial Hygiene Engineer	c. Health Demographer
a. Chiropractor	f. Environmental Scientist	13. MEDICAL RECORD SERVICES
b. Naturopath	g. Sanitarian	a. Medical Record Librarian
4. CLINICAL LABORATORY SERVICES	✓h. Sanitarian Asst.	✓b. Medical Record Technician
a. Clinical Laboratory Scientist	i. Sewage Plant Op.	✓c. Medical Record Clerk
b. Medical Technologist	j. Water Works Op.	14. Medicine
c. Cytotechnologist	8. FOOD AND DRUG PROTECTIVE SERVICES	a. Physician, M.D. and D.O.
d. Histologic Technician	a. Food Technologist	b. Surgeon's Asst.
e. Medical Laboratory Technician	b. Food and Drug Inspector	c. Family Practice Physician Asst.
f. Certified Laboratory Assistant	c. Food and Drug Analyst	d. Pediatrician's Asst.
DENTISTRY AND ALLIED SERVICES	9. HEALTH EDUCATION	e. Obstetrician's Asst.
		f. Public Health Physician

1. ADMINISTRATION

- a. Public Health Officer
- b. Public Health Administrator
- c. Hospital Administrator
- d. Nursing Home Administrator

2. BIOMEDICAL ENGINEERING

- a. Biomedical Engineer
- b. Biomedical Engineering Technician

3. CHIROPRACTIC AND NATUROPATHY

- a. Chiropractor
- b. Naturopath

4. CLINICAL LABORATORY SERVICES

- a. Clinical Laboratory Scientist
- b. Medical Technologist
- c. Cytotechnologist
- d. Histologic Technician
- e. Medical Laboratory Technician
- f. Certified Laboratory Assistant

5. DENTISTRY AND ALLIED SERVICES

- a. Dentist
- b. Dental Hygienist
- c. Dental Assistant
- d. Dental Laboratory Technician

6. DIETETIC AND NUTRITIONAL SERVICES

- a. Dietitian

b. Nutritionist

- ✓ c. Dietary Technician
- d. Food Service Supervisor

7. ENVIRONMENTAL HEALTH SERVICES

- a. Public Health Engineer
- b. Air Pollution Engineer
- c. Water Pollution Engineer
- d. Radiological Health Engineer
- e. Industrial Hygiene Engineer
- f. Environmental Scientist
- g. Sanitarian
- ✓ h. Sanitarian Asst.
- i. Sewage Plant Op.
- j. Water Works Op.

8. FOOD AND DRUG PROTECTIVE SERVICES

- a. Food Technologist
- b. Food and Drug Inspector
- c. Food and Drug Analyst

9. HEALTH EDUCATION

- a. Public Health Educator
- b. School Health Educator

10. INFORMATION AND COMMUNICATION

- a. Health Information Specialist

- b. Health Technical Writer
- c. Medical Illustrator

11. LIBRARY SERVICES

- a. Medical Librarian
- b. Hospital Librarian

12. MATHEMATICAL SCIENCES

- a. Biostatistician
- b. Vital Record Registrar
- c. Health Demographer

13. MEDICAL RECORD SERVICES

- a. Medical Record Librarian
- ✓ b. Medical Record Technician
- ✓ c. Medical Record Clerk

14. Medicine

- a. Physician, M.D. and D.O.
- b. Surgeon's Asst.
- c. Family Practice Physician Asst.
- d. Pediatrician's Asst.
- e. Obstetrician's Asst.
- f. Public Health Physician

- g. Interns
- h. Residents

15. MIDWIFERY

- ✓ a. Lay Midwife
- b. Nurse Midwife

MANPOWER CATEGORIES/IDENTIFICATION CODE (Cont'd)

<p>16. NATURAL SCIENCES</p> <p>a. Biochemist</p> <p>b. Biophysicist</p>	<p>a. Orthotist</p> <p>b. Prosthetist</p> <p>c. Orthotic Aide</p> <p>d. Prosthetic Aide</p> <p>e. Restoration Technician</p>	<p>27. VETERINARY MEDICINE</p> <p>a. Veterinarian</p> <p>b. Veterinary Technician</p>
<p>17. NURSING & RELATED SERVICES</p> <p>a. Registered Nurse</p> <p>Assoc. Degree Diploma Baccalaureate Master & Doctorate</p> <p>b. Institutional Nurse</p> <p>Hospital (general) Nursing Home Mental Hospital Federal and V.A.</p> <p>c. Clinical Specialty</p> <p>Maternal & Child Health Psychiatric Med.-Surgical</p>	<p>20. PHARMACY</p> <p>a. Pharmacist</p> <p>b. Pharmacy Aide</p> <p>21. PHYSICAL THERAPY</p> <p>a. Physical Therapist</p> <p>b. Physical Therapy Asst.</p>	<p>28. VISION CARE AND SERVICES</p> <p>a. Ophthalmologist</p> <p>b. Optometrist</p> <p>c. Orthoptist</p> <p>d. Optician</p> <p>29. VOCATIONAL REHABILITATION COUNSELING</p> <p>a. Vocational rehabilitation counselor</p>
<p>d. Public Health Nurse</p> <p>Public Health (State) School Other</p> <p>e. Nursing Education</p> <p>f. Occupational Health</p> <p>Private Duty or Office</p> <p>h. Nurse Anesthetist</p>	<p>22. PODIATRIC MEDICINE</p> <p>a. Podiatrist</p> <p>23. RADIOLOGIC TECHNOLOGY</p> <p>a. Radiologic Technologist</p> <p>b. Nuclear Medicine Technologist</p> <p>c. Radiation Therapy Technologist</p> <p>24. SOCIAL SCIENCES</p>	<p>30. MISCELLANEOUS HEALTH SERVICES</p> <p>a.</p> <p>b.</p> <p>c.</p> <p>31. EMERGENCY HEALTH SERVICES</p> <p>✓ a. Ambulance Attendant</p> <p>32. INHALATION THERAPY</p>

- a. Biochemist
- b. Biophysicist
- 17. NURSING & RELATED SERVICES
 - a. Registered Nurse
 - Assoc. Degree
 - Diploma
 - Baccalaureate
 - Master & Doctorate
 - b. Institutional Nurse
 - Hospital (general)
 - Nursing Home
 - Mental Hospital
 - Federal and V.A.
 - c. Clinical Specialty
 - Maternal & Child Health
 - Psychiatric
 - Med.-Surgical
 - d. Public Health Nurse
 - Public Health (State)
 - School
 - Other
 - e. Nursing Education
 - f. Occupational Health
 - g. Private Duty or Office
 - h. Nurse Anesthetist
 - ✓ i. Licensed Practical
 - ✓ j. Nursing Aide, Orderly and Attendant
 - ✓ k. Home Health Aide
- 18. OCCUPATIONAL THERAPY
 - a. Occupational Therapist
 - b. Occupational Therapy Asst.
- 19. ORTHOTIC & PROSTHETIC TECHNOLOGY

- b. Prosthetist
- c. Orthotic Aide
- d. Prosthetic Aide
- e. Restoration Technician
- 20. PHARMACY
 - a. Pharmacist
 - b. Pharmacy Aide
- 21. PHYSICAL THERAPY
 - a. Physical Therapist
 - b. Physical Therapy Asst.
- 22. PODIATRIC MEDICINE
 - a. Podiatrist
- 23. RADIOLOGIC TECHNOLOGY
 - a. Radiologic Technologist
 - b. Nuclear Medicine Technologist
 - c. Radiation Therapy Technologist
- 24. SOCIAL SCIENCES
 - a. Economist-health
 - b. Psychologist-clinical counseling
 - c. Sociologist
- 25. SOCIAL WORK
 - a. Social Worker
 - b. Social Work Asst.
- 26. SPEECH PATHOLOGY AND AUDIOLOGY
 - a. Audiologist
 - b. Speech Pathologist

- a. Veterinarian
- b. Veterinary Technician
- 28. VISION CARE AND SERVICES
 - a. Ophthalmologist
 - b. Optometrist
 - c. Orthoptist
 - d. Optician
- 29. VOCATIONAL REHABILITATION COUNSELING
 - a. Vocational rehabilitation counselor
- 30. MISCELLANEOUS HEALTH SERVICES
 - a.
 - b.
 - c.
- 31. EMERGENCY HEALTH SERVICES
 - ✓ a. Ambulance Attendant
- 32. INHALATION THERAPY
 - a. Inhalation Therapist
 - b. Inhalation Therapy Aide
- 33. MEDICAL EQUIPMENT TECHNOLOGY
 - a. Cardiopulmonary Technician or Electrocardiograph Technician
 - b. Electroencephalograph Technician
- 34. MENTAL HEALTH TECHNICIAN
- 35. OTHER HEALTH SERVICE
 - a. Community Health Aide