DOCUMENT RESUME

ED 087 308 HE 005 108

TITLE	Physician Manpower in Florida Series II. Prospects for Meeting the Goals.
INSTITUTION	Florida State Board of Regents, Tallahassee.
REPORT NO	BOR-74-2-b
PUB DATE	Feb 74
NOTE	11p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Educational Objectives; *Higher Education; *Manpower Needs; *Medical Education; *Personnel Needs; *Physicians
IDENTIFIERS	*Florida

ABSTRACT

This document analyzes the prospects and likelihood of meeting the goals suggested in the first paper of this series discussing physician manpower in Florida. The first paper indicates that approximately 76% of the mid-1973 pool of licensed physicians living in Florida could be considered in active practice providing care to the civilian population of the state. Hospital based anesthesiologists, pathologists, radiologists and certain others were included. In order to meet the needs anticipated for 1980, a net increase in his active practice group of 4,494 physicians is needed, 3,136 of whom should be in specialties providing primary care. To increase this select pool of physicians by 4,500 in 7 years will require the addition of over 6,700 new license holders, or approximately 960 per year. There is evidence that this large total of new licensees may be realized by 1980. Grounds for optimism may be found in the records covering the last 4 years in the expanding pool of physicians in the U.S. Prospects for meeting the goal of over 3,100 additional active, practicing, primary-care physicians by 1980 are dim. (MJM)

PHYSICIAN MANPOWER IN FLORIDA

SERIES

II. Prospects for Meeting the Goals

STATE UNIVERSITY SYSTEM of FLORIDA

Office of the Board of Regents
Tallahassee, Florida 32304
February 1974

BOR 74-2(b)

PHYSICIAN MANPOWER IN FLORIDA

II. Prospects for Meeting the Goals

THE PHYSICIAN is unquestionably the central figure in any discussion of health manpower. To the average person on the street the availability of a physician when and where he needs one is the predominate - indeed usually the sole - concern about health manpower.

The reason for the position of the physician at the head of the list of needs was well illustrated by White, et.al. (1.) who stated:

> "In summary, it appears that within an average month in Great Britain or the U.S., for every 1000 adults (sixteen years of age and over) in the population, about 750 will experience what they recognize and recall as an episode of illness or injury. Two hundred and fifty of the 750 will consult a physician at least once during that month. Nine of the 250 will be hospitalized, 5 will be referred to another physician, and 1 will be sent to a university medical center within that month."

It is easy to see that, while the many others engaged in care are important in the delivery of health services, none of the others are so visible to the public. It is physician supply that the public - and their elected representatives - are most concerned about.

Recently Mr. Robert P. Lawton, Associate Director for Manpower Development and Education, Florida Regional Medical Program, carried out a study at the request of the Community Hospital Education Council and submitted "A Report on Physician Distribution in Florida." That paper has been designated the first in the current series and this, the second, will be directed to an analysis of the prospects and likelihood of meeting the goals established in the first paper.

(1.) The Ecology of Medical Care. Kerr L. White, T. Franklin Williams and Bernard G. Greenberg. New England Medical Journal V.265, No. 18. 2 Nov. 1961. Pgs. 885-892.

In his analysis Lawton included both Doctors of Medicine and Doctors of Osteopathy. He found only 622 of the latter licensed in Florida in February 1973. An intensive effort was made to separate the active physicians currently providing care to the civilian public from the total physicians living in Florida.(2.) This amounted to 8,289 physicians in February 1973, or 76% of the total of 10,912 licensed physicians (M.D. and D.O.) with Florida addresses at that time.

The distribution of these 8,289 physicians among the several types of practice engaged in by physicians was then compared with a model derived from a distribution which appears to work well for some of the prepaid health care plans in the U.S. The group health plan ratios, when matched against Florida's active practitioner ratios, indicated many current excesses for Florida, a condition recognized by Lawton as being unrealistic. He then developed modified needs, by physician categories, based on medical care as delivered in Florida with allowances for the unusual characteristics of Florida's population and geography. Not all will agree with the figures of need developed in this way and Lawton himself stated:

> "Admittedly not applicable to every area or population, it is believed that these ratios have considerable value as baseline or foundation ratios which will help physicians, health planners and others to understand and identify a shortage (or excess) of physicians' services. They form a starting point which can easily be modified, and should be, for the particular characteristics of a specific population. It is also felt that they have value, in their recommended form, for large populations and for gross comparisons. Further, they can be the means of drawing attention to physician service opportunities and problems."

If too much weight is not assigned to a given figure, the baseline ratios developed by Lawton may be looked upon as the best guide available at this time for physician manpower targets.

(Lawton dealt additionally with the very important topic of geographic distribution, which will not be discussed in the remainder of this paper but will be considered later in the series.)

The study was then carried a step further by Lawton projecting the needs for 1980 assuming a population of 9.4 million for Florida by that date. The number of additional physicians needed by 1980 in each of several categories in addition to the number available in that specialty in February 1973 is projected as follows:

(2.) All anesthesiologists, pathologists and radiologists (total 1,104) were excluded as these are generally hospital based and the need for their services is brought about by factors that differ from those which determine the need for office based physicians.

Primary care (includes general and family practice, internal medicine, pediatrics and osteopaths)	+3,136
Psychiatry	437
Ob/Gyn	301
Surgery	298
Ophthalmology	81
Otolarynogology	70
Orthopedics	67
Physical Medicine	65
Dermatology	41
Neuro Surgery	4
Urology	1
Neurology	- 6
Total	+4,495

While there may be some question about certain of these figures two major points seem clear:

1. We shall need of the order of 4,500 more active medical practitioners providing care to the civilian population by 1980, and

2. Over 3,100 of these additional physicians are needed in the area of Primary Care (general and family practice, internal medicine, pediatrics and osteopathy).

The remainder of this paper will be directed to examination of current prospects of reaching these goals.

Will 4,500 Practitioners be Added?

As noted previously, Lawton excluded in his study a large number of licensed physicians in Florida ending up with only 76% of the total number in his working group of active, practicing physicians. It is this latter group that must be expanded by 4,500 if his goals are to be met. Does this then mean we shall need a net increase in the total number of licensed doctors in Florida by 5,900 (4,500 X 100/76)? This value may be a little high. The hospital based anesthesiologists, pathologists and radiologists and [50% of] the full-time medical school faculties make up a large proportion of the "excluded from the study" group and these may reasonably be expected to grow at a somewhat lesser rate than many of the larger office based practice groups. If the proportion of "actively practicing, non-hospital-based" group (which must be increased by 4,500) is moved up from 76% to 80% of the total pool of licensed physicians, then the total net increase needed would be 5,100.

Mid 1973		
Total licensed physicians (M.D. & D.O.)	10,900	
In active practice (Lawton Study)	8,300	(76%)
Mid 1980		
Total licensed physicians needed	16,000	
Total needed in active practice	12,800 (8,300+4,500)	(80%)

Between now and 1980 there will be an appreciable attrition in current physician ranks due to deaths and retirements to be offset by replacements before a net increase can be realized. The HEW Bureau of Health Manpower has recently completed an extensive investigation of this factor. They conclude for the total profile of U.S. physicians the annual attrition by all causes is 15 per 1,000.

Assuming a normal age profile for Florida's physician population, application of this factor would show a need for 1638 new physicians in Florida between now and 1980 for replacement only. When this figure is added to the 5,100 net increase needed, the total requirement for new physicians to come to Florida by 1980 becomes 6,738. Over seven years this would require an average of 962 new physicians in the state per year. Present indication is that this is by no means an unrealizable figure since, as will be shown later, we may expect to license about 1,600 additional doctors per year through the remainder of this decade.

Data on net increase in physicians are more readily available than are data pertaining strictly to new physicians. The Department of Professional and Occupational Regulation (DPOR) maintains computer records periodically updated for those who hold a current license to practice. Comparison of totals shows net changes. So it is best to again focus this discussion on net increase, keeping in mind the goal of +5,100 total physicians licensed to practice medicine and living in Florida by 1980.

To achieve a net increase of +5,100 in seven years an annual increment of +730 will be needed.

The number of licensed physicians living in Florida at selected recent times according to DPOR has been as follows:

	M.D.	D.O.	TOTAL
Mid 1971	8,729	573	9,302
February 1972		603	
September 1972	9,928		10,531
February 1973	10,290	622	10,912
September 1973	10,790	672	11,462

From the above data it can be seen that over the 27 months from mid 1971 to Sepbember 1973 the annual net increase has been 960 total physicians. Over the past year the increase has been 931. Both of these values are well over the annual net increase of 730 calculated above to provide the needed +5100 physicians of Lawton's study by 1980.

The number of M.D. licenses issued by the Florida Board of Medical Examiners peaked in 1971 following a series of changes in the practice act. The number licensed each year since 1968 has been as follows (from AMA statistics):

1968	699
1969	951
1970	1,759
1971	2,093
1972	1,629
1973	1,638

The question may be asked if this number can and will continue at this level. Some indication of the potential for continued large numbers may be given by the AMA statistics on total U.S. Licensure.

New Additions to the Medical Profession (M.D.)

1968	9,766
1969	9,978
1970	11,032
1971	12,257
1972	14,476

The results of the major expansion efforts of U.S. medical schools are for the most part just beginning to be felt.

Year of Graduation	Number of Graduates M.D.	D.O.	Total
1968	7,973	427	8,400
1969	8,059	427	8,486
1970	8,367	432	8,799
1971	8,974	472	9,446
1972	9,551	485	10,036
1973	10,391	647	11,038
1974 (Est.)	11,962	615	12,477
1975 "	12,800	694	13,494
1976 "	14,000	825	14,825

ON THE BASIS OF THE FOREGOING DATA OF A RAPIDLY EXPANDING POOL OF LICENSED PHYSICIANS IN THE U.S., AND IN CONSIDERATION OF THE FACT FLORIDA IS NOW ATTRACTING MORE THAN ENOUGH NEW DOCTORS PER YEAR TO FULFILL ITS INDICATED NEEDS FOR TOTAL PHYSICIANS BY 1980, THE PREDICTION APPEARS TO BE REASONABLY SOUND THAT WE SHALL PROBABLY ATTAIN THE GOAL OUTLINED BY LAWTON FOR AN ADDITIONAL 4,500 ACTIVE, PRACTICING PHYSICIANS, EXCLUSIVE OF CERTAIN HOSPITAL BASED SPECIALTIES, BY 1980, AND POSSIBLY BEFORE.

And the Primary Care Goal?

Lawton included all family/general practitioners, internists, pediatricians and all osteopaths in the group called "primary care physicians." This is generally consistent with other such reports. There are variations of this theme, however, and sometimes obstetricians are included and in a few instances attempts have been made to apply fractions to the total number of internists, pediatricians and osteopaths.

In an effort to get away from defining primary care by specialty, at the 1972 clinical convention the AMA adopted its Council on Health Manpower's "Definition of the Role of a Primary Physician" which reads as follows:

> "A physician assumes the role of a primary care physician when the patient depends on him for the initial access to and for the provision and overall management of his medical care. The same physician may not invariably continue in this role, but, by referral, another physician may assume it. In any specific health matter, the particular physician who accepts a patient for primary care should assume continuing supervision of that care.
>
> "This relationship may also be carried out by a group of physicians who function in a defined, responsible pattern of medical practice. In such a type of practice a single physician, however, should maintain an ongoing relationship with the patient and coordinate his care."

While this statement is helpful to understand what a primary physician is, in order to speak quantitatively it is necessary to revert to specialty groups. Many internists, pediatricians, obstetricians and osteopaths are, of course, secondary or tertiary care specialists. On the other hand, many general surgeons and other consulting specialists provide some primary care to specific patients on some occasions.

In his development of Florida Baseline Physician Ratios in 1980, Lawton calculated a need for 7,520 physicians in primary care which amounts to 59% of his calculated total physicians needed, 12,784 in active practice excluding those who are hospital based. To achieve the indicated number in primary care will require a net increase of 3,136 such physicians by 1980.

The Council on Health Manpower and the Council on Medical Education of the AMA have been addressing the problem of how many primary care physicians are needed in a mix of total physicians and in a recent report, "The Distribution of Physicians by Medical Specialty," point out:

> "The complex nature of medical practice and the multiple factors which affect the need for medical care make it very difficult to determine the exact numbers and types of medical specialists needed. The way in which medical care is

delivered is obviously an important factor. This in turn is often influenced by characteristics of the population, such as density, age profile, level of affluence, educational level and ethnic background. Other social and environmental conditions such as housing and transportation and communication facilities are important. The effects of national health insurance have yet to be demonstrated, but will certainly increase the demand for medical services.

"Medical specialties are interdependent, one upon another, and the need for one type of physician is affected by the supply of others. The general internist or pediatrician may function as the family physician. The obstetrician may provide pediatric services. The general surgeon may be the urologist or the gynecologist in certain settings.

"The nature of each physician's practice will be determined in part by the numbers and types of other physicians practicing in the same setting."

Among the recommendations stemming from the above report are:

* The need for more primary care physicians should be accepted as fact even though it is difficult to determine precisely the additional numbers needed at this time.

* To meet the need for more primary care physicians, there should be greater numbers and proportions of medical graduates engaged in residency training in the primary care specialties, especially family practice.

* The AMA should adopt immediately, publicize widely and promote vigorously a goal to have at least 50% of all medical graduates enter residency training in the primary care specialties in the coming years.

In light of the above, Lawton's goal of 59% of practicing physicians in primary care may be a little optimistic, but not unreasonable.

According to AMA statistics the number and proportion of physicians in primary care specialties in the U.S. on 31 December 1972 was as follows:

Specialty Field	Total Physicians Excluding Interns and Residents	
	No.	%
Family/General Practice	54,322	17.9%
Internal Medicine	35,185	11.6%
Pediatrics	15,475	5.1%
Total	104,982	34.6%
If Ob/Gyn is added to the above	17,146	5.7%
Total	122,128	40.3%
Total Physicians	302,983	100.0%

The preceding figures for the U.S. may be looked upon as the pool from which will be drawn most of the physicians who shall be migrating into Florida in the next few years. Evidence for this is seen in the fact only 406 of the 1629 licenses issued in 1972 represented first licensure, and 508 of 2,093 in 1971.

At the time of the Florida Board examination, many questions are asked of the candidates relative to their background and future intentions. In 1973, 35% of 1,859 candidates listed themselves as family/general practitioners, internists or pediatricians. If the obstetricians are added the figure becomes 42%. Both values are strikingly close to national specialty proportions, giving further weight to the likelihood of the in-migration pool being a cross-section of practitioners generally.

These data do not make it appear that we shall be greatly improving our position in proportion of primary care physicians.

But now we must look once more at the calculated figure of total new physicians needed by 1980 to achieve the net increase goals. On a previous page it was calculated that, to provide both expansion and replacement, we would need 6,738 new physicians in Florida by 1980. If 35% of the new physicians do in fact enter primary care fields the addition would be 2,358. Meanwhile attrition will reduce the present total of 4,384 in primary care by perhaps as much as 440, leaving a net gain in primary care of 1918, less than two-thirds of Lawton's established goal of 3,136.

If the same computations are applied after adding obstetricians to the primary care group the net gain becomes 2,326.

IN BRIEF, IT IS UNLIKELY UNDER THE ABOVE ASSUMPTIONS THAT IN-MIGRATION WILL PROVIDE US WITH THE LARGE NUMBER OF PRIMARY CARE PHYSICIANS WE ARE SEEKING BY 1980.

But is it possible availability of primary care specialists may increase by the end of the decade?

From the AMA study mentioned previously the number of interns and residents in training programs of primary care fields as of 31 December 1972 are presented below. For comparison, those in the several programs within the State of Florida as of August 1973 are also shown.

	Interns and Residents			
	AMA/U.S. Data, 12/31/72		Florida Data, 8/73	
	Number	% of Total	Number	% of Total
Family /General Practice	1,026	1.9	83	5.9
Internal Medicine	12,809	23.9	370	26.4
Pediatrics	4,134	7.7	115	8.2
Ob/Gyn	3,056	5.7	92	6.6
Total in Primary Care	21,025	39.3	660	47.1
Total in U.S./State	53,551	100.0	1,399	100.0

Unfortunately at the moment the proportion of residency programs in the primary care fields are slightly below, not above, the proportion of practicing physicians in primary care. This does not make it appear the national pool of practitioners will be significantly altered soon. As noted earlier, the AMA has adopted a public policy calling for "at least 50% of all medical graduates (to) enter residency training in the primary care specialties in the coming years."

It is apparent that Florida's post-M.D. training programs are better oriented to the preparation of specialists in primary care than those of the nation generally. This fact is in our favor inasmuch as we may expect to retain a high proportion of Florida-trained residents for practice in this state.

In Lawton's study data on specializations among osteopathic physicians was not available. He quoted an estimate of the profession that approximately 90% of the 603 practicing in Florida in February 1973 were delivering primary care so he counted all osteopaths among the primary physicians.

In his report, "A Survey and Feasibility Report on the Establishment of a College of Osteopathic Medicine in the State of Florida" (Submitted 23 February 1972) Mr. Lawrence W. Mills reported 525 doctors of osteopathy engaged in active practice, 67% as general practitioners and 33% as specialists. The proportion of the latter in those specialties generally included in primary care is not clear but it is likely the 90% figure of Lawton's is not far off.

Although there are at present 1864 D.O.'s holding the Florida License but not now living in the state, with only 14,000 in the U.S. and the annual output of all schools in the 600 to 800 range, it does not appear that Florida's need for primary care physicians will be materially aided by D.O.'s in the near future. An in-depth study of this subject is now underway and will be the subject of the next report in this series.

Summary

Lawton calculated that approximately 76% of the mid-1973 pool of licensed physicians living in Florida could be considered in active practice providing care to the civilian population of the state (8,289 of 10,912 M.D.'s and D.O.'s). Hospital based anesthesiologists, pathologists, radiologists and certain others were excluded. He then calculated that, to meet the needs anticipated for 1980 we shall need a net increase in his active practice group of 4,494 physicians, 3,136 of whom should be in the specialties providing primary care.

To increase this select pool of physicians by 4,500 in seven years will require the addition of over 6,700 new license holders, or approximately 960 per year.

There is evidence that this large total of new licensees may be realized by 1980. Grounds for optimism may be found in the records covering the last four years and in the expanding pool of physicians in the U.S.

Prospects for meeting the goal of over 3,100 additional active, practicing, primary care physicians by 1980 are less bright. Assuming the in-migrating physicians will represent a cross section of the pool of physicians in the U.S., we shall likely fall considerably short of the goal. Some optimism is warranted by the current and projected makeup of the residency training pool within the state.

While the proportion of osteopathic physicians that is providing primary care is quite high, the total number, both in Florida and in the U.S. pool from which to draw is small in relation to the need for practitioners. The next paper in this series will explore osteopathic medicine in more detail.

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