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Physician Assistant: A Profile of the Profession, 1976

This article provides a summary of the findings from the 1976 Physician Assistant National Survey. This survey was sent to physician assistants nationwide who had graduated from an AMA-approved program in primary care, surgery, urology, or orthopedics, and/or had passed the National Certifying Examination for the Primary Care Physician Assistant, administered by the National Commission on Certification of Physician Assistants. Data is presented in this article on the: sex, ethnic background, and age of physician assistants prior to PA training, the percent of PAs, by year of graduation, who are certified by the National Commission on Certification of Physician Assistants; the geographic location and practice settings in which PAs provide care; the specialties of PAs' supervising physicians; the types of care that PAs provide; the number of regular and on-call hours that PAs work; the income of physician assistants; and the unemployment rate for PAs.

The physician assistant concept was formally introduced to the health care delivery systems of the United States in 1965 when Duke University admitted students to be trained as assistants to the primary care physician. From 1965 until 1972 twelve programs were developed, accounting for fewer than three hundred graduates in all. The Health Manpower Act of 1972 provided the stimulus for substantial development of physician assistant training within many medical colleges in the United States.

In 1972 four organizations—the American College of Surgeons, the American Academy of Pediatrics, the American Academy of Family Practice, and the American Society of Internal Medicine—formed a Joint Review Committee under the sponsorship of the Council on Medical Education of the American Medical Association.

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This Joint Review Committee developed the Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician and inaugurated a process of accrediting programs that met these essential requirements. This process was recognized by the Commissioner of Education in early 1974.

In early 1972 the National Board of Medical Examiners began the process of developing a certification examination that would assess the competence of the graduates of accredited physician assistant training programs. The first examination was administered in December of 1973 to 880 candidates, ten percent of whom were not physician assistants, but were graduates of nurse practitioner programs, training analogous types of health professionals. In August of 1974, 14 national organizations voluntarily formed a National Commission on Certification of Physician Assistants (NCCPA) for the purpose of providing to state licensing authorities the names and qualifications of persons who had successfully passed the national board examination. The commission thenceforth has determined eligibility for the examination and established the cri-

teria for pass/fail, contracting with the National Board of Medical Examiners for the preparation, administration, and scoring of the test instrument. It is anticipated that some 1,400 graduates of current programs will be eligible for the examination each year through 1980.

A number of existing and developing physician assistant programs formed the Association of Physician Assistant Programs in 1972 for the purpose of facilitating an exchange of information and for providing mutual support regarding such matters as curriculum development, admissions policy, evaluation, legislative matters, and continuing education of the practicing physician assistant. Virtually all accredited programs are now members of this Association which has been instrumental in defining the roles of physician assistants in the health care delivery system.

It has become increasingly apparent that there is a need on the part of many national organizations, the programs themselves, and the federal government to have information regarding total numbers of physician assistant graduates, their certification status, their geographic distribution, their function in their practice setting, their income, and their job stability. In the fall of 1976 the Joint Research and Review Committee of the American Academy of Physicians' Assistants (AAPA) and the Association of Physician Assistant Programs (APAP), with funding from the Robert Wood Johnson Foundation, developed a National Survey in order to meet this need. This paper provides a summary of those survey findings.

Method

The first task in creating the data base focused on defining the population of physician assistants. For the purposes of the data base, a physician assistant was defined as someone who had graduated from an AMA-approved program in primary care, surgery, urology, or orthopedics, and/or had passed the National Certifying Examination for the Primary Care Physician Assistant administered by the National Commission on Certification of Phy-

sician Assistants. This definition of a physician assistant, therefore, includes physician assistants, physician associates, MEDEX, health associates, child health associates, graduates of two nurse practitioner programs that are also approved by the AMA to prepare assistants to the primary care physician, and informally trained persons who, after qualifying to sit for the examination, passed it. The present data base includes physician assistants who have graduated through 1976 and/or have been certified prior to 1977. The next update of the data base, planned for the fall of 1977, will include the class of 1977, those certified in 1977, and those presently being trained in AMA-accredited programs.

Several lists, including the AAPA's present and past membership lists and

TABLE 1 Graduates of AMA Approved Programs

Year	Absolute Frequency	Relative Frequency (%)	Cumulative Frequency (%)
1966	2	.1	.1
1967	3	.1	.2
1968	13	.4	.6
1969	16	.5	1.1
1970	24	.7	1.8
1971	54	1.6	3.4
1972	191	5.8	9.2
1973	461	13.9	23.1
1974	728	21.9	45.0
1975	875	26.4	71.4
1976	950	28.6	100.0
	3317	100.0	

TABLE 2 AMA Approved Programs Graduating Physician Assistants

Year	No. of Programs
1967	1
1968	2
1969	3
1970	3
1971	12
1972	26
1973	43
1974	53
1975	54
1976	55

the NCCPA's roster of certified physician assistants and each program's list of 1976 graduates, were collected and cross-referenced. To date there are 4963 persons who fulfill the established criteria. The survey was sent to all of these physician assistants in December 1976. Unfortunately, because many of the physician assistants had not been contacted for longer than two years, over 400 surveys were returned by the post office as "non-forwardable." To date 380 of these physician assistants have not been located. Future efforts call for an increased search for these people. The available population was thus reduced to 4583. To date we have received 3674 responses to the survey or 80.17 percent of the available population. The data presented and discussed in this report are based on the 3493 responses received in time for computer analysis.

In looking at any information describing the physician assistant population, it is important to realize the rapid growth within the profession. The number of training programs and the size of each graduating class have grown dramatically over the years, as can be seen in Tables 1 and 2. Slightly more than half of all the respondents (55%) graduated in 1975 or 1976, and over three-fourths (76.9%) have graduated since 1973. Any attempts at

analyzing trends appear to be too premature since only about one-fourth (23.1%) of the population could have been in practice for over two years. The rapid growth in the number of programs also makes any analysis of trends premature. The number of AMA-approved programs doubled between 1971 and 1972 and also between 1972 and 1974. As of April 1977 there were 53 programs accredited by the AMA to prepare assistants to the primary care physician and two programs to prepare surgeon assistants.

TABLE 4 Percent of Women Medical School and PA Training Program Students

Year	Medical Schools Percent Women*	PA Training Programs Percent Women
1969	7.5	12.5
1970	8.4	4.2
1971	9.2	24.1
1972	9.0	19.9
1973	8.9	21.0
1974	11.1	21.2
1975	**	28.9
1976	**	32.8

* Minorities and Women in the Health Fields, Health Manpower References DHEW, September 1975.

** Information not available.

TABLE 3 Age, Sex, and Ethnic Origin of Physician Assistants by Year of Graduation

Year of Grad.*	No. of Grads	Ethnic Background (%)						Average Age at Graduation	Sex (%)	
		Caucasian	Black American	Native American	Spanish Speaking American	Oriental	Other		Male	Female
1968	13	100.0						28.8	100.0	0.0
1969	16	81.2	18.8					29.8	87.5	12.5
1970	24	83.3	4.2		8.3		4.2	30.9	95.8	4.2
1971	54	90.7	5.6	3.7				32.6	75.9	24.1
1972	191	89.5	7.3	0.5	1.6		1.0	31.0	80.1	19.9
1973	461	86.8	5.4	3.0	1.8	0.7	2.4	31.6	79.0	21.0
1974	728	84.6	6.5	1.1	4.3	0.5	3.0	31.3	78.8	21.2
1975	875	86.3	6.4	1.1	2.2	0.6	3.4	30.6	71.1	28.9
1976	950	87.1	4.7	1.3	2.1	1.3	3.6	30.2	67.2	32.8
Totals	3312	86.5	5.9	1.4	2.5	0.7	3.0	30.8	73.8	26.2

* Figures for the two 1966 and three 1967 graduates who responded are excluded to maintain confidentiality of individual information.

Results and Discussion

Background

There have been many stereotype statements about physician assistants concerning their age, sex, and ethnic origin. Of the physician assistants who responded to the survey, 2528 are male (72.4%) and 958 are female (27.4%). Eighty seven percent are white; 6 percent black; less than 2 percent American Indian; almost 3 percent Spanish speaking; and almost 4 percent of other ethnic origin, including American Oriental. The average age of the respondents as of January 1977 is 33.2 years.

Changes in the age, sex, and ethnic

origin of graduates of physician assistant training programs may be seen in Table 3. In looking at the table, it is important to note the number of physician assistants who graduated each year, since the numbers have increased dramatically. The average age of each graduating class of physician assistants has not declined significantly through the years, with the average age at graduation remaining about thirty years old. The percent of females graduating from each class has been steadily increasing, with female physician assistants accounting for more than one-fourth of the total respondents. The obvious strides achieved by PA programs in recruiting

TABLE 5 Sex and Ethnic Origin by Type of Physician Assistant

Type of PA	Per- cent of Popu- lation	Sex (%)		Ethnic Background (%)					
		Male	Female	Cauca- sian	Black Ameri- can	Native Ameri- can	Span- ish Speak- ing Ameri- can	Orien- tal	Other/ Un- known
Informally Trained	7.2	38.2	61.8	91.6	2.8	.8	2.4	0.4	2.4
Medex	14.8	78.9	21.1	80.9	11.2	1.4	3.7	0.6	2.3
Military	9.9	98.3	1.7	86.9	6.1	0.0	1.7	1.5	3.8
PA (Two-year Programs)	67.4	71.2	28.8	87.4	4.8	1.7	1.9	0.6	3.7
Not Known	.7	50.0	45.8	87.5	0.0	0.0	0.0	0.0	12.5

TABLE 6 Percent of First-Year Medical School Students and PA Training Program Students by Ethnic Background*

Year	Ethnic Background									
	Caucasian		Black American		Native American		Spanish Speaking American		Oriental	
	Medical Stu- dents	PA Stu- dents	Medical Stu- dents	PA Stu- dents	Medical Stu- dents	PA Stu- dents	Medical Stu- dents	PA Stu- dents	Medical Stu- dents	PA Stu- dents
1969	95.8	81.2	2.7	18.8	0.05		0.2		1.2	
1970	93.8	83.3	4.2	4.2	0.1		0.5	8.3	1.3	
1971	91.2	90.7	6.1	5.6	0.1	3.7	0.8		1.7	
1972	89.6	89.5	7.1	7.3	0.2	0.5	1.3	1.6	1.8	
1973	89.5	86.8	7.0	5.4	0.2	3.0	1.3	1.8	1.7	.7
1974	88.5	84.6	7.2	6.5	0.3	1.1	1.6	4.3	1.8	.5
1975	87.5	86.3	7.5	6.4	0.5	1.1	2.0	2.2	1.9	.6

* Minorities and Women in the Health Fields, Health Manpower References, DHEW, September 1975.

women and minorities are most evident when compared to U.S. medical schools. (See Table 4)

Another way to look at the population is by type of physician assistant. Table 5 breaks out physician assistants into four different types: informally trained but certified by the NCCPA (7.2% of the respondents), graduates of MEDEX (14.8%), military (9.9%), and two-year programs

TABLE 7 Distribution of Certified Physician Assistants

Year of Graduation	Percent* Certified	Percent* Not Certified	Percent* Exam Taken in 1976
1968	92.3	7.7	
1969	75.0	25.0	
1970	79.2	16.7	
1971	81.5	14.8	
1972	80.1	14.1	4.7
1973	85.9	9.8	3.0
1974	88.2	7.8	3.3
1975	85.7	6.9	7.1
1976	10.3	14.5	73.7
Total Population	64.2	10.4	24.4

* Percents are based on number of graduates each year (see Table 1).

TABLE 8 Military Status of Physician Assistants

Year of Graduation	Veterans and In Active Duty		Non-Veterans	
	No.	Percent*	No.	Percent*
1966	2	100.0	0	
1967	3	100.0	0	
1968	12	92.3	1	7.7
1969	14	87.5	2	12.5
1970	21	87.5	3	12.5
1971	42	77.8	12	22.2
1972	133	69.6	58	30.4
1973	316	68.7	144	31.3
1974	476	65.7	248	34.3
1975	451	51.6	423	48.4
1976	411	43.4	535	56.6
Totals	1881	56.9	1426	43.1

* Percents are based on number of respondents to this item by year of graduation.

(67.4%). It is interesting to note that informally-trained physician assistants are predominantly female (61.8%) and white (91.6%), while military physician assistants are overwhelmingly male (98.3%). The Medex physician assistants are the least predominantly caucasian group with 19.2 percent of their graduates representing various minorities. It should be pointed out that two MEDEX programs actively seek minority candidates and have a high enrollment of minorities. The data in Table 6 shows that the ethnic background of physician assistant students is similar to that of medical students.

The National Certifying Examination for Primary Care Physician Assistants has

TABLE 9 Previous Education of Physician Assistants

Education	No.	Relative Frequency (%)	Cumulative Frequency (%)
Masters	100	3.00	3.00
Bachelors	1047	31.37	34.37
Associate	415	12.43	46.80
Some College	1280	38.35	85.15
High School	319	9.56	94.71
Certificate	176	5.27	99.98
Some High School/GED	1	.03	100.01

TABLE 10 College Degree Prior to Training, by Year of Graduation

Year of Graduation	Associate Degree		At Least Baccalaureate	
	No.	Percent Graduates*	No.	Percent Graduates*
1968	1	7.7	1	7.7
1969	2	12.5	2	12.5
1970	3	12.5	1	4.2
1971	2	3.7	11	20.4
1972	20	10.5	39	20.4
1973	48	10.4	101	21.9
1974	90	12.4	190	26.1
1975	115	13.1	326	37.3
1976	130	13.7	443	46.6

* Note: Percents are based on number of graduates each year (see Table 1).

TABLE 11 Physician Assistants Licensed, Registered and Certified in other Health Fields by Year of Graduation

Year of Graduation	No.	Percent Graduates*
1968	12	92.3
1969	13	81.2
1970	23	95.8
1971	40	74.1
1972	137	71.7
1973	331	71.8
1974	508	69.8
1975	548	62.6
1976	588	61.9

* Note: Percents are based on the number of graduates each year (see Table 1).

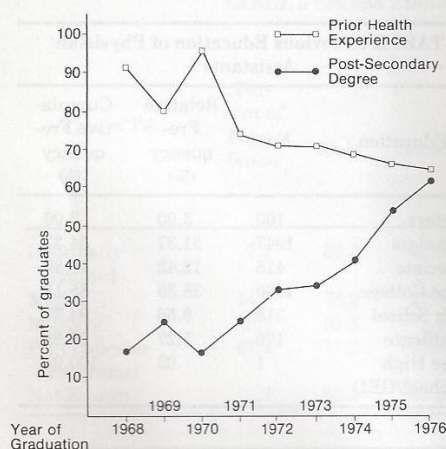


Fig. 1. Prior health experience and postsecondary degrees by year of graduation.

been given annually since 1973. Since the number of states requiring certification has been increasing yearly, it is not surprising that the percent of physician assistants taking the certification examination has also increased. As of January 1977, 64 percent of the respondents were certified, one-fourth of the respondents had taken the exam in the fall of 1976 (and had not learned the results), and only ten percent of the respondents were not certified. Table 7 shows the distribution of certified physician assistants by year of graduation. It should be noted that many of the first graduates (1966-1970) were directly involved in the development of the examination and therefore cannot sit for the examination for a specified length of time (3 years after they last served on a test committee).

Previous Education and Experience

Even though physician assistants have been thought of as being prior military corpsmen, only 56.9 percent of the population has a military background with the percent dropping yearly. Table 8 shows the military status of physician assistants by year of graduation.

Since the admission requirements for most physician assistant programs include at least 2 years of post-secondary education and/or experience, it is not surprising that physician assistants have had considerable academic education, health training, and experience. Almost one-half of the population entered physician assistant

TABLE 12 Prior Experience and Training of Physician Assistants

Prior Experience/Training	Formal Training		Military Experience		Civilian Experience	
	No.	Percent*	No.	Percent*	No.	Percent*
At Least One Other Health Field	1235	35.4	1130	32.4	171	4.9
At Least Two Other Health Fields	465	13.3	329	9.4	497	14.2
At Least Three Other Health Fields	216	6.2	176	5.0	390	11.2
None	1577	45.1	1858	53.2	2435	69.7

* Percents based on 3493.

programs with at least an associate degree, and over one-third have either a bachelors or masters degree. The specific breakdown by degree may be found in

Table 9. The percent of graduates holding a post-secondary degree has been steadily rising. As can be seen in Table 10, 46.6 percent of the class of 1976 held at least a

TABLE 13 Prior Training and Experience in other Health Fields*

Field	Formal Training		Military Experience		Civilian Experience	
	No.	Percent	No.	Percent	No.	Percent
Corpsman	1056	30.2	1490	42.7	91	2.6
RN	402	11.5	47	1.3	273	7.8
LPN	189	5.4	108	3.1	137	3.9
ORT	98	2.8	109	3.1	106	3.0
EMT	85	2.4	15	0.4	95	2.7
Orderly	83	2.4	30	0.9	332	9.5
Nurses' Aide	82	2.3	9	0.3	180	5.2
Lab Technician	74	2.1	74	2.1	97	2.8
Medical Technologist	66	1.9	19	0.5	62	1.8
Radiologic Technologist	73	2.1	26	0.7	64	1.8
Surgical Technician	40	1.1	35	1.0	52	1.5
Respiratory Therapist	30	0.9	10	0.3	51	1.5
Lab Technologist	30	0.9	20	0.6	24	0.7
Medical Technician	20	0.6	21	0.6	20	0.6
Radiologic Technician	27	0.8	20	0.6	18	0.5
Other Technician	174	5.0	150	4.2	303	8.7
Other Technologist	47	1.3	40	1.1	55	1.6
Other Therapist	42	1.2	20	0.6	57	1.6
Other Health Related	184	5.3	71	2.0	302	8.6

* This table includes multiple responses. (Percents based on 3493.)

TABLE 14 Mean Months of Formal Training and Civilian and Military Experience in other Health Fields

Field	Formal Training		Military Experience		Civilian Experience	
	Mean No. of Months	Standard Deviation	Mean No. of Months	Standard Deviation	Mean No. of Months	Standard Deviation
Corpsman	10	21	71	71	34	41
RN	35	16	75	71	102	93
LPN	15	16	63	47	44	49
ORT	7	6	37	36	28	26
EMT	10	31	39	60	34	29
Orderly	8	15	18	13	22	20
Nurses' Aide	10	23	20	10	17	20
Lab Technician	12	10	54	65	44	55
Medical Technologist	25	16	79	76	66	62
Radiologic Technologist	23	13	60	61	65	93
Surgical Technician	8	8	63	58	39	35
Respiratory Therapist	14	8	35	29	34	30
Lab Technologist	15	10	66	73	86	73
Medical Technician	13	10	55	64	30	25
Radiologic Technician	17	7	29	28	102	104
All Health Fields*	16	23	64	66	41	54

* In addition to the fields listed above these means and standard deviations include persons in other technician, technologist, therapist, and health related fields.

bachelors degree and 13.7 percent held an associate degree before entering physician assistant programs, as compared to the class of 1975 in which 37.3 percent of the entering students held at least bachelors degrees and 13.1 percent held associate degrees. It seems fair to conclude that the more recent graduates have had more formal education prior to entering PA programs than their predecessors.

Since physician assistant programs also require education and/or prior health experience, and prior education is rising, one might expect the percent of graduates with prior health experience to be on the decline. Table 11 shows the percent of physician assistants by year of graduation who were licensed, registered, or certified

in other health fields prior to entering physician assistant training programs. Although the percent for the class of 1976 is still relatively high (over 60%), the percent has been dropping.

Figure 1 shows the comparison between prior licensing, certification, or registration in other fields and formal academic education. As one would expect, the percent of PA graduates with prior formal academic education has increased while the percent of PAs with formal licensure in other health fields has been declining, although at a slower rate than academic education has been rising. For the class of 1976 approximately 60 percent of the class held post-secondary degrees, and 60 percent were licensed in another health field.

TABLE 15 Geographic Distribution of Employed Physician Assistants

Geographic Location	Percent of PAs*	Geographic Location	Percent of PAs*
Northeast	(20.6)	North Central	(20.6)
Connecticut	2.2	Illinois	1.6
Maine	1.2	Indiana	1.8
Massachusetts	2.2	Iowa	1.8
New Hampshire	1.0	Kansas	1.8
New Jersey	0.6	Michigan	3.7
New York	7.7	Minnesota	0.7
Pennsylvania	4.7	Missouri	1.3
Rhode Island	0.2	Nebraska	1.0
Vermont	0.7	North Dakota	0.8
		Ohio	3.4
		South Dakota	0.7
		Wisconsin	2.0
South	(34.7)	West	(21.6)
Alabama	1.7	Alaska	1.6
Arkansas	0.4	Arizona	1.5
Delaware	0.2	California	8.2
District of Columbia	1.1	Colorado	2.4
Florida	4.6	Hawaii	0.3
Georgia	3.8	Idaho	0.5
Kentucky	1.3	Montana	0.3
Louisiana	0.3	Nevada	0.5
Maryland	2.5	New Mexico	1.5
Mississippi	0.3	Oregon	0.6
North Carolina	5.4	Utah	0.6
Oklahoma	3.3	Washington	3.3
South Carolina	1.7	Wyoming	0.4
Tennessee	1.0		
Texas	5.0		
Virginia	1.2		
West Virginia	1.0		
		Outside United States	(2.6)

* Percents are based on 3167.

Physician assistants come to training programs with a wide variety of previous health experience and training. Table 12 summarizes the number of physician assistants with prior formal training, military experience, and civilian experience in other health fields. Fifty-five percent of the PAs had prior formal training in another health field with 13.3 percent in two health fields and 6.2 percent in three. Forty-seven percent of the PAs had prior military experience in another health field with 9.4 percent in two health fields and 5 percent in three. Thirty percent had prior civilian experience in another health profession with 14.2 percent in two other health fields and 11.2 percent in three.

Table 13 shows the percent of physician assistants by selected profession who have had formal training and military and civilian experience. The most common prior health profession, as might be expected, is medical corpsmen. Over four out of every ten physician assistants received military experience as military corpsmen. The second most common previous profession for physician assistants was as a registered nurse. Interestingly, 11 percent said they had formal training as an RN, but only nine percent of the PAs said they had any experience as an RN.

Table 14 describes the mean number of months of prior formal training and military and civilian experience for selected professionals. The diversity, not only in the variety of health professions but in the length of previous health training and experience, can be seen in the table. The length of prior formal training for PAs ranges from an average of almost three years as an RN to about one half year of training as an ORT, reflecting the wide range of training that PAs bring to the training programs.

The length of prior military and civilian experience for PAs is also quite long, probably reflecting the fact that physician assistant is often a second profession for many. The prior military experience ranges from about six years for previous corpsmen, RNs, and medical technologists to 18 months as an orderly. Prior civilian experience ranges from about eight and one-half years as a registered nurse or

radiologic technician to 17 months as a nurses' aide.

Practice Settings

Physician assistants are employed in all 50 states in the United States. As can be seen in Table 15, about one-fifth of the PA respondents are employed in the northeast, north central, and west portions of the United States, and over one-third are employed in the south. This is not surprising since most of the first training programs were developed in this region.

Physician assistants provide care in a variety of settings. One-third of those employed as physician assistants provide care in two different settings, slightly more

TABLE 16 Practice Settings of Physician Assistants

Setting	Graduates	
	No.	Percent
Private Partnership	442	12.7
Fee for Service	(152)	(4.4)
Prepaid	(107)	(3.1)
Prepaid and Fee for Service	(113)	(3.2)
Not Specified	(70)	(2.0)
Private Solo	1113	31.9
Military Hospital	398	11.4
Private, Nonprofit Hospital	388	11.1
State/County/City Hospital	345	9.9
Profit Hospital	281	8.0
VA Hospital	165	4.7
University/Teaching Hospital	36	1.0
Other Hospital	52	1.5
Community/Public Clinic	316	9.0
Specialty Clinic	38	1.1
Remote/Satellite Clinic	559	16.0
Other Clinic	93	2.7
Federal Prison	32	.9
Non-Federal Prison	52	1.5
Public Health Service	72	2.1
HMO	25	.7
Emergency Room	17	.5
Nursing Home	301	8.6
University Teaching/Administration	198	5.7
Industry	106	3.0
Other Health Setting	82	2.3

* Note: This table includes multiple responses. Percents are based on 3493.

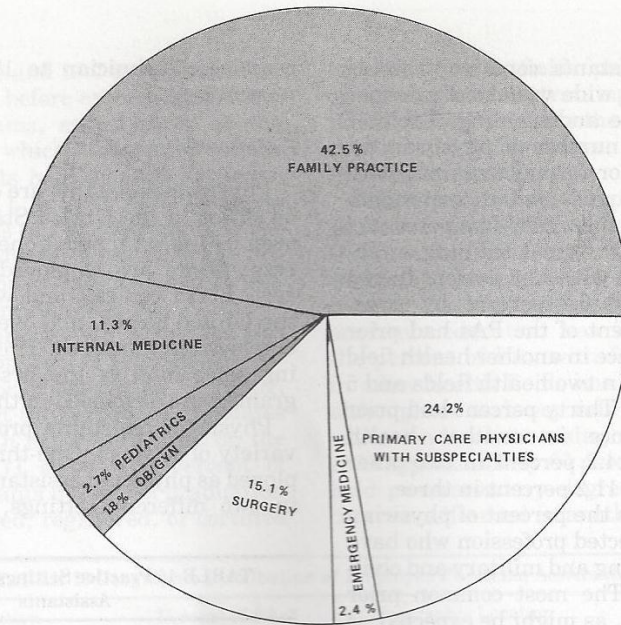


Fig. 2. Supervising physicians' specialties.

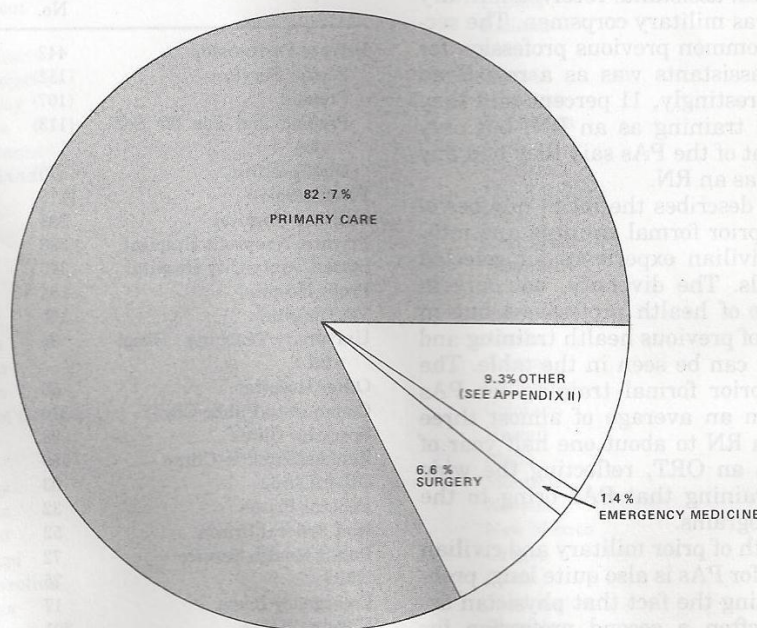


Fig. 3. Type of care provided by physician assistants.

than ten percent (12.9%) provide care in three settings, and more than three percent provide care in four settings.

Almost one-third (31.9%) of the physi-

cian assistants provide care in private solo practices. Less than 20 percent (16%) provide care within a remote or satellite clinic. The specific practice settings can

TABLE 17 Supervising Physicians' Years in Practice

No. of Years	No. of Physicians	Relative Frequency (%)	Cumulative Frequency (%)
<2	228	8.3	8.3
3-5	376	13.7	22.0
6-10	476	17.3	39.3
11-15	443	16.1	55.4
16-20	551	20.0	75.4
21-35	613	22.3	97.7
>36	66	2.4	100.1
Total	2753	100.1	

TABLE 18 Work Week of Physician Assistants

Hours	Direct Patient Care (%)	Hours on Call (%)
None	.7	50.3
1-20	5.1	19.6
21-30	5.5	7.4
31-40	43.9	4.5
41-50	27.2	4.9
51-60	12.4	2.9
61 or more	5.1	10.5

be found in Table 16. More than half of the respondents (56.1%) said they provide care in a hospital setting and about two thirds (65.8%) said that the hospital has a written policy regarding physician assistants.

Physician assistants are supervised by a wide range of specialists and subspecialists. Over half (58.3%) of the supervising physicians provide primary care, including Family Practice (42.5%), Internal Medicine (11.3%), Pediatrics (2.7%), and Ob-Gyn (1.8%). Fifteen percent of the supervising physicians specialize in surgery, two percent in emergency medicine, and 24 percent have subspecialties (Figure 2). Comparison of the percentage of supervising physicians with a primary care (53.8%) and the percentage of PAs providing primary care (82.7%) suggests that the type of care being provided cannot be determined by the specialty of the supervising physician. An additional seven percent of the physician assistants said they provide care within a surgery specialty. This is not surprising since our population in-

cludes graduates of AMA-approved programs in surgery, orthopedics, and urology. It would appear that approximately eight percent of those physician assistants who are supervised by a surgeon provide primary care. Figures 2 and 3 show physicians' specialties and the type of care provided by PAs.

Appendices I and II show the actual subspecialties of the supervising physicians and the types of care provided by physician assistants. It appears that physician assistants are fulfilling the role they were trained for. They are providing mainly primary care and surgery assistance in over forty types of subspecialty practices.

Physicians who supervise physician as-

TABLE 19 Range of Incomes for Physician Assistants

Income	No. of Graduates	Relative Frequency (%)	Cumulative Frequency (%)
\$10,099 or less	136	4.7	4.7
10,100-12,599	394	13.6	18.3
12,600-15,099	1040	35.8	54.1
15,100-17,599	627	21.6	75.7
17,600-20,099	435	15.0	90.7
20,100-22,599	110	3.8	94.5
22,600-25,099	84	2.9	97.4
25,200-30,099	45	1.6	99.0
30,100 or more	31	1.1	100.0

TABLE 20 Reasons for Not Being Employed as a Physician Assistant

Reasons	No. of Graduates	Percent
Cannot Find Employment		
Anywhere	34	1.0
Desirable Area	127	3.6
Looking	23	.7
Do Not Wish to Practice as a PA	22	.6
Employed in Health Related Profession	99	2.8
Employed in Non-Health Related Profession	10	.3
Unknown	42	1.2
Family Obligations	18	.5
Student	53	1.5
Total	428	

sistants not only come from a wide range of specialties and subspecialties but also vary in the number of years they have been in practice. Almost half of the supervising physicians have been in practice for more than 15 years. It appears that the number of years a physician has been practicing does not influence their decision to supervise a physician assistant (see Table 17).

Physician assistants work long hours both in direct patient care and on call. Almost half of the physician assistants work more than forty hours a week in direct patient contact, and almost one fifth work more than fifty-one hours a week in direct patient care. Since over 95 percent of respondents (96.4%) said they work full time, it's fair to assume that many of the physician assistants working less than thirty hours a week are involved in non-direct patient care as part of the role. Half of physician assistants (49.7%) spend at least some hours a week on call. Over 30 percent of the physician assistants spend more than thirty hours on call, ten percent of whom are on call for more than 60 hours a week. Table 18 shows the actual percentages of hours in direct patient contact and hours-on-call.

Any discussion of physician assistants' salaries is a difficult task because of the many variables which can influence yearly income, including location, type of practice, and number of years with employing physician to name but a few. Table 19 contains the range of PAs' incomes for all respondents. Approximately one-half of physician assistants earn less than \$15,100 a year. Less than ten percent earn more than \$20,000 a year. Physician assistants also receive approximately eighteen vacation days, seventeen sick days, and ten days for participating in continuing medical education a year. The average starting salary for the class of 1976 was

\$13,941 and the average salary for the class of 1975 as of January 1977 was \$15,391. Appendix III provides the average salaries for the classes of 1975 and 1976 by state.

Physician assistants do not have a high unemployment rate. (See Table 20) Only five percent of the respondents said they cannot find employment as physician assistants of which 44.6 percent had only recently graduated at the time they filled out the survey. Eight percent of those not employed as physician assistants are informally trained, certified physician assistants who are employed in other health related fields. The opportunities for employment for physician assistants looks very bright. Over 50 percent of the class of 1976 had found employment before graduation and at least three fourths had found employment within two months of graduation.

Summary and Conclusions

Physician assistants who were either graduates of AMA approved training programs for primary care physician assistants, surgeon's assistants, orthopedic assistants, and urologic assistants and informally trained certified persons were surveyed to determine demographic and deployment data. In general, the average physician assistant is 30 years old at graduation and has had several years of prior health experience and/or training in other health professions prior to entering physician assistant training programs. The majority (82.7%) are providing primary care, even though their supervising physician has a subspecialty.

The information acquired from the survey has provided a detailed description about physician assistants and their profession. In order to maintain the usefulness of the data base, the information will be updated and expanded yearly.

APPENDIX I Subspecialty of Supervising Physician

Subspecialty	Physicians	
	No.	Percent*
Family Practice	63	6.7
Ob/Gyn	88	9.4
Internal Medicine	36	3.9
Surgery	81	8.7
Pediatrics	13	1.4
Emergency Medicine	29	3.1
Flight Surgery/Aviation	8	0.9
Alcohol/Drug Abuse	5	0.5
Allergy	14	1.5
Anesthesiology	3	0.3
Cardiology	174	18.6
Dermatology	8	0.9
Endocrinology	26	2.8
Gastroenterology	27	2.9
Gerontology	11	1.2
Health Research	3	0.3
Hematology	32	3.4
Immunology	1	0.1
Neonatology	6	0.6
Nephrology	20	2.1
Neurology	2	0.2
Neurological Surgery	19	2.0
Neuropsychiatry	1	0.1
Non-Health	1	0.1
Ob/Gyn in Fertility	1	0.1
Occupational/Industrial Medicine	15	1.6
Oncology	20	2.1
Ophthalmology	4	0.4
Orthopedics	49	5.2
Osteopathy	7	0.7
ENT	7	0.7
Pathology	2	0.2
Plastic	10	1.1
Preventive Medicine	5	0.5
Psychiatry	8	0.9
Public Health	1	0.1
Pulmonary	21	2.2
Radiology	2	0.2
Rheumatology	5	0.5
Thoracic	31	3.3
Urology	17	1.8
Other	59	6.3
Total	935	100.0

* All percents are based on 935.

Appendix II Selected Physician Assistant Specialty

Specialty	No.	Percent*
Primary Care	2485	82.7
General Surgery	124	4.1
Neurological Surgery	10	.3
Orthopedics	49	1.6
Plastic Surgery	4	.1
Thoracic	4	.1
Urology	13	.4
Emergency Medicine	41	1.4
Occupational/Industrial	11	.4
Preventive Medicine	2	.1
Alcohol and Drug Abuse	3	.1
Allergy	2	.1
Anesthesiology	2	.1
Cardiology	53	1.8
Dermatology	6	.2
Endocrinology	2	.1
Gerontology	3	.1
Health Research	16	.5
Hematology	7	.2
Neonatology	2	.1
Nephrology	4	.1
Neurology	3	.1
Oncology	14	.5
Ophthalmology	2	.1
ENT	5	.2
Pathology	2	.1
Psychiatry	8	.3
Pulmonary	6	.2
Radiology	13	.4
Rheumatology	2	.1
Other	107	3.6
Total	3005	100.1

* All percents are based on 3005.

Appendix III Current Salaries for Physician Assistants by State

State	1976 Graduates			1975 Graduates		
	No. Graduates	Mean (\$)	Standard Deviation (\$)	No. Graduates	Mean (\$)	Standard Deviation
Northeast		13,842			15,014	
Connecticut	28	13,957	1,454	13	14,984	2,438
Maine	7	12,714	1,399	8	12,625	4,548
Massachusetts	20	13,010	2,213	20	15,025	1,392
New Hampshire	5	10,860	2,246	4	14,250	2,685
New Jersey	0			2	*	*
New York	53	14,347	1,985	41	15,302	2,329
Pennsylvania	42	14,288	2,884	47	15,348	3,469
Rhode Island	3	14,000	1,000	2	*	*
Vermont	7	12,442	1,422	4	13,750	2,061
North		14,244			15,645	
Illinois	7	14,414	1,929	12	16,691	1,070
Indiana	12	14,058	1,825	15	14,886	2,523
Iowa	12	13,741	1,916	13	15,623	1,933
Kansas	15	14,493	1,637	20	16,505	3,316
Michigan	34	15,070	2,209	30	16,773	3,293
Minnesota	3	14,166	1,040	2	*	*
Missouri	8	13,912	1,732	4	15,750	1,535
Nebraska	7	15,085	1,065	17	15,847	2,340
North Dakota	3	14,000	1,732	2	*	*
Ohio	22	13,618	4,473	23	14,073	1,921
South Dakota	3	15,066	3,100	3	11,833	288
Wisconsin	21	13,504	3,263	16	15,131	2,527
South		13,646			15,379	
Alabama	10	16,750	2,977	9	15,422	2,354
Arkansas	1	*	*	0		
Delaware	0			2	*	*
District of Columbia	7	14,100	1,698	8	13,750	5,325
Florida	27	14,137	2,024	19	16,426	2,735
Georgia	23	13,413	2,030	24	15,762	3,189
Kentucky	18	13,727	3,214	4	13,500	2,645
Louisiana	2	*	*	0		
Maryland	20	13,015	4,625	22	14,150	3,270
Mississippi	1	*	*	0		
North Carolina	36	14,086	2,176	37	14,897	3,201
Oklahoma	11	15,027	1,722	25	17,952	3,350
South Carolina	9	11,400	2,690	13	13,600	4,233
Tennessee	6	14,550	1,665	9	15,844	2,111
Texas	31	13,080	2,805	29	15,365	2,359
Virginia	10	11,820	5,424	3	13,666	2,516
West Virginia	9	12,377	2,263	7	14,528	4,072
West		14,738			16,427	
Alaska	3	26,000	4,582	7	26,771	4,453
Arizona	3	12,466	2,335	7	14,685	2,640
California	31	14,722	4,184	35	17,060	5,347
Colorado	12	13,783	2,382	15	13,560	1,630
Hawaii	3	18,000	5,196	2	*	*
Idaho	3	14,500	500	1	*	*
Montana	2	*	*	1	*	*
Nevada	4	13,900	3,800	2	*	*

* These figures have been excluded in order to maintain confidentiality.

Appendix III—Continued

State	1976 Graduates			1975 Graduates		
	No Graduates	Mean (\$)	Standard Deviation (\$)	No Graduates	Mean (\$)	Standard Deviation (\$)
New Mexico	6	14,833	1,807	6	14,600	1,706
Oregon	1	*	*	6	12,533	1,986
Utah	6	13,316	4,041	1	*	*
Washington	14	13,828	3,293	13	15,707	2,688
Wyoming	0			4	17,500	2,380
Total	621	13,941	2,979	609	15,391	3,550