Physician Assistant Programs in the U.S.

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Abstract
The Association of Physician Assistant Programs (APAP) released the 18th Annual Report on Physician Assistant Educational Programs for the years 2001-2002 in the Winter of 2002. The annual report is the most comprehensive view of physician assistant educational programs produced today and gives great insight into the Physician Assistant system of education. The Association of Physician Assistant Programs serves as the national organization representing physician assistant educational programs in the United States. This article will review the highlights of this study.

Introduction
The first Physician Assistant program was established at Duke University in 1965 in response to a need for non-physician clinical providers in primary care. Extensive program growth occurred between 1993 and 2001, with the addition of 73 programs during this time period. At this writing, there are 134 Physician Assistant programs in the U.S. While several exist outside of the U.S., there are no accredited international programs as of 2002 (Note: None of the international programs was included in the study).

Methodology and Analysis
Data analyzed for this comprehensive report was obtained by questionnaires sent to 130 Physician Assistant program directors in October 2001. Of those sent, 112 were completed and returned for a response rate of 87%. APAP contractors and staff analyzed the information and requested additional or clarifying information from programs as necessary via telephone or email contact. Analysis was primarily descriptive statistics on the variables of interest, including arithmetic mean, standard deviation, median, and range of values. T-tests were used to determine levels of statistical significance between groups.

Length of Programs
The mean length of the curriculum for programs reviewed was 26.2 months (N=130) with a range of 12 to 36 months. A vast majority of the programs are between 22-24 months. The median is 24 months with a trend over the years to increasing length of curriculum, perhaps following the slow progression from mostly bachelors to masters degree programs. The number of total program growth appears to be slowing.

Financial Support and Staffing
The primary source of internal financial support for the majority (N=91) of programs is the sponsoring institution itself, although some programs (10) report the unique environment of having no financial support from their sponsoring institutions at all. Fees
and tuition constitute the majority of program internal (institutional) support. Other funding comes from grants and contracts (external funding). External financial support for programs was primarily from federal training grants from the Department of Health and Human Services, Division of Medicine, Bureau of Health Professions. 33 programs received federal funds during the 2001-2002 year.

It is difficult to discuss the financial ramifications of physician assistant schools without talking about tuition. Tuition has increased 340% and 295% over the past eighteen years for resident and nonresident students, respectively, an average of 9.7% and 9.1% per year, respectively. Total student expenses increased by 328% and 305% over the eighteen year period for resident and nonresident students, respectively. As more private institutions created new physician assistant programs, tuition levels likewise have increased and followed similar trends in other nursing, and allied health professional programs. Only 96 students were awarded support from any of the several types of Public Health Service Corps Scholarships.

Overall the report notes that program budgets are increasing (8.1% annually), and institutional support is also increasing (7% annually), while federal support is level. The typical program employees one medical director and one program director. Each program has a core faculty and staff of approximately 8.5 FTE's including clerical and/or other types of support personnel. On average, 71% of the P.A. credentialed staff and faculty (including program directors) provided 11 hours per week of clinical practice in addition to their educational activities. Eighty-eight percent were paid for their clinical service. Personnel turnover averaged 1.1 individual per program. The three primary reasons cited for the departure of personnel included, in descending order, return to clinical practice, career advancement and termination.

Capacity

There are approximately 50,000 physician assistants practicing today in the U.S. The average maximum capacity for students in each program is approximately 78 students (divided into 39.6 for first year and 38.8 for second year "seats"). As programs move to augmented 2nd year and three year programming to accommodate the move to graduate level education, it is likely that this will hold consistent as an average "capacity" for additional annual class sizes. In 130 programs with an average of 2 years each, the total capacity of physician assistant programs is over 10,000 with approximately 5,000 graduates per year total among all of the programs. For the 105 programs the report estimates total enrollment to be 8,256 in 2001. The population of Physician Assistants in the U.S. will likely double over the next 10-12 years with these capacities.

Demographics

Most physician assistant students are female, averaging approximately 67% of each class. The speculation of physician assistants, educators and associations is that overall applicants are getting younger each year. The report notes that over one fourth (30.2%) of applicants was less than 24 years of age and approximately 40% of the applicants were between 24-29 years. Almost one-third of the students enrolled in the first-year class were over 30 years of age; almost one-half were between the ages of 20 and 26 and 2% were under 20 years of age. This does represent a slightly younger overall applicant population than in previous years of the study.

The majority of programs (90.8%) were associated with either a University or 4-year College. Seventy programs (54%) awarded graduates a master's degree and forty-four (34%) awarded graduates a baccalaureate degree. All other programs (12%) award either an associate degree or certificate of completion. 61% of the programs were established since 1989.

Graduate Placement and the Future

Physician assistants practice in all areas of primary medicine and specialty medicine and surgery. When looking at graduates, most physician assistant graduates enter practice in family medicine (46.5%). The most common non-primary care specialties selected by recent graduates were surgery (including subspecialties) and emergency medicine. The most common medicine subspecialties were cardiology and oncology, while cardiothoracic and cardiovascular surgery were the most common surgical specialties selected. Starting salaries for new graduates continued to increase over previous years and averaged $57,218 for the 2000 academic year.
Conclusions

The outlook for the physician assistant profession and education is healthy. Concerns over the applicant pool and job markets loom annually, but consistently physician assistant programs produce quality providers, that successfully enter and perform in the job market. New job growth continues in many regions of the U.S. although some (Northeast) are beginning to feel strained by high number of programs and graduates filling limited job markets. As the health care delivery system changes, however, so will physician assistant programs adapt to those changes.