



Information Update

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Number of Patient Visits Made to Physician Assistants and Number of Medications Prescribed or Recommended by Physician Assistants in 2007

Overview

The AAPA estimates that in 2007, approximately 245 million patient visits were made to physician assistants (PAs) and approximately 303 million medications were prescribed or recommended by PAs. The procedures and assumptions used to estimate the number of patient visits made to PAs and the number of medications prescribed or recommended by PAs are presented below.

Methodology

To estimate the total number of patient visits made to PAs and the total number of medications prescribed by PAs in 2007, we analyzed information from the following:

- The 2007 AAPA Annual Conference Survey (conducted at AAPA's annual conference in Philadelphia, PA)
- The 2007 AAPA Physician Assistant Census Survey

The estimation process involved the following seven stages, which are discussed in greater detail below.

- 1) Estimating the mean number of medications prescribed per patient visit by PAs working in an exhaustive set of specialty categories
- 2) Estimating the number of male PAs, female PAs, and PAs whose sex is unknown, in clinical practice in each specialty
- 3) Estimating the mean number of patient visits per week made to male PAs, female PAs, and PAs whose sex is unknown, practicing in each specialty
- 4) Estimating the total number of patient visits per week made to PAs practicing in each specialty
- 5) Estimating the total number of visits made to PAs practicing in each specialty during 2007
- 6) Estimating the total number of medications prescribed per week by the PAs practicing in each specialty
- 7) Estimating the total number of medications prescribed by the PAs practicing in each specialty during 2007

The estimates produced in each stage for the PAs practicing in each specialty and for the total population of clinically practicing PAs are presented in the attached table.

Stage 1: Estimating the Mean Number of Medications per Visit

As part of the 2007 AAPA Annual Conference Survey, AAPA collected data about:

- The primary specialty practiced by each PA (categories represented an exhaustive set of 14 mutually exclusive specialties)
- The numbers of visits made to PAs in a typical week
- The number of medications prescribed or recommended by PAs in a typical week

We used these data to estimate the mean number of medications prescribed or recommended per patient visit to PAs practicing in each specialty. However, because the sample was relatively small, self-selected, and limited to conference attendees who are disproportionately AAPA members and

from geographic areas more proximate to the site of the conference, we did not use these data to estimate the total number of patient visits made to PAs or the number of medications PAs prescribed.

Our specific procedures involved the following two steps.

- We divided the number of medications prescribed by the number of visits to calculate the mean number of medications prescribed per visit.
- We summed the mean numbers of medications prescribed per visit for all of the PAs practicing in each specialty and divided the resulting sum by the number of PAs practicing that specialty. The results of those calculations represent the mean numbers of medications prescribed per visit to PAs practicing in each specialty in 2007. These estimates are presented in column B of the attached table.

Stage 2: Estimating the Number of PAs in Clinical Practice

As part of the 2007 AAPA Physician Assistant Census Survey, we collected data about clinical practice status and the specialty practiced most frequently in the primary job (defined as the one in which the most time was spent providing clinical services). Since we believe that the 2007 AAPA Physician Assistant Census Survey respondents adequately represented the population of clinically practicing PAs during 2007, we used this information to estimate the number of PAs practicing in each specialty in 2007. Specifically, we calculated the numbers of males, females, and PAs whose sex is unknown practicing in each specialty separately for AAPA fellow members, potential fellow members, and new PA program graduates. We considered males, females, and the PAs whose sex is unknown within the three general groups separately because we have consistently found in our surveys that males and females as well as the members of these general groups have had significantly different practice status and specialty distributions.

Finally, to estimate the total number of PAs practicing in each specialty, we summed the estimates produced for the males, females, and PAs whose sex is unknown in the three groups. The estimated numbers of clinically practicing PAs in each specialty are presented in column C of the attached table. For more details about our methodology for projecting the number of people in clinical practice as PAs, please refer to Information Update: Projected Number of PAs in Clinical Practice as of January 1, 2008.

Stage 3: Estimating the Mean Number of Visits per Week

As part of the 2007 AAPA Physician Assistant Census Survey, we also collected data about:

- The number of visits made per week to PAs in their primary job
- The number of hours worked per week by PAs in their primary job
- The number of hours worked per week by PAs in all their clinical PA jobs

As a first step in this stage, we prepared for each specialty separate estimates for the males, females, and PAs whose sex is unknown who were AAPA fellow members, potential fellow members, and 2007 graduates. Next, we calculated the weighted average of these estimates to reflect the proportion of the total number of males, females, and PAs whose sex is unknown within each group who were practicing the specialty.

To estimate the total number of visits made per week to each PA at all of his/her clinical PA jobs, we multiplied the number of visits made to the PA per hour of work at the primary job by the total number of hours worked at all clinical PA jobs. Please note that these figures needed to be estimated because no information was collected on the number of visits made per week to the PAs at their

secondary jobs. Moreover, specialty information was collected for the primary job only. Consequently, we assumed that the primary specialty at all non-primary jobs was the same as the primary specialty in the primary job. Based on data collected in 2005, we believe that the consequence of this assumption is likely to be a small underestimation of visits. Specifically, in 2005 we found that 60 percent of those who cited the ‘primary’ (i.e., most prevalent) specialty for their non-primary job(s), reported a different specialty for their primary and non-primary jobs. Emergency medicine was the only specialty reported by relatively more respondents as a ‘primary’ specialty in a non-primary job than in a primary job.

It is unclear how our estimates were affected by our assumption that PAs in the same specialty would account for the same number of visits per hour whether working for a primary or non-primary employer.

Our estimates of the mean numbers of patient visits made per week to PAs in each specialty and overall are presented in column A of the attached table.

Stage 4: Estimating the Number of Visits Made to PAs per Week

To estimate the number of visits made per week to all PAs practicing in each specialty, we summed the products created by multiplying our estimates of the total number of male, female, and PAs whose sex is unknown in the specialty by the estimated mean numbers of patient visits made per week to all male, female, and PAs whose sex is unknown practicing the specialty. These estimates are presented in column D of the attached table.

Stage 5: Estimating the Number of Visits Made to PAs per Year

For these estimates, we multiplied the estimated total number of patient visits made per week to all PAs in each specialty group by 48 weeks for the PAs who graduated before 2007. For PAs who graduated in 2007, we multiplied the weekly total by 24 weeks to accommodate our belief that most new graduates would have been in practice for no more than half of 2007. These estimates are presented in column F of the attached table.

Stage 6: Estimating Total Medications Prescribed or Recommended per Week

To estimate the number of medications prescribed per week by the PAs practicing in each specialty, we multiplied the estimated number of patient visits made per week to all PAs practicing the specialty by the estimated mean number of medications prescribed or recommended per visit by a PA in that specialty. These estimates are presented in column E of the attached table.

Stage 7: Estimating Total Medications Prescribed or Recommended per Year

For these estimates, we multiplied the estimated total number of medications prescribed per week by all PAs in each specialty group by 48 weeks for the PAs who graduated before 2007. For PAs who graduated in 2007, we multiplied the weekly total by 24 weeks to accommodate our belief that most new graduates would have been in practice for no more than half of 2007. These estimates are presented in column G of the attached table.

Findings

The following represent some of the more interesting estimates produced through these analyses.

- PAs practicing general pediatrics, family medicine, and emergency medicine accounted for more patient visits per week (approximately 97, 90, and 88 visits, respectively) than did PAs practicing other specialties.

- PAs practicing family medicine and general internal medicine wrote many more prescriptions per visit (1.56 and 1.75) than did PAs practicing other specialties.
- During 2007, more PAs (26%) practiced family medicine than any other specialty. These PAs accounted for approximately 31 percent of the patient visits made to PAs during 2007 and approximately 39 percent of the total number of medications prescribed or recommended by PAs during 2007.

Estimated Number of Patient Visits and Medications Prescribed or Recommended by Physician Assistants in 2007

| | A | B | C | D | E | F | G |
|-------------------------------|---|------------------------------------|---------------------------------|---------------------------------|--|------------------------------------|---|
| | Mean Visits to Each PA per Week (a) | Mean Prescriptions per Visit | Number of PAs in Practice | Total Visits to PAs per Week | Total Prescriptions by PAs per week | Total Visits to PAs in 2007 (b) | Total Prescriptions by PAs in 2007 (b) |
| Family Practice | 89.85 | 1.56 | 17,944 | 1,612,352 | 2,520,645 | 75,407,690 | 117,887,373 |
| General Internal Medicine | 71.53 | 1.75 | 5,083 | 363,619 | 636,130 | 16,955,080 | 29,661,940 |
| Internal Medicine: Cardiology | 65.31 | 1.29 | 2,502 | 163,387 | 210,721 | 7,623,156 | 9,831,603 |
| Other IM Subspecialty | 63.59 | 1.17 | 5,255 | 334,167 | 392,096 | 15,527,036 | 18,218,710 |
| Obstetrics/gynecology | 71.54 | 0.86 | 1,563 | 111,809 | 95,771 | 5,194,183 | 4,449,121 |
| Emergency Medicine | 87.92 | 1.28 | 6,913 | 607,839 | 779,781 | 28,274,384 | 36,272,462 |
| General Pediatrics | 96.81 | 0.75 | 1,902 | 184,141 | 138,512 | 8,558,779 | 6,437,955 |
| Pediatric Subspecialty | 53.14 | 1.02 | 1,122 | 59,593 | 61,069 | 2,763,139 | 2,831,600 |
| General Surgery | 61.64 | 0.85 | 1,800 | 110,925 | 94,499 | 5,110,526 | 4,353,737 |
| Cardiovascular Surgery | 46.66 | 0.98 | 1,999 | 93,250 | 91,533 | 4,313,896 | 4,234,452 |
| Orthopedic Surgery | 73.13 | 0.79 | 5,751 | 420,535 | 333,378 | 19,472,129 | 15,436,493 |
| Other Surgical Subspecialty | 60.30 | 0.88 | 5,255 | 316,910 | 280,137 | 14,715,640 | 13,008,083 |
| Occupational Medicine | 82.76 | 0.69 | 1,769 | 146,369 | 100,416 | 6,969,949 | 4,781,680 |
| Other | 80.51 | 1.03 | 9,266 | 745,985 | 770,433 | 34,952,220 | 36,097,708 |
| Total | 77.37 | 1.23 | 68,124 | 5,270,882 | 6,505,120 | 245,837,806 | 303,502,915 |

- (a) The mean numbers of visits and prescriptions per week are rounded to 2 decimal points; therefore, the totals presented cannot be accurately reproduced from the figures presented.
- (b) The annual totals project output of a 48-week work year for PAs graduating before 2007 and a 24-week work year for PAs graduating in 2007.

Data sources: 2007 AAPA Annual Conference Survey, 2007 AAPA Physician Assistant Census Survey, and AAPA Masterfile, accessed November 1, 2007.