



Information Update

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Number of Visits to Physician Assistants for Select Disorders in 2007

Overview

PAs practice medicine in more than 60 specialty fields and typically treat patients with disorders as diverse as those of the physicians who supervise them. A recent survey conducted by AAPA's Division of Data Services and Statistics asked PAs to estimate the number of patients they see in a typical week for 27 specific disorders. Table 1 presents our estimates of the total number of visits made to PAs for each of these disorders in 2007.

Table 1. Estimated Number of Visits to PAs in 2007 for Specific Disorders

AIDS-HIV-related disorders	1,910,218
Alzheimers disease	3,584,959
Arthritis	19,540,740
Other musculoskeletal disorders	28,120,794
Asthma	12,170,329
Benign prostatic hyperplasia	4,911,205
Cancer	8,933,171
Congestive heart failure	8,519,611
Contraception	6,890,129
COPD	10,137,755
Depression & anxiety	14,423,657
Dermatitis & skin disorders	14,422,211
Diabetes	16,216,834
Dyslipidemia	15,517,217
Gastrointestinal disorders & infections	15,532,641
Gynecological disorders & infections	9,544,216
Headache	11,218,251
Hypertension	18,221,567
Pediatric immunizations	5,370,786
Adult immunizations	4,447,747
Obesity management	7,511,976
Osteoporosis	6,697,969
Overactive bladder	4,306,698
Pain management	17,956,754
Respiratory infections	22,312,359
Sleep disorders	7,295,575
Urinary infections	11,549,032

Methodology

As part of the 2007 AAPA Annual Conference Survey (ACS) performed at AAPA's Annual Physician Assistant Conference in May 2007, we asked a convenience sample of about 1640 PAs to estimate the number of visits made to them in a typical week for each of 27 disorders, conditions, and services. The specialty and sex distributions of the respondents to the 2007 ACS are, however, slightly different from the distributions estimated for all PAs in clinical practice. Since specialty is likely to correspond with the number of visits made for particular disorders and specialty is associated with sex, we weighted the ACS data to account for sex and specialty when estimating the total number of visits made to all PAs for each of the disorders during the year.

In summary, to generate estimates of the total number of visits to all PAs for each disorder, we performed the following calculations, which are described in greater detail below:

1. Calculated the Means – First, we calculated the mean number of patient visits for each disorder that were made to male and female PAs working in each major specialty in a typical week. The overall means derived for all PAs in each specialty were used to represent PAs whose sex is unknown.
2. Determined the Annual Total for Each Major Specialty– Next we summed the products created by multiplying the estimated mean visits per week for males, females, and PAs whose sex is unknown by the estimated total number of weeks worked per year by the number of males, females, and PAs whose sex is unknown in each major specialty group.
3. Estimated the Overall Total for all specialties– Finally, we summed the totals estimated for each major specialty group.

Note: We adjusted for the specialty and sex distributions of the ACS respondents and confirmed that the work status distribution (percent full-time) for the ACS respondents was similar to the distribution for the population of clinically practicing PAs. Still, our estimates rely on one untestable assumption: The practices of the ACS respondents in each major specialty group were comparable to those of other PAs in that major specialty group.

Determining the Means

To determine the mean number of visits made to PAs in each major specialty group during a typical week for each disorder, we needed to prepare the ACS data on the number of visits per week, as they were not collected as continuous data. Instead they were collected in the following categories:

a = 0 visits	e = 4 visits	i = 11-15 visits
b = 1 visit	f = 5-6 visits	j = 16-20 visits
c = 2 visits	g = 7-8 visits	k = > 20 visits
d = 3 visits	h = 9-10 visits	

The specific preparations involved converting the responses of those individuals who cited a category representing other than a single number into a point estimate. Specifically, to the respondents who cited one of the finite categories, we assigned the midpoint of the range represented by the category selected. Similarly, to the respondents who cited the final unbounded category representing more than 20 visits, we assigned the value of 21. Following the recoding of data, we produced a simple mean for the number of patients treated for each disorder by each of the 14 major specialty groups of PAs.

Calculating the Annual Total for Each Specialty

To estimate the total number of visits made to PAs in each major specialty group during the year for each disorder, we summed the products derived by multiplying the mean number of visits per week

to males, females, and PAs regardless of sex by the total number of weeks worked by the males, females, and PAs whose sex is unknown practicing each specialty. The total number of work weeks for each specialty was projected to equal the weighted average of two estimates: one for new graduates whom we assumed worked on average 24 weeks per year, and one for other graduates whom we assumed worked 48 weeks per year. Table 2 presents our estimates of the total number of clinically practicing PAs (on a full or part-time basis, new graduates and other PAs) in each of the 14 major specialty groups in 2007. The process used in producing these estimates is discussed in detail in the AAPA Information Update titled Projected Number of PAs in Clinical Practice as of January 1, 2008.

Table 2. Estimated Number of Clinically Practicing PAs by Specialty as of January 1, 2008

Total	68,124
Family medicine	17,944
General internal medicine	5,083
Internal medicine: cardiology	2,502
Other IM subspecialty	5,255
Obstetrics/gynecology	1,563
Emergency medicine	6,913
General pediatrics	1,902
Pediatric subspecialty	1,122
General surgery	1,800
Cardiovascular surgery	1,999
Orthopedic surgery	5,751
Other surgical subspecialty	5,255
Occupational medicine	1,769
Other	9,266

Estimating the Overall Total

By summing the estimates produced for the 14 major specialty groups, we estimated the total number of visits made to PAs for each disorder in 2007.

Findings

Table 1 presents our estimates of the total number of visits made to all clinically practicing PAs for the 27 disorders during 2007. Estimates of the number of visits made to the PAs in each major specialty group for each of the disorders during 2007 are shown in Table 3.

Limitations

These estimates should be used cautiously as the data are limited in a number of ways. First and foremost, the information representing the number of visits for each disorder per week was not collected as continuous data. The use of midpoints to recode the responses associated with the categories representing finite ranges probably overestimates the number of visits for any disorder; conversely, the use of the minimum value to recode the responses associated with the unbounded category underestimates the number of visits for any disorder. It is impossible to gauge the net effect of these two procedures on the estimates. In addition, it is impossible to know how the seasonal prevalence of some disorders affected the respondents' weekly projections made in May.

Table 3. Number of Patients Treated for Select Disorders in 2007 by Major Specialty Group*

Disorder	Family Practice	General Internal Medicine	IM:Cardiology	IM:Other	Ob/Gyn
AIDS-HIV-related disorders	168,490	278,578	63,347	272,619	65,653
Alzheimers disease	1,090,502	719,171	199,561	404,389	2,729
Arthritis	6,055,353	1,923,787	312,152	756,520	21,760
Other musculoskeletal disorders	8,873,187	2,243,324	279,255	778,523	70,910
Asthma	4,727,454	1,232,370	245,254	541,772	74,432
Benign prostatic hyperplasia	1,589,253	778,187	227,334	374,292	2,508
Cancer	959,879	584,468	259,815	1,371,780	173,150
Congestive heart failure	1,996,457	1,197,982	1,642,224	692,583	50,187
Contraception	4,076,226	362,084	46,332	86,670	1,046,055
COPD	3,947,669	1,787,689	544,530	591,707	12,128
Depression & anxiety	6,803,325	1,844,166	328,026	842,595	286,166
Dermatitis & skin disorders	5,815,241	1,200,383	154,727	610,610	183,924
Diabetes	7,134,579	2,544,857	698,656	1,304,433	131,776
Dyslipidemia	7,727,137	2,502,715	1,465,544	1,124,426	31,009
Gastrointestinal disorders & infections	5,267,543	1,642,773	390,529	1,687,675	99,652
Gynecological disorders & infections	4,194,806	628,681	132,343	160,776	1,171,639
Headache	4,211,159	1,009,122	200,622	645,108	158,153
Hypertension	8,257,535	2,718,101	1,601,647	1,358,509	132,630
Pediatric immunizations	2,893,893	160,281	66,068	55,887	64,346
Adult immunizations	1,862,135	545,017	137,066	253,762	159,517
Obesity management	3,386,940	1,174,349	396,148	452,389	79,656
Osteoporosis	2,013,875	893,551	231,709	499,291	196,232
Overactive bladder	1,582,809	605,670	135,924	227,966	190,415
Pain management	4,476,659	1,689,471	234,845	1,115,646	119,207
Respiratory infections	10,303,044	2,376,182	259,920	967,116	55,400
Sleep disorders	2,895,673	1,031,903	302,002	750,133	48,938
Urinary infections	4,471,313	1,333,653	261,714	497,216	289,737

* PAs are assigned to the specialty in which they spend the most time providing clinical services for their primary employer. Some PAs practice multiple specialties and roughly 15% hold multiple clinical jobs.

Table 3. Number of Patients Treated for Select Disorders in 2007 by Major Specialty Group (cont.)*

Disorder	Emergency	General Pediatrics	Pediatric Subspecialty	General Surgery	Cardiovascular Surgery
AIDS-HIV-related disorders	395,596	39,076	31,079	59,128	2,482
Alzheimers disease	373,752	4,463	5,668	41,135	7,446
Arthritis	2,005,392	36,887	11,315	204,206	68,046
Other musculoskeletal disorders	4,579,268	618,160	286,687	299,733	56,878
Asthma	2,374,010	1,119,041	282,024	109,394	85,089
Benign prostatic hyperplasia	360,381	28,806	1,889	93,814	65,678
Cancer	516,524	15,840	74,584	669,618	194,476
Congestive heart failure	1,339,744	20,945	52,207	93,677	539,522
Contraception	430,122	248,708	32,116	32,942	48,597
COPD	1,570,898	36,667	19,650	104,164	334,785
Depression & anxiety	1,414,765	284,327	106,128	74,461	74,224
Dermatitis & skin disorders	2,037,209	797,245	224,756	168,232	28,418
Diabetes	1,677,164	103,180	47,734	297,938	529,710
Dyslipidemia	690,653	68,043	24,560	162,840	573,457
Gastrointestinal disorders & infections	2,400,269	843,953	426,076	638,218	83,375
Gynecological disorders & infections	1,667,733	277,150	69,900	124,241	3,393
Headache	2,154,103	453,302	159,432	36,757	20,766
Hypertension	1,435,627	37,871	49,393	191,498	751,694
Pediatric immunizations	175,723	1,514,114	264,389	6,863	2,606
Adult immunizations	535,000	131,479	3,260	10,486	33,505
Obesity management	210,882	504,482	113,352	134,442	9,561
Osteoporosis	509,586	22,915	5,149	69,393	13,468
Overactive bladder	347,803	51,400	1,889	46,502	20,386
Pain management	2,810,171	132,223	327,858	326,076	329,892
Respiratory infections	3,543,395	1,503,455	419,631	91,921	125,772
Sleep disorders	329,427	84,103	73,453	51,621	41,844
Urinary infections	1,966,184	372,132	146,966	120,208	98,266

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Table 3. Number of Patients Treated for Select Disorders in 2007 by Major Specialty Group (cont.)*

Disorder	Orthopedic Surgery	Other Surgery	Occupational Medicine	Other	All Specialties
AIDS-HIV-related disorders	25,469	32,716	1,382	474,603	1,910,218
Alzheimer's disease	79,210	61,146	1,382	594,407	3,584,959
Arthritis	4,599,037	1,067,634	292,057	2,186,592	19,540,740
Other musculoskeletal disorders	4,553,126	1,734,611	1,134,823	2,612,310	28,120,794
Asthma	30,628	194,252	93,008	1,061,601	12,170,329
Benign prostatic hyperplasia	21,550	732,572	29,025	605,915	4,911,205
Cancer	107,061	1,573,234	10,104	2,422,640	8,933,171
Congestive heart failure	22,008	83,215	13,297	775,564	8,519,611
Contraception	11,764	88,430	57,097	322,986	6,890,129
COPD	78,120	99,139	64,150	946,459	10,137,755
Depression & anxiety	96,758	189,472	189,113	1,890,129	14,423,657
Dermatitis & skin disorders	154,706	424,426	212,358	2,409,976	14,422,211
Diabetes	127,172	286,967	103,936	1,228,732	16,216,834
Dyslipidemia	45,660	140,643	133,137	827,394	15,517,217
Gastrointestinal disorders & infections	79,505	348,596	118,720	1,505,757	15,532,641
Gynecological disorders & infections	26,338	232,428	47,755	807,032	9,544,216
Headache	115,004	626,968	186,468	1,241,288	11,218,251
Hypertension	57,497	231,072	162,340	1,236,155	18,221,567
Pediatric immunizations	1,166	20,139	34,744	110,568	5,370,786
Adult immunizations	1,978	76,844	250,189	447,509	4,447,747
Obesity management	214,295	249,083	132,517	453,881	7,511,976
Osteoporosis	1,075,903	368,915	54,142	743,840	6,697,969
Overactive bladder	39,976	558,905	81,569	415,483	4,306,698
Pain management	1,731,705	1,551,254	400,171	2,711,576	17,956,754
Respiratory infections	61,775	695,286	164,640	1,744,822	22,312,359
Sleep disorders	80,026	308,257	74,039	1,224,156	7,295,575
Urinary infections	62,494	681,870	71,966	1,175,314	11,549,032

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