

2004 AANP National Nurse Practitioner Sample Survey, Part I: An Overview

Mary Jo Goolsby, EdD, MSN, NP-C, FAANP

Author

Mary Jo Goolsby, EdD, MSN, NP-C, FAANP, is the Director of Research and Education for the American Academy of Nurse Practitioners, Austin, Texas. Contact Dr. Goolsby by e-mail at mjgoolsby@aanp.org

INTRODUCTION

In August 2004, the American Academy of Nurse Practitioners (AANP) completed the 2004 AANP National Nurse Practitioner Sample Survey. The purpose of this survey was to identify the characteristics and practices of nurse practitioners (NPs). The survey consisted of 65 questions and replicated earlier surveys conducted by AANP in 1989 and 1999, with minor adaptations. Items addressed NP clinical specialization, educational preparation, patient populations, practice communities and settings, prescriptive practices, salaries and benefits, marketing strategies, liability experiences, and other variables. Adaptations to the 1989 and 1999 surveys were made to ensure relevance to current practice (such as the addition of newer specialties), while allowing for trending and comparisons over time.

The five-page survey and an explanatory coversheet were mailed to a randomly selected sample of 23,850 NPs. The survey was blinded to ensure anonymous responses. The sample was drawn from the AANP National NP Database, which includes essentially the universe of U.S. NPs and which documented approximately 97,000 individual NPs recognized to practice in the United States in early 2004; thus, the sample represented 25% of the total NP population. The stratified random sample was limited to NPs who indicated that they maintained a clinical NP practice when responding to the 2003–2004 AANP National NP Practice Site Survey in order to maximize participation by practicing NPs. It was further stratified to reflect the clinical specialty distribution of the overall NP population. There was slight oversampling of the smallest specialties, such as school and

occupational health NPs, with slight undersampling of the largest group, family NPs. While many respondents had multiple specialties, each identified one area of clinical practice as their main specialty and the main specialty was the variable by which the sample was stratified.

Completed surveys were returned by 16,543 NPs (response rate 69%), and 16,062 respondents were actively practicing at the time of the survey. This report is limited to the NP respondents who were in active clinical NP practice, representing approximately 17% of the total NP population. Table 1 compares the true distribution of NP specialty based on the AANP National NP Database statistics (AANP, 2004) with the respondent sample and demonstrates the variation based on sampling strategy and responses.

The 2004 AANP National NP Sample Survey is the largest survey of NPs with this degree of detail conducted to date. Owing to the sheer volume of data collected and analyzed through the 2004 AANP National NP Sample Survey, a series of articles will be published describing the findings. This overview will be followed by more in-depth reports discussing more detailed variation based on variables such as practice settings and communities, educational preparation, clinical specialization, and time in role.

RESULTS

The mean age of respondents was 47.7 years. Table 2 depicts the distribution of respondents across age categories. Most respondents were women (95%), and most were not Hispanic or Latino (97%). They were able to select more than one race, and they described themselves as White (89.4%), African American (2.7%), Asian (2.4%), American Indian (1.3%), and Native Hawaiian/Pacific Islander (0.3%). This is consistent with the demographic characteristics of the overall NP population, as identified in the AANP National NP Database (AANP, 2004).

All states and the District of Columbia were represented in the responses. Approximately 62% of the respondents maintained their main practice in communities of over 50,000 residents. Of the NPs who practiced in these larger communities, 52% practiced in suburban settings and 39% practiced in “inner-city” locations; the remainder described their geographic setting as “other.” Over 20% practiced in rural communities; 1.5% practiced in communities with less than 1000 residents, and 18.6% practiced in communities with 1000–24,999 residents. The remaining 18% practiced in moderate-sized communities of 25,000–50,000 residents.

Table 3 depicts the distribution of respondents by the number of years since they had completed their NP program. While the largest percentage of respondents (35.8%) had been an NP for 5 or fewer years, the average time since respondents completed their NP program was 9.9 years. Respondents had, on average, 9.4 years of actual NP practice, indicating some breaks in practice; they had practiced in their current setting for an average of 6 years. On average, NPs

Table 1 NP Specialization

	<i>2004 NP Database (percentage of NP Population)</i>	<i>2004 NP Sample Survey (percentage of Practicing Respondents)</i>
Acute	4.5	4.3
Adult	19.3	19.0
Emergency	1.2	1.8
Family	41.2	36.4
Gerontological	4.1	4.7
Neonatal	2.3	2.3
Occupational	0.9	1.6
Oncology	1.0	1.9
Pediatric	10.9	11.7
Psychiatric/ mental health	2.8	3.1
School	0.6	0.9
Women's health	11.3	12.2

practicing in frontier communities with fewer than 1000 residents had been an NP longer (10.3 years) and in their current practice setting longer (6.4 years) than those in larger communities. The mean number of years for which respondents had been registered nurses (RNs) prior to becoming an NP was 13 years.

The largest group of respondents practiced in private physician settings (33%), followed by hospital-based outpatient (13%) and inpatient (9%) settings. Table 4 depicts the distribution among various types of practices.

Overall, the majority (53%) of respondents had obtained their basic nursing preparation through a baccalaureate program, and 84% had obtained their basic NP preparation at the graduate level. The highest earned degree for 88% of the respondents was a graduate degree in nursing or another discipline (see Table 5). Ninety-four percent were nationally certified.

The mean annual salary for all respondents who practiced 36 h or more per week was \$73,630. The mean hourly rate for all respondents, regardless of the numbers of hours practiced each week, was \$36.46. The hourly rate may be a more accurate indication of the earning power of NPs as many do practice part-time. The mean number of hours worked each week by the respondents

Table 2 Age of NPs

<i>Age Range (years)</i>	<i>%</i>
≤30	3.0
31–40	17.6
41–50	38.6
51–60	34.1
61–70	6.2
≥70	0.4

Table 3 Years as NP

<i>Year Range</i>	<i>Percentage</i>
1–5	35.8
6–10	33.5
11–15	10.2
16–20	6.2
21 or over	13.8

was 32.6. If the mean hourly rate of \$36.46 were converted to full-time equivalent salary, that mean salary would be \$75,837. Table 6 depicts the percentage of respondents who indicated that they received each of the specific employment benefits listed.

Approximately 78% of the respondents had written job descriptions, 52% had a written contract, and 75% had a collaborative agreement in place. Approximately 27% of respondents took weekend and/or evening call for their practice. Incentive bonuses were in place for 16.5% of the respondents.

Within their main practice setting, 49% of the respondents had exam rooms that were dedicated for their own use. Overall, and without regard to whether or not the exam rooms were dedicated specifically to the NP, 55% of the respondents had

Table 4 Distribution across Practice Settings

<i>Main Practice Setting</i>	<i>Percentage of Respondents</i>
Private nurse practitioner	4.2
Private physician	33.3
Health maintenance organization/ managed care	3.3
Community health	4.7
Rural health	1.7
Family planning	1.6
Public health	2.9
Other freestanding	2.3
Hospital outpatient	12.6
College health	3.0
School health	19.0
Occupational/employee	2.2
Emergency	2.7
Extended/long-term care	3.4
Hospital inpatient	8.5
Veterans administration	3.1
Correctional	1.0
Other ^a	5.2

^aOther includes a range of settings in which <1% of respondents practiced, including military, hospice, home health, nurse-managed, and migrant settings.

Table 5 Educational Background

	Type of Degree/Credential	Percentage of Respondents
NP preparation	Certificate	15.4
	Baccalaureate	0.9
	Master's	69.7
	Post-master's	13.3
	Doctorate	0.4
	Other	0.4
Highest earned degree	Associate degree	2.2
	Nursing diploma	2.6
	Nursing baccalaureate	5.5
	Other baccalaureate	1.3
	Nursing master's	80.4
	Other master's	4.4
	Nursing doctorate	2.0
	Other doctorate	1.6

one or two exam rooms available for their use and 37% had three or more exam rooms. The remaining 8% indicated no exam rooms available for their use, and a later article will describe how this and other practice site characteristics vary by specialty. NPs in specialties such as neonatal and mental health were the least likely to have an exam room. Seventy-five percent of respondents had one or more individual(s) available to assist with their patients. These included nursing assistants or medical assistants (50%), licensed practical nurses (26%), and RNs (31%). Approximately 54% of the NPs responded that they had a private office, and 62% had a private phone within their main practice setting. Other practice-related personalized materials included personalized prescription pads (60%), name on door of practice (44%), and personalized business cards (72%).

Table 6 Work-Related Benefits

Benefit	Percentage
Vacation	73.5
<2 weeks	4.6
2 weeks	20.4
3 weeks	27.5
4 weeks	26.1
>4 weeks	21.4
Professional leave	75.5
Paid sick leave	71.7
Professional liability	70.9
Travel allowance	57.7
Professional dues	33.8
Journal allowance	23.5

The majority of respondents averaged either three (34%) or four (28%) patients an hour. NPs who indicated that they received an incentive bonus also averaged three (33%) or four (38%) patients an hour.

There was great variability in the percent of time during which a physician was present on-site when the NPs were seeing patients. Over 9% never had a physician present, and 28% had a physician present 100% of the time. Most (80%) had a physician available by phone 100% of the time. Over 49% consulted a physician on less than 10% of their patients, and approximately 3% consulted a physician 90% or more of the time. Table 7 itemizes the frequency with which physicians were on-site during the NP practice. Table 8 specifies the percentage of their patients the NPs referred to various other providers. The majority of NPs referred less than 25% of their patients to other providers. Without regard to frequency of referrals, the respondents indicated that they referred to a range of other healthcare providers, including chiropractors (19.1%), dietitians/nutritionists (64.5%), naturopaths (3.9%), occupational therapists (33.8%), optometrists (37.7%), physical therapists (64.9%), psychologists (59.0%), and social workers (48.7%).

Thirteen percent had privileges in long-term care facilities, and 39% had hospital privileges. Over 21% of all respondents had admission/discharge privileges, and 18% wrote orders that did not require cosignature prior to being implemented. At the time of the survey, 61% of respondents had some patients receiving home health, with almost 11% indicating that over 15% of their patients were recipients of home health. Forty-one percent had some patients receiving hospice, and 3% indicated that over 15% of their patients received hospice care.

Respondents were asked to identify the percentage of their patient populations in specific age and income ranges. The responses are summarized in Tables 9 and 10. As Table 9 depicts, 51% of respondents saw patients under the age of 6 years and 49% saw patients over the age of 65 years. Seventy-seven percent of respondents saw some percentage of patients with incomes less than \$7000, and 78% saw patients at the other end of the income range, with annual incomes of \$70,000

Table 7 Physician On-Site Availability

Percentage of Time Physician Present	Percentage of Respondents
0	9.2
1–10	10.7
11–24	4.3
25–44	4.8
45–59	6.4
60–74	5.0
75–89	12.2
90–99	19.1
100	28.3

Table 8 Referrals to Other Providers

Percentage of Patients Referred	To Physician		To Other
	Specialists	To NPs	Healthcare Providers
<10	37.2	81.8	35.6
11–24	38.9	13.4	38.0
25–44	15.4	3.2	15.2
45–59	4.8	0.9	5.1
60–74	1.1	0.2	1.7
75–89	1.2	0.2	1.9
90–99	0.4	0.1	1.1
100	1.1	0.1	1.6

Table 9 Distribution of Patients (by age)

Percentage	Percentage of Patients in Age Ranges						
	0–5 years	6–12 years	13–18 years	19–40 years	41–65 years	66–85 years	>85 years
0	49.3	44.2	20.1	7.0	9.2	16.2	35.1
1–25	33.3	42.3	61.7	37.9	30.4	43.3	55.4
26–50	9.2	11.5	14.4	36.1	40.8	20.4	5.5
51–75	4.0	1.4	2.2	13.2	16.4	13.3	2.4
76–99	0.9	0.5	1.2	5.4	3.0	6.7	1.4
100	3.3	0.1	0.4	0.3	0.2	0.2	0.2

or more. Fifty-seven percent of the respondents had a Medicare provider identification number (PIN), and 51% had a Medicaid PIN. Over 61% participated in a managed-care network. Of these, 38% were recognized as a primary care provider.

The percentage of the respondents' patients who had Medicare, Medicaid, or other insurance, or were uninsured is displayed in Table 11. As the table shows, 77% of respondents

Table 10 Distribution of Patients (by income)

Percentage	Percentage of Patients in Each Income Bracket					
	<\$7K	\$7K–\$15.99K	\$16K–\$24.99K	\$25K–\$49.99K	\$50K–\$69.99K	>\$70K
0	22.7	6.4	3.3	5.0	13.7	21.9
1–25	57.5	57.6	51.1	42.6	52.4	61.6
26–50	9.2	23.0	34.9	39.5	24.2	10.0
51–75	4.5	8.3	7.9	10.2	7.8	4.0
76–99	4.1	3.8	2.5	2.4	1.8	2.2
100	2.0	0.8	0.3	0.3	0.1	0.3

Table 11 Percentage of Patients (by insurance/coverage)

Percentage	Medicare	Medicaid	Other	Uninsured
0	22.6	15.0	4.3	13.8
1–24	34.3	43.6	30.3	65.1
25–49	18.6	21.1	26.6	9.2
50–74	14.8	12.1	19.2	5.8
75–99	8.1	7.5	15.1	4.7
100	1.6	0.7	4.6	1.5

saw some percentage of patients covered by Medicare, 85% had patients covered by Medicaid, 96% had patients with other types of healthcare coverage (including private insurance), and 86% saw uninsured patients.

Over 96% of respondents prescribed medications, 64% of the respondents were authorized to prescribe controlled substances, and 61% had a DEA (Drug Enforcement Administration Registration) number. The survey collected a large amount of data on prescribing habits, which will be described in a subsequent article devoted specifically to the prescribing habits of this group of respondents.

The respondents had a low incidence of malpractice experience. Approximately 5% of respondents had been named in a malpractice suit. Only 1.4% of respondents had been named as the primary defendant in a malpractice case. Almost all (99%) of the NPs' cases had been brought by a patient, as opposed to another professional.

Respondents identified a variety of ways through which they marketed their practices. These included newspaper ads (22%), pamphlets/brochures (35%), referral arrangements (18%), Internet (14%), newspaper articles (13%), lectures (24%), and yellow page ads (17%). Respondents were asked to identify the percentage of new patients that had come to them or their facility from specific sources. The responses are summarized in Table 12, with the most frequent source being referrals from other professionals or agencies.

Almost 92% of the respondents were either very satisfied (58.4%) or satisfied (33.3%) with their current position. Only

Table 12 Sources for New Patients

Percentage	Professionals/ Agencies	Patients	Advertising	Personal Contacts
0	16.8	13.7	43.2	31.0
1–25	37.4	46.5	45.9	53.9
26–50	18.5	22.8	7.3	10.0
51–75	8.5	9.5	2.1	2.4
76–99	12.2	5.9	1.1	1.9
100	6.7	1.6	0.4	0.8

1.4% of respondents expected to retire within 1 year of the survey. However, 11% anticipated retirement within 2–5 years and another 25% anticipated retirement in 6–10 years.

SUMMARY

The 2004 AANP National NP Sample Survey provides a rich description of NPs and their practices. The respondents were very similar to the overall NP population, based on comparisons to the AANP National NP Database on practice settings, time in practice, and other parameters. It is important to note that, unless otherwise indicated, this overview describes data based on the overall set of respondents and across all specialties and practice settings. Subsequent articles will introduce more detailed descriptions and comparisons. In addition to more detailed accounts of the overall set of respondents, future articles will explore the characteristics of those respondents who

have most recently completed their NP programs, as a means of projecting future trends.

Note: In 1989 and 1990, a series of five articles describing the findings of the initial AANP National NP Survey was published in the *Journal of the American Academy of Nurse Practitioners* (Towers, 1989a, 1989b, 1989c, 1990a, 1990b). Those articles, listed in the following reference list, are currently accessible as PDF files on the AANP Web site, as companions to this series (<http://www.aanp.org>). This series will present data that can be compared to the earlier articles.

REFERENCES

- American Academy of Nurse Practitioners (AANP). (2004). [2003–2004 National NP Practice Site Survey]. Unpublished data.
- Towers, J. (1989a). Preliminary report of the American Academy of Nurse Practitioners national nurse practitioner survey. *Journal of the American Academy of Nurse Practitioners*, 1(1), 30–32.
- Towers, J. (1989b). Part I: Report of the American Academy of Nurse Practitioners national nurse practitioner survey. *Journal of the American Academy of Nurse Practitioners*, 1(2), 91–94.
- Towers, J. (1989c). Report of the national survey of the American Academy of Nurse Practitioners, Part II: Pharmacologic management practices. *Journal of the American Academy of Nurse Practitioners*, 1(4), 137–142.
- Towers, J. (1990a). Report of the national survey of the American Academy of Nurse Practitioners, Part III: Comparison of nurse practitioner characteristics according to education. *Journal of the American Academy of Nurse Practitioners*, 2(3), 121–124.
- Towers, J. (1990b). Report of the national survey of the American Academy of Nurse Practitioners, Part IV: Practice characteristics and marketing strategies of nurse practitioners. *Journal of the American Academy of Nurse Practitioners*, 2(4), 164–167.