

# Medical Information Access Preferences: Results of a Survey of Physician Assistants and Nurse Practitioners

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## STUDY OBJECTIVES

- The influence of physician assistants (PAs) and nurse practitioners (NPs) in the delivery of healthcare has grown significantly over the past 40 years. Today, there are more than 135,000 NPs and 72,400 PAs in the United States.<sup>1,2</sup>
- Only a small amount of data are available that describe how PAs and NPs access the latest medical information, especially with the recent growth of web-based resources. To examine this issue in greater depth, the authors surveyed more than 350 PAs and NPs from a wide range of clinical specialties and practice settings. Our objectives included:
  - Evaluate how PAs and NPs currently access medical information
  - Determine the similarities and differences between PAs and NPs in accessing medical information
  - Assess similarities and differences with physician information access as perceived by the PAs and NPs with whom they work
  - Identify trends that may impact access of medical information

## METHODS

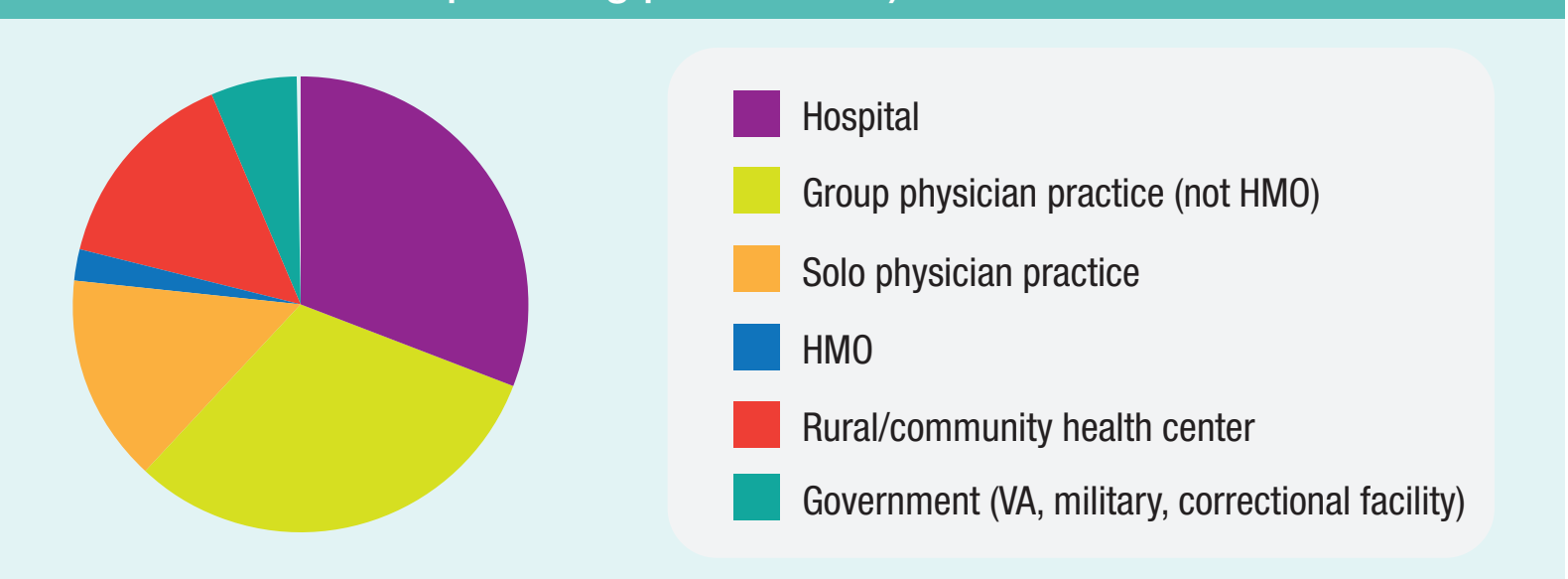
- A 19-question, electronic survey was prepared that focused on professional and demographic information, and frequency with which respondents accessed sources of medical information.
  - Survey respondents were asked their perceptions of how their preferences in accessing medical information compared with those of the physicians with whom they regularly work.
  - Survey Monkey was used as the primary data collection tool and links to the survey were posted for 60 days (mid-January 2010 through mid-March 2010) on two nurse practitioner and physician assistant Web sites: [www.clinician1.com](http://www.clinician1.com) and [www.advancedpracticejobs.com](http://www.advancedpracticejobs.com).
  - No incentives were offered to those responding to the survey.
- A total of 379 individuals responded to the survey: 161 NPs and 216 PAs. Two individuals identified themselves as both an NP and a PA (both).

## RESULTS

### A. Demographics

- Almost 69% of respondents were female. Of the 161 NPs, 148 (92%) were female. Gender for PAs was more evenly divided, with 111 (51%) female and 105 (49%) male respondents.
- In terms of age, 164 (43%), representing an equal number of PAs and NPs (82), reported being 50 to 59 years old. Nineteen were aged 20-29 years, 75 were 30-39 years, 70 were 40-49 years, and 50 were 60 years of age or older.
- There was a broad and fairly even distribution of years in practice, ranging from 1-4 years to more than 25 years. Seventy-two percent of respondents (134 PAs, 139 NPs) reported having earned a master's degree and 25 reported earning a doctorate (10 PAs, 14 NPs, 1 both).
- Patient care was being provided by 95% (202 PAs, 155 NPs) of respondents. Family medicine (82), emergency medicine (38), internal medicine (29), women's health (23), pediatrics (16), cardiology (15), orthopedics (15), oncology (13), and occupational health (13) accounted for 65% of all specialty areas. The "other" category was answered by 27 respondents and included a broad range of subspecialties. All other specialty areas received fewer than 10 responses.
- While PAs and NPs can both be found in family practice and general medicine disciplines, PAs were more likely to be found in emergency medicine, orthopedics, and surgical specialties. Nurse practitioners worked more often in pediatrics, women's health, and psychiatry/mental health.
- Hospitals (31%) and non-health maintenance organization (HMO) group practices (31%) were the largest employers of PAs and NPs, followed by solo physician practices (14.7%) and rural health clinics (14.7%). The government and HMOs accounted for less than 10% of responses, while 37 respondents chose "other." Of this group, 5 respondents worked in PA- or NP-owned or managed practice settings (Figure 1).
- Physician assistants were more likely than NPs to be employed by hospitals (36.0% vs. 24.8%), followed by non-HMO group practices (33.4% vs. 28.1%). In contrast, NPs were far more likely to be employed by rural health clinics (22.2% vs. 8.5%).

**Figure 1** Practice type (Please choose one of the following that best represents the practice setting in which you spend the most time providing patient care.)



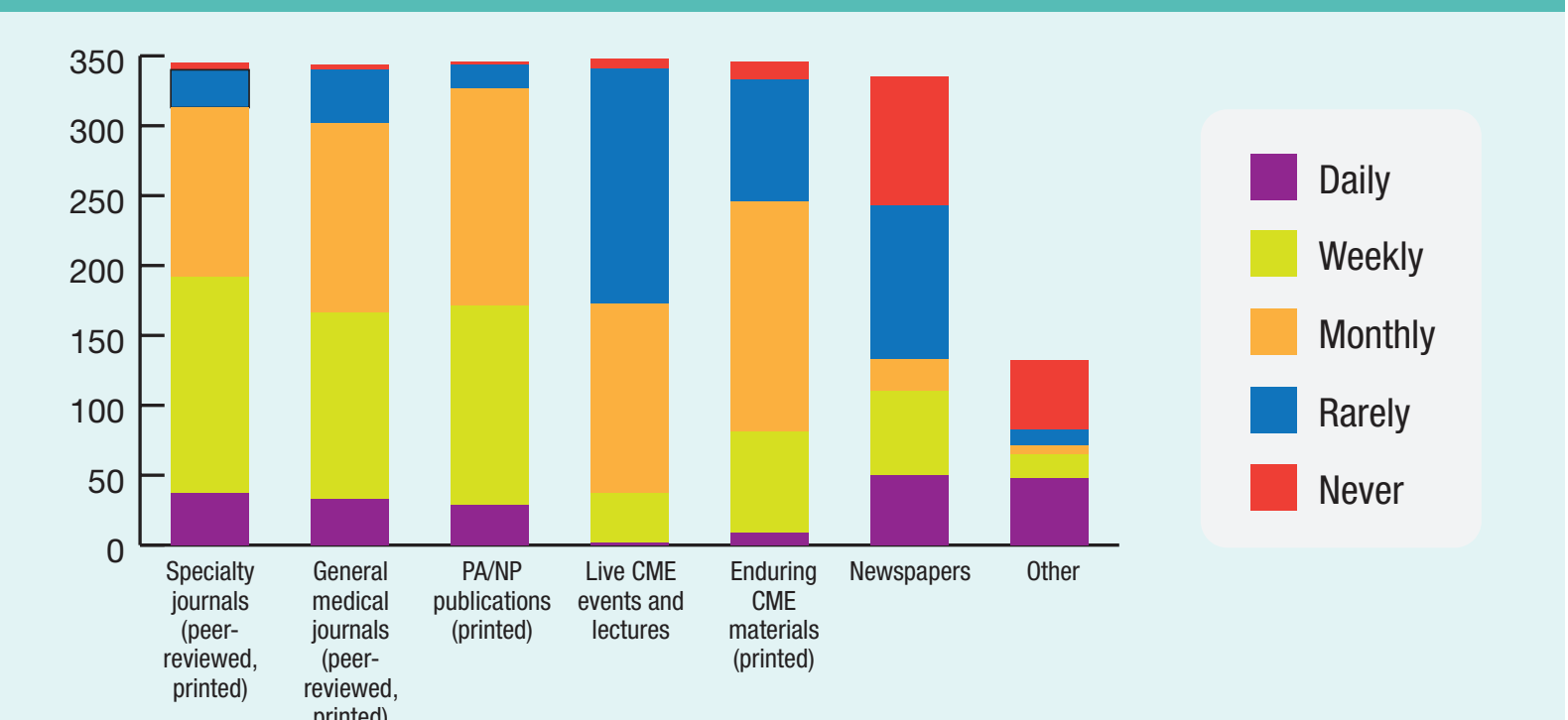
### B. Low-Tech Still Communication Method of Choice

- When it comes to patient follow-up, low-tech trumped high-tech methods of communications by a notable margin.
  - Daily, weekly, or monthly follow-up by phone was reported by 66% of respondents. Conversely, e-mail (62%), Facebook (78%), and LinkedIn (82%) were rarely or never used to follow-up with patients.
- Use of the US Postal service was split, with 43% of respondents reporting daily, weekly, or monthly use and 57% reporting using it rarely or never.
- There were no discernible differences in how NPs or PAs communicated follow-up information to patients.

### C. PA/NP-Specific Publications Viewed as Credible and as Widely Read as Specialty Journals

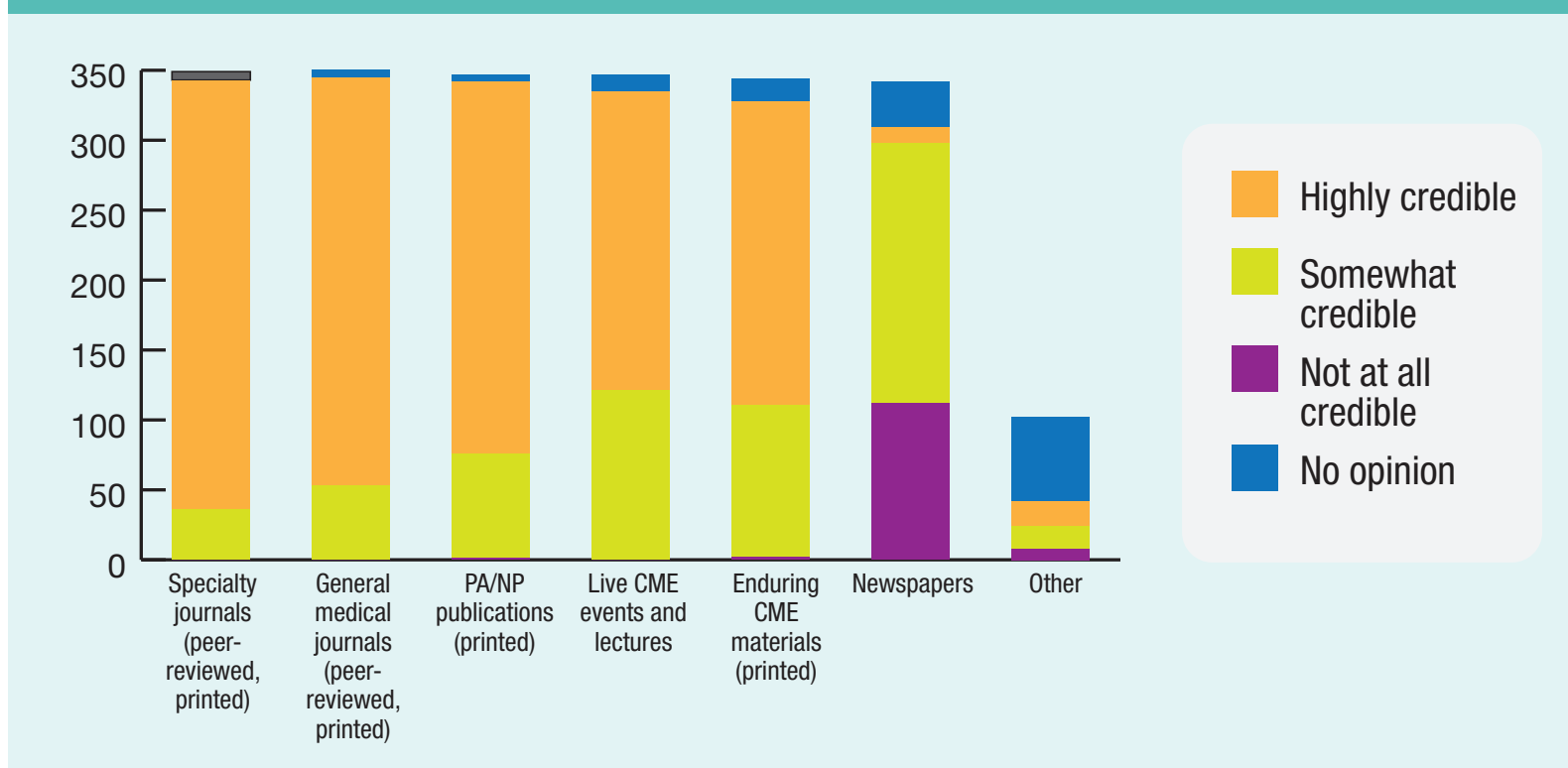
- Of note, PA/NP-specific publications were accessed daily, weekly, or monthly by 313 (94.5%) respondents, with most indicating that they read these publications weekly or monthly.
- Printed peer-reviewed specialty (90.7%) and general medicine (87.7%) journals were also accessed daily, weekly, or monthly, with enduring continuing medical education (CME) materials cited by 71.1% of the respondents. About half the respondents (49.7%) attended live CME events daily, weekly, or monthly (Figure 2).

**Figure 2** How frequently do you access medical information from each of the following sources?



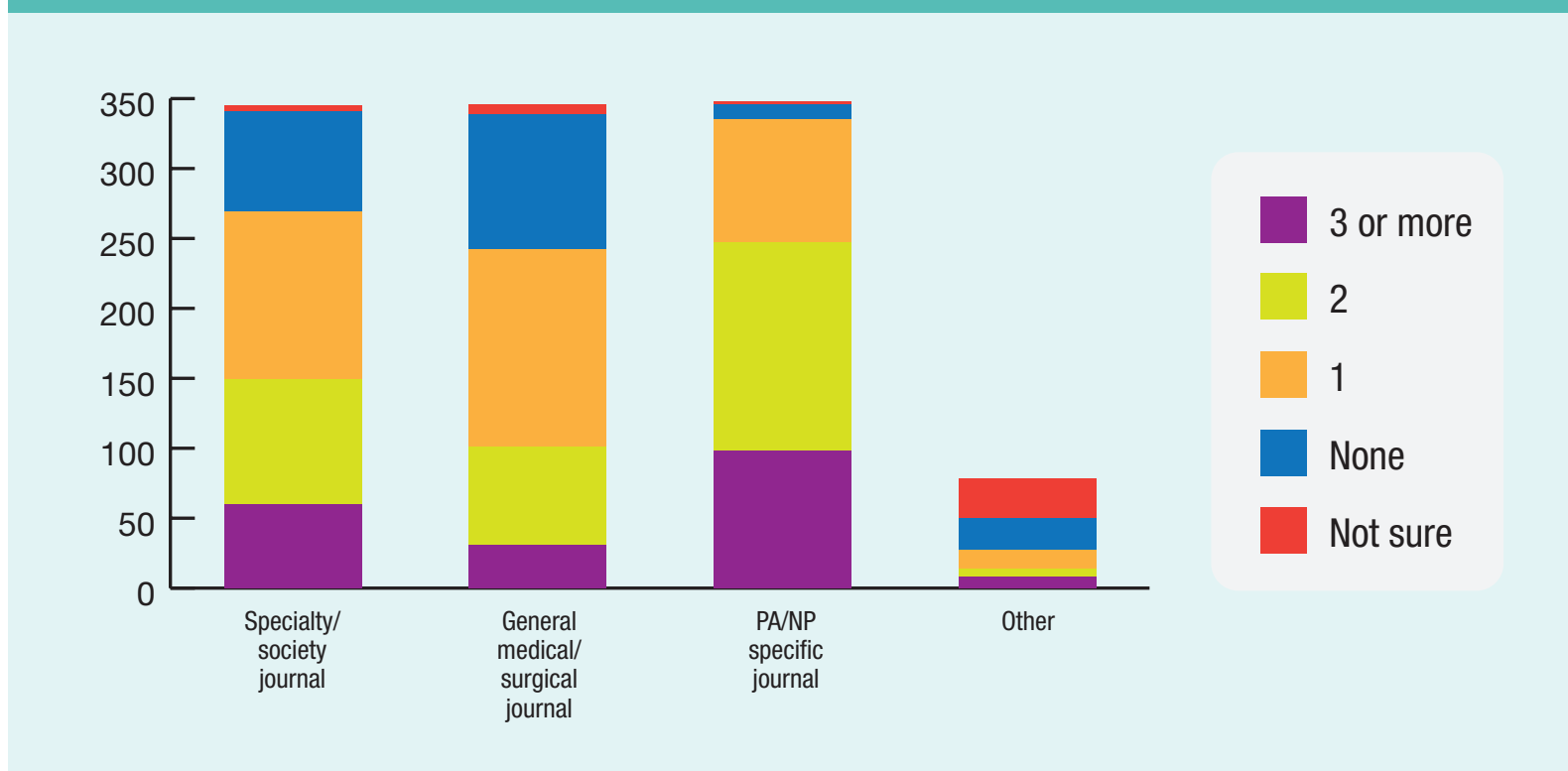
- When it comes to credibility, PA/NP-specific publications and printed peer-reviewed specialty and general medicine journals were each rated as credible or highly credible sources of medical information by more than 98% of respondents (Figure 3).
- Publications were slightly more credible than live (96%) and enduring CME (94%).
- Two comments about newspapers, a prime source of healthcare information for patients. They were viewed by 32% of respondents as "not at all credible." Respondents also indicated that only newspapers have decreased in their influence during the past 5 years.

**Figure 3** How would you rate the scientific credibility of the following sources of information?



- While it stands to reason that PAs and NPs were more likely than physicians to read PA/NP publications, they believed that they read specialty and general medicine journals as frequently as physicians and were somewhat more likely to attend live CME events than were the physicians with whom they work.
- Physician assistants and NPs were most likely to receive 2 or 3 PA/NP-specific publications and one or 2 specialty or general medicine journals each month (Figure 4).

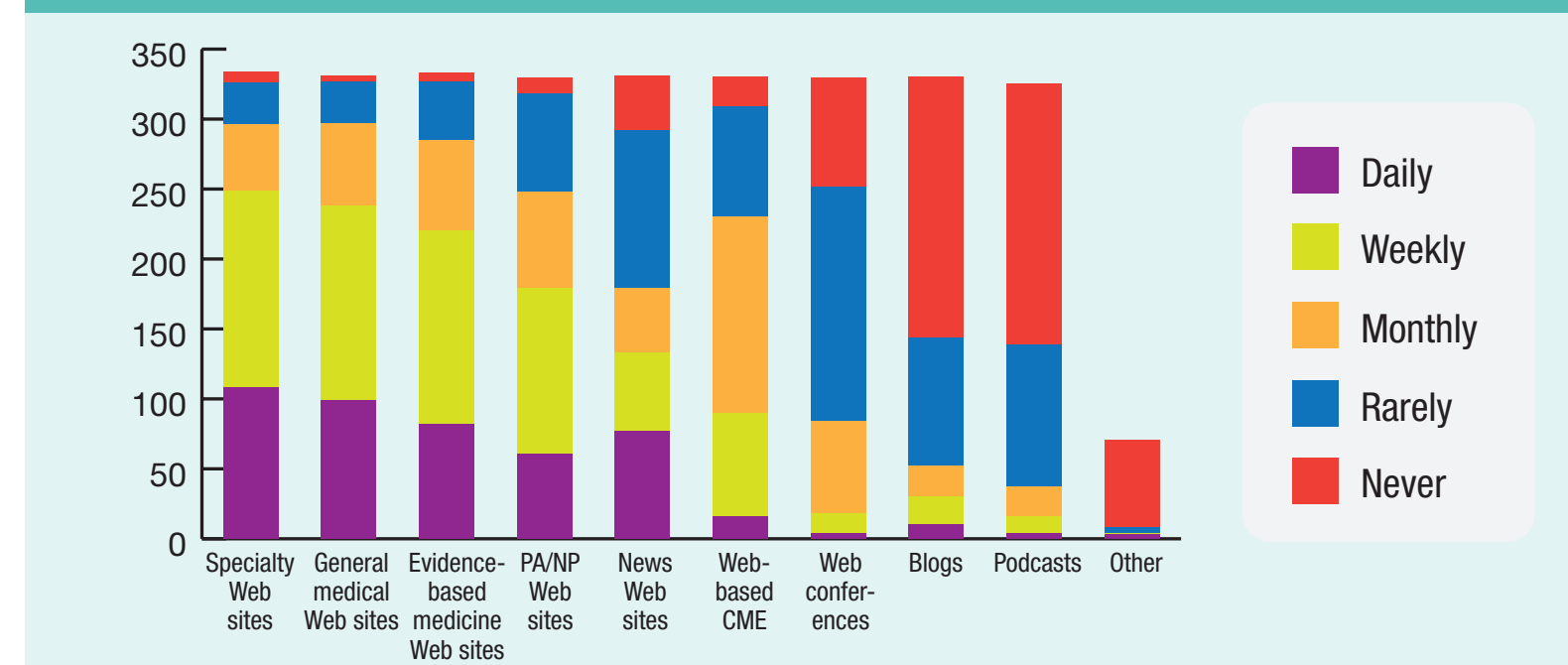
**Figure 4** How many of the following journals do you personally receive each month?



### D. More Timely Access of Web-based Medical Information

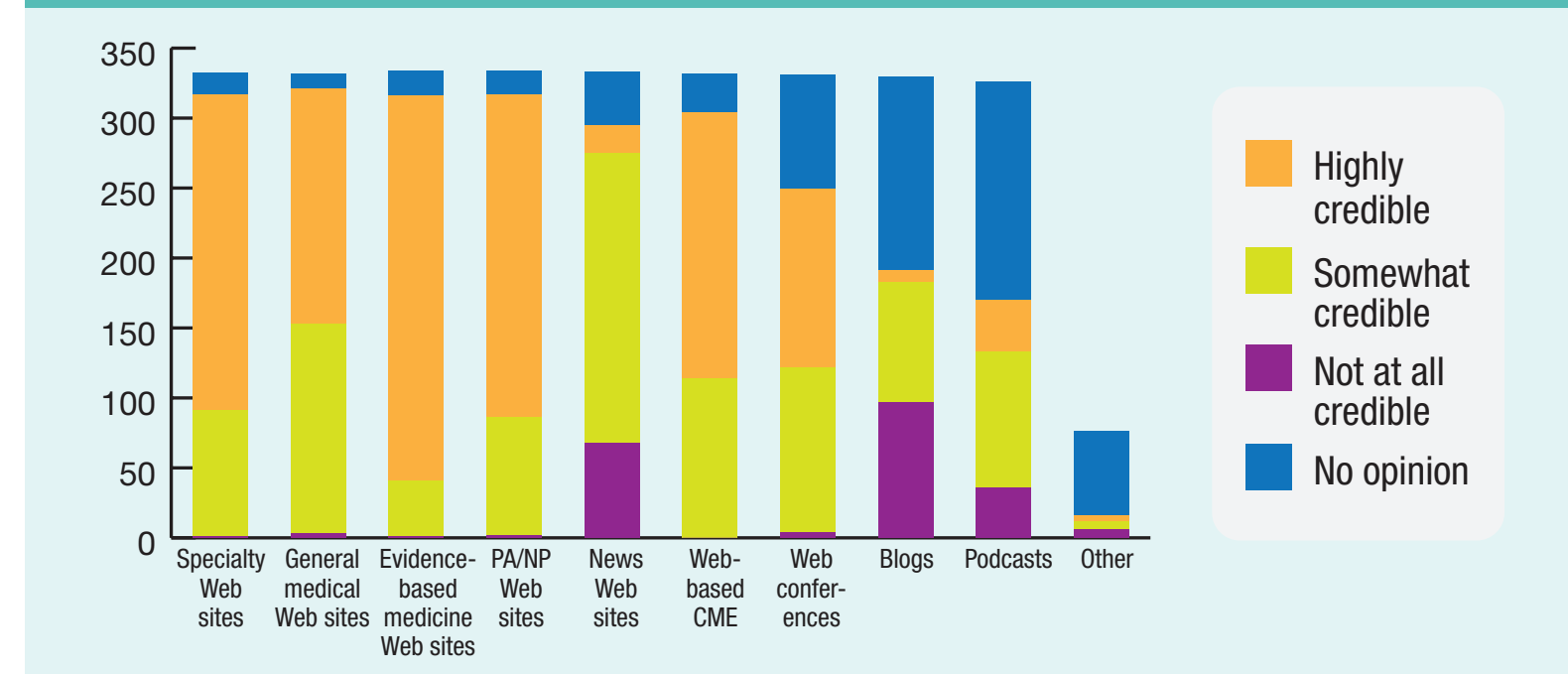
- The growing influence of Web-based information is reflected in the practices of both PAs and NPs as they access medical information via the Web with greater frequency than they do traditional medical journals (Figure 5).
- At least two-thirds of respondents are daily or weekly visitors to specialty (74.5%) or general medicine Web sites (70.9%). This compares favorably to daily or weekly access to specialty (55.6%) and general medical journals (48.2%). The less frequent publishing schedules of traditional medical journals may be a reason for this finding. The authors also recognize that an on-line survey format may also draw more internet-savvy participants.
- Respondents reported weekly and monthly access to specialty (80.0%) and general medical journals (78.1%) at slightly higher rates than daily and weekly access to their Web-based counterparts. Over the course of a single month, access to Web sites and print journals was roughly the same.
- A total of 54.2% of respondents visit PA/NP-specific Web sites on a daily or weekly basis compared with 49.4% for PA/NP-specific journals. However, over the course of a month, journals were accessed more frequently (94.5%) than Web sites (75.1%).

**Figure 5** How frequently do you access medical information from Web-based sources?



- More than 90% of the time, respondents viewed as somewhat credible or highly credible specialty and general medicine Web sites, PA/NP-specific Web sites, and Web-based CME. At least two-thirds of respondents stated that their use of these sites has increased over the past 5 years (Figure 6).
- Respondents gave evidence-based medicine Web sites high ratings for credibility. These Web sites, for which there are relatively few comparable print journals, were accessed daily or weekly by 66.0% of respondents, and 69.6% accessed on-line CME at least monthly. A notable finding was the frequency with which respondents specified the Web sites [www.epocrates.com](http://www.epocrates.com) and [www.uptodate.com](http://www.uptodate.com).
- The number of respondents who visited news Web sites frequently was about equal in number to those who rarely or never visited news Web sites.

**Figure 6** How would you rate the scientific credibility of the following sources of information?



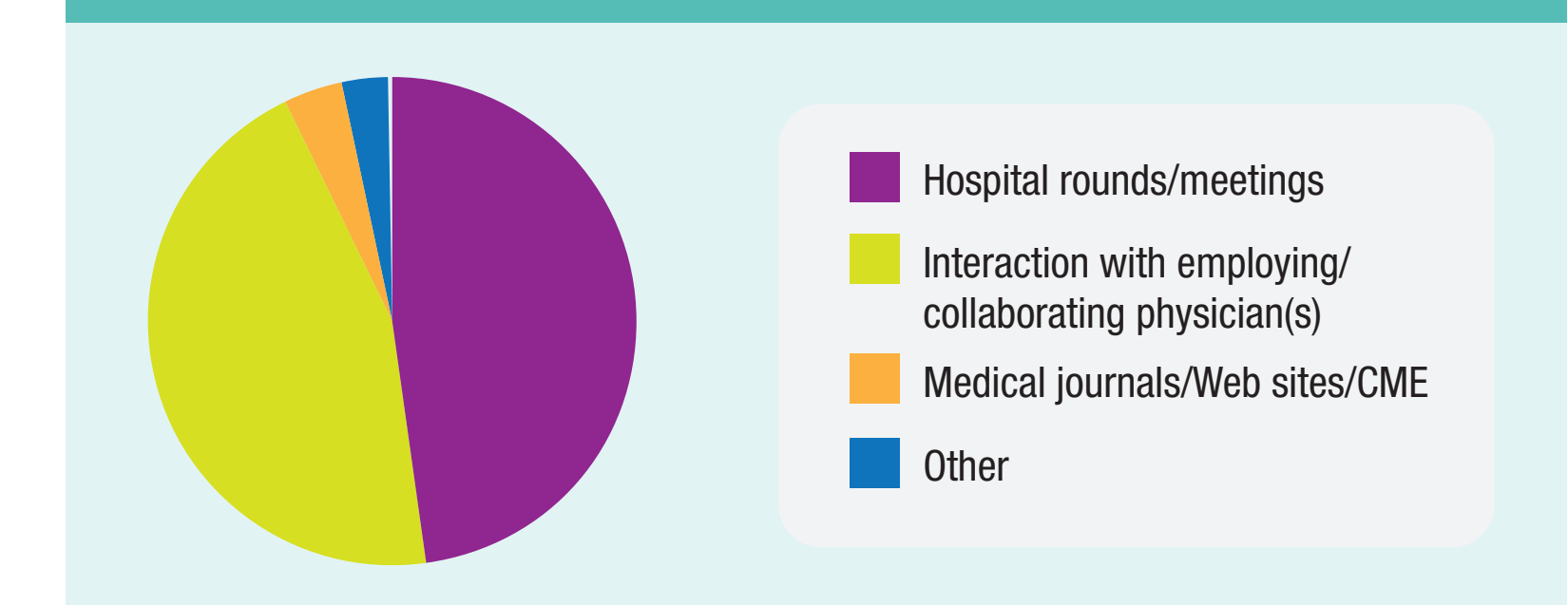
### E. Web Conferences, Blogs, and Podcasts Still Evolving

- At least three-fourths of respondents rarely or never access Web conferences (74.5%), blogs (84.2%), or podcasts (88.6%). This is interesting, especially for a group of respondents who have proven their internet savvy by accessing this survey via the Web. This finding raises two questions.
  - Is it possible that PAs and NPs do not find Web conferences, blogs, and podcasts relevant to their clinical practice?
  - Or, is it likely that the producers of Web conferences, blogs, and podcasts have not considered PAs and NPs a primary audience?
- To a lesser extent, respondents viewed Web conferences and news Web sites as somewhat credible or highly credible. Their access to these sites has remained the same over the past 5 years.
- More than 40% of PAs and NPs had no opinion about the credibility of blogs or podcasts. This is consistent with the earlier finding that they rarely or never access blogs or podcasts.
- With the exception of the more frequent access by PAs and NPs to Web sites specific to their professions, responses to a question asking respondents to compare their internet access frequency to that of their physician co-workers were inconclusive.

### F. Strong Physician Co-Worker Influence

- When queried about the single best source of medical information that affects their daily practice of medicine, respondents ranked interaction with physician employers/collaborators and medical journals/Web sites/CME highly (48.1% and 44.8% respectively) (Figure 7).

**Figure 7** What would you say is the single best source of medical information that affects your daily practice of medicine?



## CONCLUSIONS

- With more than 200,000 PAs and NPs in the United States, these advanced practice clinicians have established themselves as important providers of healthcare in a wide variety of settings and specialties.
- Physician assistants and NPs were remarkably similar in most of their responses, with only a few differences of note.
- Physician assistants and NPs are as likely as physicians to rely on traditional, printed specialty and general medicine journals. However, they rely heavily on journals that are specific to their professions.
- When it comes to timeliness of information, PAs and NPs are much more likely to access medical information daily or weekly via the internet.
- Specialty and evidence based-medicine Web sites are highly regarded and accessed frequently, as are sites such as [www.epocrates.com](http://www.epocrates.com) and [www.uptodate.com](http://www.uptodate.com). For medical publishers and Web sites, these findings offer opportunities to broaden their reach to include this growing clinical audience.
- Web conferences, blogs, and podcasts are rarely accessed and their credibility with the PA and NP audiences is less clear. Producers of these online media may find a willing audience if the content is targeted to PAs and NPs, relevant to their clinical situations, and as credible as content found on specialty and evidence-based medicine sites.
- Finally, PA and NP working relationships with physician co-workers, whether they are supervisors or collaborators, are excellent. As a source of current medical information, PAs and NPs value interactions with their physician co-workers as highly as they do medical journals, Web sites, and CME activities.

## ACKNOWLEDGEMENTS

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