2023 NATIONAL AMBULATORY MEDICAL CARE SURVEY (NAMCS) PROVIDER SURVEY COMPONENT TECHNICAL DOCUMENTATION

For Physician and Physician Associate Restricted Use Data Files

Division of Health Care Statistics
National Center for Health Statistics
December 2025

Overview

This document provides detailed information and guidance for users of the 2023 National Ambulatory Medical Care Survey (NAMCS) Provider Survey Component restricted use data files. Restricted use files may only be accessed in the National Center for Health Statistics (NCHS) Research Data Center (RDC) and other federal data centers. The RDC is responsible for protecting the confidentiality of survey respondents, study subjects, and institutions while providing access to restricted use data for statistical purposes. For information on how to access the restricted versions of the 2023 NAMCS Provider Survey Component data files through the RDC, please see: https://www.cdc.gov/rdc/restricted-nchs-variables/namcs-nhamcs.html.

There are two separate data files available in the NAMCS Provider Survey Component: one for physicians and one for physician associates, formerly known as physician assistants (PAs). The NAMCS Provider Survey Component collects provider-level data through a self-administered, mixed-mode survey (web and mail modes) from two nationally representative samples, the first being office-based physicians and the second being office-based PAs. The 2023 NAMCS Provider Survey Component is conducted by NCHS and is a member of the National Health Care Surveys – a family of surveys which measure health care utilization across a variety of health care providers and settings.

Section 1 of this document includes information on the scope of the survey, the data sources, and the confidentiality protections related to the data. Section 2 contains details on the sampling process and data collection procedures. Section 3 provides information on sampling, eligibility, and response rates. Section 4 describes the research conducted to assess differences between respondents and nonrespondents.

It is important to note that, because of low survey response and issues raised during the research comparing respondents and nonrespondents, these data are unweighted and reflect sample counts only. An inflation factor typically assigned to each record to produce national estimates has not been included on either file. Unweighted sample data should not be presumed to be nationally representative.

Section 5 details the contents of the 2023 NAMCS Provider Survey Component restricted use data files and the edits to create the files. Because the data are unweighted, no information is provided on producing variance estimates, or on NCHS presentation standards for proportions, counts, and rates, or

their relation to NAMCS Provider Survey Component data. Section 6 provides information on item missingness, and Section 7 provides a list of preferred reporting items for complex sample survey analysis.

Suggested Citation

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Physician Associate Data File: National Center for Health Statistics. Division of Health Care Statistics. 2023 National Ambulatory Medical Care Survey (NAMCS) Provider Survey Component: Physician Associate restricted use data file. 2025. Hyattsville, Maryland.

Contact Information

Data users can find the latest information about the NAMCS Provider Survey Component on our website, at: https://www.cdc.gov/nchs/namcs/about/index.html. If data users have queries about the data files, they may send their question through email to ambcare@cdc.gov, or call us at 301-458-4600. A response to data user inquiries is generally provided in 1-2 business days.

NCHS also has an ambulatory health care data listserv, where updates and information about the most recent ambulatory care data (including the NAMCS Provider Survey Component) are sent out. Details on how to subscribe to the NCHS Listserv for ambulatory health care data can be found at: https://www.cdc.gov/nchs/products/nchs_listservs.htm.

Contents

Section 1 About the National Ambulatory Medical Care Survey Provider Survey Component

Section 1.1 Background

The National Ambulatory Medical Care Survey (NAMCS) Provider Survey Component was piloted in 2023 as a provider survey that collects data on two types of U.S. health care providers: physicians and physician associates (PAs). The 2023 survey year was the first time NAMCS collected data from PAs.

NAMCS originally began as a national survey of office-based physicians and their visits in 1973. To be eligible for the survey, physicians had to be non-federally employed and primarily engaged in direct office-based patient care. NAMCS was conducted annually through 1981, again in 1985, and continued annually from 1989 through 2019. Statistics were collected at both the physician and the visit level. Visit-level data collection was severely impacted by the COVID-19 pandemic, and only physician-level data files were released through the NCHS Research Data Center for 2020 and 2021. The survey was not fielded in 2022 but was reintroduced in 2023 as a pilot, beginning with this restructured provider-level survey. No visit data were collected with the NAMCS Provider Survey Component in 2023.

The NAMCS Provider Survey Component collects data on general provider characteristics and areas of special interest. For 2023, these areas include:

- workforce, revenue, and compensation;
- COVID-19;
- electronic health records and telemedicine;
- health equity and language barriers;
- pain treatment and treatment with opioids (asked of physicians only); and
- provider autonomy (asked of PAs only).

In 2023, 10,000 health care providers were sampled; 5,000 of these were physicians and 5,000 were PAs. The Physician file contains data for the 805 eligible physicians who participated in the survey, while the PA file contains data for the 857 eligible PAs who participated. For more detailed information regarding the sampling methodology, see Sections 2.2 and 2.3.

Section 1.2 Data Sources

In 2023, the NAMCS Provider Survey Component was a primary data collection which used a self-administered, mixed-mode survey in both web and mail formats. For more information on data collection, see Section 2.4.

Section 1.3 Data Confidentiality

NCHS and its agents take the security and confidentiality of the NAMCS Provider Survey Component very seriously. Strict laws have been implemented to establish minimum Federal standards for safeguarding the privacy of individually identifiable health information. Assurance of confidentiality is provided to all survey participants according to Section 308(d) of the Public Health Services Act [42 United States Code 242m (d)]. Strict procedures according to Section 3572 of the Confidential Information Protection and Statistical Efficiency Act (44 U.S.C. 3561-3583) are utilized to prevent disclosure of personal identifiable information in NAMCS Provider Survey Component data. All information which could identify a participating physician or PA is confidential and seen only by persons associated with NAMCS Provider Survey Component and is not disclosed or released to others for any other purpose. Prior to the release of restricted use and public use data files, if any, NCHS conducts extensive disclosure risk analysis to minimize the chance of inadvertent disclosure. As a result, selected characteristics and/or data elements may be omitted or masked even on restricted files to minimize the potential risk of disclosure. Masking is typically performed in such a way to cause minimal impact on the data.

The protocol for the NAMCS Provider Survey Component has been approved by the NCHS Research Ethics Review Board since it was first piloted in 2023.

Section 2 Methodology

Section 2.1 Brief Overview

The 2023 NAMCS Provider Survey Component included two independent national probability samples, one for office-based physicians and another for office-based PAs, to produce estimates of provider characteristics. These samples included 5,000 physicians and 5,000 PAs, respectively. The samples were each designed to allow for nationally representative estimates for each of these provider groups in the United States. As previously stated, however, because of low survey response, the decision was made not to weight the data, and nationally representative estimates cannot be made. The data reflect sample counts only.

Section 2.2 Physician Frame and Sampling Design

The target population for the NAMCS Provider Survey Component physician survey included non-federally employed physicians (doctors of medicine [MDs] and doctors of osteopathy [DOs]) practicing in the United States and classified as engaging in office-based patient care. Those specializing in radiology and pathology were excluded as in previous years of NAMCS. Anesthesiologists (who had been out of scope in all previous years of NAMCS, with the exception of a test sample in the second half of the 2021 survey year) were included if they were also classified as office based. For the universe of physicians, NCHS obtained a file of MDs from the American Medical Association (AMA) and a file of DOs from the American Osteopathic Association (AOA). These were used to construct the lists that were later used as the sampling frame. To be included in this sampling frame, NCHS created the following list of eligibility criteria:

- self-designated primary specialty that was within the list of eligible specialties provided by NCHS;
- practicing in nonfederal settings;
- having an age younger than 71 years;
- practicing within any of the 50 U.S. states or the District of Columbia;
- engaged in office-based patient care defined by primary type of practice and primary present employment code;
- may be hospital employed (as a proxy for physicians working in practices owned by hospitals; those selected in this group who were determined during data collection not to be working in a hospital-owned practice were screened out as ineligible); and

- may have an undetermined primary employment status that placed them in a “no classification” stratum.

Similar criteria were used for both the AMA and the AOA sampling frames which were later combined for the sample selection.

Sampling stratification variables were region and a recode of self-designated specialty into broader physician specialty groups which included general/family medicine, osteopathy, internal medicine, pediatrics, general surgery, obstetrics and gynecology, orthopedic surgery, cardiovascular diseases, dermatology, urology, psychiatry, neurology, ophthalmology, otolaryngology, anesthesiology, an “other” group for all other eligible specialties, and those in an eligible specialty but whose primary employment status was unclassified at the time of sampling (eligibility for this group was determined during the data collection process). The sample was then selected using stratified systematic sampling based on the cross-classification of region and physician specialty group.

The design for the physician sample was similar in many respects to the 2021 NAMCS, although there were some important differences:

- The 2023 sample was larger than in recent years, comprising 5,000 physicians (MDs and DOs) compared with the 3,000 physicians sampled in the 2021 NAMCS.
- Sample sizes were no longer equally allocated across strata but changed to a minimum sample size of physicians within smaller strata and allocation of the remaining sample proportionally to the larger strata.
- Physicians had to be under 71 years of age at the time of sampling to be eligible for inclusion in the sampling frame (previously the maximum age for inclusion was under 85 years).
- Anesthesiologists and physicians who were unclassified as to office setting and practice type were eligible for inclusion as additional sampling strata (note these had been sampled experimentally in the last half of the 2021 NAMCS but were now included in the full 2023 NAMCS Provider Survey Component).

Section 2.3 Physician Associate Sampling Design

The NAMCS Provider Survey Component target population for the PA survey included non-federally employed PAs practicing in the United States and classified as engaging in office-based patient care. Some PA specialty groups were identified as ineligible, using similar guidelines to those used with the 2023 NAMCS Provider Survey Component physician sample (see Section 2.2) and previous years of NAMCS. Ineligible specialty groups included PAs specializing in radiology and pathology. PAs with a specialty of anesthesiology were included if they were also classified as office based. Previously, providers in this specialty had been out of scope in NAMCS with the exception of a test sample in the second half of the 2021 NAMCS.

For the universe of PAs, NCHS obtained a file from the American Academy of Physician Associates (AAPA). This was used to construct the initial provider list that was later used as the sampling frame. The 2023 PA sample had the following characteristics:

- A sample size of 5,000 PAs;
- The sample size allocation of a minimum sample size of PAs to smaller strata and allocation of the remaining sample proportionally to the larger strata;
- PA age was younger than 71 years; and
- PAs with a specialty of anesthesiology were included in a separate sampling strata; PAs unclassified as to type of employment and PAs without a listed specialty were included in additional sampling strata.

Some important differences between PA sampling and physician sampling are the following:

a. Physicians must have had a primary specialty indicated by the physician to be included in that sample. However, PAs were not required to have a primary specialty listed in the universe file. For this reason, PAs with a missing primary specialty were included in the survey.

b. The AAPA file did not include osteopathic providers. This stratum was only used in the physician sample.

c. NAMCS sampling includes hospital-employed physicians and PAs with the intent to include physicians and PAs who work in practices owned by hospitals. In the physician sampling, there was an indicator that was used as a proxy indicating such cases. However, this information was

not available for PAs, so this criterion was not applicable in PA sampling. Hospital-employed PAs therefore may or may not be present in the sample.

d. The original design called for PAs practicing in community health centers (CHCs) to be included in the sampling design. However, the AAPA file did not contain information that could identify PAs practicing in a CHC. Therefore, they were unable to be included systematically, and it was not known at the time of sampling if there were CHC-employed PAs in the sample.

e. The physician universe file identified those presumed dead, retired, or inactive, so these cases could be excluded from the universe. However, this information was not available for PAs, so these exclusion criteria were not applicable for PA sampling. The sample therefore could include PAs who were in these categories.

Sampling stratification variables were region and a recode of self-designated individual specialty to broader PA specialty groups for sampling. These included general/family medicine, internal medicine, pediatrics, general surgery, obstetrics and gynecology, orthopedic surgery, cardiovascular diseases, dermatology, urology, psychiatry, neurology, ophthalmology, otolaryngology, anesthesiology, an "other" group for all other eligible specialties, those whose primary employment status was unclassified at the time of sampling but would be confirmed during data collection, and those who primary specialty was unclassified at the time of sampling. The sample of PAs was selected using stratified systematic sampling based on the cross-classification of region and PA specialty group. Similar to sample size allocation for the physician sample, a hybrid sample size allocation (between equal allocation and proportional allocation) was implemented to ensure sufficient cases for analysis in the smaller strata and at the same time larger strata did not have too many cases.

Section 2.4 Data Collection Procedures

The 2023 NAMCS Provider Survey Component physician and PA surveys shared a single survey instrument, which was administered in a mixed-mode format, with the two separate modes being web and mail. Roughly one-quarter (unweighted) of participating providers (26.6% of physicians and 26.7% of PAs) completed the survey using the mailed paper questionnaire, while the remainder completed it using the web instrument. Most survey questions were asked of both physicians and PAs. One section of questions on pain treatment and treatment with opioids was asked only of physicians, while another section of questions on provider autonomy was asked only of PAs. The sampled provider was the preferred respondent, but knowledgeable office staff or other proxies were also allowed to respond.

For most respondents, the sampled provider responded, with 77.5% (unweighted) of physicians and 86.5% (unweighted) of PAs completing the survey themselves.

Data collection was conducted by the U.S. Census Bureau and occurred over a 4-month period in 2023. Similar fielding strategies and procedures were used for both physicians and PAs. NCHS and the U.S. Census Bureau invited sampled providers to participate in the survey by using up to six mail contacts and up to eight email contacts. For all questionnaires received, data keying and initial processing were carried out by the Census Bureau. NCHS developed and performed comprehensive edits and data quality checks on the files received from the Census Bureau.

Section 2.5 Weighting

Weighting was initially conducted to produce physician-level estimates for the physician survey and PA-level estimates for the PA survey. Weighting methods were designed to account for sampling probabilities and nonresponse. However, due to low survey response and concerns raised during a comparison of respondents and non-respondents, the decision was made not to weight these data and to release them only as unweighted files in the RDC. That is, the files only reflect sample counts, not national estimates.

The following sections describe the low survey response for both the physician and the PA surveys, and the research conducted on respondents vs. nonrespondents.

Section 3 Sample Size, Eligibility, and Response Rate

Section 3.1 Physician Survey

The 2023 NAMCS Provider Survey Component physician sample included 5,000 physicians: 4,780 MDs and 220 DOs. A total of 340 physicians did not meet all of the criteria and were determined to be ineligible for the survey. The most frequent reasons for being ineligible were that the physician was retired, did not provide ambulatory care, or was not office-based. More than three-quarters of the sampled physicians (76.8%) did not respond to the survey and their eligibility could not be determined (n=3,838). Of the 805 physicians who responded to the survey, 732 were full respondents and 73 were partial respondents. The unweighted response rate was 22.8%, based on the number of full and partial responders. See Table 3.1 below for more details.

Table 3.1 Final disposition of the 2023 NAMCS Provider Survey Component physician sample

Final Disposition	Unweighted
Total number of physicians sampled	5,000
Final=1, Eligible respondent, completed survey	732
Final=2, Eligible respondent, refused survey	17
Final=3, Ineligible (out of scope) physician	340
Final=4, Unknown eligibility (made no response to survey)	3,816
Final=5, Unknown eligibility (refused or partial response)	22
Final=6, Eligible respondent, partial response	73
Factor used to estimate eligibility for physicians with unknown eligibility (Eligible physicians divided by all those with known eligibility)	0.71
Physician response rate	22.76

NOTE: Physician response rate was calculated based on AAPOR Response Rate 4, described here: Standards-Definitions-10th-edition.pdf

Section 3.2 Physician Associate Survey

The 2023 NAMCS Provider Survey Component PA sample included 5,000 PAs. A total of 236 PAs did not meet all the criteria and were determined to be ineligible for the survey. The most frequent reasons for being ineligible were that the PA was retired, did not provide ambulatory care, or was not office-based. Ten PAs responded with a refusal. More than three-quarters of the sampled PAs (77.6%) did not respond to the survey and their eligibility could not be determined (n=3,879). Of the 857 PAs who responded to the survey, 780 were full respondents and 77 were partial respondents. The unweighted response rate was 21.8% based on the number of full and partial responders. See Table 3.2 below for more details.

Table 3.2 Final disposition of the 2023 NAMCS Provider Survey Component physician associate sample

Final Disposition	Unweighted
Total number of PAs sampled	5,000
Final=1, Eligible respondent, completed survey	780
Final=2, Eligible respondent, refused survey	10
Final=3, Ineligible (out of scope) physician	236
Final=4, Unknown eligibility (made no response to survey)	3,879
Final=5, Unknown eligibility (refused or partial response)	18
Final=6, Eligible respondent, partial response	77
Factor used to estimate eligibility for PAs with unknown eligibility (Eligible PAs divided by all those with known eligibility)	0.79
PA response rate	21.81

NOTE: PA response rate was calculated based on AAPOR Response Rate 4, described here: Standards-Definitions-10th-edition.pdf

Section 4 Comparison of respondents and nonrespondents

Section 4.1 Physician survey

As noted previously, of the 5,000 physicians sampled in 2023, 805 responded either completely (732) or partially (73) (that is, submitting only a small subset of data items). Of those sampled, 17 were in-scope refusals, 340 were determined to be out of scope and 3,838 never responded, so their eligibility could not be determined. After adjustment for out-of-scope physicians and those with undetermined eligibility, the survey response rate was 22.1% unweighted. Because of the low response rate, an analysis was conducted comparing respondents and non-respondents to determine whether the data could be weighted to make nationally representative estimates.

Research was conducted using the available physician variables from the sampling frame to compare respondents with nonrespondents. Percent distributions and 95% confidence intervals were computed using ratio-adjusted sampling weights for the entire sample, for respondents, and for nonrespondents for the following variables:

- sampling region (Northeast, Midwest, South, and West);
- metropolitan, micropolitan, or nonmetropolitan location;
- metropolitan statistical area (MSA) status (that is, was the physician located in an MSA or not);
- specialty group (primary care, surgical care, medical care);
- physician sex; and
- physician age (younger than 45, 45-54, 55-64, and 65 years and older).

Confidence intervals were evaluated for overlap between percentages for the overall sample vs. responders, and for responders vs. nonresponders. Non-overlapping intervals suggested significant differences. The categories with non-overlapping confidence intervals for percent distributions among responders and nonresponders were the following:

- Region: Northeast (20.1% of responders were in the Northeast compared with 22.3% of nonresponders); South (30.8% of responders were in the South compared with 35.0% of nonresponders); and West (28.4% of responders were in the West compared with 22.2% of nonresponders)

- Specialty group: Surgical care (18.2% of responders were in surgical care compared with 14.4% of nonresponders); Medical care (42.3% of responders were in medical care compared with 45.2% of nonresponders)
- Sex: Female (33.3% of responders were female compared with 41.7% of nonresponders); Male (66.7% of responders were male compared with 58.3% of nonresponders)
- Age: Younger than 45 years (25.6% of responders were younger than age 45 compared with 31.3% of nonresponders)

Overall, respondents and non-responders had similar percentages for Midwest region, metropolitan/micropolitan/nonmetropolitan status, MSA/non-MSA status, having a primary care specialty, and being in the age groups 45-54, 55-64, and 65 and older. When comparing responders with the overall sample, non-overlapping confidence intervals were noted only by three of the four regions (Northeast, South, and West), and sex (female, male). These results are shown in more detail below in Table 4.1.

Because a large proportion of physicians did not respond to the survey at all, such that their eligibility could not be determined, and based on the differences noted between responders and nonresponders, the decision was made to only release unweighted data in the RDC.

Table 4.1. Comparison of responders and nonresponders to the 2023 NAMCS Provider Survey Component physician file

	Total Sample			Responders			Nonresponders		
	Count	% [1]	95% CI	Count	% [1]	95% CI	Count	% [1]	95% CI
Region									
Total	5,000	100.0	…	805	100.0	…	3,855	100.0	…
Northeast	1,159	21.6	20-5-22.8	179	20.1	19.9-20.3	914	22.3	21.0-23.6
Midwest	1,139	20.4	19.3-21.6	188	20.8	20.6-21.0	869	20.5	19.2-21.8
South	1,514	34.9	33.5-36.2	211	30.8	30.6-31.0	1,188	35.0	33.5-36.6
West	1,188	23.1	21.9-24.3	227	28.4	28.2-28.6	884	22.2	20.9-23.6
Location (Metro, Micro, Neither)									
Total [2]	4,183	100.0	…	691	100.0	…	3,218	100.0	…
Metropolitan	3,918	93.5	92.6-94.3	646	92.7	90.5-94.9	3,020	93.7	92.7-94.6
Micropolitan	196	4.7	4.0-5.4	31	5.1	3.1-7.1	149	4.6	3.8-5.4
Neither	69	1.8	1.4-2.3	14	2.1	0.9-3.3	49	1.7	1.2-2.3
MSA									
Total	5,000	100.0	…	805	100.0	…	3,855	100.0	…
Yes	4,675	93.3	92.5-94.1	751	92.5	90.3-94.7	3,615	93.6	92.8-94.5
No	325	6.7	5.9-7.5	54	7.5	5.3-9.7	240	6.4	5.5-7.2
Specialty category									
Total	5,000	100.0	…	805	100.0	…	3,855	100.0	…
Primary care	1,554	40.9	39.5-42.2	236	39.5	37.5-41.5	1,195	40.4	38.8-42.0
Surgical care	1,304	15.1	14.1-16.1	266	18.2	16.0-20.4	955	14.4	13.3-15.5
Medical care	2,142	44.0	42.6-45.4	303	42.3	39.8-44.8	1,705	45.2	43.6-46.8
Provider sex									
Total	5,000	100.0	…	805	100.0	…	3,855	100.0	…
Female	1,846	39.8	38.4-41.3	253	33.3	29.8-36.8	1,495	41.7	40.0-43.4
Male	3,154	60.2	58.7-61.6	552	66.7	63.2-70.2	2,360	58.3	56.6-60.0
Provider age (yrs.)									
Total	5,000	100.0	…	805	100.0	…	3,855	100.0	…
Younger than 45	1,349	29.4	28.0-30.7	194	25.6	22.5-28.8	1,109	31.3	29.8-32.9
45-54	1,426	28.6	27.2-30.0	219	26.9	23.6-30.5	1,131	29.2	27.6-30.8
55-64	1,331	25.5	24.2-26.9	245	29.8	26.3-33.5	1,007	25.0	23.6-26.5
65 years and older	894	16.5	15.4-17.7	147	17.7	14.9-20.9	608	14.5	13.3-15.7

[1] Data are weighted using ratio-adjusted sampling weights.

[2] Missing values are excluded.

NOTES: CI is Korn-Graubard confidence interval. MSA is metropolitan statistical area.

Section 4.2 Physician associate survey

As noted previously, of the 5,000 PAs sampled in 2023, 857 responded either completely (780) or partially (77). Of those sampled, 10 were in-scope refusals, 236 were determined to be out of scope, and 3,897 never responded, so their eligibility could not be determined. After adjustment for out-of-scope PAs and those with undetermined eligibility, the survey response rate was 21.8%, unweighted. Because of the low response rate, research comparing respondents and nonrespondents was conducted to determine whether the data could be weighted to make nationally representative estimates.

Provider specialty is an important sampling variable as described in Section 2, and specialties can be further aggregated into groups of primary care, surgical care, and medical care. Among the PA sample, there were 1,266 PAs specializing in primary care according to the sample file, 1,109 PAs specializing in surgical care, 1,476 PAs specializing in medical care, and 1,149 for whom no specialty was available. Response rates were as follows within each group: primary care (23.8%; 301 responded), surgical care (21.9%; 243 responded); medical care (20.8%; 307 responded); undetermined specialty (0.5%; 6 responded).

PAs with no stated specialty comprised 38.3% of the AAPA file; the AAPA file was used as the sampling frame for the survey. Because of the proportional sampling method used for the survey, PAs with no stated specialty ultimately accounted for more than one-fifth (23.1%) of the entire PA sample. At the same time, they were found to have an extremely low likelihood of responding (0.5%). Eighty seven of the 1,149 PAs sampled with no stated specialty were able to be reassigned to a known specialty during data processing. But only 4 PAs from the final group of 951 PAs without a known specialty responded either fully (2) or partially (2). With only 4 respondents from this large group, estimates could not be made for them, and it remained unclear how many were actually in practice. There was no way to determine survey eligibility for this large group of sampled providers.

An analysis was conducted using the available provider variables from the AAPA frame to compare responders with nonresponders. Percent distributions and 95% confidence intervals were computed using ratio-adjusted sampling weights for the entire sample, for respondents, and for nonrespondents for the following variables:

- sampling region (Northeast, Midwest, South, and West);
- metropolitan, micropolitan, or nonmetropolitan location;

- metropolitan statistical area (MSA) status (that is, was the provider located in an MSA or not);
- specialty group (primary care, surgical care, medical care, or undetermined);
- provider sex; and
- provider age.

Confidence intervals were evaluated for overlap between percentages for the overall sample vs. responders and for responders vs. nonresponders; non-overlapping intervals suggested significant differences. A separate set of tables were created using all sampled providers distributed by the four specialty group categories while an additional set of tables were created which omitted the providers with undetermined specialty from the denominators.

The categories with non-overlapping confidence intervals for percent distributions among responders and nonresponders were the following:

- Region: Northeast (16.5% of responders were in the Northeast compared with 24.7% of nonresponders); Midwest (22.0% of responders compared with 17.6% of nonresponders); West (28.3% of responders compared with 22.1% of nonresponders)
- Specialty group: Primary care (42.4% of responders compared with 22.3% of nonresponders); Surgical care (21.9% of responders compared with 13.2% of nonresponders); Medical care (34.1% of responders compared with 21.0% of nonresponders); Undetermined specialty (1.6% of responders compared with 43.5% of nonresponders)
- Sex: Female (59.1% of responders compared with 53.0% of nonresponders)
- Age: 65 years and older (5.2% of responders compared with 11.0% of nonresponders)

However, when the group of PAs with undetermined specialty were removed from the analysis, results were more similar between responders and nonresponders. The only differences remained by region and by provider age:

- Region: Northeast (16.6% of responders were in the Northeast compared with 20.8% of nonresponders); Midwest (22.4% of responders compared with 19.1% of nonresponders);

South (32.5% of responders compared with 36.3% of nonresponders); West (28.6% of responders compared with 23.8% compared with nonresponders)

- Age: 65 years and older (5.0% of responders compared with 10.0% of nonresponders)

Comparing responders with the entire sample, differences were noted by region and specialty group when all physician associates were considered (including those with unknown specialty). When only responders with a known specialty were compared with the entire sample, the only differences were by region and by age 65 and older. These results are shown below in more detail in Tables 4.2 and 4.3.

Although results improved when PAs with undetermined specialty were removed, there were concerns about omitting these PAs. Because their eligibility status was unknown and they comprised a large proportion of the sample, the decision was made to omit the weighting variable from the file and to only release unweighted data in the RDC.

Note: The results presented in Sections 4.1 and 4.2 were based on provisional data; final data processing resulted in 1 additional physician and 8 additional physician associates being ruled as out of scope for the survey. This does not change the conclusions. The data presented elsewhere in this documentation are based on the final files.

Table 4.2. Comparison of responders and nonresponders to the 2023 NAMCS Provider Survey Component physician associate file

	Total Sample			Responders			Nonresponders		
	Count	% [1]	95% CI	Count	% [1]	95% CI	Count	% [1]	95% CI
Region									
Total	5,000	100.0	…	860	100.0	…	3,907	100.0	…
Northeast	1,184	23.5	22.3-24.7	165	16.5	13.8-19.6	963	24.7	23.3-26.0
Midwest	1,091	18.4	17.4-19.5	224	22.0	19.0-25.1	815	17.6	16.4-18.8
South	1,518	35.1	33.8-36.5	229	33.2	29.6-36.9	1,214	35.7	34.2-37.2
West	1,207	23.0	21.8-24.2	242	28.3	25.0-31.9	915	22.1	20.8-23.4
Location (Metro, Micro, Neither)									
Total [2]	4,278	100.0	…	766	100.0	…	3,300	100.0	…
Metropolitan	3,864	90.2	89.1-91.2	674	87.3	84.0-90.1	3,002	90.9	89.7-92.0
Micropolitan	302	6.8	6.0-7.8	72	9.2	6.8-12.1	214	6.4	5.4-7.4
Neither	112	3.0	2.4-3.6	20	3.5	2.0-5.5	84	2.7	2.1-3.4
MSA									
Total	5,000	100.0	…	860	100.0	…	3,907	100.0	…
Yes	4,490	89.7	88.7-90.7	755	87.3	84.3-90.0	3,529	90.3	89.1-91.3
No	510	10.3	9.3-11.3	105	12.7	10.0-15.7	378	9.7	8.7-10.9
Specialty category									
Total	5,000	100.0	…	860	100.0	…	3,907	100.0	…
Primary care	1,266	25.6	24.4-26.9	301	42.4	38.5-46.3	903	22.3	21.0-23.7
Surgical care	1,109	14.6	13.6-15.6	244	21.9	18.6-25.4	812	13.2	12.2-14.3
Medical care	1,476	23.6	22.4-24.8	308	34.1	30.4-38.0	1,077	21.0	19.7-22.3
Unknown	1,149	36.2	34.9-37.6	7	1.6	0.6-3.3	1,115	43.5	41.9-45.0
Provider sex									
Total	5,000	100.0	…	860	100.0	…	3,907	100.0	…
Female	2,885	53.9	52.3-55.5	539	59.1	54.9-63.2	2,214	53.0	51.2-54.8
Male	1,423	30.9	29.4-32.5	223	27.7	24.0-31.6	1,119	31.1	29.4-32.8
Unknown	692	15.2	14.0-16.4	98	13.2	10.5-16.4	574	15.9	14.6-17.3
Provider age (yrs.)									
Total	4,740	100.0	…	828	100.0	…	3,688	100.0	…
Younger than 34	772	14.9	13.7-16.1	154	18.4	15.3-21.9	593	14.7	13.4-16.1
35-44	1,608	34.9	33.3-36.5	291	35.3	31.2-39.5	1,265	35.4	33.6-37.2
45-54	1,175	23.9	22.5-25.4	212	24.0	20.5-27.8	927	24.4	22.8-26.0
55-64	702	15.2	14.0-16.5	127	17.1	14.0-20.6	527	14.5	13.2-15.9
65 years and older	483	11.0	10.0-12.2	44	5.2	3.5-7.3	376	11.0	9.8-12.2

[1] Data are weighted using ratio-adjusted sampling weights.

[2] Missing values are excluded.

NOTES: CI is Korn-Graubard confidence interval. MSA is metropolitan statistical area.

Table 4.3. Comparison of responders and nonresponders to the 2023 NAMCS Provider Survey Component physician associate file with unknown specialty physician associates removed

	Total Sample			Responders			Nonresponders		
	Count	% [1]	95% CI	Count	% [1]	95% CI	Count	% [1]	95% CI
Region									
Total	3,851	100.0	…	853	100.0	.	2,792	100	…
Northeast	844	19.6	18.4-20.9	161	16.6	15.7-17.5	639	20.8	19.3-22.4
Midwest	900	20.0	18.8-21.3	223	22.4	21.8-22.9	629	19.1	17.7-20.6
South	1,147	35.4	33.9-37.0	228	32.5	31.8-33.2	852	36.3	34.5-38.1
West	960	24.9	23.5-26.3	241	28.6	27.9-29.2	672	23.8	22.2-25.4
Location (Metro, Micro, Neither)									
Total [2]	3,311	100.0	…	760	100.0	…	2,360	100.0	…
Metropolitan	2,970	88.9	87.5-90.2	669	88.1	85.4-90.9	2,133	89.6	88.0-91.1
Micropolitan	250	7.7	6.6-8.9	71	8.8	6.3-11.2	163	7.2	6.0-8.6
Neither	91	3.4	2.7-4.3	20	3.1	1.7-4.6	64	3.1	2.3-4.1
MSA									
Total	3,851	100.0	…	853	100.0	…	2,792	100.0	…
Yes	3,437	88.6	87.3-89.8	749	88.2	85.6-90.8	2,508	89.2	87.7-90.6
No	414	11.4	10.2-12.7	104	11.8	9.2-14.4	284	10.8	9.4-12.3
Specialty category									
Total	3,851	100.0	…	853	100.0	…	2,792	100.0	…
Primary care	1,266	40.2	38.7-41.8	301	38.8	36.3-41.4	903	39.5	37.7-41.4
Surgical care	1,109	22.8	21.5-24.2	244	24.8	22.0-27.7	812	23.4	21.8-25.0
Medical care	1,476	37.0	35.5-38.5	308	36.3	33.3-39.4	1,077	37.1	35.3-38.9
Unknown	…	…	…	…	…	…	…	…	…
Provider sex									
Total	3,851	100.0	…	853	100.0	…	2,792	100.0	…
Female	2,340	57.4	55.4-59.3	536	58.6	54.5-62.7	1,686	57.0	54.7-59.3
Male	1,069	30.8	29.0-32.6	223	29.0	25.1-32.8	774	30.9	28.8-33.1
Unknown	442	11.8	10.6-13.2	94	12.4	9.7-15.1	332	12.1	10.6-13.7
Provider age (yrs.)									
Total	3,698	100.0	…	822	100.0	…	2,676	100.0	…
Younger than 34	645	16.5	15.0-18.0	154	18.7	15.5-21.8	466	16.5	14.7-18.3
35-44	1,187	32.3	30.5-34.3	287	35.3	31.3-39.3	853	32.2	30.0-34.4
45-54	949	24.9	23.2-26.7	210	24.0	20.4-27.6	708	26.1	24.0-28.2
55-64	564	16.2	14.7-17.7	127	17.0	13.9-20.2	395	15.3	13.7-17.1
65 years and older	353	10.1	8.9-11.4	44	5.0	3.3-6.8	254	10.0	8.6-11.5

[1] Data are weighted using ratio-adjusted sampling weights.

[2] Missing values are excluded.

NOTES: CI is Korn-Graubard confidence interval. MSA is metropolitan statistical area.

Section 5 Data Processing

Because of small sample sizes, the data included in the restricted use data files underwent additional processing to facilitate analysis. For some variables, response categories were collapsed into broader categories. These recoded variables are listed below along with their names on the restricted use files. Original data are also included on the files but may be subject to additional scrutiny before they can be released.

- During a typical week, approximately how many patient visits do you personally receive at your reporting location? (ESTTOTVIS_CAT)
    - Data were aggregated into the following categories: under 20 visits; 21-40 visits; 41-60 visits; 61-80 visits; 81-100 visits; more than 100 visits.
- At your reporting location, how many other providers are employed? (NUMPROV_CAT)
    - Data were aggregated into the following categories: 1 provider; 2-3 providers; 4-10 providers; 11-50 providers; 51-100 providers; more than 100 providers.
- At your reporting location, are you a full- or part-owner, employee, independent contractor, or a volunteer? (OWNERSHR)
    - Data were aggregated into the following categories: full owner; part owner; employee; and “other”.
- At your reporting location, who owns the practice? (OWNS_RLR)
    - Data were aggregated into the following categories for both the physician file and the PA file: physician/physician group; health center; academic medical center or teaching hospital; other hospital; other health care corporation; and “other”.

Section 6 Survey Content

For the 2023 NAMCS Provider Survey Component restricted use data files, 168 variables were included on the Physician file and 161 variables were included on the PA file. Many of these questions were the same for both types of providers, but certain questions were only asked of physicians while others were only asked of PAs.

The questions asked of both types of providers include general questions about the provider's reporting location, defined as the setting where most patient visits were received. These included number of patient visits received in a typical week, number of providers at the reporting location, single or multi-specialty status, employment status of provider, and ownership of practice. Other items asked of both types of providers included types of payment accepted, acceptance of new patients, COVID-19, electronic health records and telemedicine, and language barriers. Provider demographics (sex, race, ethnicity) were also collected for both types of providers.

A section on pain treatment and treatment with opioids was asked of physicians only, as well as questions on how billing was accomplished for various categories of advanced practice providers (PAs, nurse practitioners, certified nurse midwives, clinical nurse specialists, and certified registered nurse anesthetists).

PAs were asked to respond to a special section on provider autonomy, which included questions on number of years practicing in current specialty, number of years working clinically as a PA, supervision/collaboration guidelines, patient panel, billing, and a checklist of 16 tasks which the PA might personally perform.

The files also contain information on whether the survey was submitted on paper or online.

Codebooks for the NAMCS Provider Survey Component were produced separately for each file. Please refer to the 2023 NAMCS Provider Survey Component Physician Restricted Use Data File Codebook and the 2023 NAMCS Provider Survey Component Physician Associate Restricted Use Data File Codebook for detailed information on the variables, including variable names, variable type, variable descriptions, and variable values.

Section 6.1 Item Missingness Rates

Unweighted item nonresponse rates for survey items that exceeded 5% are shown in Table 6.1 (for physicians) and Table 6.2 (for PAs). Item nonresponse rates were calculated to include blank entries and

responses of "Unknown" or "Don't know" and have been adjusted to account for skip patterns in the data. Imputation was not conducted for any data elements with missing values. It should also be noted that for some items, "not applicable" was an answer choice and not part of a skip pattern. For example, in items 25-29 on the Physician file ("Do [PAs, NPs, etc.] bill for services using their own NPI number?"), respondents were given the option to click "not applicable" if they had none of these providers at their reporting location. These would not be counted in the nonresponse figures below, but the numbers of not applicable entries were quite large for some job categories.

Table 6.1. Item missingness rates for the 2023 NAMCS Provider Survey Component Physician restricted use data file

Variable Name	Variable Description	Denominator	% Missing: Includes blank entries and responses of "Don't Know" and "Unknown"
ESTTOTVIS, ESTTOTVIS_CAT	During a typical week, approximately how many patient visits do you personally receive at your reporting location? – Recoded	All physicians	7.58
NUMPROV_NUM, NUMPROV_CAT	Total number of providers at reporting location – Recoded, includes sampled provider	All physicians	10.56
SOLO	At your reporting location, do you work in a solo medical facility, or do you work with other providers in a partnership, group practice, or in some other way (nonsolo)?	All physicians	7.20
MULTI	Is your reporting location a multi- or single-specialty practice?	All physicians	8.32
OWNERSHR	At your reporting location, are you a full- or part-owner, employee, independent contractor, or a volunteer? – Recoded	All physicians	8.32
OWNS_RLR	At your reporting location, who owns the practice?	Physicians with OWNERSH ne 1 (n=634 physicians)	13.09
PA_BILL	Do PAs bill for services using their own NPI number?	All physicians	29.44
NP_BILL	Do Nurse Practitioners bill for services using their own NPI number?	All physicians	29.69

CNM_BILL	Do Certified Nurse Midwives bill for services using their own NPI number?	All physicians	25.33
CNS_BILL	Do Clinical Nurse Specialists bill for services using their own NPI number?	All physicians	28.69
NA_BILL	Do Certified Registered Nurse Anesthetists bill for services using their own NPI number?	All physicians	26.95
PAY_PRIVATE, PAY_MEDCARE, PAY_MEDICAID, PAY_CHIP, PAY_WORKCMP, PAY_SELFPAY, PAY_NOCHRGE, PAY_OTHER	Which of the following types of payment does your reporting location accept? - Private insurance, Medicare, Medicaid, CHIP, Self-Pay, Workers' Compensation, No charge/Charity, Other	All physicians	9.57 (Entire item blank)
ACEPTNEW	At your reporting location, are you, personally, currently accepting new patients?	All physicians	9.94
COVID_VAC	Does your reporting location offer COVID-19 vaccinations?	All physicians	9.07
MODERNA, JOHNSON, PFIZER, COVID_VAC_DK	Which vaccine(s) does your reporting location offer? (Note that COVID_VAC_OTH (COVID Vaccine, Other, please specify) is not included on the RDC file because of the lack of response to the question.)	Physicians who said yes to COVID_VAC (n=263)	19.39 (Entire item blank or responded yes to Don't know)
EMEDREC	Does your reporting location use an EHR system? Do not include billing record systems.	All physicians	9.44
ESDOH	Does your reporting location use an EHR to: Record social determinants of health (e.g., employment, education, race/ethnicity, language and literacy skills)?	All physicians with EMEDREC=1 (n=694)	8.64
TELEMED1-TELEMED6	At your reporting location, what type(s) of telemedicine did you personally use for patient visits? – Videoconference software with audio (e.g., Zoom, Webex, FaceTime)	All physicians	9.57 (Entire item blank)
TELEMEDVIS	At your reporting location in a typical week, how many of your own visits use telemedicine?	Physicians with TELEMED6 ne 1 (n=624)	12.02
TELEMEDSAT	Compared to in-person patient visits, please rate your personal overall satisfaction with using telemedicine for patient visits at your reporting location	Physicians with TELEMED6 ne 1 (n=624)	12.66
TELE_ISSUE1 - TELE_ISSUE6	At your reporting location, what, if any, issues affect your own use of telemedicine? - Limited Internet access and/or speed issues	All physicians	16.89 (Entire item blank)
PATEVEN	At your reporting location, do you personally see patients during the evening or on weekends?	All physicians	9.69

SASDAPPT	Does your reporting location set time aside for same day appointments?	All physicians	13.17
APPTTIME	On average, about how long does it take to get an appointment with you for a routine medical exam at your reporting location? By 'routine medical exam,' we mean any medical care considered 'routine' for your specialty.	All physicians	11.56
LANGUAGE	Are you comfortable providing care to a patient in another language? Please include American Sign Language (ASL).	All physicians	9.94
LIMITED_ENGLISH	At your reporting location, how many of your own patients have limited English proficiency?	All physicians	11.55
INTERPTY1	When you use interpreters at your reporting location, how often do you personally use each type? - Staff/contractor trained as a medical interpreter	Physicians with LIMITED_ENGLISH ne 1 (n=738)	19.64
INTERPTY2	When you use interpreters at your reporting location, how often do you personally use each type? - Bilingual Staff (not formerly trained as an interpreter)	Physicians with LIMITED_ENGLISH ne 1 (n=738)	17.48
INTERPTY3	When you use interpreters at your reporting location, how often do you personally use each type? - Patient's relative or friend	Physicians with LIMITED_ENGLISH ne 1 (n=738)	15.18
INTERPTY4	When you use interpreters at your reporting location, how often do you personally use each type? - Language translation service (iPad/phone-based)	Physicians with LIMITED_ENGLISH ne 1 (n=738)	14.37
TRANSMAT1-TRANSMAT8	What types of materials at your reporting location, in at least one other language other than English, are available to your patients? - Wellness/Illness related education, Patient's rights/Informed consent documents, Advanced directives, Payment, Care plan, Other, None, No materials, No patients with limited proficiency	Physicians who did not report "none" to LIMITED_ENGLISH	11.25 (Entire item blank)
RECORD1-RECORD10	What information does your reporting location record on your patients' culture and language characteristics? - Nationality/Nativity, Primary language, sexual orientation, gender identity, race/ethnicity, religion, income, education, other, None	All physicians	11.93 (Entire item blank)

TREAT_PAIN	At your reporting location, do you personally currently treat any patients for pain?	All physicians	10.43
TRTGOAL	When managing your own pain patients at your reporting location, how often do you...Establish treatment goals with your recently diagnosed pain patients? (e.g., less pain, improved function, increased social activities, better sleep quality, etc.)	Physicians with TREAT_PAIN ne (4,5) (n=461)	19.52
NONRX	When managing your own pain patients at your reporting location, how often do you...Recommend non-pharmacological approaches to your recently diagnosed pain patients before or instead of opioid therapy?	Physicians with TREAT_PAIN ne (4,5) (n=461)	19.74
NONOPIOD_01-NONOPIOID_08	What types of non-opioid medications do you currently recommend to pain patients at your reporting location? SELECT ALL THAT APPLY.	Physicians with TREAT_PAIN ne (4,5) (n=461)	19.09
NUMPTS2	How many of your own pain patients at your reporting location are currently being treated with opioids prescribed by you?	Physicians with TREAT_PAIN ne (4,5) (n=461)	19.74
RSKSCRN	Prior to starting opioids for pain management at your reporting, how often do you personally do the following? Screen patients for depression and other mental health disorders.	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	28.15
RSKBENFT	Prior to starting opioids for pain management at your reporting location, how often do you personally do the following? Discuss risks and benefits of using opioids for pain treatment.	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	27.55
FOLWUP1	After you start opioid therapy on a pain patient at your reporting location, when do you personally re-evaluate him/her?	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	29.64
SBIRT	When prescribing opioid therapy to your pain patients at your reporting location, how often do you personally...Perform substance abuse risk assessment before prescribing opioids (e.g., CAGE, COWS, TAPS)?	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	31.13
TXPLAN	When prescribing opioid therapy to your pain patients at your reporting location, how often do you personally...Establish an opioid treatment plan with your patients?	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	28.74
ABUSE_HX	When prescribing opioid therapy to your pain patients at your reporting location, how often do you personally...Review the patient's history of abuse?	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	28.44
TOXSCRN1	When prescribing opioid therapy to your pain patients at your reporting location, how often do you personally...Perform a urine toxicology screening before starting opioid therapy?	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	28.14

PDMP	When prescribing opioid therapy to your pain patients at your reporting location, how often do you personally...Review your state's prescription drug monitoring program database (PDMP)?	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	28.15
NALOXONE	When prescribing opioid therapy to your pain patients at your reporting location, how often do you personally...Prescribe naloxone to patients receiving opioids?	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	29.04
TOXSCRN2	When prescribing opioid therapy to your pain patients at your reporting location, how often do you personally...Perform a random urine toxicology screening quarterly for long-term opioid therapy?	Physicians with TREAT_PAIN ne (4,5) and NUMPTS2 ne 1 (n=334)	28.74
TREAT_OPIOID	At your reporting location, how many of your own patients are you currently treating for opioid use disorder?	All physicians	16.52
OPIOID_PROG	Does your reporting location have an opioid treatment program where patients could be referred for opioid use disorder?	All physicians	31.92
PRVRACE	What is your race?	All physicians	15.03
PRVSEXR	Are you male, female, or another sex or gender? – Recoded	All physicians	11.93
WCOMP1-WCOMP3	Who completed this survey? - The provider to whom the survey was addressed (check all that apply)	All physicians	11.06 (Entire item blank)

Table 6.2. Item missingness rates for the 2023 NAMCS Provider Survey Component Physician Associate restricted data file

Variable Name	Variable Description	Description	% Missing: Includes blank entries and responses of "Don't Know" and "Unknown"
ESTTOTVIS, ESTTOTVIS_CAT	During a typical week, approximately how many patient visits do you personally receive at your reporting location? - Recoded	All PAs	7.58
NUMPROV_NUM, NUMPROV_CAT	Total number of providers at reporting location – Recoded from OTHPHY and including sampled provider	All PAs	9.68
SOLO	At your reporting location, do you work in a solo medical facility, or do you work with other providers in a partnership, group practice, or in some other way (nonsolo)?	All PAs	7.47
MULTI	Is your reporting location a multi- or single-specialty practice?	All PAs	8.17
OWNERSH	At your reporting location, are you a full- or part-owner, employee, independent contractor, or a volunteer?	All PAs	8.52
OWNS_RL	At your reporting location, who owns the practice?	PAs with OWNERSH ne 1 (n=853)	11.02
PAY_PRIVATE, PAY_MEDCARE, PAY_MEDICAID, PAY_CHIP, PAY_WORKCMP, PAY_SELFPAY, PAY_NOCHRGE, PAY_OTHER	Which of the following types of payment does your reporting location accept? - Private insurance, Medicare, Medicaid, CHIP, Self-Pay, Workers' Compensation, No charge/Charity, Other	All PAs	8.87 (Entire item blank)
ACEPTNEW	At your reporting location, are you, personally, currently accepting new patients?	All PAs	10.61
COVID_VAC	Does your reporting location offer COVID-19 vaccinations?	All PAs	8.63
MODERNA, JOHNSON, PFIZER, COVID_VAC_DK	Which vaccine(s) does your reporting location offer? (Note that COVID_VAC_OTH (COVID Vaccine, Other, please specify) is not included on the RDC file because of the lack of response to the question.)	PA's who said yes to COVID_VAC (n=249)	20.88 (Entire item blank or responded yes to Don't know)
EMEDREC	Does your reporting location use an EHR system? Do not include billing record systems.	All PAs	9.56

ESDOH	Does your reporting location use an EHR to: Record social determinants of health (e.g., employment, education, race/ethnicity, language and literacy skills)?	All PAs with EMEDREC=1 (n=764)	9.82
TELEMED1-TELEMED6	At your reporting location, what type(s) of telemedicine did you personally use for patient visits? – Videoconference software with audio (e.g., Zoom, Webex, FaceTime)	All PAs	9.33 (Entire item blank)
TELEMEDVIS	At your reporting location in a typical week, how many of your own visits use telemedicine?	PAs with TELEMED6 NE 1 (n=675)	11.70
TELEMEDSAT	Compared to in-person patient visits, please rate your personal overall satisfaction with using telemedicine for patient visits at your reporting location	PAs with TELEMED6 ne 1 (n=675)	12.30
TELE_ISSUE1 - TELE_ISSUE6	At your reporting location, what, if any, issues affect your own use of telemedicine? - Limited Internet access and/or speed issues	All PAs	17.04 (Entire item blank)
PATEVEN	At your reporting location, do you personally see patients during the evening or on weekends?	All PAs	9.45
SASDAPPT	Does your reporting location set time aside for same day appointments?	All PAs	14.35
APPTTIME	On average, about how long does it take to get an appointment with you for a routine medical exam at your reporting location? By 'routine medical exam,' we mean any medical care considered 'routine' for your specialty.	All PAs	11.90
LANGUAGE	Are you comfortable providing care to a patient in another language? Please include American Sign Language (ASL).	All PAs	9.10
LIMITED_ENGLISH	At your reporting location, how many of your own patients have limited English proficiency?	All PAs	11.54
INTERPTY1	When you use interpreters at your reporting location, how often do you personally use each type? - Staff/contractor trained as a medical interpreter	PAs with LIMITED_ENGLISH ne 1 (n=789)	16.22
INTERPTY2	When you use interpreters at your reporting location, how often do you personally use each type? - Bilingual Staff not formerly trained as an interpreter)	PAs with LIMITED_ENGLISH ne 1 (n=789)	14.44
INTERPTY3	When you use interpreters at your reporting location, how often do you personally use each type? - Patient's relative or friend	PAs with LIMITED_ENGLISH ne 1 (n=789)	11.79

INTERPTY4	When you use interpreters at your reporting location, how often do you personally use each type? - Language translation service (iPad/phone-based)	PAs with LIMITED_ENGLISH ne 1 (n=789)	12.42
TRANSMAT1-TRANSMAT8	What types of materials at your reporting location, in at least one other language other than English, are available to your patients? - Wellness/Illness related education, Patient's rights/Informed consent documents, Advanced directives, Payment, Care plan, Other, None, No materials, No patients with limited proficiency	PAs with LIMITED_ENGLISH ne 1 (n=789)	10.39 (Entire item blank)
RECORD1-RECORD10	What information does your reporting location record on your patients' culture and language characteristics? - Nationality/Nativity, Primary language, sexual orientation, gender identity, race/ethnicity, religion, income, education, other, None	All PAs	11.20 (Entire item blank)
PRVRACE	What is your race?	All PAs	12.84
PRVSEXR	Are you male, female, or another sex or gender? – Recoded	All PAs	11.32
WCOMP1-WCOMP3	Who completed this survey? - The provider to whom the survey was addressed (check all that apply)	All PAs	10.62 (Entire item blank)
PA_SPECYR	How long have you practiced in your current specialty?	All PAs	9.68
PA_WRKYR	How many years have you worked clinically as a PA?	All PAs	10.27
PA_SUPCOLL	At your reporting location, are there supervision/collaboration guidelines describing the types of decisions you can make or activities you can perform without direct physician involvement in your own patients' care?	All PAs	15.05
PA_OWNPANEL	At your reporting location, do you have your own panel of patients?	All PAs	13.30
PA_CLAIMS	At your reporting location, how are claims submitted most of the time?	All PAs	40.13
PA_TASKS1-PA_TASKS16	At your reporting location, which of the following tasks do you personally perform on a regular and ongoing basis?	All PAs	10.62
PA_REFER	At your reporting location, are there any major activities that you are personally qualified to perform but must refer out to another provider to perform?	All PAs	54.03

Section 7 Preferred Reporting Items for Complex Sample Survey Analysis (PRICSSA) Checklist for the 2023 NAMCS Provider Survey Component Restricted Use Data Files

Table 7.1 below provides a Preferred Reporting Items for Complex Survey Analysis (PRICSSA) checklist (Seidenberg, Moser, & West, 2023) for users of the 2023 NAMCS Provider Survey Component Physician restricted use data file. This information may be helpful to users when analyzing data from the file.

7.1 Preferred Reporting Items for Complex Sample Survey Analysis – Physician Restricted Use Data File

Preferred Reporting Items for Complex Sample Survey Analysis (PRICSSA)	Description
Name of survey	National Ambulatory Medical Care Survey Provider Survey Component (Physician)
Data collection mode	Self-report by mail using a paper survey instrument or online using a web-based survey instrument
Target population	Office-based physicians primarily engaged in direct patient care in the 50 U.S. states and the District of Columbia
Populations excluded	Federally employed, not primarily engaged in office-based care, age 71 years or older at time of sampling, those specializing in radiology or pathology
Sample design	Stratified systematic sampling
Variance and standard error estimation	Not applicable (unweighted data file)
Weighting	Not applicable (unweighted data file)
Presentation standards	Not applicable (unweighted data file)
Unweighted total sample size	805 physicians
Weighted total sample size	Not applicable (unweighted data file)
Response rate (unweighted)	22.8%
Location of example code	Not applicable (unweighted data file)

Table 7.2 below provides a Preferred Reporting Items for Complex Survey Analysis (PRICSSA) checklist (Seidenberg, Moser, & West, 2023) for users of the 2023 NAMCS Provider Survey Component Physician Associate restricted use data file. This information may be helpful to users when analyzing data from the file.

7.2 Preferred Reporting Items for Complex Sample Survey Analysis – Physician Associate Restricted Use Data File

Preferred Reporting Items for Complex Sample Survey Analysis (PRICSSA)	Description
Name of survey	National Ambulatory Medical Care Survey Provider Survey Component (Physician Associate)
Data collection mode	Self-report by mail using a paper survey instrument or online using a web-based survey instrument
Target population	Office-based physician associates primarily engaged in direct patient care in the 50 U.S. states and the District of Columbia
Populations excluded	Federally employed, not primarily engaged in office-based care, age 71 years or older at time of sampling, those specializing in radiology or pathology
Sample design	Stratified systematic sampling
Variance and standard error estimation	Not applicable (unweighted data file)
Weighting	Not applicable (unweighted data file)
Presentation standards	Not applicable (unweighted data file)
Unweighted total sample size	857 physician associates
Weighted total sample size	Not applicable (unweighted data file)
Response rate (unweighted)	21.8%
Location of example code	Not applicable (unweighted data file)

Section 8 Reference

Seidenberg AB, Moser RP, West BT. Preferred Reporting Items for Complex Sample Survey Analysis (PRICSSA). J Surv Stat Methode 11(4). 2023. https://doi.org/10.1093/jssam/smac040.