

# Cognitive Evaluation of the 2022 Redesign of the National Ambulatory Medical Care Survey

Zachary Smith

National Center for Health Statistics

Collaborating Center for Questionnaire Design and Evaluation Research

## Introduction

This report documents the findings from a cognitive interviewing study by the National Center for Health Statistics' (NCHS) Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER) of the National Ambulatory Medical Care Survey (NAMCS) for the NCHS Division of Health Care Statistics (DHCS). NAMCS has provided information on the provision and use of ambulatory medical care in the United States since 1973. While traditionally conducted in-person, the component of NAMCS collecting data from physicians and advanced practice providers is moving to a mail- and web-based mode of survey administration. At the time the study was conducted, NAMCS provided information on ambulatory medical care provided by office-based physicians and at community health centers. However, the environment of health care provision looks considerably different than it did when NAMCS was originally fielded. Today, health care is provided by numerous general and specialist office-based physicians and advanced practice providers in highly varied health care settings and is heavily reliant on electronic medical records. As such, DHCS sought to redesign NAMCS to expand the survey population to include physician assistants (PAs), expand locations surveyed to include retail clinics and other outpatient ambulatory care locations, and gain insight into numerous new topics related to health care provision, including autonomy of PA providers, use of electronic medical records, use of telemedicine, pain management, and COVID-19 vaccination availability, among others.<sup>1</sup>

The questions evaluated in this instrument comprise two questionnaire versions, one for physicians and one for physician assistants. Many of the items in the two versions are shared, and many are also in use on the existing NAMCS instrument. Some, however, are derived from other surveys or from consultations with subject matter experts. Additionally, some domains included on this revision, such as general questions about physician practices, as well as questions specific to electronic health records, practitioner consideration of patient linguistic and cultural characteristics, and pain management and opioid prescription practices, have been previously evaluated by CCQDER for earlier supplements to the NAMCS.<sup>2</sup> Others are new to evaluation,

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<sup>1</sup> In 2015, CCQDER evaluated the feasibility of expanding NAMCS to medical organizations and non-office-based physicians, including radiologists, anesthesiologists, and hospitalists. The current study is not primarily about assessing feasibility but is a holistic assessment of the redesign. See Willson, S. (2016). *NAMCS Feasibility Study*. Hyattsville, MD: National Center for Health Statistics. Available at [https://wwwn.cdc.gov/QBank/report/Willson\\_2016\\_NCHS\\_NAMCS.pdf](https://wwwn.cdc.gov/QBank/report/Willson_2016_NCHS_NAMCS.pdf).

<sup>2</sup> Scanlon, P. (2016). *Evaluation of the 2015 National Electronic Health Records Survey*. Hyattsville, MD: National Center for Health Statistics. Available at [https://wwwn.cdc.gov/qbank/report/Scanlon\\_2016\\_NCHS\\_NEHRS.pdf](https://wwwn.cdc.gov/qbank/report/Scanlon_2016_NCHS_NEHRS.pdf); Salvaggio, M. and Dunston, S. (2016). *2015 National Ambulatory Medical Care Survey (NAMCS) Culturally and Linguistically Appropriate Services (CLAS) Supplement*. Hyattsville, MD: National Center for Health Statistics. Available at [https://wwwn.cdc.gov/qbank/report/Salvaggio\\_2016\\_NCHS\\_CLAS.pdf](https://wwwn.cdc.gov/qbank/report/Salvaggio_2016_NCHS_CLAS.pdf); Massey, M. (2022). *Results of Cognitive Testing of Physician Opioid Questions*. Hyattsville, MD: National Center for Health Statistics. Available at <https://wwwn.cdc.gov/qbank/report.aspx?1218>.

including questions about telemedicine access and use, physician assistant autonomy, and questions related to COVID-19.<sup>3</sup>

The next section documents the methods, sample characteristics, questionnaire structure, interviewing procedures, and analytical approach of the CCQDER study. The subsequent section provides overall findings from the cognitive interviews with physicians and physician assistants. Finally, the last section of the report presents detailed question-by-question analysis specific to each questionnaire version, including the patterns of interpretation demonstrated, respondents' strategies in answering the items, and potential sources or instances of response error.

## Methodology

Cognitive interviewing studies provide in-depth qualitative insights into respondents' interactions with survey items and focus on respondents' patterns of interpretation, recall, judgment, and response. CCQDER's approach, including in this study, follows the socio-cultural approach to question evaluation first adumbrated by Gerber (1997) and further elaborated by Miller (2003) and Miller, et al. (2014). This approach situates interactions with survey questions in respondents' social worlds and views the question-response process of comprehension, recall, judgment, and response (Tourangeau, 1984) as informed by the lived experiences of respondents and those experiences' impact on cognition. Broadly speaking, the socio-cultural approach to question evaluation seeks to document respondent understandings of each question, assess and categorize processes of response based on those interpretations, and establish constructs captured within questions and across the instrument.

### *Sample composition and recruitment*

Recruitment began the week of March 15, 2022. The CCQDER Operations Team scheduled 20 interviews, and a three-member interviewing team of CCQDER researchers conducted these interviews in English primarily virtually on the Zoom video conferencing platform. Additionally, some interviews were held face-to-face, in person, in locations agreeable to respondents outside of the Questionnaire Design Research Laboratory (QDRL), and some interviews faced technical difficulties and could only be conducted over the telephone. The CCQDER Operations Team and the interviewing team primarily recruited via word-of-mouth and snowball sampling, in which recruited respondents were asked to think of other potential study participants and refer them to the research team.

Within the context of this sampling strategy, sampling was purposive, with selection based on three criteria. First, CCQDER recruited respondents based on their profession: physician, physician assistant, and office staff member. CCQDER included the last group of respondents because the NAMCS is a mail- and web-based self-administered survey, and respondents may be the practitioners themselves, their office staff acting at the direction of their employer, or some combination of both. DHCS staff indicated to CCQDER that they suspect the proportion of proxy responses to be high. The feasibility of proxy reporting to the NAMCS is addressed below, drawing on CCQDER's recruitment efforts and interview results.

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<sup>3</sup> Willson's (2016, n. 1) evaluation of the feasibility of expanding NAMCS to include non-office-based physicians noted that telemedicine was a needed addition to the NAMCS.

Second, CCQDER recruited based on physician and physician assistant specialty. NAMCS focuses on ambulatory care provision; as such, CCQDER's recruitment prioritized outpatient, office-based practitioners engaged in direct patient care. Within this subset, CCQDER attempted to recruit across various specialties, including, but not limited to, primary care, family medicine, internal medicine, surgery, pediatrics, dermatology, and other medical specialties. Because NAMCS's questionnaire includes a skip pattern excluding respondents who only engage in care at hospital emergency departments, ambulatory surgery centers, industrial outpatient facilities, federal government clinics, or institutional facilities from most of the instrument, CCQDER limited the number of practitioners recruited who worked in these facilities, to the extent possible. Similarly, CCQDER recruited office staff who worked in physicians' or physician assistants' practices where practitioners were engaged in direct patient care.

Finally, CCQDER aimed to recruit a diverse sample of respondents with a roughly even mix of age, race, and gender. Because qualitative sampling is based on theoretical relevance more than an equal number of subgroups, on-going within-study analysis sometimes prioritized the selection of certain groups over others. Importantly, the sample generated in this study is not representative of the broader group of ambulatory medical care providers or of the subsets of physicians, physician assistants, and/or their office staff. No inferences should be made from it about the relative prevalence of patterns of interpretation and response identified in the broader population. Sample construction was intended to identify the broad range of interpretive patterns present for the purpose of question evaluation in the context of the NAMCS redesign.

Sample characteristics are shown in Table 1. The sample had more respondents who identified as women than identified as men. It was predominantly Non-Hispanic White and roughly evenly split by age. CCQDER recruited more physicians than physician assistants or office staff. Recruited practitioners and their specialties are shown in Table 2.

*Table 1: Sample Composition, n = 20*

	<b>Number</b>	<b>Percent</b>
<b><i>Gender</i></b>		
<i>Women</i>	14	70.0%
<i>Men</i>	6	30.0%
<b><i>Race/Ethnicity</i></b>		
<i>Non-Hispanic White</i>	14	70.0%
<i>Non-Hispanic Black</i>	2	10.0%
<i>Non-Hispanic Asian</i>	2	10.0%
<i>Non-Hispanic Multiracial</i>	1	5.0%
<i>Hispanic</i>	1	5.0%
<b><i>Age (in years)</i></b>		
<i>Under 40</i>	9	45.0%
<i>40 and older</i>	11	55.0%
<b><i>Profession</i></b>		

<i>Physician</i>	12	60.0%
<i>Physician assistant</i>	7	35.0%
<i>Office staff</i>	1	5.0%

Table 2: Practitioner Specialties and Professions

	Physician	Physician Assistant	Office staff	Total
<i>Family/ internal medicine</i>	5	2	1	8
<i>Pediatrics</i>	3	1		4
<i>Pediatric specialties</i>	1	1		2
<i>Emergency</i>	1	1		2
<i>Neurology</i>		1		1
<i>Dermatology</i>		1		1
<i>Urgent care</i>	1			1
<i>Gastroenterology</i>	1			1
<i>Total</i>	12	7	1	20

#### Survey instrument

The questions evaluated were developed by NCHS/DHCS in consultation with subject matter experts, including the American Academy of Physician Assistants, and by compiling questions from a variety of other national physician surveys. The physician-specific version of the instrument was 51 questions long and was divided into 8 sections. The physician assistant-specific version of the instrument was 48 questions long and was also divided into 8 sections. Physicians were asked a separate question series about pain management and opioid prescription, while physician assistants were asked a separate question series about autonomy in the workplace. Additionally, physicians were asked a question about other advanced practice providers (APPs), including physician assistants, nurse practitioners, certified nurse midwives, clinical nurse specialists, and certified registered nurse anesthetists, at their practice. Most respondents did not receive all questions because of various skip patterns within the instrument. Full copies of the profession-specific instruments are provided at the end of this report in Appendices 1 and 2.

#### Data collection and analysis

Interviews, all conducted by trained CCQDER staff members, were conducted via the Zoom video conferencing platform or outside of the QDRL due to the social distancing requirements of the COVID-19 pandemic. Respondents completed informed consent and confidentiality forms prior to the interview and were remunerated \$100 after interview completion. This study was reviewed and approved by the NCHS ERB.<sup>4</sup> The interviews began with interviewers administering the survey questionnaire as designed and outlined in Appendices 1 and 2, depending on respondent profession, and, with minimal intervention, collecting respondents' answers. Interviewers probed retrospectively or concurrently, depending on their assessment of the best methods for eliciting

<sup>4</sup> See 45 C.F.R. part 46; 21 C.F.R. part 56.

information about the question-response process from respondents. Probing was aimed at understanding respondents' personal narratives and social contexts to elucidate the connections between lived experience and survey response.<sup>5</sup>

Analysis proceeded in a four-stage process based on the constant comparative method first articulated by Glaser and Strauss and adapted to cognitive interviewing by Miller and her colleagues.<sup>6</sup> The analysis used CCQDER's Q-Notes software, an online application designed for managing cognitive interviewing data.<sup>7</sup> In the first stage of analysis, individual interviewers summarized each interview into notes that conveyed respondents' understandings of each item, highlighting interpretations of key concepts and describing any response errors or difficulties respondents faced. Importantly, interviewers also included their initial analyses, informed by their interviews in the project, of potential patterns of interpretation, recall, judgment, and response.

In the second stage, study analysts inductively drew comparisons across interviews on a question-by-question basis, aiming to identify consistent and inconsistent respondent understandings of question constructs and the relationship of question wording to those constructs. In the third stage, analysts examined subgroups within the context of each question to determine the extent to which, for example, profession (physician, physician assistant, or office staff) or specialty, as well as demographic subgroup, impacted question interpretation. Finally, in the fourth stage, study authors examined the entire instrument to identify cross-cutting conceptual themes relevant to how this population understands and responds to questions about health care provision.

An overview of the key findings from the study is presented next, followed by a detailed question-by-question analysis of all items.

## Key Findings

This section details findings that emerged across the revised NAMCS. The study found that respondents understood the referent of most questions instrument-wide in two ways: their own medical practice or the practice of all medical providers at their "reporting location," a term used in NAMCS to denote the outpatient, office-based location at which providers see the "most patients in a typical week." Differences in understanding of what the question asked about led to differential patterns of response. Additionally, respondents who worked at multiple locations—whether office-based and outpatient or other settings—inconsistently answered according to their selected "reporting location." This difference in respondent judgment impacted responses selected. Finally, CCQDER addresses the impact of specialty and profession on respondents' understandings of questions and provide preliminary findings on the validity and feasibility of proxy reports to the NAMCS.

### *"You" versus "your reporting location"*

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<sup>5</sup> Willson, S., & Miller, K. (2014). Data Collection. In K. Miller, S. Willson, V. Chepp, & J.-L. Padilla (Eds.), *Cognitive interviewing methodology* (pp. 15-33). Hoboken, NJ: John Wiley & Sons.

<sup>6</sup> Glaser, B. and Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Hawthorne, NY: Aldine de Gruyter; Miller, K., Willson, S., Chepp, V., & Padilla, J.-L. (Eds.). (2014). *Cognitive Interviewing Methodology*. Hoboken, NJ: John Wiley & Sons.

<sup>7</sup> Q-Notes can be accessed at <https://wwwn.cdc.gov/qnotes/>.

Items on the NAMCS instrument are phrased in three primary ways: referring only to the reporting location, only to the respondent, or to both the respondent and the reporting location. Each of these types of questions provoked different understandings from respondents depending on how they understood the question referent. Examples of the different phrasings are provided in Table 3.<sup>8</sup>

*Table 3: Examples of Questions with Differing Referents on the 2022 NAMCS*

<i>Question Reference</i>	<i>Example Questions</i>
<i>Respondent's "reporting location"</i>	Is this a multi- or single-specialty practice at your reporting location? Does your reporting location report any quality measures or quality indicators to either payers or to organizations that monitor health care quality? Does your reporting location offer COVID-19 vaccination?
<i>Respondent</i>	Do you see outpatient, office-based patients in any of the following settings? SELECT ALL THAT APPLY. Which of the following types of payment do you accept? SELECT ALL THAT APPLY. In a typical week, how many of your visits use video telemedicine? Are you fluent in a language besides English?
<i>Respondent and respondent's "reporting location"</i>	During a typical week, approximately how many patient visits do you receive at your reporting location? Are you currently accepting new patients at your reporting location? Do you see patients at your reporting location during the evening or on weekends?

#### Questions referring to the respondent's "reporting location"

The first category of questions, which referenced only the "reporting location," produced the most consistent and coherent question interpretations. These primarily drew on respondent understandings of the totality of practitioners at their primary place of work. One respondent, for example, answered the question "Is this a multi- or single-specialty practice at your reporting location?" with "Single." In explaining her answer, she noted some potential complexity: "The clinic is single specialty. The health system, within the building we have multiple specialties, and the health system has multiple specialties." But, because she perceived her "reporting location" as the "clinic," this respondent answered "Single." Similarly, respondents to the question "Does your reporting location use an EHR system?" referenced the system used by their place of work as a whole and did not specify any additional systems they might individually use, and respondents to the question, "Does your reporting location set time aside for same day appointments?" discussed the booking practices of their place of work generally rather than their individual schedules.

#### Questions referring to the respondent

<sup>8</sup> Two questions, "How are claims submitted most of the time?" and "On average, about how long does it take to get an appointment for a routine medical exam?" had no specific referent and are discussed in depth in the question-by-question findings below.

The second category of questions, which referenced only the respondent in their capacity as a provider, produced three kinds of question interpretations. First, and most commonly, respondents understood these items to refer solely and specifically to their individual work habits and practices. For example, when responding to the question, “Are you fluent in a language besides English?” one respondent (who answered “No”) referred to his own ability to speak Spanish:

Depending on the patient’s Spanish grasp, sometimes I’m totally fine, they’re able to understand my somewhat limited Spanish. There are other times when a friend or relative is there and helps me explain what I am saying, but we don’t actually need to go to the formal interpreter.

This respondent understood the question about language fluency to refer to his personal language skills rather than his practice’s ability to see patients who speak non-English languages. Similarly, in responding to “How long have you practiced in your current specialty?” all physician assistants answered on the basis of their own employment experience.

Second, some items in this category were associated with multiple conflicting interpretations: the dominant one, about the respondent’s own work habits and practices, and a second, broader understanding of the question referent—the “you” or “your”—as applying to all providers at the “reporting location.” One question characterized by this conflicting interpretation was “How many of your patients have limited English proficiency?” Some respondents understood “your patients” to refer to their own patients, as in the case of one respondent (who answered “Some”) who said she could “think of all three of the patients I have.” However, another respondent (who also answered “Some”) answered on the basis of the whole practice’s patient population, explaining that the “10 patients a year” who speak Spanish, Portuguese, and Russian “are coming with their children or grandchildren who are then acting as their translator.” Though both respondents answered “Some” because the number of patients was more than zero but less than their threshold for “Most,” the divergent interpretations exhibited, in other contexts, could lead to inconsistency in response.

Finally, some items were associated with a different interpretation than the dominant one entirely: referring to the “reporting location’s” policies or practices and not to either the respondent individually or to the practice’s providers as a group. For example, the question “Which of the following types of payment do you accept?” was consistently understood to refer to a place of work and its billing procedures, despite the lack of reference to a “reporting location.” As one put it when answering, “All of the above, I mean, we—again, I’m not on that side of things but I know they accept Medicare, Medicaid, private insurance, insurance, self-pay...” For this respondent and for others, the question clearly referred to their workplace’s policies, not their personal ability to accept forms of payment.

#### Questions referring to both the respondent and the respondent’s reporting location

The last category of questions referred both to the provider themselves and to their reporting location. This category of items produced the most varied interpretations, and, consequently, divergent response patterns that are not easily described as clear incidences of error. For some items, respondents consistently understood the question to refer to either their own personal

practices, the practices of all providers at their reporting location, or to their reporting location's policies or procedures, even though which of these to focus on was not specified by the question. For example, in response to the question "Are you currently accepting new patients at your reporting location?" no respondents understood this to refer to their own appointment scheduling. Instead, all respondents understood this question to mean "Is your reporting location currently accepting new patients?" For example, one respondent explained that "we don't get to be full" and another said that "we always accept new patients."

However, consistency in interpretation within the question for these items, when it occurred, was merely incidental. In response to the question "Do you see patients at your reporting location during the evening or on weekends" respondents sometimes answered according to their personal schedule and sometimes according to their reporting location's hours. One, who answered "Yes," said that she worked half-days on Saturdays; she thought of her own schedule. By contrast, another respondent explained that "the practice" does not have evening or weekend hours and specified that she thought of the group's policies, rather than her personal schedule. In the context of the instrument, it is not clear whether either interpretation indicates response error. Similarly, in a question such as "During a typical week, approximately how many patient visits do you receive at your reporting location?" respondents inconsistently understood the question to ask about their personal patient encounters, the total encounters of all providers at the reporting location, or—for respondents with more than one employment location—their personal patient encounters at all locations. Only this last understanding is clearly response error, since a respondent answering according to this understanding would include patient visits outside the domain of the instrument.

### *Inconsistent reference to reporting location*

The NAMCS instrument asks respondents to identify which "outpatient, office-based setting...[at which] you see the most patients in a typical week," specifies to respondents that "For the rest of the survey, we will refer to this as 'your reporting location,'" and reiterates at the beginning of each section that items refer to the respondent's reporting location, as in Figure 1, below. Nevertheless, at numerous points in the cognitive interviews, respondents used work locations different from their "reporting location" as the basis of their response. This was particularly the case for those who identified multiple work locations in the instrument itself, but it also occasionally affected respondents who situated their "reporting location" in a broader medical system.

*Figure 1: Examples of NAMCS Instrument Respondent Instructions*

#### **COVID-19 Questions**

*The following questions pertain to your reporting location.*

- 18. Does your reporting location offer COVID-19 vaccinations?**
  - a. Yes
  - b. No (Skip to question 20)



**Physician Assistant Only: Autonomy Questions**

*The following questions pertain to your reporting location.*

**36. How long have you practiced in your current specialty?**

- a. 0-1 years
- b. 2-4 years
- c. 5-9 years
- d. 10-20 years
- e. 21 or more years

One respondent's situation illustrates the challenges facing respondents who work in multiple settings in responding to NAMCS items. This respondent defined her "reporting location" as an outpatient, office-based section of a hospital emergency department, although she also conducted non-office-based work in the same emergency department. Because the second location was both not her reporting location and, as a non-office-based location, out of the scope of NAMCS, the respondent should have excluded it from consideration when answering items throughout the instrument. However, in response to several items, this respondent included her interactions in the non-office-based setting. In some cases, this led to response error. For example, when asked, "In a typical week, how many of your visits use video telemedicine?" the respondent answered "Most," not "All," even though all of her interactions at her "reporting location"—the outpatient section of the emergency department—used a form of telemedicine. She did so because she considered her broader interactions with patients in need of acute, non-office-based medical attention.<sup>9</sup> Similarly, when asked "When treating your patients, how often do you consider race/ethnicity?" the respondent also included patients seen outside her "reporting location."

Other respondents with multiple work locations encountered similar difficulties indicative of the potential for response error because of inclusion of out-of-scope work locations. For instance, one pediatrician who worked in a freestanding clinic (her "reporting location") and a hospital emergency department initially was uncertain how to answer the question, "How many of your patients are you currently treating for opioid use disorder?" Initially, she wanted to answer "A few," because "in the [emergency department] I have encountered a number of older adolescents who have substance use disorders, including opioid use disorders." Upon reflection, this respondent excluded her non-reporting location patients from consideration. Another respondent who worked in a hospital outpatient department (her "reporting location"), a hospital emergency department, and an ambulatory surgery center, explained that answering certain items was "hard because my brain mixes outpatient with inpatient."

Some respondents who only identified one location at which they saw "outpatient, office-based patients" still did not consistently answer on this specific location's basis throughout the instrument. For example, in the question, "Does your reporting location offer COVID-19 vaccinations?" one respondent answered "Yes" because, although "we do not offer them within the office, but within the building, we do offer them." While in other questions, this respondent had answered strictly on the basis of her "reporting location"—a hospital outpatient department—this item provoked a broader conception of her "reporting location" that included the building in which her workplace was situated and one that indicates potential response error.

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<sup>9</sup> In probing, the respondent corrected her answer to "All" but then realized that some interactions during slow periods in her "reporting location" do not use telemedicine services.

### *Impact of respondent profession and specialty*

Respondents to this study were either physicians, PAs, or medical office staff and practiced in a wide range of specialties. Though the specialties included are broad (if not exhaustive) and this is the first time these items had been tested among PAs, specialties and professions primarily only impacted patterns of responses observed and generally did not impact question interpretations. For example, respondents in pediatric specialties, in response to “What information does your reporting location record on your patients’ characteristics?” frequently identified information about patient families, such as parents’ names or parent education, under “Other.” However, these respondents’ understanding of how patient characteristics are recorded or the other characteristics directly enumerated in the response options did not meaningfully differ from those of other non-pediatric respondents.

Similarly, PAs interviewed in this study reported reporting location participation in various incentive programs at lower rates than did physicians, although this was not universally the case. This may have been, as one put it, “because [they’re] not involved at all on the billing side apart from...I just fill out the billing code for my patients.” In this regard, to the extent that differences between physicians and PAs exist, they may affect the reliability of PAs as sources of certain types of information about reporting locations. However, with regard to understanding of the question itself and the incentive programs outlined in the response options, there were no systematic differences between physicians and PAs.

### *Proxy reporting*

NAMCS is a web- and mail-based self-administered survey. Because of this, it is not always possible to verify that the person to whom the survey is addressed actually completes the instrument. The DHCS team responsible for NAMCS thinks it likely that some amount of survey completion is done by proxies, perhaps medical office staff, on behalf of the intended respondent. This study aimed to examine the quality and feasibility of proxy reporting to the revised NAMCS instrument by direct recruitment of medical office staff members as participants. Given the study sample size ( $n = 20$ ), CCQDER was limited in its ability to recruit office staff, as the priority was assessing item functioning among PAs and respondents from non-traditional reporting locations. CCQDER recruited one office staff member and administered the instrument to her as if she were a physician or physician assistant. Though conclusions are necessarily limited, two findings emerged.

First, proxy reporting of many items on the NAMCS may be of low quality. Proxy respondents may answer on the basis of multiple providers, may primarily answer on the basis of reporting location policies and not individual practitioner variations, and may not know the answers to certain items. The medical office staff member in this study, for example, answered a question about the number of patient visits based on her estimate of all providers at the location in a given week, explained that she could not answer questions about how often a provider considers race or ethnicity because it might depend on the provider, and answered “Don’t know” to a question about recording of the use of dietary supplements because she felt she would need to ask a doctor. CCQDER’s prior evaluation of physician ability to serve as proxy respondents for business

managers and technical staff found that physicians are “inappropriate proxy respondents” for these personnel because their lack of knowledge impairs the accuracy of responses about business affairs and technical systems.<sup>10</sup> Similarly, in this study, office staff may be inappropriate proxy respondents for medical professionals because their lack of knowledge impairs the accuracy of responses about aspects of health care provision.

Second, because of the high level of knowledge required by the NAMCS instrument, to the extent that proxy reporting occurs, it may only occur for portions of the instrument rather than the whole survey. In this study, the office staff member interviewed could not complete many items asked of her because she was unfamiliar with terms, thought it would depend on individual providers and did not know which one to use as her basis for response, or because she did not know the technical details of software used or doctor-patient interactions. These findings, while limited, may suggest that proxy reporting would not be successful for most survey respondents.

Further evaluation is needed to identify how the NAMCS instrument functions for proxy respondents. The instrument evaluated in this study included a final, select-all-that-apply, question, “Who completed this survey?” that aimed to quantify the amount of proxy reporting. The results of this question in the fielded NAMCS can inform the need, if any, for additional cognitive interviewing and quantitative testing of the NAMCS instrument with proxy respondents.

### Question-by-Question Analysis

This section presents a detailed review of the findings for each question. Question numbering generally pertains to the physician version of the questionnaire, although questions are renumbered for physician assistants at the relevant physician assistant-only section. Question numbering resumes according to the physician version with questions related to provider demographics.

**1. We have your specialty as: [INSERT SPECIALTY HERE]**

- a. Yes
- b. No (Skip to question 1a)
  - 1a. What is your specialty? \_\_\_\_\_

This question was not evaluated as NAMCS pre-fills this on paper and web implementations of the survey.

**2. This survey asks about outpatient, office-based care, that is, care for patients receiving health services without admission to a hospital or other facility. Do you directly provide any outpatient, office-based care?**

- a. Yes (Skip to question 4)
- b. No

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	19
<i>No</i>	1

<sup>10</sup> Scanlon, P. (n. 2).

All respondents received this question, and all respondents were able to provide an answer.

Broadly speaking, respondents understood this question to refer to their health care provision to patients outside an inpatient, hospital setting. In probing, respondents emphasized different aspects of the definition of “outpatient, office-based care” presented, although these emphases did not affect the broader shared comprehension of question intent. For instance, one respondent understood the question as asking about care provision “outside the hospital. You’re not being admitted for a serious illness, all your subspecialists and things that aren’t located in a hospital.” This respondent emphasized the setting of care and the severity of condition. Others closely identified outpatient, office-based care with their personal practice. For example, a family medicine practitioner explained that “it’s exactly the type of practice that I have. It’s office-based and outpatient.” This respondent could not conceive of outpatient, office-based care without reference to the type of work he does.

Additionally, respondents understood “outpatient, office-based care” by what they considered it to *not* be: emergency medicine. An internal medicine physician defined “outpatient, office-based care” by saying that “patients come to *you* to see you...they’re specifically coming to see me as opposed to going to the ER [emergency room] just to get care from someone – from any provider.” Another respondent who exclusively works in an emergency room setting, and who answered “No,” excluded his own practice because it was in the emergency setting. He considered the work he did to be “outpatient medicine,” but, importantly, it was not “outpatient, office-based care.”

While these understandings were generally consistent across practitioners, there were a few areas where respondents were not sure how to categorize the work they performed. One respondent defined “outpatient, office-based care” as “non-urgent care...for the most part, patients who have a schedule.” This respondent appeared to exclude locations like urgent care centers and retail health clinics from consideration. However, the practitioner was a pediatric physician, and her exclusion of urgent care centers and retail health clinics did not affect her categorization of her own work as outpatient and office-based. Another respondent, a physician assistant who answered “Yes,” pointed to her unique work in an emergency department. This respondent viewed her emergency room as “a primary care home for patients” in terms of the conditions she treats, including “sore throats, normal vital signs,” and chronic aches and pains. Her subsection of the emergency room treats only patients that are anticipated to leave the emergency room that day based on their complaint. To her, it reminded her of an urgent care center. This respondent included this work because of the severity of complaint and the lack of admission to the hospital despite the fact that the work was performed within a hospital emergency department and could lead, “less than 1 percent of the time,” to a hospital admission.

### **3. Why are you not currently providing any direct patient care?**

- a. Engaged in research, teaching, and/or administration
- b. Once provided direct care but now retired
- c. Once provided direct patient care but temporarily not practicing (duration 3+ months)
- d. Now not licensed/Never licensed
- e. Something else (please specify): \_\_\_\_\_ (Skip to question 46)

<i>Response</i>	<i>Number of Respondents</i>
<i>Engaged in research, teaching, and/or administration</i>	0
<i>Once provided direct care but now retired</i>	0
<i>Once provided direct patient care but temporarily not practicing</i>	0
<i>Now not licensed / Never licensed</i>	0
<i>Something else</i>	1

The only respondent to route to this question indicated that he did not provide outpatient, office-based care in the previous item because of his work in the emergency room context. He explained that he is “exclusively now providing emergency medical care through the emergency department.” Importantly, this respondent conceived of his work as “direct patient care” in line with the question, but not “outpatient, office-based care” in line with the previous item. Thus, the existing response options did not effectively capture his experience of continuing to provide direct care in a non-office-based setting.

**4. Overall, at how many locations do you see outpatient, office-based patients in a typical week? A typical week is defined as a week with a typical caseload, with no holidays, vacations, or conferences.**

<i>Response</i>	<i>Number of Respondents</i>
<i>More than 1</i>	6
<i>1</i>	13
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Respondents understood this question to refer to the number of places at which they worked in a week. For example, one respondent explained that she works in two places, a “small freestanding clinic in the community” and “an outpatient clinic located inside a hospital academic center.” Though both were owned and operated by the same university medical system, she conceived of these as separate locations because she worked at each during the week. Another respondent, a family practice physician who worked for a federally qualified health center (FQHC) with more than 10 practices, answered “1” because he only tends to work at one of the practices, although he could work at any.

No variation was observed in respondent understanding of “typical week,” and, in contrast to evaluative work conducted by CCQDER on an earlier version of this question, no respondents expressed difficulty conceiving of a “typical week” because of highly irregular schedules.<sup>11</sup> Respondents appeared to average the number of locations at which they worked, as in the case of one gastroenterologist whose practice operates nine offices and three ambulatory surgical centers. “On average,” he said, “I go to one clinic, one ambulatory surgical center. However, sometimes

<sup>11</sup> Scanlon, P. (n. 2).

there is some variability, in which case I have to go to two offices or three offices in a week, or go to two surgical centers in a week.”

**5. Do you see outpatient, office-based patients in any of the following settings? SELECT ALL THAT APPLY.**

- |  |   |   |
|--|---|---|
| 1 Private solo or group practice   | } | If you see patients in <u>any</u> of these settings, go to question 6 |
| 2 Freestanding clinic or Urgent Care Center  |   |   |
| 3 Community Health Center (e.g., Federally Qualified Health Center [FQHC], federally funded clinics or “look-alike” clinics)     |   |   |
| 4 Mental health center   |   |   |
| 5 Government clinic that is not federally funded (e.g., state, county, city, maternal and child health, etc.)                    |   |   |
| 6 Family planning clinic (including Planned Parenthood)  |   |   |
| 7 Integrated Delivery System, Health maintenance organization, health system or other prepaid practice (e.g., Kaiser Permanente) |   |   |
| 8 Faculty practice plan (an organized group of physicians that treats patients referred to an academic medical center)           |   |   |
| 9 Retail health clinic (e.g., CVS MinuteClinic)  |   |   |
| 10 Hospital outpatient department  | } | If you select <b>only</b> 11, 12, 13, 14, 15 or 16 go to question 46  |
| 11 Hospital emergency departments  |   |   |
| 12 Ambulatory surgery center/surgicenter   |   |   |
| 13 Industrial outpatient facility  |   |   |
| 14 Federal government clinics  |   |   |
| 15 Institutional facility  |   |   |
| 16 None of the above   |   |   |

<i>Response</i>	<i>Number of Respondents</i>
<i>Private solo or group practice</i>	9
<i>Freestanding clinic or Urgent Care Center</i>	4
<i>Community Health Center</i>	5
<i>Mental health center</i>	0
<i>Government clinic that is not federally funded</i>	0
<i>Family planning clinic</i>	0
<i>Integrated Delivery System, Health maintenance organization, health system or other prepaid practice</i>	1
<i>Faculty practice plan</i>	1
<i>Retail health clinic</i>	0
<i>Hospital outpatient department</i>	6
<i>Hospital emergency departments</i>	4
<i>Ambulatory surgery center/surgicenter</i>	1
<i>Industrial outpatient facility</i>	0
<i>Federal government clinics</i>	1
<i>Institutional facility</i>	0
<i>None of the above</i>	0
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide at least one answer.

Respondents universally understood this question to ask about their work settings. However, they did not only consider outpatient, office-based work. For several locations on the list, respondents also included their non-office-based work. For example, respondents who worked in hospital emergency departments, even if they excluded that work from consideration for office-based outpatient care, reported their work in this question. One physician assistant who worked in a pediatric cardiology specialty clinic also reported her work in an emergency department, which had “more of an inpatient feel.” Essentially, respondents answered the question, “where do you work?”

Respondents generally understood the list of options, although there were some exceptions. Certain terms, like “industrial outpatient facility” and “institutional facility,” were unclear to some respondents, but because they did not associate them with their own work, there was no evidence of error. Additionally, some terms seemed to overlap. One respondent was uncertain whether to count his past work at a walk-in clinic/urgent care as a freestanding clinic or a retail health clinic.

The response options presented were not mutually exclusive to respondents in the sample. That is, a certain location could be counted more than once under different response options. For example, one pediatrician explained that she thought of her practice as both a freestanding clinic and, because of its location, as a hospital outpatient department. Another internal medicine practitioner selected “faculty practice plan,” “hospital outpatient department,” and “private solo or group practice.” In probing, she identified these responses as three ways of describing the same location.

Some practitioners did different types of work at different locations. These practitioners did not experience difficulty distinguishing between the different locations. For example, one physician assistant responded “hospital outpatient department,” “ambulatory surgery center/surgicenter,” and “hospital emergency department.” Excluding her inpatient work in the emergency department, the physician assistant saw new patients in-office in the outpatient department and performed “minor procedures that don’t need to be in a hospital to be performed” in the ambulatory surgery center.

Some incidence of error was observed where respondents sought to change their answer after hearing the whole list. Because NAMCS is a mail- and web-based survey, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. This generally worked well to eliminate incidents where respondents misidentified their work as, for example, a “freestanding clinic” when they actually considered it a “faculty practice plan.” However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally.

- 6. At which outpatient, office-based setting (1-10) in the previous question do you see the most patients in a typical week? WRITE THE NUMBER LOCATED NEXT TO THE SELECTION MADE.**

---

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Most respondents in the sample provided a single answer designating a location from the previous item asking about locations where providers saw outpatient, office-based patients. However, two providers indicated more than one location. One of these respondents selected “private solo or group practice” and “freestanding clinic” because, although they are the same practice, they are two different physical locations. In the end, this respondent decided to think of the two physical locations and chose the one at which he saw more patients. The other respondent who provided two answers noted that either description—“private solo or group practice” or “Integrated Delivery System”—could apply to the same physical location.

7. What is the county, state, and zip code of *your reporting location*? What is the email address of the physician to whom this survey was mailed?

Country: **USA**

County: \_\_\_\_\_

State:

Zip Code: \_\_\_\_\_

Email Address: \_\_\_\_\_

This question was not evaluated because it asks for personally identifiable information not recordable in CCQDER's note-taking software, Q-Notes.

**8. During a typical week, approximately how many patient visits do you receive at your reporting location?**

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All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Respondents understood this question in two ways: about the number of times in a week each respondent personally encountered patients, or about the number of patients the practice encountered in a week. Most respondents understood the question in the first way: one internal medicine practitioner explained that she saw 16 patients, one day a week, in her hospital outpatient department. However, a few respondents understood the question to ask about the patients seen by the practice. One urgent care physician asked, “For just myself or all the providers?” She then provided two answers: 150 for herself and 700 for the whole practice.

### Estimation strategies

Respondents tended to arrive at the number they reported in their answer by multiplying an expected number of daily patients by the number of days they worked in their reporting location. Many respondents came to their answer by first thinking of the average number of patients they saw daily by the number of days they worked at their reporting location. For example, one physician assistant explained she works “four days a week, 15 to 20...I’d say at least 100 to 120.” Others relied on different strategies for calculating the expected number of daily patients; a family



medicine physician answered “22” because his practice budgets “based on seeing 11 patients per clinic session” and he does two clinic sessions a week. Some respondents did not offer details of their estimation strategy and said things like “probably 100?” or “28.”

Many respondents were reluctant to commit to a single number response and provided a range of number of patient visits. For example, one pediatrician answered “4-5” and explained “I don’t see that many.” Another respondent, a gastroenterologist, said that he saw “in a range, probably 100, 125 patients in a week.”

### *Response error*

Some respondents answered this question based on the number of patients they saw in a day, rather than the number of patients they saw in a week. For example, one physician detailed his calculation as follows:

For the most part, on a given week we spend most of our time in the office. Usually, two to three days in the office, and we see on average about 25 patients per day. And then we spend two to three days otherwise in our ambulatory surgical center doing outpatient procedures. And that, on average, we’re doing about 18 procedures per day.

This respondent answered “25” based on the number of patients he saw in the office on an average day.

### **9. Do you work in a solo medical facility, or are you associated with other providers in a partnership, group practice, or in some other way (nonsolo) at your reporting location?**

- a. Solo (Skip to question 11)
- b. Nonsolo

<i>Response</i>	<i>Number of Respondents</i>
<i>Solo</i>	1
<i>Nonsolo</i>	17
<i>Skipped</i>	2

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer. The office staff member interviewed skipped this question.

Respondents understood this question reasonably consistently to indicate whether they worked alone or with other medical providers at their practice. For example, one gastroenterologist said, “This is a group practice and I have partners.” Another physician assistant said that she worked with a group of physicians.

The one respondent, a physician assistant in a dermatological practice, who answered “solo” did so because “it’s just me and another physician.” Because there were no other owners of the practice

aside from her employing physician, even though she was an employee of the practice, she categorized her reporting location as “solo.”

**10. How many providers are associated with you at your reporting location? Do not include interns, residents, or fellows.**

---

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Respondents understood this question in two ways based on their conception of a “provider.” All respondents understood a core group of medical professionals as providers: physicians, physician assistants (PAs), nurse practitioners (NPs), and advance practice nurses (APNs). Similarly, all respondents excluded another group of medical professionals: nurses and medical assistants. Some respondents, however, also understood “provider” to include practitioners like lactation consultants, behavioral health specialists, certified nurse midwives (CNMs), psychologists, dietitians, and certified registered nurse anesthetists (CRNAs).

The core conception of “provider” relied on several definitions. One physician said that she considered “anyone who can see patients on their own and bill for it as a provider.” Another physician thought of anyone providing “direct patient care.” Respondents frequently referred to professions as examples of their conception of a “provider.” For example, one pediatrician explained that “historically I’ve thought of providers...as physician, PA, or NP.” The sole office staff member interviewed counted the doctors and NPs who see patients in her office. From the perspective of one respondent, NPs and PAs “counted” as providers because “you have to sign off on their chart but you don’t actually have to go in and see the patient for them to bill.” This level of independence seemed to indicate a threshold for categorizing these medical professionals as “providers.” Similarly, other respondents explained that nurses and medical assistants were not “under the umbrella of a provider,” because, as one respondent said, these practitioners do not provide care independently.

Inconsistency arose in how respondents conceived of providers outside of the core group. Some respondents categorized these other practitioners, like lactation consultants, behavioral health specialists, and dietitians, as “ancillary staff” and did not count them as providers. Others understood these practitioners as providers because “they can bill separately.” However, for several respondents, only including doctors, PAs, NPs, and APNs as providers seemed to be less of an active decision and more of an instinct. One family medicine practitioner initially excluded a CNM because they were not regularly at his reporting location. Upon probing, he also realized that he excluded “our three licensed social workers who are behavioral health providers.” In his telling,

intellectually and correctly I should say yes [that behavioral health specialists count as providers]...[but] oftentimes I err and forget about them...I think it’s my personal bias and history to think of providers as medical providers. But really, it’s, at our community health center, institutionally when we say providers we really mean medical, behavioral, and dental.

Another respondent initially excluded—again, because he forgot about them—six CRNAs that work at his practice. Responses like these illustrate a potential tension between a latent understanding of “provider” as including only “advance health provider[s]...a nurse practitioner, physicians assistant (sic), or physician” and an intellectual or learned understanding of providers as including a wider range of medical professionals.

Lastly, respondents were uncertain how to count practitioners that worked part-time or not specifically with them. One primary care PA did not include several part-time PAs at his practice because he did not work directly with them and because one of them would be leaving soon. This same PA also excluded two “super old and semi-retired” doctors because “they don’t ask me about their patients, I don’t ask them about mine.” Another urgent care physician “forgot about nights” and the “two dedicated night people” who work at her practice. This respondent also referenced a part-time position that is filled by different people depending on the shift; during probing, she opted to include this position in her count of providers.

CCQDER’s evaluation of an earlier version of this item found that respondents inconsistently included only physicians (specified by the question) or included both physicians and “mid-level” providers.<sup>12</sup> In this study, while “mid-level” providers were consistently included, other medical professionals were only sometimes included.

### **11. Is this a multi- or single-specialty practice at your reporting location?**

- a. Multi
- b. Single

<i>Response</i>	<i>Number of Respondents</i>
<i>Multi</i>	6
<i>Single</i>	13
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Respondents all understood this question to ask about the number of specialties practicing at their primary work location. This interpretation was consistent with CCQDER’s evaluation of an earlier version of this question.<sup>13</sup> For example, one pediatrician explained that “the clinic is single specialty. The health system, within the building we have multiple specialties, and the health system has multiple specialties.” This respondent settled on “probably single” for her answer, in which she relied on her single-specialty clinic as her reporting location.

Some inconsistency arose in how respondents understood certain specialties. One primary care physician explained that her reporting location has family medicine practitioners, internal medicine practitioners, and pediatricians. However, she answered “Single” because she considered all of these specialties to be subsets of “primary care.” However, other respondents conceived of

<sup>12</sup> Scanlon, P. (n. 2).

<sup>13</sup> Scanlon, P. (n. 2).

these differently. A family practice PA explained that her reporting location is “family practice and internal medicine” and answered “Multi.” Another pediatrician’s reporting location included family medicine, pediatrics, and midwifery specialists; this respondent answered “Multi” because these are “different genres of primary care, I guess.”

**12. Are you a full- or part-owner, employee, or an independent contractor at your reporting location?**

- a. Full-owner (Skip to question 14)
- b. Part-owner
- c. Employee
- d. Contractor

<i>Response</i>	<i>Number of Respondents</i>
<i>Full-owner</i>	0
<i>Part-owner</i>	2
<i>Employee</i>	16
<i>Contractor</i>	1
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Respondents had consistent understandings of this question as asking about their employment status. In general, they understood their employment status through their pay and tax documents, for employees, or through their ownership agreements with other medical providers, for part-owners. Respondents were also able to distinguish between employees and contractors. One family practice PA explained that as an employee, “you get benefits, and you are localized to one area,” while as an independent contractor, “you are coming from an outside source into an established place.” To this respondent, and implicitly for other respondents, the type of pay they received (for example, inclusion of benefits) established their employment relationship.

The respondent who answered “contractor” highlighted a potentially missing category: volunteer. This respondent explained that at her reporting location, she doesn’t “get paid for these encounters,” while in her other, non-outpatient, office-based work at an emergency department, she “would say employee” because she is paid by the emergency department’s hospital. Because the respondent was unpaid at her reporting location, she selected “contractor,” even though she did not feel that “contractor” effectively described her employment status.

**13. Who owns the practice at your reporting location?**

- a. Physician/Physician group
- b. Advanced practice provider/Advanced practice provider group
- c. Combination of physicians and advanced practice providers
- d. Insurance company, health plan, or HMO
- e. Community health center
- f. Academic medical center or teaching hospital
- g. Other hospital

- h. Other health care corporation
- i. Other (please specify): \_\_\_\_\_

<i>Response</i>	<i>Number of Respondents</i>
<i>Physician/Physician group</i>	7
<i>Advanced practice provider/Advanced practice provider group</i>	0
<i>Combination of physicians and advanced practice providers</i>	0
<i>Insurance company, health plan, or HMO</i>	1
<i>Community health center</i>	4
<i>Academic medical center or teaching hospital</i>	7
<i>Other hospital</i>	0
<i>Other health care corporation</i>	0
<i>Other</i>	0
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Respondents consistently understood this question as asking about the ownership of their place of work. They drew on varied sources of information to make these determinations. For example, one PA respondent who worked in an outpatient section of a hospital emergency department answered “Physician/Physician group.” She explained that “a lot of non-teaching hospital centers, to avoid conflict of interest or to avoid being accused of for-profit bias...employ a non-affiliated group to run the [emergency room]. That way there’s not excessive admissions, unnecessary admissions.” This respondent eliminated the variety of answers that referenced hospitals from consideration based on her knowledge of her employment status and standard hospital arrangements. Similarly, a physician who answered “community health center” explained his answer by referencing the center’s “not for profit” status and its “board of directors.” This respondent understood the question to ask about the top of the ownership hierarchy relevant to his reporting location.

The only source of confusion was the term “advanced practice provider.” Some respondents told interviewers that they were “not sure what advanced practice provider means,” while others explained that they understood the term to refer to PAs or NPs. One PA described “advanced practice providers” as people who are “not a doctor, not a nurse, and not somebody in school.”

**14. Do you or does your reporting location currently participate in any of the following activities or programs? SELECT ALL THAT APPLY.** *Merit-Based Incentive Payment System will adjust payment based on performance. Advanced Alternative Payment Models are new approaches to paying for medical care that incentivize quality and value.*

- a. Patient Centered Medical Home (PCMH)
- b. Accountable Care Organization (ACO) arrangement with public or private insurers
- c. Pay-for-Performance arrangement (P4P)
- d. Medicaid EHR Incentive Program (e.g., Meaningful Use, also called Promoting Interoperability Program)
- e. Merit-Based Incentive Payment System

- f. Advanced Alternative Payment Model
- g. Do not participate in any activities or programs

<i>Response</i>	<i>Number of Respondents</i>
<i>Patient Centered Medical Home (PCMH)</i>	6
<i>Accountable Care Organization (ACO)</i>	7
<i>Pay-for-Performance arrangement (P4P)</i>	6
<i>Medicaid EHR Incentive Program</i>	9
<i>Merit-Based Incentive Payment System</i>	7
<i>Advanced Alternative Payment Model</i>	0
<i>Do not participate in any activities or programs</i>	4
<i>Unable to answer/refused</i>	2
<i>Skipped</i>	1

Italicized text and text in parentheses were not read when interviewers administered this question. Because the question quickly became cumbersome to orally administer, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. The project team did so because NAMCS is a mail- and web-based survey. In those cases, the question was not always read as respondents independently read the question. However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally.

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question. Two respondents, an office staff member and a PA, were unable to provide an answer because they were unaware of any of the programs on the list. However, these respondents did not want to select “Do not participate in any activities or programs” because of their lack of knowledge of programs utilized by their reporting location.

Respondents understood this question to ask about their practice’s participation in a variety of programs that relate to practice or employee compensation. This was the case even when respondents did not recognize one or more of the programs referenced. For example, the respondent who was unable to answer explained that “I’m not aware of any of that because I’m not on that side of the medicine. I’m sure I could find out, but I’m just not aware of any of those. I know that we get compensated for RBUs and patients per hour...I get a set amount of money per hour, and then my bonus is based on how productive I am, and I really don’t hang my hat on that bonus, and that’s why I don’t look it up.” Though the respondent was unaware of any of the programs, she understood the question to relate to her or the practice’s overall financial compensation for services, specifically related to extra incentive payments.

Because respondents did not recognize every program listed, while there was no evidence of actual error, there was some evidence of potential error. Respondents generally selected the programs they recognized and did not select any others. For some respondents, this entailed only selecting programs of which they were certain of their reporting location’s participation. For example, one physician respondent selected “Accountable Care Organization,” “Pay-for-Performance arrangement,” and “Medicaid EHR Incentive Program.” This respondent understood the ACO to relate to his practice’s insurance billing, the P4P to relate to meeting “certain criteria in how we

do our documentation,” and the EHR incentive program to relate to “the government incentivizing providers to use electronic health records.” Another respondent chose only “Patient Centered Medical Home,” and explained that she “was not familiar with the other descriptors that were used. So I’m assuming that it is no to most of the others.” These respondents used their lack of knowledge of the programs as a heuristic for eliminating them from their response.

Other respondents, however, judged how to choose response options simply on recognition of some of the terms or what sometimes seemed like a desire to choose at least one option. For example, one family practice physician said, “I’m not sure, but I think b [ACO], c [P4P, d [Medicaid EHR], and e [Merit-Based Incentive Payment System].” In probing, the respondent clarified that he was certain about the practice’s participation in an ACO, but otherwise, he was “removed from those discussions [as an employee]” and was not certain about any other option he selected. For instance, he selected “Medicaid EHR Incentive Program” because his office sees Medicaid patients. Another respondent, a PA, selected “Merit-Based Incentive Payment System.” She explained that even though she selected this answer, she is unaware of any of these programs at her practice; she chose the response because she occasionally receives a bonus.

No respondents answered based on their personal participation in any of the programs; all considered their reporting location’s participation. This was evidenced by many respondents referring to other areas within their practice that make decisions about incentive program participation. As one pediatrician put it, “because I’m an employee and a faculty member I’m not part of the practice leadership. These are things that the practice leadership takes care of and the hospital takes care of.” To some extent, the respondent’s employment status—owner or employee—may condition ability to respond to this item. In the sample, both respondents who were part-owners of their practice knew about their practice’s participation in the listed incentive programs, while just under half of the employee or contractor respondents knew about their practice’s participation.

No respondents reported using the introductory text to understand “Merit-Based Incentive Payment System” or “Advanced Alternative Payment Models.”

**15. Does your reporting location report any quality measures or quality indicators to either payers or to organizations that monitor health care quality?**

- a. Yes
- b. No
- c. Don’t know

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	14
<i>No</i>	3
<i>Do not know</i>	2
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Respondents consistently understood this question as asking about practices their reporting location documents around quality, broadly defined, and if these practices are externally conveyed. To the extent that variation in interpretation existed, it lay in differing conceptions of “quality” and of the types of external reporting.

Respondents understood “quality” to refer to a wide range of related practices, procedures, and metrics on which their individual or their practice’s performance is judged. One understanding of quality related to following healthcare best practices. For instance, one respondent thought of a series of questions she is routinely asked that are reported out to the “practice leadership,” including “did you get a test before you prescribed antibiotics for strep throat, or did you prescribe antibiotics for a cold?” Another respondent focused on one key procedure in his practice and ways of measuring doing it well: “When we do colonoscopies, screening for colon cancer...quality metrics that we need to achieve are success rates, completion of the procedure, bowel prep, quality, what’s our withdrawal time on the colonoscopy, and complication rates.” Another understanding of quality related to patient experiences. One respondent thought about patient satisfaction surveys, while another considered wait times to get an appointment.

In general, the types of external reporting overlapped with the incentive programs asked about in the preceding item. For example, one family medicine practitioner explained that her Federally Qualified Health Center reported a range of quality measures including blood pressure, diabetes management, and cancer screenings to Medicaid. A dermatology PA referenced the “promoting interoperability” program she had selected in the earlier item, to which her practice reports measures like “flu shot” and “pneumonia vaccine” uptake. Finally, a pediatrician considered the Accountable Care Organization he had previously detailed and explained that his practice reports emergency room visits, clinical quality measures such as antibiotic use, and immunization rates.

Respondents generally understood this question to refer to *external* reporting of quality measures. One respondent answered “No” because while her clinic collects “data for length of time the patient stays [and] their wait time,” those measures remain internal to the clinic. There was some evidence of error: one physician who worked at a teaching hospital considered a “scorecard” she receives monthly from her employer that details various quality measures about her patients. This respondent answered “Yes” even though, from her response, there was no indication that this information was externally reported.

Finally, for respondents who engaged in both outpatient office-based care as well as inpatient care, keeping track of which practice to report on was challenging, particularly when both types of care were performed via the same reporting location. One respondent explained that it was “hard” to answer because “my brain mixes outpatient with inpatient.” However, there is no evidence of response error.

**16. The following questions concern advanced practice providers practicing at your reporting location. If the specified type of provider is not practicing at the reporting location, please check “not applicable”.**

Physician Assistant (PA)	Always	Sometimes	Never	Don’t know	Not Applicable
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Are PA(s) patients logged separately from your patients?	2	1	1	1	4
Do PA(s) bill for services using their own NPI number?	2	2	0	2	4
<b>Nurse Practitioner (NP)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don't know</b>	<b>Not Applicable</b>
Are NP(s) patients logged separately from your patients?	4	1	1	0	3
Do NP(s) bill for services using their own NPI number?	3	1	0	4	3
<b>Certified Nurse Midwife (CNM)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don't know</b>	<b>Not Applicable</b>
Are CNM(s) patients logged separately from your patients?	2	0	0	2	5
Do CNM(s) bill for services using their own NPI number?	2	0	0	2	5
<b>Clinical Nurse Specialist (CNS)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don't know</b>	<b>Not Applicable</b>
Are CNS(s) patients logged separately from your patients?	0	0	0	0	9
Do CNS(s) bill for services using their own NPI number?	0	0	0	0	9
<b>Certified Registered Nurse Anesthetists (CRNA)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don't know</b>	<b>Not Applicable</b>
Are CRNA(s) patients logged separately from your patients?	1	0	0	0	8
Do CRNA(s) bill for services using their own NPI number?	1	0	0	0	7

Only physicians who answered “Yes” to the item about provision of outpatient, office-based care received this question. For this reason, the questionnaire for physician assistants in Appendix 2 skips this question and continues numbering at the following item.

Nearly all respondents who received this question were able to provide an answer. One physician who could not provide an answer to any of the “logged separately” questions did not understand what the question meant. She said, “I can’t answer that question because I don’t understand it.”

Because the question quickly became cumbersome to orally administer, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. The project team did so because NAMCS is a mail- and web-based survey. In those cases, the question was not always read as respondents independently read the question. However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally.

Respondents understood the first question, about whether patients are “logged separately,” differently depending on their conception of “logged.” They consistently understood the second question on billing as referring to independent billing procedures by the other providers.

One conception of “logged separately” that respondents exhibited related to use of an electronic medical records system. At his practice, if PAs or NPs see patients scheduled for them, one gastroenterologist explained, “they can log in separately, chart separately, and bill separately.”

This respondent answered “Sometimes” because if these practitioners “come over from another clinic or the hospital to help out...they just start seeing patients.” In those cases, the providers do not “log in” separately. Similarly, another respondent understood “logged separately” as indicating that a provider has their own schedule and doesn’t “have to have their notes cosigned, their prescriptions cosigned...a physician does not review all their notes.”

One family medicine practitioner had a different conception of “logged separately.” This respondent pictured the medical chart for patients and imagined whether its appearance would change if the provider type changed. Because, in his mind, “all of our patients are logged equally...there would be nothing different about, at least, how the medical note looks.” Consequently, he answered “never.”

All respondents appeared to understand the questions on billing to indicate whether a provider billed independently of a supervising physician. They understood the “NPI number” to refer to a unique provider identifier that allows these practitioners to bill for services rendered on their own. Though respondents understood this question consistently, many chose “don’t know” because they were unaware of how other providers in their practice engaged in billing.

Lastly, no respondents in the sample recognized the profession “clinical nurse specialist (CNS).” CCQDER is unable to determine whether this is response error, an effect of the sample composition, or indicative of low awareness of this profession among physicians.

**17. Which of the following types of payment do you accept? SELECT ALL THAT APPLY.**

- a. Private insurance
- b. Medicare
- c. Medicaid/CHIP
- d. Workers’ compensation
- e. Self-pay
- f. No charge
- g. Other

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

All respondents understood this question to inquire about payment methods accepted by their reporting location. For example, one emergency department PA answered, “all of the above, I mean, we – again, I’m not on that side of things, but I know they accept Medicare, Medicaid, private insurance, self-pay.”

Respondents had varying interpretations of the “No charge” response option, some of which also emerged in CCQDER’s evaluation of an earlier version of this item.<sup>14</sup> Several respondents thought of pro bono work, such as seeing immigrant or refugee populations who lack insurance coverage. Some respondents struggled to conceive of a true “no charge” situation. One pediatrician, who

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<sup>14</sup> Scanlon, P. (n. 2). In Scanlon’s evaluation of the earlier item wording, respondents understood “no charge” to mean either truly free care, a sliding scale based on income, or a subset of “self-pay.”

explained that she mostly sees Medicaid patients, did not check “no charge” because she wasn’t “sure that’s truly allowed.” Another family medicine practitioner explained that, while many of her patients receive care without a co-pay, “we are not a free clinic,” because these patients must justify why they can receive no-cost care to the clinic’s financial department. Other respondents considered “a global period after surgery” during which the cost of patient follow-up visits is “included in the surgical fee.” In this conception, “no charge” meant “pre-paid.” Finally, one urgent care physician thought of circumstances where the clinic refers a patient to the hospital without performing services. In this case, the patient visited the urgent care center, but since no services were rendered, there was nothing to bill.

Respondent understandings of “Other” also varied. One respondent, a family medicine physician at a federally qualified health center, understood this to include his center’s “sliding fee scale” that he differentiated from “self-pay.” Other respondents included categories not listed like car insurance.

One response pattern with potential implications for response error was a general tendency among some respondents to respond with “All of the above” after hearing the response options. Then, upon probing, these respondents corrected their answers to only a few of the options. For example, one pediatric cardiology PA answered “All of the above,” but upon probing, realized she could not think of any “Other” payment options. An urgent care physician initially answered “all of the above” but quickly corrected her response to remove Medicaid when the Medicaid recipient is insured by a different state than that of the clinic. Because the questionnaire was interviewer-administered, it is unclear whether this tendency will recur in the mail- and web-based implementations of NAMCS.

**18. Are you currently accepting new patients at your reporting location?**

- a. Yes
- b. No
- c. Don’t know

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	18
<i>No</i>	1
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

All respondents understood this question to ask if their place of work was taking appointments for patients not currently enrolled in the practice, consistent with CCQDER’s evaluation of an earlier version of this item.<sup>15</sup> For example, one respondent, a gastroenterologist physician, explained that his practice is primarily new patients. He said, “we see them, we get a lot of referrals, and then sometimes we’re able to take care of the issue in one or two visits, and then they go back to their primary care doctor.” Another respondent, a pediatric cardiologist PA, said that her clinic also

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<sup>15</sup> Scanlon, P. (n. 2).

always accepts new patients. She explained that “we don’t get to be full...with academic centers, you always accept patients.”

**19. Does your reporting location offer COVID-19 vaccinations?**

- a. Yes
- b. No (Skip to question 21)

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	12
<i>No</i>	6
<i>Skipped</i>	2

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question. All respondents were able to provide an answer. One respondent was skipped by the interviewer because she was an office staff member.

Respondents understood this question to ask about any provision of COVID-19 vaccinations in which their reporting location is involved. Many respondents limited this solely to their direct reporting location. For example, one family medicine physician answered “No” because his practice has not “had the availability to access those.” Another respondent, an emergency department PA, answered “No” because her specific department does not administer vaccinations. As she put it, “now, the facility, the building – yes. But not our group. I do not order vaccines.” Even limited involvement in administering vaccinations appeared to be included, as in the case of one pediatric physician (who answered “Yes”) who explained that his practice does not offer COVID-19 vaccinations as part of routine well visits but does offer periodic vaccination clinics.

However, some respondents conceived of their “reporting location” more broadly. One pediatric PA answered “Yes” because, while her practice does not offer them, “within the building we do offer them...if I consider the facility at-large, they do [offer COVID-19 vaccinations].” Responses like these highlight potential inconsistencies in conception of “reporting location” across the instrument.

**20. Which vaccine do you offer at your reporting location? SELECT ALL THAT APPLY.**

- a. Moderna
- b. Johnson & Johnson/Janssen
- c. Pfizer
- d. AstraZeneca
- e. Other (please specify): \_\_\_\_\_
- f. Don’t know

All respondents who answered “Yes” to the prior item about offering COVID-19 vaccinations received this question, and all respondents were able to provide an answer.

Respondents universally understood this question to refer to the manufacturers of COVID-19 vaccines available. Pediatric providers seemed particularly knowledgeable because of limitations

on vaccine administration by manufacturer. One pediatric PA said that her practice only administers “Pfizer because it’s the only one that has been technically approved for children.”

**21. Does your reporting location use an EHR system? Do not include billing record systems.**

- a. Yes
- b. No (Skip to question 23)
- c. Don’t know (Skip to question 23)

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	19
<i>No</i>	0
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer.

Respondents consistently understood this question to refer to their practice’s use of electronic medical records. Many respondents responded to this question with the name of their electronic health record system, including Epic, Cerner, Powerchart, eClinicalWorks, and others. Respondents included electronic medical record systems that integrated billing and those that did not, but no respondents included electronic medical record systems that only were used for billing. One primary care PA explained that “most of the EMRs (sic) were actually designed to be billing systems first” and the health record portion is “just sort of strapped to it.”

<b>22. Does your reporting location use an EHR to...?</b>	Yes	No	Don’t Know
Record social determinants of health (e.g., employment, education)?	15	2	2
Record behavioral determinants of health (e.g., tobacco use, physical activity, alcohol use)?	18	0	0
Order prescriptions?	19	0	0
Send prescriptions electronically to the pharmacy?	18	0	0
Record the use of dietary supplements?	16	0	3
Are these supplements recorded in the medications record?	15	1	2

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide an answer. Because the question quickly became cumbersome to orally administer, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. The project team did so because NAMCS is a mail- and web-based survey. In those cases, the question was not always read as respondents independently read the question. However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally.

*Social and behavioral determinants of health*

Respondent understandings of the questions on EHR use to capture information on social and behavioral determinants of health were generally conditioned by the examples provided. That is, they understood social determinants of health as including patient employment and education level, and behavioral determinants of health as including patient use of tobacco and alcohol and exercise level. Respondents focused on what their patient questionnaires and electronic medical records were able to record. For example, in answering the question about social determinants of health, one pediatrician explained that her clinic has “checklists...where we ask various questions, do you have a stable housing situation, are you at risk for food insecurity, do you feel safe at home.” Similarly, a primary care physician answering about behavioral determinants of health listed the examples given and her recording of answers to depression screening questions.

Despite the examples, however, some respondents were confused about the differences between social versus behavioral determinants of health. One PA explained that to her, finding the distinction was difficult because the two terms are “enmeshed and overlapping.” Several respondents used the phrase “social history” when attempting to define “social determinants of health”; other respondents used the same phrase when defining “behavioral determinants of health.” Some respondents associated “social determinants of health” with the examples given alongside “behavioral determinants of health,” and vice versa. One respondent explained that to her, “social determinants of health” included “smoker history, family history, alcohol use, drug use” along with ethnicity and language. Similarly, another referenced “drug use, smoking use, risky behavior” as “social determinants of health.” Lastly, the terms themselves were unfamiliar to several respondents. In some cases, respondents relied on the examples to answer, but in two cases in answering the question on “social determinants of health,” respondents’ lack of knowledge of the term led them to not answer the question.

### *Prescriptions*

Respondents appeared to understand the questions on prescription ordering consistently to refer to the process by which their recommendation of medicines was communicated to pharmacies. For example, in answering the question about electronic sending of prescriptions, a few respondents referenced the (past or current) option to order a prescription and print it out or order and send a prescription electronically.

### *Dietary supplements*

Respondents had generally consistent understandings of these two questions (record use of supplements and whether supplements were recorded in the medication record). When asked if they used the EHR to record the use of dietary supplements, many respondents thought of a space in their EHR where they record medications taken. For example, one internal medicine physician explained that “if a patient takes any prescription or nonprescription medication or supplement we record it under medication list.” Respondents considered a wide range of supplements, including “vitamins,” “weight loss supplements,” “naturopathic remedies,” “protein,” “iron,” “creatine,” “homeopathic things,” and “melatonin,” among others. In most cases, respondents knew exactly where these supplements were recorded. For example, one family medicine physician explained that sometimes, he uses the medication list, and other times, he uses “the subjective history, free text,” depending on the specific medication. However, in one case, a respondent who answered

“Yes” clarified that she simply assumed she could record medications even though she wasn’t sure “where it would be in the new EHR system.”

Respondents answered “Yes” to the question on use of the medications record if dietary supplements *could* be recorded in the medications record, even if they are not done so consistently. For some respondents, dietary supplements were always recorded in the medications record, as in the case of one who said, “That’s where they’re recorded. There’s no other place to put them.” Another respondent also answered “Yes.” She then explained, “Sometimes...they can be, yes. They should be. Are they always? [laughs] Not necessarily.” Similarly, a PA respondent answered “Yes” but quickly clarified “Most of the time...there are exceptions to that.” This respondent sometimes avoided recording supplements in the medications list because of limitations of the EHR system. In these cases, he used the free text narrative to record individual supplements.

In one instance, a respondent explained that vitamins are recorded in the medications record but that she was not sure “as far as other dietary supplements.” This respondent answered “Don’t know” even though some supplements could be recorded in the medications record.

### **23. Due to COVID-19, my use of telemedicine has increased.**

- a. Yes
- b. No
- c. Don’t know

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	14
<i>No</i>	4
<i>Don’t know</i>	0
<i>Skipped</i>	2

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question. One additional respondent was skipped due to lack of time.

Generally, respondents understood this question to ask whether they practice more using telemedicine at the time of the interview than they did prior to the onset of COVID-19. This was the case even, as with many providers, if the amount of telemedicine used prior to the onset of COVID-19 was zero. Similarly, some respondents who answered “No” did so because, both prior to the onset of COVID-19 and at the time of the interview, they did not use telemedicine as part of their medical practice. As one put it, “I don’t do telemedicine, so no for me.”

In this study, respondents understood telemedicine as referring to a billable virtual encounter, usually a “real-time video conference visit,” and differentiated this from non-billable shorter phone calls. One urgent care PA explained that he only used video visits in situations where discussing lab results might necessitate a billable encounter. Similarly, a pediatrician said that, prior to the COVID-19 pandemic, her practice made phone calls “all the time,” but that these were not used “officially as medical visits.” Though her practice still only uses an audio-only platform, she included these encounters in answering the question because they are scheduled visits that address “a particular chief complaint that is then billed for.”

Respondents considered the overall amount of telemedicine they used in their practice at the time of the interview and prior to COVID-19. For example, one respondent explained that “in the past two months it’s [telemedicine use] gone down,” but he still answered “Yes” because he did not use telemedicine at all prior to COVID-19. Another respondent, a dermatology PA, explained that her use increased “for a brief period of time, but not anymore, we’re back to in person.” This respondent answered “No” because the amount of telemedicine she used at the time of the interview was the same as she used prior to the COVID-19 pandemic—none.

One respondent, a PA who works in an outpatient section of a hospital emergency department, included a “video triage” system in her conception of telemedicine. In this system, she watches the nurse’s initial interaction with the patient prior to seeing the patient and uses this to order initial scans or tests that are beyond the capabilities of the nurse. This use of telemedicine within the reporting location environment was also reported by other respondents.

**24. What type(s) of video telemedicine did you use for patient visits? CHECK ALL THAT APPLY.**

- a. Videoconference software with audio (e.g., Zoom, Webex, FaceTime)
- b. Telemedicine platform NOT integrated with EHR (e.g., Doxy.me)
- c. Telemedicine platform integrated with EHR (e.g., update clinical documentation during telemedicine visit)
- d. Other tool(s) (please specify): \_\_\_\_\_
- e. I don’t use video or telemedicine for patient visits (Skip to question 27)

<i>Response</i>	<i>Number of Respondents</i>
<i>Videoconference software with audio</i>	9
<i>Telemedicine platform NOT integrated with EHR</i>	8
<i>Telemedicine platform integrated with EHR</i>	9
<i>Other tool(s)</i>	0
<i>I don’t use video or telemedicine for patient visits</i>	1
<i>Skipped</i>	2

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question. One additional respondent was skipped based on the interviewer’s assessment of their answer to the previous item. One respondent’s response was not directly recorded.

In answering this question, respondents faced two decision points that individually affected question interpretation. First, respondents had to decide whether to only include video forms of telemedicine, even if they included audio-only forms of telemedicine in responding to the previous item on changes in telemedicine use since the onset of the COVID-19 pandemic. Second, respondents had to decide whether “did you use” included services they no longer used or services they continued to use.

*Video versus audio telemedicine*



Because the question specifies “video telemedicine,” many respondents excluded audio-only encounters they had with patients. For example, one pediatrician only answered, “Telemedicine platform NOT integrated with EHR.” Upon probing, he explained that he excluded audio-only visits. He said, “I don’t know if it counts, but in [pediatrics], we use the telephone a lot.” Similarly, a family medicine physician only answered, “Telemedicine platform NOT integrated with EHR,” even though his practice has “patients who can’t access that or there’s a technical problem, so [they] use telephone.” These respondents reported only on their use of video telemedicine services.

However, a few respondents answered according to the broader telemedicine services they used, whether video or audio. For example, one pediatric PA answered “Telemedicine platform integrated with EHR” and “Telemedicine platform NOT integrated with EHR.” Her practice used to use a video service not integrated with the EHR and has since switched to a non-video telehealth system integrated with the EHR. Though the second program is audio-only, the respondent decided to include it in her response because the question said “did you use.” Similarly, a family medicine physician checked each of the first three boxes, but, in probing, he explained that he had not yet done any video telemedicine visits.

Though no respondents pointed to this as an issue, one factor potentially leading to respondent inclusion of audio-only telemedicine is the wording of the final response option: “I don’t use video or telemedicine for patient visits.” In addition to the previous item, which did not specify video telemedicine, this response option may have led respondents to include audio telemedicine in addition to video telemedicine in their response.

#### *Past versus present use of telemedicine services*

For most respondents in this study, services they “did” use and services they continued to use were identical. These respondents did not remark on the word “did” in the question. However, some respondents were uncertain how to answer because of the inclusion of the word “did.” One respondent initially could not answer the question. She said, “You said it in past tense, like before COVID, or currently?...The ‘did’ is throwing me off, just because ‘did’ is past tense.” The interviewer rephrased the question to use “do,” and the respondent was able to answer based on her use of the Zoom video conferencing service. On the other hand, for another respondent, the word “did” allowed her to report telemedicine services she used at the onset of the pandemic but no longer uses.

#### **25. In a typical week, how many of your visits use video telemedicine?**

- a. None
- b. Some
- c. Most
- d. All

<i>Response</i>	<i>Number of Respondents</i>
<i>None</i>	5
<i>Some</i>	11
<i>Most</i>	1
<i>All</i>	0

*Skipped* | 3

All respondents who provided a form of telemedicine in the preceding item were asked this question, and all respondents were able to provide an answer.

Respondents understood this question to refer to a week without any exceptional circumstances, such as a large surge in COVID-19 cases, that might distort their usual appointment patterns. Many respondents appeared to understand a “typical week” through reference to atypical weeks. For example, one respondent, who answered “Some,” explained that “in the height of COVID,” she conducted around three telemedicine visits per week. At the time of the interview, however, she only had “rarely one” visit. Other respondents also compared their current lower volume with higher volume closer to the onset of the COVID-19 pandemic.

Within this context of a “typical week,” respondents then interpreted the question as asking about their personal visits. This was not always immediately clear to respondents. One family medicine physician heard the question and reacted by saying, “And we’re asking specifically about me rather than my practice?” All respondents who were initially uncertain how to answer opted to answer about their own visits and not about their practice’s visits.

Finally, some respondents understood the question to ask about video visits only, while others, as in the preceding item on telemedicine media used, included audio-only visits. One respondent, who answered “None,” excluded her one-to-two phone telemedicine visits per week. In contrast, another respondent answered “Some” because about a quarter of her patients are through phone visits, not video visits.

### *Response options*

Respondents had consistent understandings of the response options. Those in this study thought “None” truly meant zero telemedicine visits per week. One gastroenterologist, for example, compared his schedule “during the pandemic,” when he conducted around twenty percent of his visits by televideo, with his schedule now, which includes “almost zero” televideo visits. Respondents thought “Some” effectively meant at least one consistent visit per week, but less than half of all visits, or as one primary care physician put it, “always less than half...maybe a third or a quarter.” “Most” included more than half of visits, as in the case of one emergency department PA who used televideo in nearly all situations for triage but decided that the rare exceptions to this use justified saying “Most” instead of “All.” No respondents answered “All.”

### **26. Please rate your overall satisfaction with using video telemedicine for patient visits.**

- a. Very satisfied
- b. Somewhat satisfied
- c. Neither satisfied nor dissatisfied
- d. Somewhat dissatisfied
- e. Very dissatisfied

<i>Response</i>	<i>Number of Respondents</i>
<i>Very satisfied</i>	3

<i>Somewhat satisfied</i>	8
<i>Neither satisfied nor dissatisfied</i>	1
<i>Somewhat dissatisfied</i>	1
<i>Very dissatisfied</i>	2
<i>Skipped</i>	3
<i>Refused</i>	2

All respondents who provided a form of telemedicine in the item about modes of telemedicine used were asked this question, and most respondents were able to provide an answer. One respondent, an office staff member, felt she was unable to respond as a proxy to this question. Another respondent, a family medicine physician, decided she could not answer because she used audio-only telemedicine.

Respondents understood this question to ask about their feelings about the use of telemedicine in their medical practice, but they interpreted the term “satisfaction” in two distinct ways. In the first conception, respondents set upper and/or lower bounds for their maximum and/or minimum satisfaction with telemedicine. For example, one family practice PA initially said “Satisfied.” When the interviewer re-read the options, the respondent clarified that she meant “the second one from the top,” or “Somewhat satisfied.” This respondent felt she could not answer “Very satisfied” because “there’s nothing that [telemedicine] can improve on its own. If I could physically touch, like that’s the only complaint I have is physically being there.” To this and other respondents, telemedicine visits could never reach the quality, and thus the satisfaction, of in-person visits. Conversely, one dermatology PA answered “Neither satisfied nor dissatisfied” after having specified several issues with telemedicine in responding to prior items. This respondent explained her answer by saying, “At the end of the day, you still want to be able to keep up with your patients. Some care is better than none. So it was better than nothing.” This respondent compared telemedicine with no care at all. With this comparison in mind, the respondent felt she could not indicate dissatisfaction when she was at least able to provide some care.

At times, respondents thought of both upper and lower bounds at once, as in the case of one pediatric cardiology PA who answered “Somewhat satisfied.” This respondent felt she could not answer “Very satisfied” because of

the risk of poor communication secondary to technological difficulties, whether that’s the parent not being competent enough, and/or the signal not being good enough, but the glitches just create concern for misinformation or not getting all the information that then subsequently could change the delivery and quality of care.

However, in the context of disruptions to service because of the COVID-19 pandemic, she also felt unable to choose a less-than-satisfied option because

it did provide an avenue for patients to still get care where families were maybe very anxious or apprehensive about being exposed in a clinic with other patients. And I felt like at least care in a limited capacity was better than no care at all.

This respondent understood her satisfaction by both comparing telemedicine to a gold-standard in-person visit and to the potential reality of no care provision without telemedicine access. This conception limited her ability to choose between responses.

In the second conception of satisfaction, respondents holistically examined telemedicine without reference to in-person care or to no care at all. Those who understood satisfaction in this way interpreted the question as: thinking of telemedicine only, how satisfied are you? In doing so, these respondents referenced characteristics unique to telemedicine that affected their satisfaction in positive or negative ways, such as efficiency and convenience for patients, cumbersome systems, time lost reaching patients and “explain[ing] the process to them every time,” or the “freedom not to come into the office when [patients] don’t really need to.” One respondent, a pediatric PA, was emblematic of this understanding of satisfaction. She answered “Very satisfied” because, in her understanding, telemedicine “typically accomplished the goal of the call.” If telemedicine accomplished the goal of a medical visit, then she could be satisfied.

**27. What, if any, issues affect your use of video telemedicine? SELECT ALL THAT APPLY.**

- a. Limited Internet access and/or speed issues
- b. Telemedicine platform not easy to use
- c. Telemedicine isn’t appropriate for my specialty/type of patients
- d. Improved reimbursement and relaxation of rules related to use of telemedicine visits
- e. Limitations in patients’ access to technology (e.g., smartphone, computer, tablet, Internet)
- f. Patients’ difficulty using technology/telemedicine platform

<i>Response</i>	<i>Number of Respondents</i>
<i>Limited Internet access and/or speed issues</i>	10
<i>Telemedicine platform not easy to use</i>	5
<i>Telemedicine isn’t appropriate for my specialty/type of patients</i>	7
<i>Improved reimbursement and relaxation of rules related to use of telemedicine visits</i>	6
<i>Limitations in patients’ access to technology</i>	12
<i>Patients’ difficulty using technology/telemedicine platform</i>	12
<i>Skipped</i>	4
<i>Refused</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question. Two respondents were proactively skipped by interviewers. One respondent was skipped because the interviewer ran out of time. One respondent, a pediatrician, was unable to answer because she felt the question was inapplicable to her experience. As she put it, “All of my visits are scheduled as in person because I’m doing well checks and newborn visits and things where the patient needs to arrive.”

This item appeared closely related to the prior question on satisfaction with telemedicine. However, because of the nature of most of the response options, respondents generally understood

this item as a probe only of dissatisfaction with telemedicine. For example, after hearing the question and response options, one family medicine physician reacted by saying, “These are things that limit our ability to use [telemedicine]?” This respondent understood “issues” as impediments to his, or his practice’s, use of telemedicine. Respondents’ reactions to response option d), “Improved reimbursement and relaxation of rules related to use of telemedicine visits,” further illustrated this understanding. One primary care physician paused when she heard this option and said, “Umm, that’s been helpful. It’s not a limitation.” The inclusion of a positive “issue” seemed out of place to this and other respondents.

A few respondents noted difficulty choosing response options because their experience with patients using telemedicine varied. For example, when one emergency medicine PA heard the response option, “Telemedicine isn’t appropriate for my specialty/type of patients,” she tossed her head back and forth and said “It’s not a yes or no question. Strokes, there are certain physical aspects that I’m not able to fully evaluate. Broken ankle, I can’t press on – it’s just hard...I would say yes in terms of, I can see them through the screen and do an evaluation, but I can’t do a 100%, head to toe evaluation.” For this respondent, that was “enough to circle yes,” but choosing this response option was not immediately apparent.

**28. Do you see patients at your reporting location during the evening or on weekends?**

- a. Yes
- b. No
- c. Don’t know

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	8
<i>No</i>	11
<i>Don’t know</i>	0
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide a response.

All respondents understood this question to refer to regular outpatient care taking place in the evening or outside of the Monday-Friday work week. For example, one respondent, a gastroenterologist, answered “No” because he only sees patients on the weekends if he covers shifts at a local hospital. Because this happens infrequently and is inpatient, this respondent excluded these visits. Similarly, one internal medicine physician answered “No” because her practice is not open on the evenings or on weekends; she also excluded her early morning telemedicine visits.

Respondents further understood the concept of “seeing patients” in two ways. On the one hand, some respondents thought the question asked about their personal medical practice at their reporting location. One respondent, a family practice PA, explained that she works half days on Saturday. On the other hand, some respondents thought the question asked about their reporting location’s hours. Those who understood the question in this way interpreted the word “you” to collectively mean the practice’s medical professionals as a whole. For example, one neurology PA

said that her practice sees patients only between 8 a.m. and 4 p.m., “no exceptions.” Another respondent, a pediatric PA, thought of her group’s behavior as a whole and explained that her practice does not see patients in the evenings or on weekends.

**29. Does your reporting location set time aside for same day appointments?**

- a. Yes
- b. No
- c. Don’t know

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	16
<i>No</i>	3
<i>Don’t know</i>	0
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide a response.

Respondents understood this item to ask about their reporting location’s appointment practices. In general, respondents referenced the number of same-day appointments available—if they knew—or their approach to urgent needs. Because of the nature of their practices, respondents who worked in urgent care or emergency settings found this question unnecessary but were still able to respond. Unlike in the previous item, respondents did not differentiate between their same-day appointment practices and their reporting location’s same-day appointment practices.

One respondent who answered “No” explained that he did so because his reporting location did not need to set time aside for same-day appointments since time was always available on the schedule. This respondent, a PA who works in an adult primary care setting, did not consider consistent same-day availability to be the same as setting “time aside.”

**30. On average, about how long does it take to get an appointment for a routine medical exam?**

- a. Within 1 week
- b. 1-2 weeks
- c. 3-4 weeks
- d. 1-2 months
- e. 3 or more months
- f. Do not provide routine medical exams
- g. Don't know

<i>Response</i>	<i>Number of Respondents</i>
<i>Within 1 week</i>	3
<i>1-2 weeks</i>	5
<i>3-4 weeks</i>	3
<i>1-2 months</i>	1
<i>3 or more months</i>	1

<i>Do not provide routine medical exams</i>	5
<i>Don't know</i>	1
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide a response.

Respondent interpretations of this item varied according to their understanding of the phrase “routine medical exam.” One group of respondents understood this to mean, as one family medicine physician put it, “routine health maintenance, preventive care.” Respondents who understood “routine medical exam” in this way referenced “a physical or an annual wellness visit” or a “well child exam.” Some respondents who answered “Do not provide routine medical exams” did so because they conceived of “routine medical exam” in this way. For example, one PA who worked in an outpatient wing of a hospital emergency department explained that her reporting location sees many patients who come in “without primary care physicians but...need, like, work health forms filled out.” Another respondent, a pediatric infectious disease physician, answered “Do not provide routine medical exams” because the clinic only sees “infectious disease patients.” This respondent implicitly articulated an interpretation of “routine medical exam” akin to the “physical” or “well visit” interpretation.

A second group of respondents understood “routine medical exam” as “routine for our practice.” These respondents included various types of exams common in their specialty. For example, a pediatric cardiology PA included new patient visits that dealt with “run-of-the-mill heart complaints” of “chest pain, syncope [fainting], near syncope, dizziness, [or] palpitations.” Similarly, a dermatology PA thought of a “total body skin exam” performed by a “general dermatologist..” Finally, a primary care physician included any exam that was unrelated to “acute sickness.” To her, a “routine medical exam” was broader than an annual well visit and included medication refills or vaccinations.

A last interpretation of “routine medical exam” was a medical visit that addressed typical patient conditions within the scope of the practice. For example, a family medicine physician referenced two kinds of “routine medical exams”: a “full kind of physical exam” and a “routine medical exam that’s specific to a problem the patient had.” The first would take months to schedule, the second would take less than a week; this respondent, consequently, answered “Within 1 week.” To respondents in this group, “routine medical exams” were routine if they dealt with complaints regularly seen by the practice.

### *Calculating response options*

In general, respondents indicated that they averaged estimated wait times to arrive at an answer. For example, one family practice PA said that wait times depended on the provider. She said, “Certain providers, you can get in within a week. Others, you’re looking at three to four weeks, maybe a month or two.” This respondent answered “3-4 weeks” and chose that answer based on averaging everyone, even though she “wouldn’t be happy with that answer” since it did not convey variance between providers at the reporting location. Similarly, a pediatrician explained that “it varies greatly by whom [patients] are trying to schedule with.” She chose “1-2 weeks” but

emphasized that this was only the case “on average” if patients were flexible on which provider they saw.

The method of choosing between response options illustrates one additional facet of this question that varied between respondents: whether they understood the question as about them specifically or about their reporting location as a whole. One pediatrician initially answered “2-3 months,” because, to see him, it might take more than three months, but to see anyone at the practice, it would take 1-2 months. This respondent, as well as others at multi-provider practices for whom appointment wait times varied by provider, was not immediately certain whether to answer about him, personally, at his reporting location, or about all providers at his reporting location.

Finally, one respondent, a pediatrician, answered “Don’t know” because appointment times varied based on patient characteristics. She said, “for a newborn it would be same day or the next day; for a 14-year-old it might be two months.”

### **31. Are you fluent in a language besides English?**

- a. Yes
- b. No

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	3
<i>No</i>	15
<i>Skipped</i>	2

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide a response. One additional respondent was skipped because she was an office staff member.

In general, respondents understood this question to ask whether they were able to treat patients in all situations without assistance while speaking another language. Respondents who answered “No” had varying conceptions of fluency against which they measured themselves. One internal medicine physician said that to be fluent, “you should be able to express thoughts and emotions” in a language. While she spoke some French, she didn’t consider herself “proficient enough to converse with someone like a patient.” Other respondents echoed this conception of fluency as something higher than some conversational abilities. One pediatric PA explained that she is conversational in Spanish enough to communicate in brief sick visits or phone calls with lab results or to write patient instructions. However, she still relies on professional interpreters for complex visits in which she isn’t sure she would know the “proper vocabulary or words” for patient communication.

Respondents who answered “Yes,” however, seemed to have a self-evident understanding of fluency; that is, their fluency was obvious to them and did not need justification. One pediatrician said that he spoke Creole and French and uses those skills with patients. Another respondent, a primary care physician, said that she was fluent in American sign language and uses it with deaf patients. These respondents treated their language skills and ability to practice as incontrovertible;



they did not point to any limitations on their use of second languages or situations in which additional support would be needed.

One respondent, a pediatrician, understood this question to ask if she was permitted to practice in a language other than her birth tongue. In her case, she could not because her reporting location does not allow medical professionals “to practice in a language that [they] are not certified in as a medical interpreter.”

CCQDER’s previous evaluation of this item was accompanied by a separate item that read “How many languages, other than English, do you feel comfortable enough to provide health care services?” Because of this accompanying text, earlier evaluation found that some respondents understood “fluent” to refer to the ability to practice in a language, even if one cannot “dream” or “conduct full conversations” in that language.<sup>16</sup> In the present study, with no accompanying item, respondents who were proficient in languages—even those that used those languages as part of their medical practice—appeared to have a narrower conception of fluency, as outlined above.

**32. How many of your patients have limited English proficiency?**

- a. None (Skip to question 35)
- b. Some
- c. Most
- d. All
- e. Don’t know

<i>Response</i>	<i>Number of Respondents</i>
<i>None</i>	0
<i>Some</i>	19
<i>Most</i>	0
<i>All</i>	0
<i>Don’t know</i>	0
<i>Skipped</i>	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question, and all respondents were able to provide a response.

Respondents consistently understood this item to ask about interactions with patients whose English abilities left them unable to participate in a medical appointment. For example, one pediatric PA explained that in considering her answer, she thought of people “who would not understand if we had a conversation about a basic concept. Like if I would be worried that they would not understand my instructions.” Another respondent, a primary care physician, thought of people who would require translation services.

*You versus your “reporting location”*

Respondent understandings of this question depended on who they thought the question referred to. Some respondents discussed their own patients, referring to “all three of the patients I have” or

<sup>16</sup> Salvaggio, M., and Dunston, S. (n. 2).

counted the number of people they had personally seen. These respondents understood the question to ask about their patients at their reporting location. Other respondents discussed “our patients” or, for patients with a practice spread across multiple sites, the specific site at which they worked. These latter respondents understood the question to ask about the share of their reporting location’s patients, beyond their own personal medical practice experiences.

### *Response options*

In general, respondents understood the response options to divide into four groups: none, meaning no interactions, ever, with patients with limited English proficiency; some, meaning less than 50% of interactions; most, meaning more than 50% but less than all interactions; and all, meaning every patient interaction. Several respondents offered percentage point estimates of the share of their patients that they categorized as having limited English proficiency. One primary care PA’s response was emblematic of most respondents. To him, “Some” meant “definitely not zero but...not the majority either.”

### *Specialty*

Some pediatricians and pediatric PAs indicated that they understood this question to refer to their interactions with parents as well as, or even more often than, children. For example, one pediatric PA explained that “even if the child has better English proficiency, I’m directing most of the questions, until children reach a certain age, to the parents.” Respondents who understood the question in this way had a broader conception of “patient” than the immediate person being treated.

### *Reference period*

The reference period for this question was left unstated. In general, respondents did not elaborate on how they came to an answer, but some respondents referred to the number of patients they saw in a year or a month.

<b>33. When you use interpreters, how often do you use each type?</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
Staff/contractor trained as a medical interpreter	8	2	4	5
Bilingual Staff	0	6	4	8
Patient’s relative or friend	5	6	5	3

All respondents who answered “Yes” to the item about patient English proficiency received this item, and all respondents were able to provide a response. Because the question quickly became cumbersome to orally administer, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. The project team did so because NAMCS is a mail- and web-based survey. In those cases, the question was not always read as respondents independently read the question. However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally.

Respondents understood this question to ask about the people used to assist in patient visits. When asked about staff or contractors trained as medical interpreters, respondents considered paid professional interpreters available on-site or, sometimes, available through telephone or video-based translation services. One respondent, who answered “Often,” outlined the services available at her practice:

So we have two options. We have an iPad Stratus video that does video and audio for like 100 languages, including sign language, Urdu...Our interpreters that are in-house are limited to the common most-utilized other languages, so Spanish being the big one.

This respondent included both in-person interpretation and virtual translation services when answering the question. However, some respondents were uncertain whether to count virtual services when responding. One, who also answered “Often,” said,

It would be always for Spanish, but if it’s another language then I would need a video or a telephone...I guess what confused me is that we have in-person interpretation and then we also have, like, telephone. You weren’t asking about that, right?

Another respondent explained that her office has an “iPad on wheels” that works with a contracted service to link patients with virtual interpretation services for in-office visits. While this provider’s practice used the service often when interacting with patients with limited English, she answered “Rarely” because to her, the iPad-based service did not count as a “staff/contractor.” In this instance, the exclusion of virtual interpretation services led to undercounting.

When asked about bilingual staff, respondents commonly thought of office staff or other providers at their practice. Sometimes, respondents included these personnel under both “Staff/contractor trained as a medical interpreter” and “Bilingual staff.” One, who answered “Rarely” to “Staff/contractor trained as a medical interpreter” and “Sometimes” to “Bilingual staff,” said that “we do have some office staff who translate” but did not specify whether these staff were trained interpreters. Another answered “Sometimes” to both “Staff/contractor trained as a medical interpreter” and “Bilingual staff.” She considered Spanish-speaking providers employed on-site in answering both questions. All bilingual respondents in this study did not include themselves as bilingual staff when responding.

In answering about the use of patient relatives or friends, some respondents were careful to note patient rights to interpretation services or their practice’s discouraging of the use of patient friends or family. Despite this negative association of the use of patient relatives or friends, however, many respondents pointed to specific circumstances in which patient friends or relatives were relied on for language interpretation, including when patients “prefer” it, when visits are broken up into different procedures, during some of which interpreters can’t be easily called, if a patient has come with someone to help interpret, or for assistance with a couple words for providers proficient, but not fluent, in another language.

As in the case of other items on this instrument, respondents variably answered about their own use of interpretation services or their reporting location’s use of interpretation services. For example, one family medicine physician answered “Often” to “Staff/contractor trained as a

medical interpreter.” He explained that this answer referred “specifically to for me in my situation of having fairly good but not fluent Spanish...if I was answering for the organization as a whole, I would say that we seldom use staff for interpretation.” However, most respondents in this study referred to the practice’s use of staff or contractors, bilingual staff, or patient relatives or friends. An internal medicine physician interviewed said that “*we specifically use a, like a, I don’t know what it is, it’s another business, like a call line*” (emphasis added). In these cases, respondents appeared to answer for their own and their colleagues’ use.

CCQDER evaluated a similar item for inclusion on a NAMCS supplement in 2016.<sup>17</sup> This item was preceded by a filter question, “Do you use interpreters when working with patients who have limited English proficiency?” Additionally, the types of interpreters inquired about did not include bilingual staff and separated out “Trained staff” from “Contractor.” The item evaluated in this study functioned similarly, but by separating “Bilingual staff” from “Staff/contractor trained as a medical interpreter,” it captured additional variation, as the prior item did not consistently capture staff with formal interpretation training. Neither item consistently prompted respondents to include or exclude virtual interpretation services.

**34. What types of materials, in language(s) other than English, are available to your patients? SELECT ALL THAT APPLY.**

- a. Wellness/Illness related education
- b. Patient rights/Informed consent documents
- c. Advanced directives
- d. Payment
- e. Care plan
- f. Other (please specify): \_\_\_\_\_
- g. No translated materials are available to my patients

<i>Response</i>	<i>Number of Respondents</i>
<i>Wellness/Illness related education</i>	14
<i>Patient rights/Informed consent documents</i>	15
<i>Advanced directives</i>	9
<i>Payment</i>	11
<i>Care plan</i>	13
<i>Other</i>	1
<i>No translated materials are available to my patients</i>	2
<i>Skipped</i>	2
<i>Don’t know/refused</i>	1

All respondents who answered “Yes” to the item about patient English proficiency received this item. One respondent skipped this question because of lack of time, and one respondent, an office staff member, felt she could not answer the question. The respondent who answered “Other” specified “postoperative instructions.”

Respondents consistently understood this question to ask about materials accessible to patients in at least one language other than English. All respondents in this study selected an option when

<sup>17</sup> Salvaggio, M., and Dunston, S. (n. 2).

materials were available in at least one non-English language, usually Spanish. For example, one respondent initially reacted to the question by asking, “Is this any language or every language that I might need?” Because her practice had “almost everything available in Spanish,” she decided to select all of the options except “Other” and “No translated materials are available to my patients.” Many other respondents specified the language or languages in which materials were available. However, respondents conceived of “available” in different ways. Some only discussed written materials handed out at the practice, as in the case of one respondent who selected “Wellness/illness related education,” “Patient rights/informed consent documents,” “Care plan,” and “Payment” and specified printed material in English and Spanish. Others, however, included material available electronically. One respondent who selected “Wellness/illness related education,” “Patient rights/informed consent documents,” “Advanced directives,” and “Care plan,” explained that in the patient electronic medical record, “there is a toggle for all those forms...you can go into another language if you need to.” Still others included material available to patients via the websites of external entities; a pediatrician referenced vaccine information available in different languages on the Centers for Disease Control and Prevention website.

Most response options appeared clear to respondents in this study. However, one respondent was not sure what items a “Care plan” included and was uncertain where to specify patient instructions or medication instructions. In prior evaluation of this item, CCQDER similarly found uncertainty associated with the term “Care plan” from some respondents.<sup>18</sup> Other respondents felt unable to answer about payment materials because they are not involved in the billing side of their practice.

**35. What information does your reporting location record on your patients’ characteristics? SELECT ALL THAT APPLY.**

- a. Nationality/Nativity
- b. Patient’s primary language
- c. Sexual orientation/gender identity
- d. Race/Ethnicity
- e. Religion
- f. Income
- g. Education
- h. Other (please specify): \_\_\_\_\_
- i. We do not collect information related to patient characteristics.

<i>Response</i>	<i>Number of Respondents</i>
<i>Nationality/nativity</i>	11
<i>Patient’s primary language</i>	16
<i>Sexual orientation/gender identity</i>	15
<i>Race/Ethnicity</i>	15
<i>Religion</i>	5
<i>Income</i>	6
<i>Education</i>	10
<i>Other</i>	4
<i>We do not collect information related to patient characteristics</i>	5
<i>Skipped</i>	3

<sup>18</sup> Salvaggio, M., and Dunston, S. (n. 2).

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question. Two respondents skipped this question because of lack of time.

In general, respondents understood this question to ask about a “face sheet” or “intake form” that patients fill out as part of their electronic medical record or on paper to be manually entered into their electronic medical record. For many respondents, this question evoked a mental image. As one put it, “I’m just like, looking at their demographic sheet in my mind.” Another respondent referenced “a specific place in EPIC [an electronic health record system] where it records their name, their phone number, who their parents are...and then in the medical record we would have these other things,” by which she meant race, ethnicity, and patient primary language.

The response options were clear to all respondents, although not all respondents identified each as relevant to their work or as what they record about their patients. In particular, a few respondents noted that sexual orientation and gender identity are asked independently, and one may be asked without the other. One pediatric PA explained that in the electronic health record, sex assigned at birth and gender identity are asked separately, while one primary care physician said that her practice records the gender identity of patients but not their sexual orientation. The first respondent did not select “Sexual orientation/gender identity,” while the second respondent did.

Respondents who answered “Other” included patients’ preferred pronouns, family size, information on developmental delays, method of contact, occupation, and sex or “gender assigned at birth.”

<b>36. When treating your patients, how often do you consider...CHECK ALL THAT APPLY.</b>	Often	Sometimes	Rarely	Never
Race/Ethnicity	4	8	2	1
Sexual orientation/gender identity	6	6	1	3
Religion	1	5	6	3
Income	5	4	2	4
Education	4	6	4	2
Household environment/safety	8	4	3	1
Other cultural factors such as health beliefs, customs, values	6	8	1	1

All respondents who answered “Yes” to the item about provision of outpatient, office-based care received this question. Because the question quickly became cumbersome to orally administer, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. The project team did so because NAMCS is a mail- and web-based survey. In those cases, the question was not always read as respondents independently read the question. However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally.

In prior evaluation of culture and language questions to be included on the NAMCS, CCQDER evaluated a version of this question that only asked about race and ethnicity and “other cultural

factors” in the context of several aspects of medical care provision.<sup>19</sup> The current item adds five additional categories and removes wording referencing aspects of medical care provision. As such, it substantially differs from the prior version to not be easily comparable.

Most respondents were able to provide a response to this item. However, two respondents refused to answer the entire item, one because she was an office staff member and uncertain how providers thought of each characteristic in their treatment plan, and one family medicine physician who felt the question was too difficult to answer because of variations in treatment and differing patient circumstances. One additional respondent was skipped because of lack of time for all questions, and one additional respondent refused to answer the question on race and ethnicity because she was “not sure how to answer that one appropriately.”

The two respondents who refused to answer either the entire item or one of the grid response options considered this question sensitive and impossible to answer or even understand. One pediatrician heard the question and said, when she was asked about race and ethnicity, “I feel like that’s a very loaded question. I’m not sure how to answer that one appropriately.” This respondent could not decide if the question was asking if she thought about race “in a way to help [the patient’s] medical care or in a way that makes me more or less biased.” She opted to leave the question on race and ethnicity blank, although she answered the other choices. Another respondent, a family medicine physician, said that “in planning actual treatment, it’s a hard question to answer.” While the various characteristics “frame a health topic” for her, the respondent initially heard the question as asking if she discriminated between her patients. This respondent opted to leave the entire grid blank.

### *Item interpretations*

Respondents understood this question in four distinct ways. First, one group of respondents understood this item as asking about differential treatment patterns. For example, many respondents understood the question about race or ethnicity to their treatment of races or ethnic groups that, as one gastroenterologist who answered “Sometimes” put it, “are genetically predisposed to have certain conditions.” Similarly, one family practice PA who answered “Sometimes” explained that “certain races or ethnicities have different medical conditions that are more common to them than others. And there are certain treatments that are based on race, ethnicity because they work better.” For other characteristics, these respondents similarly relied on conceptions that highlighted differences in medical treatment, including “biologic differences...[affecting] whether someone with the anatomic parts needs a pap smear” (sexual orientation/gender identity), refusal of blood transfusions (religion), perceived ability to pay for medications (income), perceived ability to understand medical instructions (education), and risk of falling due to age (household environment/safety). Respondents who understood the questions in this way generally answered something other than “never” when they could conceive of offering different medical treatment to certain patients who differed from an implicit reference group specific to each characteristic.

Second, a separate group of respondents understood this item to ask if they relied on certain stereotypes in dealing with their patients. This differed from the previous interpretation, in which

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<sup>19</sup> Salvaggio, M., and Dunston, S. (n. 2).

respondents understood the item to ask about differential medical treatment by certain characteristics, because these respondents did not discuss changes to their medical treatment, such as considering different medical diagnoses, by patient characteristic. Rather, they described their manner of engagement with various different types of patients. For example, one pediatric cardiology PA explained that she engaged in “almost like profiling...just knowing that Hispanic populations tend to have a lot of people in the home, so they maybe have more support. Or you worry the opposite where family is not in the country or in the state, so maybe they’ll be more isolated.” Similarly, another respondent, an urgent care physician, explained that “you don’t think about [considering characteristics], you just do it.” As an example, she added that she had to be “gentle” in how she cared for Muslim women and that this was “built into [her] thought process.”

Third, another group of respondents heard this question and understood it as asking if they were striving for equitable treatment of patients. In this understanding, the question was not asking about differential medical treatment because of characteristic-associated medical conditions, or about the use of stereotypes in developing a bedside manner, but about using their medical practice to compensate for existing health disparities. For example, one pediatrician who answered “Rarely” to the item about race and ethnicity initially considered differential treatment based on racially-associated medical conditions. However, upon reflection, she said that her reporting location is “trying to do a better job of recognizing structural racism and addressing health equity as well,” although she could not give any specific examples from her practice. Similarly, another pediatrician, in the context of sexual orientation and gender identity, described his efforts to make “sure that all of our patients feel safe and heard and that they know that there is a place that they can come to where they feel comfortable.”

Finally, the last group of respondents understood this item to ask if they discriminated against patients based on the identified characteristic. Because respondents viewed discrimination negatively, they answered “Never” to most or all of these characteristics. For example, one family practice physician, who answered “Never” to the race/ethnicity characteristic, explained that he “might consider race only in that there’s certain diseases that are maybe race-prominent”—the “differential treatment” interpretation. But, he said, he answered “never” because “I just try to treat the problem, the person, and I really try to never let that be at the front of mind at all for me.” Similarly, a dermatology PA explained that sexual orientation and gender identity, religion, and income do not affect her practice. She said,

It doesn’t necessarily play a role if you identify as male or female, if you’re Christian, Jew, Buddhist, if you make zero dollars or a million dollars. I just don’t feel like those things change my approach to patient care in terms of me looking at the skin, and as a person, I don’t think that those things are something that would change your medical outcome in my practice.

Respondents like these understood the question to ask if certain patient characteristics negatively impacted their treatment—in other words, to ask if the respondent’s medical care provision was biased. Because of this interpretation, these respondents thought that “Never” taking these characteristics into consideration was the desirable response.



The survey responses themselves—whether respondents answered “Often,” “Sometimes,” “Rarely,” or “Never”—are not a consistent indicator of which interpretation respondents held. Additionally, some respondents understood the question differently when applied to different characteristics. For example, one family medicine physician understood the question, when applied to race or ethnicity (where he answered “Often”), to ask about equitable treatment. He said, “My Latinx patients have very different traditional diet, for instance, than my African-American patients or my Polish patients,” which impacts his use of non-pharmacological interventions. However, when applying the item to income (where he also answered “Often”), he thought of the impact of patient financial status on his decision to prescribe certain treatments. As he put it, “it’s going to be harder for me to get an MRI for [patients without health insurance] than it is for somebody with commercial insurance.” This respondent “Often” considered different patient characteristics in his approach to medical care. However, the way he conceived of using these characteristics differed even within the same survey item.

### *Use of reference group*

Most, but not all, respondents understood this item to ask about their treatment of people who differed from an implicit reference group specific to each category. This meant that, when applying the item to race/ethnicity, respondents did not generally answer considering how they treated non-Hispanic White patients; for sexual orientation and gender identity, cisgender or straight patients; for religion, Christian patients; for income, insured patients; for education, patients with higher education qualifications. Because respondents tended to exclude those interactions from how they came to their response, the item functioned not as a measure of consideration of various characteristics in treatment but as an estimate for how often respondents encountered patients who diverged from the reference group.

Sometimes respondents said this directly. One emergency department PA explained that if a patient is “having a GU [genital/urinary] complaint, and if they’ve had sex reassignment surgery, those kind of things, that’s gonna play a significant...[role].” For patients who have not had sex reassignment surgery, this respondent did not take sexual orientation or gender identity into account. She went on to clarify that she chose her answers (for all characteristics, either “Sometimes” or “Rarely”) by “my patient population, how often I see a patient of that category.” Similarly, one primary care physician found answering about sexual orientation and gender identity “hard...to answer because I don’t have that many transgender patients. So for those patients, it’s often...but in my day it’s not that often.” Again, for this respondent, the question functioned as a prevalence indicator of how often she saw patients who diverged from an implicit reference group.

For other respondents, however, this function was implicit in how they came to justify their answers. Many respondents answered that they considered a characteristic only when they found it pertinent. One pediatric PA answered “Rarely” to the race/ethnicity characteristic because she only thought of “a situation where [the characteristic] is relevant.” In answering in this way, this respondent demonstrated that she understood the question to ask about how often she thought the race or ethnicity was relevant—and for members of the implicit reference group, race or ethnicity was never a relevant consideration. Similarly, a family practice physician, who answered “Sometimes” to the religion characteristic, explained that he

found it to have less direct impact of my patients. And that may be because my patient practice is skewed towards Christian religion. I do not have many Muslim patients, Hindu patients, Jewish patients...this might be my own bias based on my experience. I find, most of my patients, it seems like the religion does not affect how I take care of them.

This respondent understood religion to not affect his medical care provision when the patient's religion was Christianity. Because he has many Christian patients, and only a few non-Christian ones, he answered "Sometimes" as an indicator of prevalence of non-Christian religion among his patient population.

This tendency to exclude patient interactions with members of a characteristic-specific implicit reference group when answering was not universal, however. One pediatrician understood the question more holistically. He said, "The reality is that I consider every one of those things with every patient interaction, but I have to decide from my perspective what is relevant and, of course, what the patient is telling me that they find relevant." For this respondent, the question prompted him to realize he always considers each characteristic and then uses the results of that consideration in making care decisions.

#### *Other factors*

Respondents shared a wide variety of examples under the "Other cultural factors" characteristic. In this sample, some of the most common factors included were patient use of complementary and alternative medicinal practices, especially non-Western medicine, patient disbelief in treatment decisions, and patient hesitancy or opposition to vaccines. Interestingly, many respondents cited patient religious opposition to blood transfusions here, even if they answered "Never" or "Rarely" to the religion characteristic. For example, one gastroenterologist answered "Never" for religion and "Often" for "Other cultural factors. He explained that "you gotta take into consideration what the patient's beliefs are and what they are willing to do. For instance, Jehovah's Witnesses do not accept blood transfusions." For this respondent and for others, the opposition to blood transfusions may have been more properly categorized as one of a set of "health beliefs, customs, [or] values" than under religion, even though the belief derives from religion.

### **37. Do you currently treat any patients for pain?**

- a. Yes
- b. No (Skip to question 44)
- c. Don't know (Skip to question 44)

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	7
<i>No</i>	4
<i>Don't know</i>	0
<i>Skipped</i>	1
<i>Refused/unable to provide response</i>	1

The next set of questions, beginning with this item on pain treatment, was only offered to physicians who answered “Yes” to the item about provision of outpatient, office-based care. It was preceded by a header that read “Physician Only: Pain Treatment and Treatment with Opioids.” CCQDER conducted extensive cognitive testing of questions on opioid prescription and practices with physicians and physician assistants in 2019 and 2020; this evaluation is referenced as appropriate throughout.<sup>20</sup> A separate module specific to physician assistants is addressed below. All but one respondent was able to provide a response.

Respondents understood this question in two ways depending on their conception of “pain” as it related to their medical treatment practices. One group of respondents understood this question to refer to all types of pain treatment. For example, one pediatrician, who answered “Yes,” said, “Um...yes. If they have pain, I treat it.” However, this understanding was not immediately clear to all respondents. One gastroenterologist asked, “Is the question referring to pain in general, or is it related to my specialty, like abdominal pain?” The interviewer responded that the question did not specify, and this respondent answered “Yes” because he treats patients for abdominal pain.

Another group of respondents understood this question more narrowly. These respondents divided pain into two types—acute and chronic—and assumed the question only referred to chronic pain treatment. For example, one internal medicine physician, who answered “No,” explained that she thought the question was asking “if I manage chronic opioids or pain medication.” Another respondent, an urgent care physician, also answered “No.” He said, “I say no, but we treat acute pain in the urgent care setting. But not pain patients. We’re not allowed to. We have a policy.” For these respondents, the question evoked references to pain management and opioid prescription, though these were not directly specified. This evocation led to underreporting of pain treatment unrelated to chronic pain management.

One respondent initially answered “Yes,” because she understood the question to refer to her acute pain treatment. However, after she heard subsequent questions, she said that she would have changed her answer on the paper survey to “No.” This respondent’s revision indicates that for her, the question’s inclusion in a module about opioid prescription and chronic pain management meant that it should be understood to refer only to chronic pain use.

<b>38. When managing your pain patients, how often do you...</b>	Never	Rarely	Sometimes	Often	Always	Don't know
Establish treatment goals with your recently diagnosed pain patients? (e.g., less pain, improved function, increased social activities, better sleep quality, etc.)	0	0	0	3	2	1
Recommend non-pharmacological approaches to your recently diagnosed pain patients before or instead of opioid therapy?	0	0	0	3	3	0

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<sup>20</sup> Massey, M. (n. 2).

All respondents who answered “Yes” to the item about treatment of patients for pain received this question. Because the question quickly became cumbersome to orally administer, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. The project team did so because NAMCS is a mail- and web-based survey. In those cases, the question was not always read as respondents independently read the question. However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally.

Many respondents’ reactions to these questions were indicative of their assumption that this section of the questionnaire related to opioid prescriptions and pain management. Some respondents took these questions as an opportunity to clarify that they do not prescribe opioids. For example, one gastroenterologist (who answered “Often” and “Always,” respectively) reacted very strongly to these questions. He said,

I’ll try to help [patients] with their abdominal pain as much as I can and find the particular underlying problem. But I am not going to just blanket give him or her narcotics. I don’t prescribe narcotics. If that’s something they want, then they need to go back to their primary care doctor or go see a pain specialist...I mean, I can if I want, I have the DEA and all that stuff, certification and all that stuff, but I just don’t want to prescribe narcotics...They should just go to one provider so you don’t have two or three providers giving them narcotics.

Similarly, one pediatrician, when she heard these items, refused to answer. She said, “I manage acute pain. I don’t manage chronic pain in that environment [her reporting location].” Responses like these are indicative of respondents’ tendency to understand this question only in the context of highly-salient discussions around opioid prescription and use. Because of this, most respondents in this study who received this item immediately excluded acute pain from consideration and only considered the extent to which they dealt with chronic pain management.

One respondent, a primary care physician, answered “Often” to the first item because she thought of both her new patients—for whom she always establishes treatment goals—and patients she inherited from another provider, for whom she just refills their medications.

### **39. What types of non-opioid medications do you currently recommend to pain patients?**

**SELECT ALL THAT APPLY.**

- a. Acetaminophen
- b. Anticonvulsants
- c. Antidepressants
- d. Benzodiazepines
- e. Non-steroidal anti-inflammatory (NSAIDS)
- f. Other non-opioid drugs
- g. Don’t know

<i>Response</i>	<i>Number of Respondents</i>
<i>Acetaminophen</i>	6
<i>Anticonvulsants</i>	4

<i>Antidepressants</i>	6
<i>Benzodiazepines</i>	2
<i>Non-steroidal anti-inflammatory (NSAIDS)</i>	7
<i>Other non-opioid drugs</i>	6
<i>Don't know</i>	0
<i>Skipped</i>	1
<i>Refused</i>	1

All respondents who answered “Yes” to the item about treatment of patients for pain received this question. One respondent refused to answer because, as she indicated in response to the prior item, she does not treat chronic pain and interpreted the question through that lens.

With the exception of one respondent who refused to answer, respondents understood this question consistently to ask about medications they prescribed for all types of patients—both chronic and acute—with pain complaints. Respondents were generally familiar with the terms in this question, and there was little inconsistency in examples respondents provided. The only inconsistency observed was in respondent placement of the drug gabapentin. One respondent categorized this medication as an anticonvulsant, while another respondent categorized this as an “other non-opioid drug” that did not fit into the existing options.

In general, respondents answered about their own prescribing patterns at their reporting locations. However, this tendency was not universal. As in prior items, a few respondents considered the prescribing tendencies of their practice. For example, one family practice physician first described her own prescribing habits and said that “*I would rarely use a medicine like amitriptyline (emphasis added).*” She then continued to describe those of others at the practice by saying that “*I suppose we might use muscle relaxants, non-addictive muscle relaxants (emphasis added).*”

#### *Other non-opioid drugs*

Most respondents who were asked this question answered that they recommend drugs outside the types enumerated in the response options. All respondents who selected this option mentioned muscle relaxants, and respondents also mentioned topical creams, antihistamines, and sleep medications. One respondent, a family practice physician, also mentioned non-pharmacological interventions, like physical therapy and exercise.

#### **40. How many of your pain patients are currently being treated with opioids prescribed by you?**

- a. None (Skip to question 46)
- b. A few
- c. Some
- d. Almost all
- e. All
- f. Don't know

<u>Response</u>	<u>Number of Respondents</u>
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<i>None</i>	3
<i>A few</i>	2
<i>Some</i>	1
<i>Almost all</i>	0
<i>All</i>	0
<i>Don't know</i>	0
<i>Skipped</i>	1
<i>Refused</i>	1

All respondents who answered “Yes” to the item about treatment of patients for pain received this question. One respondent refused to answer because, as she indicated in response to the prior item, she does not treat chronic pain and interpreted the question through that lens.

All respondents understood this question to refer to their treatment of their own patients at their reporting location. This question’s skip pattern worked to funnel respondents who had previously indicated they do not prescribe opioids out of the upcoming series of questions specifically tailored to opioid patient interactions. The respondent who previously reported on patients inherited from other providers counted these patients as her own for the purpose of answering this question.

CCQDER previously evaluated a version of this question that, instead of asking about qualitative indicators of the number of pain patients, asked about the percentage of pain patients treated with opioids (None, 1% to 25%, 26% to 50%, 51% to 75%, more than 75%).<sup>21</sup> Additionally, the prior item wording did not specify opioids “prescribed by you” and specifically referenced “non-cancer pain patients.” CCQDER identified two interpretations of the prior item: either the question referred to patients who were “on” a long-term prescription for opioids, or the question referred to the medical professional’s own prescribing practices. The current item only produced respondent conceptions in line with the second interpretation.

<b>41. Prior to starting opioids for pain management, how often do you do the following?</b>	Never	Rarely	Sometimes	Often	Always	Don't know
Screen patients for depression and other mental health disorders.	1	0	0	0	2	0
Discuss risks and benefits of using opioids for pain treatment.	0	0	0	1	2	0

All respondents who answered “Yes” to the item about current treatment of patients with opioids received this question, and all respondents were able to provide an answer. Because the question quickly became cumbersome to orally administer, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. The project team did so because NAMCS is a mail- and web-based survey. In those cases, the question was not always read as respondents independently read the question. However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally.

<sup>21</sup> Massey, M. (n. 2).

There are insufficient data from these respondents to provide analysis of this item.

**42. After you start opioid therapy on a pain patient, when do you re-evaluate him/her?**

- a. Within 1 week
- b. Within 4 weeks
- c. Within 3 months
- d. Within 1 year
- e. I don't re-evaluate patients after starting opioid therapy
- f. Don't know

<i>Response</i>	<i>Number of Respondents</i>
<i>Within 1 week</i>	1
<i>Within 4 weeks</i>	1
<i>Within 3 months</i>	1
<i>Within 1 year</i>	0
<i>I don't re-evaluate patients after starting opioid therapy</i>	0
<i>Don't know</i>	0

All respondents who answered “Yes” to the item about current treatment of patients with opioids received this question, and all respondents were able to provide an answer.

Respondents understood this question to ask about their standards for examining the use of opioids in their patients. Some respondents relied on the same standards for all their patients, as in the case of one pediatrician who answered “Within 1 week.” For this respondent, the patient population with whom he worked dictated the frequency of his re-evaluation standards; in pediatrics, he said, opioids are usually used for a very short period and then reassessed. For other respondents, the approach to re-evaluation varied by patient. One primary care physician thought of two categories of patients: one ovarian cancer patient that she re-evaluates monthly, and several patients inherited from other providers on longer-term opioid use that she evaluates every three months. This respondent defaulted to the modal approach among her patients and answered “Within 3 months.”

<b>43. When prescribing opioid therapy to your pain patients, how often do you...</b>	Never	Rarely	Sometimes	Often	Always	Don't know
Perform substance abuse risk assessment before prescribing opioids (e.g., CAGE, COWS, TAPS)?	0	0	0	1	0	1
Establish an opioid treatment plan with your patients?	0	0	1	0	1	0
Review the patient's history of abuse?	0	0	0	0	2	0
Perform a urine toxicology screening <u>before</u> starting opioid therapy?	0	0	0	1	0	0
Review your state's prescription drug monitoring program database (PDMP)?	0	0	0	1	1	0
Prescribe naloxone to patients receiving opioids?	1	0	0	0	0	0

Perform a random urine toxicology screening <u>quarterly</u> for long-term opioid therapy?	0	0	0	1	1	0
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All respondents who answered “Yes” to the item about current treatment of patients with opioids received this question. Because the question quickly became cumbersome to orally administer, after a few interviews the project team generated a “show card” with the table of response options to display via screen share. The project team did so because NAMCS is a mail- and web-based survey. In those cases, the question was not always read as respondents independently read the question. However, because some respondents conducted the interview on video over the phone, interviewers sometimes still needed to administer the question verbally. One respondent was skipped because of lack of time.

While data are limited because of few respondents who screened into and completed this question, the data still indicate divergent patterns of interpretation. Respondent understandings varied based on whether they included opioid treatment for acute pain or solely focused on chronic pain management. One respondent, a primary care physician, excluded her refilling of previously-prescribed opioids for patients she inherited from other providers and answered solely on the basis of her prescription of opioids for new, acute cases. In answering this item, this respondent was able to choose a response for most items. Another respondent, a family practice physician, included prescription of opioids for both acute and chronic pain in determining his response. This inclusion led to difficulty responding because of the variability of treatment approaches based on the type of pain. He said,

I think the beginning of this series, I think, specified chronic opioid therapy...it certainly makes a difference whether it's an acute...treatment or chronic...An opioid treatment plan is something I always do with chronic use, that is, more than one month, and never do with acute use...I guess on average it's sometimes.

In answering this item applied to establishment of an opioid treatment plan, this respondent decided to average the two approaches—never for acute pain, always for chronic pain—into “Sometimes,” even though “probably 95% of the opioids I write are for acute, self-limited approaches.” In answering other facets of this item, this respondent was unable to provide a single response: when applying it to urine toxicology screenings, for example, he specified “Always” for chronic pain and “Rarely” for acute pain, while in applying it to prescribing naloxone, he specified “Always” for chronic pain and “Often” for acute pain. In these cases, the lack of instruction on which type of pain to consider and the variation in treatment practices by type of pain led to underreporting.

**44. How many of your patients are you currently treating for opioid use disorder?**

- a. None (Skip to question 46)
- b. A few
- c. Some
- d. Almost all
- e. All
- f. Don't know



<i>Response</i>	<i>Number of Respondents</i>
<i>None</i>	3
<i>A few</i>	1
<i>Some</i>	0
<i>Almost all</i>	0
<i>All</i>	0
<i>Don't know</i>	0
<i>Skipped</i>	1

All physician respondents who did not answer “None” to the item about current treatment of patients with opioids received this question. This question was skipped for respondents who answered prior items about pain management but were routed out of the opioid series. All respondents were able to provide an answer, excepting one respondent who was skipped for lack of time.

All respondents who answered this question understood it to refer to their scope of practice with their own patients at their reporting location. One pediatrician made the focus on her treatment activities and her reporting location particularly evident. She initially wanted to answer “A few,” but she stopped herself and answered “None,” explaining that while she “might have a few” patients with opioid use disorder, “do I treat them for that? No. I would refer that.” This respondent also engaged in in-patient medical care but excluded that from answering this and other items. She explained that “In the ED [emergency department] I have encountered a number of older adolescents who have substance use disorders, including opioid use disorders...But primary care does not manage those issues. We would refer to pain management or psychological or behavioral health, or substance abuse management for those types of issues.” This respondent’s exclusion of her emergency department patients and her focus on her scope of practice led her to exclude all of her interactions with patients with opioid use disorder. Similarly, another respondent, a family medicine physician, answered “None” because he did not engage in any treatment himself. However, “among our practice, it’s in the middle [of the response options].”

**45. Does your reporting location have an opioid treatment program where patients could be referred for opioid use disorder?**

- a. Yes
- b. No
- c. Don't know

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	0
<i>No</i>	1
<i>Don't know</i>	0

All physician respondents who did not answer “None” to the item about treatment of patients with opioid use disorder received this question. There are insufficient data from these respondents to provide analysis of this item.

**36. How long have you practiced in your current specialty?**

- a. 0-1 years
- b. 2-4 years
- c. 5-9 years
- d. 10-20 years
- e. 21 or more years

<i>Response</i>	<i>Number of Respondents</i>
<i>0-1 years</i>	0
<i>2-4 years</i>	0
<i>5-9 years</i>	5
<i>10-20 years</i>	1
<i>21 or more years</i>	0
<i>No response recorded</i>	1

The next set of questions, beginning with this item on duration of current practice, was only offered to physician assistants who answered “Yes” to the item about provision of outpatient, office-based care. It was preceded by a header that read “Physician Assistant Only: Autonomy Questions.” A separate module specific to physicians is addressed above. Because of this, question numbers resume at 36, as physician assistants were asked all questions prior to this one excepting 16, on other advanced practice providers at the respondent’s reporting location.

All respondents were able to provide a response, excepting one respondent for whom data are missing for this item.

All respondents understood this item as referring to the length of time they engaged in their current scope of practice. For many respondents, this was the same length of time that they had been a licensed physician assistant. However, some respondents had only worked in their current specialty for a subset of that period, including one family practice PA with a 23-year-plus career who answered “10-20 years” and who had previously worked in internal medicine, education, and corrections medicine. As one pediatric cardiology PA put it, “The beauty of a PA is we can change specialties. So I think it’s definitely a fair question because you could be practicing for 10 years and be in 3 different specialties.”

**37. How many years have you worked clinically as a physician assistant?**

- a. 0-1 years
- b. 2-4 years
- c. 5-9 years
- d. 10-20 years
- e. 21 or more years

<i>Response</i>	<i>Number of Respondents</i>
<i>0-1 years</i>	0
<i>2-4 years</i>	0
<i>5-9 years</i>	4
<i>10-20 years</i>	1

<i>21 or more years</i>	2
<i>No response recorded</i>	0

All physician assistant respondents who answered “Yes” to the item about provision of outpatient, office-based care received this item, and all respondents were able to provide a response.

All respondents understood this item as referring to the length of time they worked directly with patients as a physician assistant. One pediatric cardiology PA’s response helpfully illustrates this distinction. She explained that physician assistants could work to market products for various companies. In those situations, she said, “you would be a practicing licensed PA, but you wouldn’t be clinical.”

**38. In 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 patients’ care?**

- a. Yes
- b. No
- c. Don’t know

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes</i>	5
<i>No</i>	2
<i>Don’t know</i>	0

All physician assistant respondents who answered “Yes” to the item about provision of outpatient, office-based care received this item, and all respondents were able to provide a response.

Respondents understood this item in two ways. First, some respondents—all of whom answered “No”—could not conceive of what this question could refer to. These respondents explained that they had no limits on their care and that they could do “whatever is needed for patient treatment.” One PA said

I guess I don’t know what that [the question] would mean. Like what I’m able to do and not able to – like my scope of practice compared to the physician? I mean, there’s differences between a PA and a physician...in terms of my day to day it doesn’t really affect me because I know my role, I guess?

This respondent had difficulty applying this question to her experience of differentiated roles in her practice.

A second group of respondents understood this question to refer to written or oral guidance delineating aspects of their work at their practice. Within this group, some respondents understood these guidelines as a written document outlining the physician assistant’s scope of practice, such as “a contract...signed with medical staff,” a “supervising physician agreement,” or a “collaboration agreement.” While respondents who understood the item in this way were aware of

the existence of these documents, most respondents in this study indicated that they did not reference it regularly. In explaining what these agreements were, many respondents referenced topics like physician availability or time under direct physician supervision.

Other respondents in this group understood the guidelines as outlining the practice's approaches to treatment or billing. Here, respondents did not refer to physician availability or supervision but to specific circumstances in which their activities were limited, even if their patient care was not. For example, one PA explained that he is unable to bill for an echo-cardiogram, even if he conducts the echo-cardiogram, because he is not separately certified to bill. In this case, the "guidelines" thought of were physician involvement in supervision and/or billing, even though the PA might be the only one directly involved in his patients' care.

### **39. Do you have your own panel of patients?**

- a. Yes, entirely
- b. Yes, but I also see patients from the practice
- c. No
- d. Don't know

<i>Response</i>	<i>Number of Respondents</i>
<i>Yes, entirely</i>	1
<i>Yes, but I also see patients from the practice</i>	5
<i>No</i>	1
<i>Don't know</i>	0

All physician assistant respondents who answered "Yes" to the item about provision of outpatient, office-based care received this item, and all respondents were able to provide a response.

PAs in this study consistently understood this item to mean that they had patients assigned specifically to them that they regularly saw, what they referred to as a "panel." One pediatric cardiology PA's response encapsulates this shared understanding particularly well in the context of her specialty. She explained that her "own panel" included "surgical patients where I have a surgical consult, operate on them, and then see them post-op in clinic for, like, recovery." For this respondent, her "panel" included patients for whom she provided end-to-end care. However, she answered "Yes, but I also see patients from the practice" because any "established patient" at her reporting location could be seen by any provider if they had an urgent concern. Other respondents who answered "Yes, but I also see patients from the practice" shared a similar understanding of their "panel" and referred to same-day or sick visits as instances when they saw patients outside of their panel. Finally, the sole respondent to answer "No" understood the term "panel" similarly to the rest of the PAs interviewed. This respondent, a neurology PA, only saw patients for follow-up visits; she did not provide end-to-end care.

### **40. How are claims submitted most of the time?**

- a. Your NPI
- b. A physician's NPI
- c. Sometimes my own NPI and sometimes a physician's NPI
- d. I do not submit claims

e. Don't know

<i>Response</i>	<i>Number of Respondents</i>
<i>Your NPI</i>	0
<i>A physician's NPI</i>	2
<i>Sometimes my own NPI and sometimes a physician's NPI</i>	4
<i>I do not submit claims</i>	1
<i>Don't know</i>	0

All physician assistant respondents who answered “Yes” to the item about provision of outpatient, office-based care received this item, and all respondents were able to provide a response.

Respondents understood this item consistently to refer to their own claims at their reporting location. While the acronym “NPI” (National Provider Identifier) was not defined, all respondents understood this to be an identifier used for billing purposes. Most respondents in this study quickly and easily identified circumstances in which the use of physician or PA NPIs might vary (for example, depending on who performed the majority of the work or who initiated the treatment) or clearly understood the billing practices of their reporting location (for example, to always use a physician NPI for higher reimbursement rates). These respondents understood the item to not only refer to the process of claims submission but also to the more general process of who is (financially) deemed responsible for patients' care.

Some respondents, however, interpreted the item more literally within the domain of their claims at their reporting location. These respondents solely thought of which person or department submitted claims at their reporting location. One PA answered “I do not submit claims” because her hospital's billing department submits the claims. Another respondent also claimed to not be involved in billing. However, she answered “Sometimes my own NPI and sometimes a physician's NPI” even though she admitted that she did not know exactly how claims were processed.

**41. Which of the following tasks do you perform on a regular and ongoing basis in your reporting location? SELECT ALL THAT APPLY.**

- a. Admissions (i.e., conduct admission history and physical, write admission orders)
- b. Develop treatment plans
- c. Perform minor surgical procedures
- d. Order referrals and consults
- e. Order and interpret diagnostic testing and therapeutic modalities
- f. Perform new patient encounters
- g. Perform procedures
- h. Perform post-op patient encounters
- i. Perform post-op global visits
- j. Perform pre-op history and physicals (H&Ps)
- k. See consults
- l. Prescribe non-schedule medications
- m. Prescribe schedule (II-V) medications
- n. Order durable medical equipment (DME)

- o. See urgent visits
- p. Other (please specify): \_\_\_\_\_

All physician assistant respondents who answered “Yes” to the item about provision of outpatient, office-based care received this item, and all respondents were able to provide a response.

Respondents consistently understood this item to ask about their routine work responsibilities at their reporting location. For many respondents in this study, this was evident in how they discussed the items they did not check. One respondent, a pediatric PA, explained that she did not check “Admissions” because it was “not relevant to what I do here”; “Perform pre-op history and physicals” and “See consults” because they were “not relevant to this practice”; and “Order durable medical equipment” because this depended “on the insurance. Certain insurances require a physician’s signature for durable medical equipment. So if it does, I don’t sign it.” Another respondent explained that in considering her response, she does everything that physicians at her reporting location do. In combination, these two respondents’ understanding of what to check and not check is indicative of a broader tendency among respondents in this study to consider, first, what is done at their reporting location and, second, their relationship to these tasks.

While most respondents to this study appeared to understand all the terms on their face, some respondents indicated confusion either to the inclusion of specific terms on the list or to the meaning of certain response options. One respondent, a family practice PA, noted that “Admissions” seemed out of place on an instrument targeted to outpatient ambulatory care provision. Multiple respondents indicated uncertainty about the meaning of “Perform post-op global visits” and “See consults,” but it is not clear that this led to any response error or underreporting.

**42. Are there any major activities that you are qualified to perform in your reporting location but must refer out to another provider to perform?**

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All physician assistant respondents who answered “Yes” to the item about provision of outpatient, office-based care received this item, and most respondents were able to provide a response. One respondent was confused by the question and was unable to respond. She did not understand whether the question included referring to her supervising physician or to an out-of-practice specialist; regardless, she was unable to think of an activity and did not provide a response.

Respondents in this study primarily understood this question to ask about the capabilities of their reporting location to perform various medical activities, not limits on their own capacity to practice, or as one put it, “are there things that we are able to do but can’t do.” Within this understanding, this item elicited two interpretations among respondents to this study. First, one set of respondents considered various circumstances in which their reporting location would refer patients to other locations, even if providers at the reporting location were capable and qualified to perform the specific activity. For example, one family practice PA explained that her practice was unable to be reimbursed for removal of skin lesions. Even though she and other providers at her practice are qualified to perform the procedure, the practice refers it out due to these payment rules. Second, one primary care PA understood the item to refer to restrictions on his own ability to practice, not on his reporting location’s capabilities as a whole. This respondent would include

restrictions barring him and requiring other providers at his reporting location to perform procedures.

**46. Are you of Hispanic, Latino/a, or Spanish origin? CHECK ALL THAT APPLY.**

- a. No, not of Hispanic, Latino/a, or Spanish origin
- b. Yes, Mexican, Mexican American, Chicano/a
- c. Yes, Puerto Rican
- d. Yes, Cuban
- e. Yes, Another Hispanic, Latino/a or Spanish origin

<i>Response</i>	<i>Number of Respondents</i>
<i>No, not of Hispanic, Latino/a, or Spanish origin</i>	16
<i>Yes, Mexican, Mexican American, Chicano/a</i>	0
<i>Yes, Puerto Rican</i>	0
<i>Yes, Cuban</i>	0
<i>Yes, Another Hispanic, Latino/a, or Spanish origin</i>	0
<i>Skipped</i>	4

The remaining questions were administered to both physicians and physician assistants. On the physician assistant version of the instrument in Appendix 2, this question is numbered 43, and numbering continues from that point. Numbering used in this report follows the physician version of the instrument in Appendix 1.

All respondents received this question except for three respondents skipped for lack of time. One additional respondent was skipped because she was an office staff member. All respondents were able to provide an answer.

Respondents understood this question, the standard question on Hispanic or Latino origin on the U.S. Census, to ask about their individual ethnic background. In general, respondents relied on two strategies to determine their answer to this question that were indicative of divergent understandings of ethnicity. First, one group of respondents explained that they knew how to answer because of stories their families told about family history, locations of relatives or ancestors, or languages spoken. For example, one respondent said that he knew he was not Hispanic because of “family history, ancestry, where did my grandparents and great-grandparents live.” Another said that she was “never told” that she was Hispanic, although she only knows “probably about four generations back.” These respondents understood their ethnicity through the lens of the social history of their families.

A second group of respondents, however, offered a different, biological understanding of ethnicity linked to the increased prevalence of DNA and ancestry testing. One respondent explained that he knew he was not Hispanic, Latino, or of Spanish origin by saying “I had my DNA done!” His DNA test results showed that he could trace his ancestry back to places as geographically dispersed as Ireland and Bangladesh but did not show Hispanic ancestry. Another respondent, a family medicine physician, also initially understood the question as referring to his DNA. However, he ended up relying on his knowledge of his family’s Irish and German descent because, as he put it,

relying on DNA “carries all kinds of complex determinants. Because even if you determine through some DNA testing that you went back to somebody who was Hispanic, you wouldn’t be able to determine if that person was, you know, so. It’s—it’s become very complex.” Respondents like these illustrate the potential for divergent understandings of ethnicity that may, if commercial DNA testing rises in popularity, impact how standardized questions on ethnicity perform.

**47. What is your race? SELECT ALL THAT APPLY.**

- a. White
- b. Black or African American
- c. American Indian or Alaska Native
- d. Asian Indian
- e. Chinese
- f. Filipino
- g. Japanese
- h. Korean
- i. Vietnamese
- j. Other Asian
- k. Native Hawaiian
- l. Guamanian or Chamorro
- m. Samoan
- n. Other Pacific Islander

<i>Response</i>	<i>Number of Respondents</i>
<i>White</i>	13
<i>White, Filipino</i>	1
<i>Asian Indian</i>	1
<i>Black or African American</i>	1
<i>Skipped</i>	4

All respondents received this question except for three respondents skipped for lack of time. One additional respondent was skipped because she was an office staff member. All respondents were able to provide an answer.

Respondents understood the concept of race articulated in this question as a social construct related to family history, conceptions of ancestry, and external perception.<sup>22</sup> One respondent who selected “Asian Indian” said that he knew to pick that option because of “family history.” Another respondent chose “White.” When asked why, she said, “I’ve been told that my whole life.” This latter respondent is indicative of some respondents’ linking of skin color or biological markers. One respondent who answered “White” shrugged and said, “My whole family—my parents are white.” Another respondent said that other people perceive her as white.

<sup>22</sup> See, for example, Willson, S., and Dunston, S.K. (2017). *Cognitive Interview Evaluation of the Revised Race Question, with Special Emphasis on the Newly Proposed Middle Eastern/North African Response Option*. Hyattsville, MD: National Center for Health Statistics. Available at <https://wwwn.cdc.gov/qbank/report.aspx?1183>; Miller, K., and Willson, S. (2002). *Cognitive Testing of NCHS Race Questions*. Hyattsville, MD: National Center for Health Statistics. Available at <https://wwwn.cdc.gov/qbank/report.aspx?1018>.



While commercial DNA testing led to the emergence of a second interpretation in the question on Hispanic, Latino, or Spanish origin, it did not influence how respondents conceived of race in the same way. For example, the respondent who quickly explained his answer to the prior item by saying “I had my DNA done!” and referenced his genetic makeup from Ireland to Bangladesh here answered “White.” This was despite the fact that he “had a concept of [his] heritage...and then [his] genetic composition is not” aligned with that conception. Nevertheless, he prioritized his prior conception of his heritage—informed by his family’s social history—because he understood his DNA as changing his understanding of his ancestry, not his race. Similarly, one respondent who answered “White” said that she knew she had “very little Native American” in her. She did not check “American Indian or Alaska Native,” however, because of her “very pale complexion,” her knowledge of Irish and Scottish ancestry, and her understanding of Native American ancestry as influenced by “percentages.”

Respondents noticed the presence of the select all that apply option for answering and the addition of broken-out Asian and Native Hawaiian/Pacific Islander groups. In general, these features were received positively by respondents to this study. Several respondents noted that they liked “that people can select something other than ‘other’” or that respondents could “select more than one.” One respondent used the select-all option to accurately describe her conception of herself as having Dutch and Filipino ancestry. However, one White respondent disliked the number of options. She said that it was “insulting” to “break down the Asians” and that White respondents are simply more distanced from what their “family originally were.” Though this respondent disliked the number and type of options, she was still able to answer and checked “White.”

**48. What sex were you assigned at birth, on your original birth certificate?**

- a. Male
- b. Female

<i>Response</i>	<i>Number of Respondents</i>
<i>Male</i>	5
<i>Female</i>	10
<i>Skipped</i>	5

All respondents received this question except for four respondents skipped for lack of time. One additional respondent was skipped because she was an office staff member. All respondents were able to provide an answer.

Consistent with recommendations available at the time of interviewing, the NAMCS adopted a two-step approach to asking respondents about sex and gender.<sup>23</sup> These recommendations were adopted in order to accurately count respondents who conceive of their sex or gender differently, even if those respondents do not self-identify as transgender.

Ongoing CCQDER research into questions about sex and gender identity has identified, particularly among gender minority respondents, competing interests—privacy and inclusion—

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<sup>23</sup> National Academies of Sciences, Engineering, and Medicine. (2022). *Measuring Sex, Gender Identity, and Sexual Orientation*. Washington, DC: The National Academies Press. doi: 10.17226/26424.

that structure responses to these items and stressed the importance of the items' purpose and context, both within the survey or administrative form and in the broader social world.<sup>24</sup> In general, existing research into the question on sex assigned at birth has found respondents to hold two understandings of sex: biologically fixed or assigned or socially constructed.<sup>25</sup> Respondents to this study, however, only understood sex in terms of biological attributes. For example, many respondents associated “sex” with “what genitals were you born with,” or brought up the potential for “ambiguous genitalia” at birth leading to sex assignment “based on chromosomes.” One family practice physician was emblematic of most respondents in saying that “Sex, in my mind, is biological at birth.” Several respondents further explained that they did not see a difference between the concepts of sex and gender.

**49. How do you describe yourself? Select all that apply.**

- a. Male
- b. Female
- c. Transgender
- d. Something else: \_\_\_\_\_ [text box]

<i>Response</i>	<i>Number of Respondents</i>
<i>Male</i>	5
<i>Female</i>	13
<i>Skipped</i>	2

All respondents received this question except for four respondents skipped for lack of time. One additional respondent was skipped because she was an office staff member. All respondents were able to provide an answer.

Consistent with recommendations available at the time of interviewing, the NAMCS adopted a two-step approach to asking respondents about sex and gender.<sup>26</sup> These recommendations were adopted in order to accurately count respondents who conceive of their sex or gender differently, even if those respondents do not self-identify as transgender.

Ongoing CCQDER research into questions about sex and gender identity has identified, particularly among gender minority respondents, two themes—privacy and inclusivity—that structure responses to these items and stressed the importance of the items' purpose and context, both within the survey or administrative form and in the broader social world.<sup>27</sup> In general, existing research into the question on gender has found respondents to hold two understandings of gender:

<sup>24</sup> See, for example, Willson, S., and Miller, K. (2022). *Cognitive Interview Evaluation of X Gender Marker Definitions for the U.S. Passport Application Form*. Hyattsville, MD: National Center for Health Statistics. Available at [https://wwwn.cdc.gov/QBank/report/Miller\\_2022\\_NCHS\\_GenderX.pdf](https://wwwn.cdc.gov/QBank/report/Miller_2022_NCHS_GenderX.pdf); Miller, K., Willson, S., and Ryan, V. (2022). *An Initial Cognitive Evaluation of a 2-Step Gender Identity Measure*. Hyattsville, MD: National Center for Health Statistics. Available at: [https://wwwn.cdc.gov/QBank/report/Miller\\_2021\\_NCHS\\_Gender\\_identity.pdf](https://wwwn.cdc.gov/QBank/report/Miller_2021_NCHS_Gender_identity.pdf); Miller, K., and Willson, S. (2022). *Development and Evaluation of a Single, Non-Binary Gender Question for Population-Based Federal Health Surveys*. Hyattsville, MD: National Center for Health Statistics.

<sup>25</sup> Miller, K., Willson, S., and Ryan, V. (n. 24); see also National Academies of Sciences, Engineering, and Medicine. (n. 23).

<sup>26</sup> National Academies of Science, Engineering, and Medicine. (n. 23).

<sup>27</sup> Willson, S., and Miller, K. (n. 24); Miller, K., Willson, S., and Ryan, V. (n. 24); Miller, K., and Willson, S. (n. 24).

biologically based or socially constructed.<sup>28</sup> Respondents to this study articulated a mixture of these conceptions. Many respondents understood “gender identity” to be “how you identify as your personality” or “how you see yourself now,” and understood sex to be “what you were identified as at birth” or “your chromosomal makeup, are you XX or XY.” For these respondents, gender was socially constructed while sex was biologically based.

However, for some of these respondents, the social construction of gender inherently related to biology. One PA explained that her conception of being female was related to “biology and a component of my interest...my phenotype and my sexual orientation...who I’m attracted to.” Another PA respondent said she thought of gender in terms of “my body, my genitals. Me being a mother and hearing my children. But before that, before I was a mother, I guess I would say my anatomy.” For these respondents, biological signs and social relationships, including social and physical attraction, interacted to produce a multifaceted conception of gender.

A final group of respondents conceived of both sex and gender in biological terms. One physician said that he didn’t really know he was male “because I haven’t had a chromosome study done...but otherwise you’re defined by physical [characteristics].” While some of these respondents recognized the existence of other (socially constructed) conceptions of gender, they did not apply those to their own experience.

One respondent found this item “offensive” because she felt that gender-neutral or no-gender respondents did not have an option that would fit their experience.

- 50. Just to confirm, you were assigned {FILL} at birth and describe yourself as {FILL}. Is that correct?**
- a. Yes
  - b. No

This question would only be included in self-administered web survey implementations of NAMCS. As such, the question was not administered to respondents in this study and cannot be evaluated here.

- 51. Who completed this survey? Check all that apply.**
- a. The provider to whom the survey was addressed
  - b. Office staff
  - c. Other

<i>Response</i>	<i>Number of Respondents</i>
<i>The provider to whom the survey was addressed</i>	13
<i>Office staff</i>	1
<i>Other</i>	0
<i>Skipped</i>	6

<sup>28</sup> See Miller, K., Willson, S., and Ryan, V. (n. 24), and National Academies of Science, Engineering, and Medicine. (n. 23).

This question was inconsistently administered to respondents due to lack of time, and as such, data are insufficient to analyze its performance.

## Appendix 1: Questions to be cognitively tested (physicians and physician proxies)

Form Approved  
OMB No. 0920-0222  
Exp. Date: 09/30/2024

**Notice** – CDC estimates the average public reporting burden for this collection of information as 55 minutes per response, including the time for reviewing instructions, searching existing data/information sources, gathering and maintaining the data/information needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road, MS D-74, Atlanta, GA 30333; ATTN: PRA (0920-0222).

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### Provider Survey – Physicians and Physician Proxies

1. **We have your specialty as: [INSERT SPECIALTY HERE]**
  - a. Yes
  - b. No (Skip to question 1a)
    - 1a. What is your specialty? \_\_\_\_\_
2. This survey asks about **outpatient, office-based care**, that is, care for patients receiving health services without admission to a hospital or other facility. Do you directly provide any outpatient, office-based care?
  - a. Yes (Skip to question 4)
  - b. No
3. **Why are you not currently providing any direct patient care?**
  - a. Engaged in research, teaching, and/or administration
  - b. Once provided direct care but now retired
  - c. Once provided direct patient care but temporarily not practicing (duration 3+ months)
  - d. Now not licensed/Never licensed
  - e. Something else (please specify): \_\_\_\_\_

(Skip to question 46)
4. **Overall, at how many locations do you see outpatient, office-based patients in a typical week? A typical week is defined as a week with a typical caseload, with no holidays, vacations, or conferences.**

\_\_\_\_\_
5. **Do you see outpatient, office-based patients in any of the following settings? SELECT ALL THAT APPLY.**

- 1 Private solo or group practice
- 2 Freestanding clinic or Urgent Care Center
- 3 Community Health Center (e.g., Federally Qualified Health Center [FQHC], federally funded clinics or “look-alike” clinics)
- 4 Mental health center
- 5 Government clinic that is not federally funded (e.g., state, county, city, maternal and child health, etc.)
- 6 Family planning clinic (including Planned Parenthood)
- 7 Integrated Delivery System, Health maintenance organization, health system or other prepaid practice (e.g., Kaiser Permanente)
- 8 Faculty practice plan (an organized group of physicians that treats patients referred to an academic medical center)
- 9 Retail health clinic (e.g., CVS MinuteClinic)
- 10 Hospital outpatient department
- 11 Hospital emergency departments
- 12 Ambulatory surgery center/surgicenter
- 13 Industrial outpatient facility
- 14 Federal government clinics
- 15 Institutional facility
- 16 None of the above

*If you see patients in **any** of these settings, go to question 6*

*If you select **only** 11, 12, 13, 14, 15 or 16 go to question 46*

- 6. At which outpatient, office-based setting (1-10) in the previous question do you see the most patients in a typical week? WRITE THE NUMBER LOCATED NEXT TO THE SELECTION MADE.**
- \_\_\_\_\_

**For the rest of the survey, we will refer to this as “your reporting location.”**

- 7. What is the county, state, and zip code of *your reporting location*? What is the email address of the physician to whom this survey was mailed?**

Country: **USA**

County: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Email Address: \_\_\_\_\_

- 8. During a typical week, approximately how many patient visits do you receive at your reporting location?**
- \_\_\_\_\_

- 9. Do you work in a solo medical facility, or are you associated with other providers in a partnership, group practice, or in some other way (nonsolo) at your reporting location?**

- a. Solo (Skip to question 11)
- b. Nonsolo

- 10. How many providers are associated with you at your reporting location? Do not include interns, residents, or fellows.**
- \_\_\_\_\_

- 11. Is this a multi- or single-specialty practice at your reporting location?**

- a. Multi
- b. Single

**12. Are you a full- or part-owner, employee, or an independent contractor at your reporting location?**

- a. Full-owner (Skip to question 14)
- b. Part-owner
- c. Employee
- d. Contractor

**13. Who owns the practice at your reporting location?**

- a. Physician/Physician group
- b. Advanced practice provider/Advance practice provider group
- c. Combination of physicians and advanced practice providers
- d. Insurance company, health plan, or HMO
- e. Community health center
- f. Academic medical center or teaching hospital
- g. Other hospital
- h. Other health care corporation
- i. Other (please specify): \_\_\_\_\_

**Workforce, Revenue, & Compensation Questions**

*The following questions pertain to your reporting location.*

**14. Do you or does your reporting location currently participate in any of the following activities or programs? SELECT ALL THAT APPLY.** *Merit-Based Incentive Payment System will adjust payment based on performance. Advanced Alternative Payment Models are new approaches to paying for medical care that incentivize quality and value.*

- a. Patient Centered Medical Home (PCMH)
- b. Accountable Care Organization (ACO) arrangement with public or private insurers
- c. Pay-for-Performance arrangement (P4P)
- d. Medicaid EHR Incentive Program (e.g., Meaningful Use, also called Promoting Interoperability Program)
- e. Merit-Based Incentive Payment System
- f. Advanced Alternative Payment Model
- g. Do not participate in any activities or programs

**15. Does your reporting location report any quality measures or quality indicators to either payers or to organizations that monitor health care quality?**

- a. Yes
- b. No
- c. Don't know

**16. The following questions concern advanced practice providers practicing at your reporting location. If the specified type of provider is not practicing at the reporting location, please check “not applicable”.**

<b>Physician Assistant (PA)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don’t know</b>	<b>Not Applicable</b>
Are PA(s) patients logged separately from your patients?					
Do PA(s) bill for services using their own NPI number?					
<b>Nurse Practitioner (NP)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don’t know</b>	<b>Not Applicable</b>
Are NP(s) patients logged separately from your patients?					
Do NP(s) bill for services using their own NPI number?					
<b>Certified Nurse Midwife (CNM)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don’t know</b>	<b>Not Applicable</b>
Are CNM(s) patients logged separately from your patients?					
Do CNM(s) bill for services using their own NPI number?					
<b>Clinical Nurse Specialist (CNS)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don’t know</b>	<b>Not Applicable</b>
Are CNS(s) patients logged separately from your patients?					
Do CNS(s) bill for services using their own NPI number?					
<b>Certified Registered Nurse Anesthetists (CRNA)</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>	<b>Don’t know</b>	<b>Not Applicable</b>
Are CRNA(s) patients logged separately from your patients?					
Do CRNA(s) bill for services using their own NPI number?					

**17. Which of the following types of payment do you accept? SELECT ALL THAT APPLY.**

- a. Private insurance
- b. Medicare
- c. Medicaid/CHIP
- d. Workers’ compensation
- e. Self-pay
- f. No charge
- g. Other

**18. Are you currently accepting new patients at your reporting location?**

- a. Yes
- b. No
- c. Don’t know

### **COVID-19 Questions**

*The following questions pertain to your reporting location.*

**19. Does your reporting location offer COVID-19 vaccinations?**

- a. Yes
- b. No (Skip to question 21)

**20. Which vaccine do you offer at your reporting location? SELECT ALL THAT APPLY.**

- a. Moderna
- b. Johnson & Johnson/Janssen
- c. Pfizer
- d. AstraZeneca
- e. Other (please specify): \_\_\_\_\_
- f. Don’t know



## Electronic Health Records and Telemedicine

*The following questions pertain to your reporting location.*

**21. Does your reporting location use an EHR system? Do not include billing record systems.**

- a. Yes
- b. No (Skip to question 23)
- c. Don't know (Skip to question 23)

<b>22. Does your reporting location use an EHR to...?</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know</b>
Record social determinants of health (e.g., employment, education)?			
Record behavioral determinants of health (e.g., tobacco use, physical activity, alcohol use)?			
Order prescriptions?			
Send prescriptions electronically to the pharmacy?			
Record the use of dietary supplements?			
Are these supplements recorded in the medications record?			

**23. Due to COVID-19, my use of telemedicine has increased.**

- a. Yes
- b. No
- c. Don't know

**24. What type(s) of video telemedicine did you use for patient visits? CHECK ALL THAT APPLY.**

- a. Videoconference software with audio (e.g., Zoom, Webex, FaceTime)
- b. Telemedicine platform NOT integrated with EHR (e.g., Doxy.me)
- c. Telemedicine platform integrated with EHR (e.g., update clinical documentation during telemedicine visit)
- d. Other tool(s) (please specify): \_\_\_\_\_
- e. I don't use video or telemedicine for patient visits (Skip to question 27)

**25. In a typical week, how many of your visits use video telemedicine?**

- a. None
- b. Some
- c. Most
- d. All

**26. Please rate your overall satisfaction with using video telemedicine for patient visits.**

- a. Very satisfied
- b. Somewhat satisfied
- c. Neither satisfied nor dissatisfied
- d. Somewhat dissatisfied
- e. Very dissatisfied

**27. What, if any, issues affect your use of video telemedicine? SELECT ALL THAT APPLY.**

- a. Limited Internet access and/or speed issues

- b. Telemedicine platform not easy to use
- c. Telemedicine isn't appropriate for my specialty/type of patients
- d. Improved reimbursement and relaxation of rules related to use of telemedicine visits
- e. Limitations in patients' access to technology (e.g., smartphone, computer, tablet, Internet)
- f. Patients' difficulty using technology/telemedicine platform

### Health Equity and Language Barriers

*The following questions pertain to your reporting location.*

**28. Do you see patients at your reporting location during the evening or on weekends?**

- a. Yes
- b. No
- c. Don't know

**29. Does your reporting location set time aside for same day appointments?**

- a. Yes
- b. No
- c. Don't know

**30. On average, about how long does it take to get an appointment for a routine medical exam?**

- a. Within 1 week
- b. 1-2 weeks
- c. 3-4 weeks
- d. 1-2 months
- e. 3 or more months
- f. Do not provide routine medical exams
- g. Don't know

**31. Are you fluent in a language besides English?**

- a. Yes
- b. No

**32. How many of your patients have limited English proficiency?**

- a. None (Skip to question 35)
- b. Some
- c. Most
- d. All
- e. Don't know

<b>33. When you use interpreters how often do you use each type?</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
Staff/contractor trained as a medical interpreter				
Bilingual Staff				

Patient's relative or friend				
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**34. What types of materials, in language(s) other than English, are available to your patients?**

**SELECT ALL THAT APPLY.**

- a. Wellness/Illness related education
- b. Patient rights/Informed consent documents
- c. Advanced directives
- d. Payment
- e. Care plan
- f. Other (please specify): \_\_\_\_\_
- g. No translated materials are available to my patients

**35. What information does your reporting location record on your patients' characteristics?**

**SELECT ALL THAT APPLY.**

- a. Nationality/Nativity
- b. Patient's primary language
- c. Sexual orientation/gender identity
- d. Race/Ethnicity
- e. Religion
- f. Income
- g. Education
- h. Other (please specify): \_\_\_\_\_
- i. We do not collect information related to patient characteristics.

<b>36. When treating your patients, how often do you consider...CHECK ALL THAT APPLY.</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
Race/Ethnicity				
Sexual orientation/gender identity				
Religion				
Income				
Education				
Household environment/safety				
Other cultural factors such as health beliefs, customs, values				

**Physician Only: Pain Treatment and Treatment with Opioids**

*The following questions pertain to your reporting location.*

**37. Do you currently treat any patients for pain?**

- a. Yes
- b. No (Skip to question 44)
- c. Don't know (Skip to question 44)

<b>38. When managing your pain patients, how often do you...</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>	<b>Don't know</b>
Establish treatment goals with your recently diagnosed pain patients? (e.g., less pain, improved function, increased social activities, better sleep quality, etc.)						
Recommend non-pharmacological approaches to your recently diagnosed pain patients before or instead of opioid therapy?						

**39. What types of non-opioid medications do you currently recommend to pain patients? SELECT ALL THAT APPLY.**

- a. Acetaminophen
- b. Anticonvulsants
- c. Antidepressants
- d. Benzodiazepines
- e. Non-steroidal anti-inflammatory (NSAIDS)
- f. Other non-opioid drugs
- g. Don't know

**40. How many of your pain patients are currently being treated with opioids prescribed by you?**

- a. None (Skip to question 46)
- b. A few
- c. Some
- d. Almost all
- e. All
- f. Don't know

<b>41. Prior to starting opioids for pain management, how often do you do the following?</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>	<b>Don't know</b>
Screen patients for depression and other mental health disorders.						
Discuss risks and benefits of using opioids for pain treatment.						

**42. After you start opioid therapy on a pain patient, when do you re-evaluate him/her?**

- a. Within 1 week
- b. Within 4 weeks
- c. Within 3 months
- d. Within 1 year
- e. I don't re-evaluate patients after starting opioid therapy
- f. Don't know

<b>43. When prescribing opioid therapy to your pain patients, how often do you...</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>	<b>Don't know</b>
Perform substance abuse risk assessment before prescribing opioids (e.g., CAGE, COWS, TAPS)?						
Establish an opioid treatment plan with your patients?						
Review the patient's history of abuse?						
Perform a urine toxicology screening <u>before</u> starting opioid therapy?						
Review your state's prescription drug monitoring program database (PDMP)?						
Prescribe naloxone to patients receiving opioids?						
Perform a random urine toxicology screening <u>quarterly</u> for <b>long-term opioid therapy</b> ?						

**44. How many of your patients are you currently treating for opioid use disorder?**

- a. None (Skip to question 46)
- b. A few
- c. Some
- d. Almost all
- e. All
- f. Don't know

**45. Does your reporting location have an opioid treatment program where patients could be referred for opioid use disorder?**

- a. Yes
- b. No
- c. Don't know

**Provider Demographics**

**46. Are you of Hispanic, Latino/a, or Spanish origin? CHECK ALL THAT APPLY.**

- a. No, not of Hispanic, Latino/a, or Spanish origin
- b. Yes, Mexican, Mexican American, Chicano/a
- c. Yes, Puerto Rican
- d. Yes, Cuban
- e. Yes, Another Hispanic, Latino/a or Spanish origin

**47. What is your race? SELECT ALL THAT APPLY.**

- a. White
- b. Black or African American
- c. American Indian or Alaska Native
- d. Asian Indian
- e. Chinese

- f. Filipino
- g. Japanese
- h. Korean
- i. Vietnamese
- j. Other Asian
- k. Native Hawaiian
- l. Guamanian or Chamorro
- m. Samoan
- n. Other Pacific Islander

**48. What sex were you assigned at birth, on your original birth certificate?**

- a. Male
- b. Female

**49. How do you describe yourself? Select all that apply.**

- a. Male
- b. Female
- c. Transgender
- d. Something else: \_\_\_\_\_ [text box]

**50. [Web survey only] Just to confirm, you were assigned {FILL} at birth and describe yourself as {FILL}. Is that correct?**

- a. Yes
- b. No

**51. Who completed this survey? Check all that apply.**

- a. The provider to whom the survey was addressed
- b. Office staff
- c. Other

## Appendix 2: Questions to be cognitively tested (physician assistants and physician assistant proxies)

Form Approved  
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### Provider Survey – Physicians' Assistants and Physicians' Assistant Proxies

1. **We have your specialty as: [INSERT SPECIALTY HERE]**
  - a. Yes
  - b. No (Skip to question 1a)
    - 1a. What is your specialty? \_\_\_\_\_
2. This survey asks about **outpatient, office-based care**, that is, care for patients receiving health services without admission to a hospital or other facility. Do you directly provide any outpatient, office-based care?
  - c. Yes (Skip to question 4)
  - d. No
3. **Why are you not currently providing any direct patient care?**
  - a. Engaged in research, teaching, and/or administration
  - b. Once provided direct care but now retired
  - c. Once provided direct patient care but temporarily not practicing (duration 3+ months)
  - d. Now not licensed/Never licensed
  - e. Something else (please specify): \_\_\_\_\_

(Skip to question 43)
4. **Overall, at how many locations do you see outpatient, office-based patients in a typical week? A typical week is defined as a week with a typical caseload, with no holidays, vacations, or conferences.**

\_\_\_\_\_
5. **Do you see outpatient, office-based patients in any of the following settings? SELECT ALL THAT APPLY.**

- 1 Private solo or group practice
- 2 Freestanding clinic or Urgent Care Center
- 3 Community Health Center (e.g., Federally Qualified Health Center [FQHC], federally funded clinics or “look-alike” clinics)
- 4 Mental health center
- 5 Government clinic that is not federally funded (e.g., state, county, city, maternal and child health, etc.)
- 6 Family planning clinic (including Planned Parenthood)
- 7 Integrated Delivery System, Health maintenance organization, health system or other prepaid practice (e.g., Kaiser Permanente)
- 8 Faculty practice plan (an organized group of physicians that treats patients referred to an academic medical center)
- 9 Retail health clinic (e.g., CVS MinuteClinic)
- 10 Hospital outpatient department
- 11 Hospital emergency departments
- 12 Ambulatory surgery center/surgicenter
- 13 Industrial outpatient facility
- 14 Federal government clinics
- 15 Institutional facility
- 16 None of the above

*If you see patients in **any** of these settings, go to question 6*

*If you select **only** 11, 12, 13, 14, 15 or 16 go to question 43*

- 6. At which outpatient, office-based setting (1-10) in the previous question do you see the most patients in a typical week? WRITE THE NUMBER LOCATED NEXT TO THE SELECTION MADE.**

\_\_\_\_\_

**For the rest of the survey, we will refer to this as “your reporting location.”**

- 7. What is the county, state, and zip code of *your reporting location*? What is the email address of the physician to whom this survey was mailed?**

Country: **USA**

County: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Email Address: \_\_\_\_\_

- 8. During a typical week, approximately how many patient visits do you receive at your reporting location?**

\_\_\_\_\_

- 9. Do you work in a solo medical facility, or are you associated with other providers in a partnership, group practice, or in some other way (nonsolo) at your reporting location?**

a. Solo (Skip to question 11)

b. Nonsolo

- 10. How many providers are associated with you at your reporting location? Do not include interns, residents, or fellows.**

\_\_\_\_\_

- 11. Is this a multi- or single-specialty practice at your reporting location?**

a. Multi



- b. Single

**12. Are you a full- or part-owner, employee, or an independent contractor at your reporting location?**

- a. Full-owner (Skip to question 14)
- b. Part-owner
- c. Employee
- d. Contractor

**13. Who owns the practice at your reporting location?**

- a. Physician/Physician group
- b. Advanced practice provider/Advance practice provider group
- c. Combination of physicians and advanced practice providers
- d. Insurance company, health plan, or HMO
- e. Community health center
- f. Academic medical center or teaching hospital
- g. Other hospital
- h. Other health care corporation
- i. Other (please specify): \_\_\_\_\_

**Workforce, Revenue, & Compensation Questions**

*The following questions pertain to your reporting location.*

**14. Do you or does your reporting location currently participate in any of the following activities or programs? SELECT ALL THAT APPLY.** *Merit-Based Incentive Payment System will adjust payment based on performance. Advanced Alternative Payment Models are new approaches to paying for medical care that incentivize quality and value.*

- a. Patient Centered Medical Home (PCMH)
- b. Accountable Care Organization (ACO) arrangement with public or private insurers
- c. Pay-for-Performance arrangement (P4P)
- d. Medicaid EHR Incentive Program (e.g., Meaningful Use, also called Promoting Interoperability Program)
- e. Merit-Based Incentive Payment System
- f. Advanced Alternative Payment Model
- g. Do not participate in any activities or programs

**15. Does your reporting location report any quality measures or quality indicators to either payers or to organizations that monitor health care quality?**

- a. Yes
- b. No
- c. Don't know

**16. Which of the following types of payment do you accept? SELECT ALL THAT APPLY.**

- a. Private insurance
- b. Medicare
- c. Medicaid/CHIP
- d. Workers' compensation
- e. Self-pay

- f. No charge
- g. Other

**17. Are you currently accepting new patients at your reporting location?**

- a. Yes
- b. No
- c. Don't know

### COVID-19 Questions

*The following questions pertain to your reporting location.*

**18. Does your reporting location offer COVID-19 vaccinations?**

- a. Yes
- b. No (Skip to question 20)

**19. Which vaccine do you offer at your reporting location? SELECT ALL THAT APPLY.**

- a. Moderna
- b. Johnson & Johnson/Janssen
- c. Pfizer
- d. AstraZeneca
- e. Other (please specify): \_\_\_\_\_
- f. Don't know

### Electronic Health Records and Telemedicine

*The following questions pertain to your reporting location.*

**20. Does your reporting location use an EHR system? Do not include billing record systems.**

- a. Yes
- b. No (Skip to question 22)
- c. Don't know (Skip to question 22)

<b>21. Does your reporting location use an EHR to...?</b>	<b>Yes</b>	<b>No</b>	<b>Don't Know</b>
Record social determinants of health (e.g., employment, education)?			
Record behavioral determinants of health (e.g., tobacco use, physical activity, alcohol use)?			
Order prescriptions?			
Send prescriptions electronically to the pharmacy?			
Record the use of dietary supplements?			
Are these supplements recorded in the medications record?			

**22. Due to COVID-19, my use of telemedicine has increased.**

- a. Yes
- b. No
- c. Don't know

**23. What type(s) of video telemedicine did you use for patient visits? CHECK ALL THAT APPLY.**

- a. Videoconference software with audio (e.g., Zoom, Webex, FaceTime)

- b. Telemedicine platform NOT integrated with EHR (e.g., Doxy.me)
- c. Telemedicine platform integrated with EHR (e.g., update clinical documentation during telemedicine visit)
- d. Other tool(s) (please specify): \_\_\_\_\_
- e. I don't use video or telemedicine for patient visits (Skip to question 26)

**24. In a typical week, how many of your visits use video telemedicine?**

- a. None
- b. Some
- c. Most
- d. All

**25. Please rate your overall satisfaction with using video telemedicine for patient visits.**

- a. Very satisfied
- b. Somewhat satisfied
- c. Neither satisfied nor dissatisfied
- d. Somewhat dissatisfied
- e. Very dissatisfied

**26. What, if any, issues affect your use of video telemedicine? SELECT ALL THAT APPLY.**

- a. Limited Internet access and/or speed issues
- b. Telemedicine platform not easy to use
- c. Telemedicine isn't appropriate for my specialty/type of patients
- d. Improved reimbursement and relaxation of rules related to use of telemedicine visits
- e. Limitations in patients' access to technology (e.g., smartphone, computer, tablet, Internet)
- f. Patients' difficulty using technology/telemedicine platform

<b>Health Equity and Language Barriers</b>
--

*The following questions pertain to your reporting location.*

**27. Do you see patients at your reporting location during the evening or on weekends?**

- a. Yes
- b. No
- c. Don't know

**28. Does your reporting location set time aside for same day appointments?**

- a. Yes
- b. No
- c. Don't know

**29. On average, about how long does it take to get an appointment for a routine medical exam?**

- a. Within 1 week
- b. 1-2 weeks
- c. 3-4 weeks
- d. 1-2 months
- e. 3 or more months

- f. Do not provide routine medical exams
- g. Don't know

**30. Are you fluent in a language besides English?**

- a. Yes
- b. No

**31. How many of your patients have limited English proficiency?**

- a. None (Skip to question 34)
- b. Some
- c. Most
- d. All
- e. Don't know

<b>32. When you use interpreters, how often do you use each type?</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
Staff/contractor trained as a medical interpreter				
Bilingual Staff				
Patient's relative or friend				

**33. What types of materials, in language(s) other than English, are available to your patients?**

**SELECT ALL THAT APPLY.**

- a. Wellness/Illness related education
- b. Patient rights/Informed consent documents
- c. Advanced directives
- d. Payment
- e. Care plan
- f. Other (please specify): \_\_\_\_\_
- g. No translated materials are available to my patients

**34. What information does your reporting location record on your patients' characteristics?**

**SELECT ALL THAT APPLY.**

- a. Nationality/Nativity
- b. Patient's primary language
- c. Sexual orientation/gender identity
- d. Race/Ethnicity
- e. Religion
- f. Income
- g. Education
- h. Other (please specify): \_\_\_\_\_
- i. We do not collect information related to patient characteristics.

<b>35. When treating your patients, how often do you consider...CHECK ALL THAT APPLY.</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
Race/Ethnicity				
Sexual orientation/gender identity				
Religion				
Income				

Education				
Household environment/safety				
Other cultural factors such as health beliefs, customs, values				

### Physician Assistant Only: Autonomy Questions

*The following questions pertain to your reporting location.*

**36. How long have you practiced in your current specialty?**

- a. 0-1 years
- b. 2-4 years
- c. 5-9 years
- d. 10-20 years
- e. 21 or more years

**37. How many years have you worked clinically as a physician assistant?**

- a. 0-1 years
- b. 2-4 years
- c. 5-9 years
- d. 10-20 years
- e. 21 or more years

**38. In 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 patients' care?**

- a. Yes
- b. No
- c. Don't know

**39. Do you have your own panel of patients?**

- a. Yes, entirely
- b. Yes, but I also see patients from the practice
- c. No
- d. Don't know

**40. How are claims submitted most of the time?**

- a. Your NPI
- b. A physician's NPI
- c. Sometimes my own NPI and sometimes a physician's NPI
- d. I do not submit claims
- e. Don't know

**41. Which of the following tasks do you perform on a regular and ongoing basis in your reporting location? SELECT ALL THAT APPLY.**

- a. Admissions (i.e., conduct admission history and physical, write admission orders)
- b. Develop treatment plans
- c. Perform minor surgical procedures
- d. Order referrals and consults

- e. Order and interpret diagnostic testing and therapeutic modalities
- f. Perform new patient encounters
- g. Perform procedures
- h. Perform post-op patient encounters
- i. Perform post-op global visits
- j. Perform pre-op history and physicals (H&Ps)
- k. See consults
- l. Prescribe non-schedule medications
- m. Prescribe schedule (II-V) medications
- n. Order durable medical equipment (DME)
- o. See urgent visits
- p. Other (please specify): \_\_\_\_\_

**42. Are there any major activities that you are qualified to perform in your reporting location but must refer out to another provider to perform?**

\_\_\_\_\_

#### Provider Demographics

**43. Are you of Hispanic, Latino/a, or Spanish origin? CHECK ALL THAT APPLY.**

- a. No, not of Hispanic, Latino/a, or Spanish origin
- b. Yes, Mexican, Mexican American, Chicano/a
- c. Yes, Puerto Rican
- d. Yes, Cuban
- e. Yes, Another Hispanic, Latino/a or Spanish origin

**44. What is your race? SELECT ALL THAT APPLY.**

- a. White
- b. Black or African American
- c. American Indian or Alaska Native
- d. Asian Indian
- e. Chinese
- f. Filipino
- g. Japanese
- h. Korean
- i. Vietnamese
- j. Other Asian
- k. Native Hawaiian
- l. Guamanian or Chamorro
- m. Samoan
- n. Other Pacific Islander

**45. What sex were you assigned at birth, on your original birth certificate?**

- a. Male
- b. Female

**46. How do you describe yourself? Select all that apply.**

- a. Male

- b. Female
- c. Transgender
- d. Something else: \_\_\_\_\_ [text box]

**47. [Web survey only] Just to confirm, you were assigned {FILL} at birth and describe yourself as {FILL}. Is that correct?**

- a. Yes
- b. No

**48. Who completed this survey? Check all that apply.**

- a. The provider to whom the survey was addressed
- b. Office staff
- c. Other