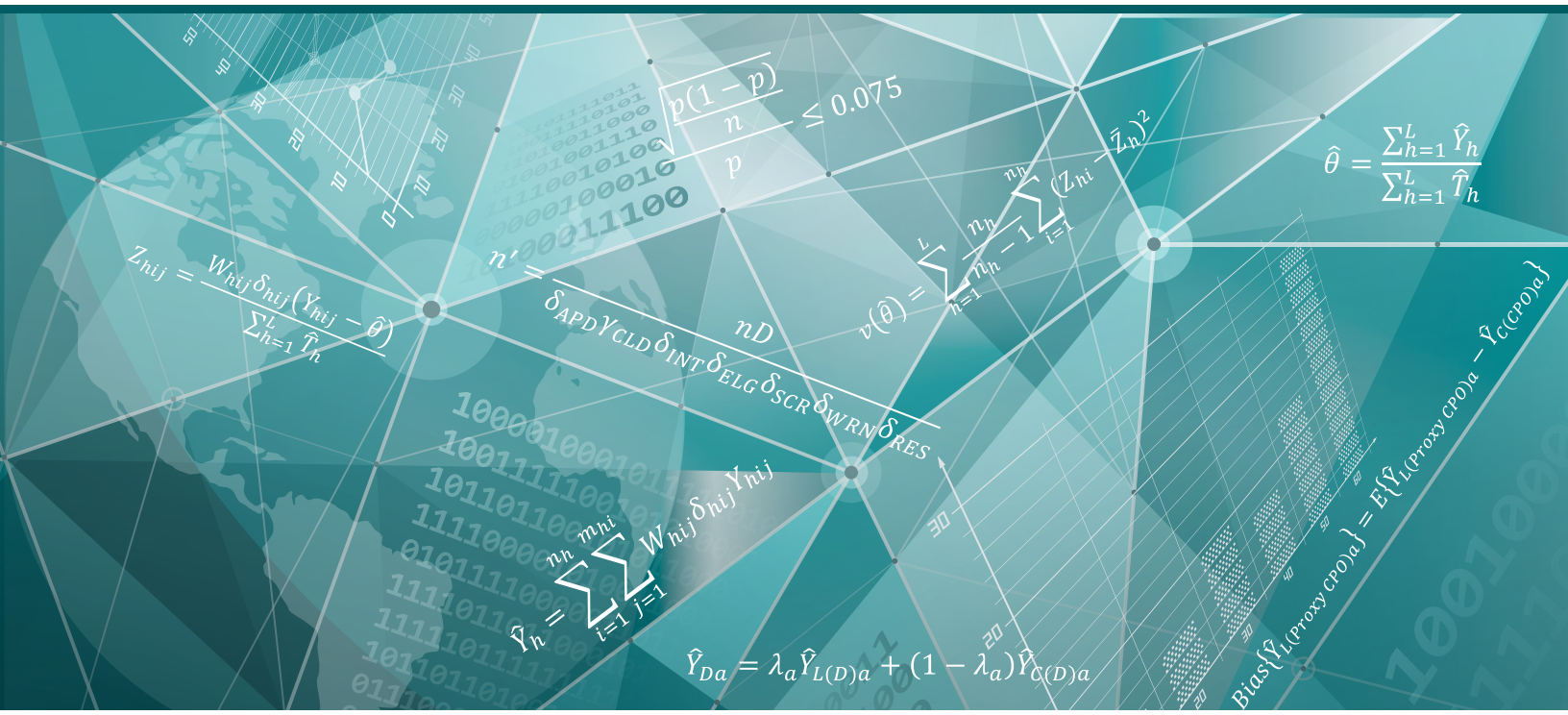
NATIONAL CENTER FOR HEALTH STATISTICS

Vital and Health Statistics

Series 2, Number 204

September 2023



The 2021 Physician Pain Management Questionnaire Pilot Study

Data Evaluation and Methods Research

Centers for Disease Control and Prevention
National Center for Health Statistics

NCHS reports can be downloaded from: https://www.cdc.gov/nchs/products/index.htm.

Suggested citation

Gidali DM, Ward BW. The 2021 Physician Pain Management Questionnaire pilot study. Vital Health Stat Series 2(204). 2023. DOI: https://dx.doi.org/10.15620/cdc:131353.

For sale by the U.S. Government Publishing Office
Superintendent of Documents
Mail Stop: SSOP
Washington, DC 20401–0001
Printed on acid-free paper.

NATIONAL CENTER FOR HEALTH STATISTICS

Vital and Health Statistics

Series 2, Number 204 September 2023

The 2021 Physician Pain Management Questionnaire Pilot Study

Data Evaluation and Methods Research

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

Hyattsville, Maryland
September 2023

Contents

Acknowledgments vii

Abstract 1

Introduction and Background 1
- Introduction 1
- Background 2
- Survey Objectives 2

Questionnaire Design 2
- Survey Question Development 2
- Cognitive Interview Testing 2
- Finalization of the Physician Pain Management Questionnaire 3

Sample Design 4
- Sampling Source and Design Rationale 4
- Drawing the Sample 4
- Definition of Population and Sample 4

Survey Operations and Fielding 5
- Data Collection Procedures 5
- Efforts to Increase Response Rates 6

Data Processing 7
- Data Entry 7
- Data Edits and Quality Control 7

Summary of Results From Fielding 8
- Eligibility 8
- Disposition 8
- Item Nonresponse 9
- Response Rates 9
- Assessment of Nonresponse Bias 9

Data Access and Guidelines for Data Use 10

Discussion 10
- Limitations 10
- Summary 10

References 11

Appendix I. Original Untested Physician Pain Management Questionnaire Survey Instrument 13

Appendix II. Final Physician Pain Management Questionnaire Survey Instrument 19

Appendix III. Physician Pain Management Questionnaire Inclusion and Exclusion Criteria 21

Appendix IV. Physician Pain Management Questionnaire Invitation Letter 23

Appendix V. Physician Pain Management Questionnaire Introductory Letter 25

Appendix VI. Physician Pain Management Questionnaire Reminder Postcard 27

Appendix VII. Physician Pain Management Questionnaire Follow-up Letter 29

Appendix VIII. Physician Pain Management Questionnaire Modified Follow-up Letter 31

Appendix IX. Physician Pain Management Questionnaire Gratitude Postcard 33

Appendix X. Physician Pain Management Questionnaire Nonresponse Bias Analysis 35

Contents—Con.

Text Figures

1. Example of changes made to the questions following cognitive testing 3
2. Flow chart of the steps taken to draw the Physician Pain Management Questionnaire sample 5
3. Physician Pain Management Questionnaire fielding timeline 6

Text Tables

A. Physician Pain Management Questionnaire sample, by selected physician characteristics 5
B. Eligibility in the Physician Pain Management Questionnaire sample 8
C. Final dispositions of the Physician Pain Management Questionnaire sample 8
D. Physician Pain Management Questionnaire item nonresponse for rates more than 3.0% 9
E. Physician Pain Management Questionnaire response rates 9

Appendix Tables

I. Physician Pain Management Questionnaire sampled specialties collapsed into broader categories for nonresponse bias analysis 36
II. Frequency of physicians in the Physician Pain Management Questionnaire, by selected characteristics of physician respondents and nonrespondents 36

Acknowledgments

The 2021 Physician Pain Management Questionnaire was funded by the National Center for Complementary and Integrative Health within the National Institutes of Health. A special thanks to Meredith Massey and the Collaboration Center for Questionnaire Design and Evaluation Research for conducting the cognitive testing for this survey. Mary Moien, Kelly Myrick, and Elizabeth Rechtsteiner provided design, production, and analytic assistance for this project. We are especially grateful to the physicians who took the time to submit responses during a demanding year in their profession.

The 2021 Physician Pain Management Questionnaire Pilot Study

by Doreen M. Gidali, M.D., M.P.H., and Brian W. Ward, Ph.D.

Abstract

Objectives

This report outlines the methodology, development, and fielding of the 2021 Physician Pain Management Questionnaire (PPMQ) pilot study. The study was conducted by the National Center for Health Statistics and was designed to test the feasibility of a large, nationally representative survey assessing physician awareness and use of established guidelines for prescribing opioids to manage pain.

Methods

The PPMQ was a cross-sectional, paper-based, mail-only survey. A total of 1,000 surveys were mailed to physicians between June 2021 and February 2022. The PPMQ sampling frame and sample were constructed from the National Provider Identification datafile, provided by the Centers for Medicare & Medicaid Services. The sample consisted of nonfederally employed allopathic and osteopathic physicians, legally providing care to patients in all 50 U.S. states and the District of Columbia, in primarily ambulatory specialties. As this was a pilot study and conducted for methodological purposes, no weights were developed, and the results reported here are not nationally representative.

Results

Of the 1,000 surveys that were mailed, 193 were completed. Of the 193 physician respondents, 149 were considered eligible. The unweighted completion rate for eligible respondents was 96.6%. Considering nonresponse, the overall unweighted response rate for PPMQ was 16.1%. No significant differences in nonresponse bias were found between respondents and nonrespondents with respect to physician sex, physician type (allopathic or osteopathic), U.S. region of practice, and specialty. Item nonresponse rates for questions in PPMQ were low, ranging from 0.0% to 4.4%.

Keywords: ambulatory care • opioids • opioid guideline(s) • pain treatment • physician office • survey methods

Introduction and Background

Introduction

The opioid epidemic continues to be one of the greatest public health issues facing the nation. It has been characterized as occurring in three waves. The first wave, which began in 1999, was associated with prescription opioids, including natural opioids, semisynthetic opioids, and methadone. The second wave, beginning in 2010, was marked by increased mortality involving heroin (1). Most recently, in 2013, a third wave began involving synthetic opioids, which in part includes the prescribed opioid fentanyl (2). Prescription opioids have been implicated, though varyingly, throughout the course of this epidemic, and the problem began with the onset of increased prescribing of opioids for chronic pain in the 1990s (3).

As part of continued efforts to mitigate the contribution of prescription opioids to the epidemic, the public health community responded with strategies aimed at facilitating effective and safe treatment of patients with chronic pain, while reducing the incidence of opioid misuse and overdose. The Department of Health and Human Services deployed a National Pain Strategy in 2011, with safe delivery of pain therapies as one of its goals (4,5). In March 2016, the Centers for Disease Control and Prevention developed national guidelines for prescribing opioids for chronic pain (6). Additionally, several professional medical associations, as well as U.S. states and health organizations, developed their own independent guidelines for pain management (7–10).

Despite these efforts, prescription opioids continue to play a role in the ongoing epidemic. Drug overdose deaths involving prescription opioids declined from 2017 to 2019; however, they increased to 16,416 deaths in 2020 (11,12). Although prescribing guidelines exist, the level to which they are followed remains unknown. To date, no survey or data system collects national data on physicians' awareness and use of these various clinical guidelines when prescribing opioids. Therefore, the need for methodological development of a national survey to address this gap was identified. The Physician Pain Management Questionnaire

(PPMQ) pilot study was designed to assess the feasibility of a larger scale, nationally representative survey on physician opioid prescribing practices.

Background

The Interagency National Pain Strategy Implementation Team, led by a representative of the National Center for Complementary and Integrative Health (NCCIH) within the National Institutes of Health, was tasked with carrying out the National Pain Strategy. NCCIH; the Interagency Pain Research Coordinating Committee, a federal advisory committee created to enhance pain research efforts and promote collaboration across the government; and the National Institutes of Health Pain Consortium, which promotes collaboration among National Institutes of Health centers and researchers conducting programs and activities addressing pain, recognized the need for a national survey to assess physicians' awareness and use of clinical guidelines for prescribing opioids. At the time, in 2018, few studies addressed this topic; and those that did were limited in scope, focusing on institutional or state-based guidelines, with small sample sizes (13–15). Additionally, the questions used in these studies had not been cognitively tested, raising concern regarding the reliability of information gathered from them.

The National Pain Strategy's focus is to implement safe approaches for treating pain. One of the Centers for Disease Control and Prevention's roles in combating the opioid epidemic has been through evidence-based approaches that provide healthcare providers with guidance and tools to improve opioid prescribing and patient safety. Given this shared goal, and previous successful collaborative studies between NCCIH (involved in the National Pain Strategy) and CDC's National Center for Health Statistics (NCHS), the two centers entered into an interagency agreement where NCCIH provided funding for NCHS to conduct PPMQ.

Survey Objectives

Working together, NCHS and NCCIH developed the following objectives of PPMQ:

1. Evaluate survey questions on physician knowledge, awareness, and use of prescription opioid guidelines.
2. Conduct a pilot study to assess the feasibility of a national physician survey to gain a better understanding of physician opioid prescribing practices for pain management.

Questionnaire Design

Survey Question Development

The initial survey questions were compiled by the National Pain Strategy Implementation Team. Some of these were developed as new questions, while others were drawn from previous, smaller surveys. Once gathered, the questions were reviewed by NCHS staff, and additional questions were added that addressed respondent eligibility. The pretested survey instrument can be found in Appendix I. Among these eligibility questions, the first three questions were adapted from two national physician surveys: the National Ambulatory Medical Care Survey and the National Electronic Health Records Survey (16,17). The additional eligibility questions to screen for physicians who treated pain were specific to PPMQ. The remaining questions were compiled by the National Pain Strategy Implementation Team based on survey instruments, findings, and recommendations from existing and previous studies on the topic. As previously mentioned, one of the limitations of existing studies on pain management practices is their use of untested survey questions. Because some of these questions were used to draft the survey instrument, cognitive testing was essential to ensure the questions for this pilot study would collect valid and reliable data.

Cognitive Interview Testing

The Collaborating Center for Questionnaire Design and Evaluation Research at the National Center for Health Statistics conducted the cognitive testing. The Center facilitated 60-minute, in-person cognitive interviews to a sample of 20 physicians and physician assistants known to prescribe opioids to noncancer pain patients. Respondents were presented with pretested questions, and then were asked a series of probing questions designed to reveal how each respondent reached their answers. The full, detailed report is available on the Collaborating Center for Questionnaire Design and Evaluation Research's Q-Bank platform (18).

The cognitive testing team used video recordings and notes from the interviews to conduct analyses and give recommendations on how to revise questions on PPMQ for optimal performance. Findings from cognitive testing revealed three broad areas that had the most impact on question performance (18):

1. Acute versus chronic pain: Multiple questions on the initial draft used the qualifiers acute or chronic. Cognitive interviewing revealed that several respondents did not differentiate between the two qualifiers while answering questions, which led to response error.
2. Questions assessing quantity: Some questions asked respondents to select a percentage of their patient

population as a response option. When probed following these questions, multiple respondents changed their answers and expressed difficulty in referring to their patients in terms of percentages.

3. Number of guidelines: The initial questionnaire had one question that addressed the use of clinical guidelines and presented 12 choices where respondents could select all that applied. Cognitive testing showed that most respondents were not certain which guidelines they followed, or whether they followed any specific guidelines. They used parts of multiple guidelines, hospital or practice-based protocols, or their own clinical judgment. Their awareness of the listed guidelines was general and, in some cases, respondents selected guidelines on paper but verbally reported not using them.

Additional findings from the cognitive interview testing, including a question-by-question review, can be found in the full cognitive testing report (18).

Finalization of the Physician Pain Management Questionnaire

NCHS and NCCIH worked collaboratively to revise the questions on the survey instrument based on results from the cognitive testing. The qualifiers acute and chronic were removed from all questions, reducing the chance of response error noted during testing. Response options initially listed as percentages were converted to qualitative responses. Skip patterns were introduced to ensure respondents only answered questions relevant to their specialty or practice patterns. The list of 12 opioid guidelines were collapsed into 5 broader categories, and the revised question asked about both awareness and use of the guidelines. Some question formatting was updated to reduce the length and duration of questionnaire completion. Figure 1 shows examples of two revisions made to the questions following cognitive testing. For further details on the changes made from the initial to the final draft of the questionnaire, see Appendixes I and II.

Figure 1. Example of changes made to the questions following cognitive testing

4. How many of your patients have non-cancer acute pain, that is, any pain lasting less than 3 months?

1. None
2. 1% to 25%
3. 26% to 50%
4. 51% to 75%
5. More than 75%

4. How many of your patients are you currently treating for pain?

☐ 1 None ☐ 2 Few ☐ 3 Some
☐ 4 Almost all ☐ 5 All

6. I apply the following clinical practice guideline(s) when developing a non-cancer pain management treatment plan for my patients, (check all that apply).

1. My U.S. state's guidelines
2. American Academy of Pain Medicine Guidelines
3. American College of Physicians Guidelines for low back pain
4. American College of Rheumatology Guidelines
5. American Geriatrics Society Guidelines
6. American Pain Society Guidelines
7. American Society of Anesthesiologists Guidelines
8. American Society of Interventional Pain Physicians Guidelines
9. U.S. Department of Defensive Guidelines
10. U.S. Centers for Disease Control and Prevention Opioid Guidelines
11. U.S. Veterans Health Administration Guidelines
12. U.S. DHHS Office of the Assistant Secretary of Health Pain Mangement Best Practices Task Force Guidelines
13. Other clinical practice guidelines
14. I do not apply any clinical guidelines

5. Of the following catagories of clinical practice guidelines for pain management, select those you are aware of and select those that you use when treating pain patients (check all that apply).	I am aware of these guidelines	I use these guidelines to treat pain
a. Guidelines from professional medical organizations or societies (for example, the American Academy of Pain Medicine Guidelines)	☐ 1	☐ 2
b. Guidelines established by the state where you primarily provide care	☐ 1	☐ 2
c. The CDC Guideline for Prescribing Opioids for Chronic Pain, also known as The U.S. Centers for Disease Control and Prevention Opioid Guideline	☐ 1	☐ 2
d. Hospital or practice-based guidelines; that is, guidelines established by the organization where you provide care.	☐ 1	☐ 2
e. Guidelines established by the Department of Health and Human Services or Veterans Administration	☐ 1	☐ 2

SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Once revised, the PPMQ questions were reviewed by NCHS Collaborating Center for Questionnaire Design and Evaluation Research staff who determined that the revisions addressed the concerns raised during testing. In addition to performing optimally and reliably from a cognitive perspective, the questions were expected to address the listed objectives. The result was the final PPMQ survey instrument, which can be found in Appendix II.

Sample Design

Sampling Source and Design Rationale

PPMQ received Office of Management and Budget (OMB) clearance under the Generic Information Clearance: Developmental Studies to Improve the National Health Care Surveys (OMB No. 0920–1030, Exp. Date 06/30/2023), which allows for developmental studies on survey design and data collection activities that are part of the National Health Care Surveys. As this was a pilot study and its purpose was methodological, the final data are not weighted, although the sample was drawn from a national database.

One of the purposes of this pilot study was to assess the feasibility of conducting a nationally representative survey. As such, the sampling strategy used was intended to draw a sample from a national database of physicians, with the objective of being able to replicate the strategy should a nationally representative version of PPMQ be deemed feasible. Traditionally, physician surveys within the National Health Care Surveys have used the American Medical Association and American Osteopathic Association masterfiles as a source for drawing national samples. PPMQ presented an opportunity to explore the benefits of using a similar, widely available provider database to draw a national sample, as a potential source file for NCHS' National Health Care Surveys.

The Centers for Medicare and Medicaid Services developed the National Plan and Provider Enumeration System to assign unique identifiers—National Provider Identifier (NPI)—to healthcare providers, as mandated by the Health Insurance Portability and Accountability Act of 1996. The NPI datafile is created from the National Plan and Provider Enumeration System data, includes most practicing physicians in the United States, is routinely updated, and is publicly accessible at no cost (19). As such, the NPI datafile was selected as the alternative to the American Medical Association and American Osteopathic Association masterfiles for this pilot study.

Drawing the Sample

The November 2020 NPI datafile was the universe from which the sampling frame was created and the sample was drawn. The NPI datafile includes various types of healthcare providers in the United States. After excluding all nonphysicians, 1,083,186 physicians were left in the universe. The sampling frame was then created by applying the following PPMQ inclusion criteria: physicians (M.D. or D.O.) with an active NPI, current medical license, practicing in the 50 U.S. states and the District of Columbia, and in 1 of the 14 following specialties:

- Anesthesiology
- Family medicine
- General practice
- Internal medicine
- Neuromusculoskeletal medicine and osteopathic manual manipulation
- Neuromusculoskeletal medicine and sports medicine
- Obstetrics and gynecology
- Oral and maxillofacial surgery
- Orthopaedic surgery
- Pain medicine
- Pediatrics
- Physical medicine and rehabilitation
- Preventive medicine
- Psychiatry and neurology

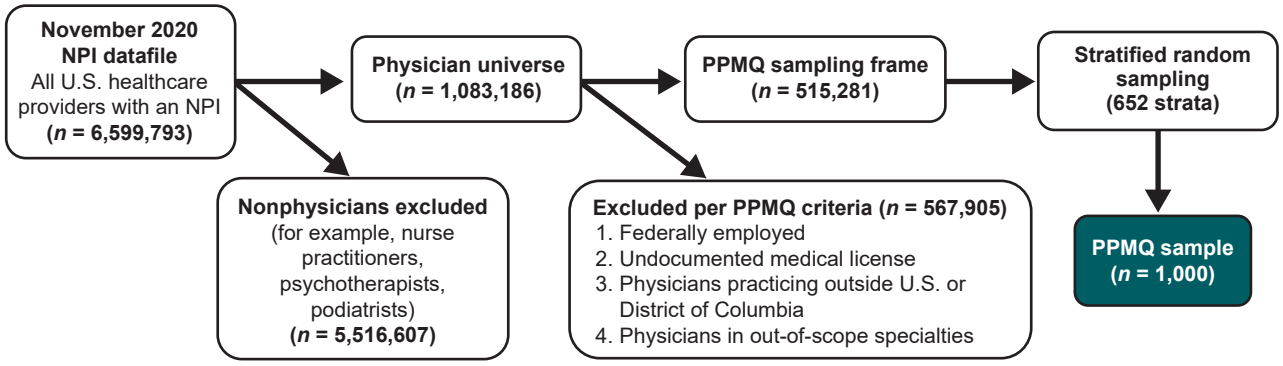
The subspecialties that fall within the 14 specialties listed above and the PPMQ exclusion criteria are detailed in Appendix III. With these inclusion criteria applied, the resulting sampling frame included 515,281 physicians.

From the frame, a sample of 1,000 physicians was drawn using stratified random sampling with proportional allocation. The sampling strata were defined by U.S. Census region (Northeast, Midwest, West, and South) based on the listed office location in the NPI datafile, U.S. state of practice, and physician specialty. The sampling frame of eligible physicians was first sorted by U.S. region, then U.S. state, followed by physician specialty, resulting in 652 strata. Figure 2 provides a detailed diagram of the steps taken to draw the sample.

Definition of Population and Sample

The final sample consisted of 1,000 nonfederally employed, M.D. or D.O. attending physicians legally practicing in the 50 U.S. states and the District of Columbia. Sampled physicians worked in one of the medical specialties included in the PPMQ inclusion criteria (Appendix III), had active NPIs, and were assumed to be in practice at the time of sampling based on NPI data. Most respondents were male (64.3%) and M.D.s (86.5%), and many specialized in internal medicine (22.3%) or family medicine (15.2%). Table A includes more details on the characteristics of the PPMQ sample.

Figure 2. Flow chart of the steps taken to draw the Physician Pain Management Questionnaire sample



NOTES: Strata details were not disclosed to assist in maintaining respondent confidentiality. NPI is National Provider Identifier. PPMQ is Physician Pain Management Questionnaire.
SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Table A. Physician Pain Management Questionnaire sample, by selected physician characteristics

Physician characteristic	Frequency (*n* = 1,000)	Unweighted percent
Physician type		
Medical doctor	865	86.5
Doctor of osteopathy	135	13.5
Geographic region		
Northeast	207	20.7
Midwest	211	21.1
South	319	31.9
West	263	26.3
Physician specialty		
Anesthesiology	50	5.0
Family medicine	152	15.2
General practice	51	5.1
Internal medicine	223	22.3
Neuromusculoskeletal medicine (osteopathic manipulative medicine, sports medicine)	50	5.0
Obstetrics and gynecology	61	6.1
Oral and maxillofacial surgery	44	4.4
Orthopaedic surgery	53	5.3
Pain medicine	49	4.9
Pediatrics	84	8.4
Physical medicine and rehabilitation	51	5.1
Preventive medicine	51	5.1
Psychiatry and neurology	81	8.1

SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Survey Operations and Fielding

Data Collection Procedures

Informed Consent and Assurance of Confidentiality

Sampled physicians received several mailed hard-copy recruitment letters that described the survey and procedures as part of fielding. First, physicians received an invitation letter, which contained: an explanation of the importance and purpose of the study; assurance that participation was voluntary with no penalty for nonparticipation; a statement that if they chose to participate, they were giving consent for their deidentified information to be used for future survey development by NCHS or other investigators; and assurance that their privacy would be protected under Section 308(d) of the Public Health Service Act (42 USC 242m) (Appendix IV). This invitation letter served as the informed consent, although subsequent letters also included this information (Appendixes V, VII, and VIII). In addition, the first portion of the survey included an assurance of confidentiality (Appendix II). A waiver of the documentation of informed consent was requested and granted by the NCHS Ethics Review Board.

Recruitment and Enrollment Methods

PPMQ was conducted as a self-administered, paper-based mail survey (given resource limitations, no other modes of administration were used). The survey design drew from the Tailored Design Method, considered the gold standard for conducting mail and telephone surveys (20). The PPMQ design used the following key recruitment principles from the Tailored Design Method: personalized letters, prepaid return envelopes included with the mailed questionnaire, thank you or reminder postcards, and multiple duplicate packets sent to nonrespondents over set time intervals to increase response rates.

In keeping with the Tailored Design Method, this study employed three waves of survey mailings, and two

waves of reminder postcards as the sole recruitment and enrollment strategy. Following the initial survey package mailing, two additional survey packages were mailed to nonrespondents, in 4-week intervals. The postcards were mailed in between survey packages. Each survey package contained a personalized letter, which explained how to decline participation. If the physician declined participation, they were asked to answer two survey questions regarding eligibility before returning the survey. They were also given the flexibility to stop the survey at any point.

Fielding

NCHS staff conducted fielding of PPMQ, which began in June 2021, with the mailing of the invitation letter to all 1,000 physicians in the sample (Appendix IV). This letter outlined the importance and purpose of the study and served as informed consent. In July 2021, within 2 weeks of sending the invitation, the first survey package was mailed to each respondent. This package included an introductory letter (Appendix V) reiterating the purpose of the study and providing instructions and answers to frequently asked questions, the survey instrument, and a prestamped return envelope for the completed survey.

Later in July 2021, about 7 days after the first survey package mailing, a reminder postcard (Appendix VI) was sent to all physicians in the sample. The postcard thanked sampled physicians for their participation, reminded them of the importance of participation, and allowed them to request additional information, including another copy of the survey instrument. In August 2021 and within 4 weeks of the first survey mailing, nonrespondents received a follow-up package. This second wave of mailing included a follow-up letter (Appendix VII) with slight modifications from the introductory letter, the survey instrument, and a prestamped return envelope.

Physicians who had not responded by the end of August were mailed a third and final survey package. This mailing included a modified follow-up letter (Appendix VIII) emphasizing the need for responses, along with a prestamped return envelope, and the questionnaire. A final thank you postcard (Appendix IX) was mailed in September 2021, 2 weeks after the third survey package was mailed, thanking physicians for their participation, and urging nonrespondents to send their responses.

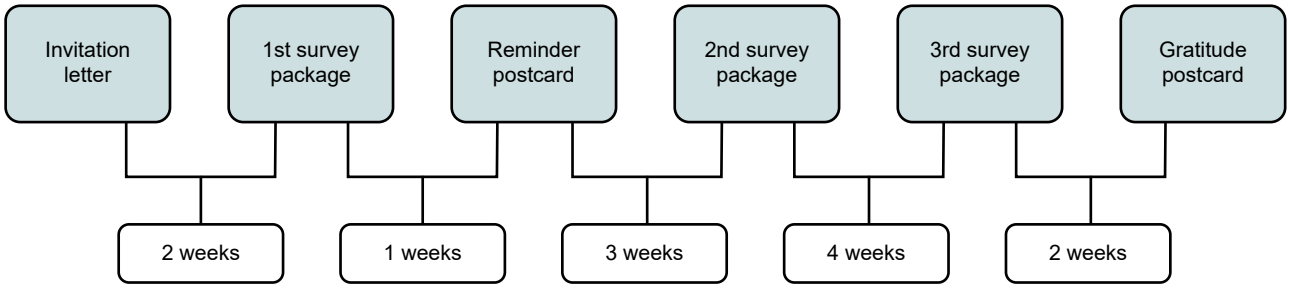
Responses to PPMQ were received on a rolling basis. After fielding began in June 2021, 284 survey packages were returned to NCHS as undeliverable. To increase response rates, NCHS staff traced mailing addresses throughout fielding. Several methods (outlined in the next section) were used to locate physician addresses. Once a more updated mailing address was found, fielding procedures using the method outlined in Figure 3 began for these physicians. Undelivered letters and survey packages were delivered to NCHS throughout the study period. As new addresses were located for these returned mailings, letters and survey packages were resent. This resulted in multiple different fielding timelines for survey packages that were undeliverable compared with those sent initially. Data collection for all respondents ended in February 2022.

Efforts to Increase Response Rates

Numerous efforts were used to maximize response rates. As noted previously, the initial questionnaire underwent cognitive testing. In addition to identifying unclear language and changing specific questions, cognitive testing was also used to remove problematic questions and reduce both the length and anticipated burden of the survey instrument. This resulted in a shorter questionnaire (15 minutes to read the introductory letter and complete the 1-page, double-sided questionnaire), which helped reduce burden and aimed to have a positive effect on response rates. To further reduce burden, PPMQ used skip patterns. These patterns used responses to initial survey questions to determine if certain subsequent survey questions were applicable, allowing a respondent to answer only relevant questions. Skip patterns in PPMQ were applicable for 56 eligible physicians who completed the survey (38.9%).

Physician address tracing has been successfully used by NCHS provider surveys to reduce the number of follow-up mailings and increase response rates. Of the 1,000 survey packages initially mailed, 284 were returned as undeliverable. Multiple strategies were used to trace physician addresses in efforts to increase the number of respondents who received the survey:

Figure 3. Physician Pain Management Questionnaire fielding timeline



SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Strategy 1: NPI Datafile

The NPI datafile is updated monthly (19). The sample was drawn using a monthly update for the NPI datafile from fall of 2020. Once an address was flagged as undeliverable, the current (at the time) NPI datafile was checked for updated contact information.

Strategy 2: Web Search

If the NPI datafile did not have updated information, a web search was performed using the physician's name and specialty. On multiple occasions (7.7% of returned surveys), the physician's current practice location was identified via this method, and the current address was located.

Strategy 3: Federation of State Medical Boards

The Federation of State Medical Boards tracks physician credentials across most of the nation (21). The Federation of State Medical Boards' physician data center contains these data, including the physician's address at the time of medical licensure application or renewal, graduation date, medical specialty, state(s) of practice, and any adverse legal actions taken against the physician's medical license. The Federation of State Medical Boards makes most of these data available to the public. This strategy was applied if strategies 1 and 2 failed to determine if the physician was ineligible due to an inactive medical license.

Strategy 4: Doximity

"Doximity" is a web-based networking platform for medical professionals. Its mission is to "connect physicians so they can be more successful and productive […] Members include over 80% of U.S. physicians as of March 31, 2021" (22). The platform shows a physician's training, specialty, and practice address(es) for members who provided this information. When an address could not be located using the above methods, Doximity served as a useful alternative source for addresses. Providers can also indicate their practice status on their profiles. This helped to identify retired physicians in the sample.

Of the 284 physicians that required tracing, most cases (about 65%) were due to a change in address. A smaller proportion were found to be ineligible due to inactive medical licenses or retirement. Others were unable to be located because either no updated address was found, or multiple addresses were located but packages continued to be returned as undeliverable.

Data Processing

Data Entry

Upon receipt of a completed survey, data were entered manually into a secured spreadsheet. To ensure data quality, entered responses were checked twice against the survey following each entry to correct any potential data entry errors. Responses that seemed erroneous were entered into the data set as they appeared on the completed survey; however, an editing variable was created to identify the surveys that would need editing. A biweekly frequency report was generated to confirm and track response status, undelivered surveys, and fielding for respondents with updated addresses. These reports also served as an ongoing data quality check.

Data Edits and Quality Control

Data Editing

Data editing was performed during the last 2 months of data collection using SAS software. The variables in the data spreadsheet were converted into standard numeric format that could be used for analysis. Frequency distributions were generated to identify data entry errors, physician response errors, and missing data. The editing variable created during data entry was instrumental in identifying respondent errors and applying necessary edits. The errors identified during data cleaning that required significant edits were either logic errors or skip pattern errors. For each of these errors, the following edits were applied:

1. **Logic Errors**

   Question 5 was a two-part question that required physicians to select whether they were aware of a practice guideline and whether they used that guideline. To conserve space on the survey, the question was written so that selection of either awareness of or use of the guideline was an implied "yes" and nonselection an implied "no." Data entry showed that several responding physicians misunderstood this question. Based on their response selections, these physicians reported that they were unaware of a practice guideline they used. This presented a logic error because a respondent cannot use a guideline if he or she is unaware of it. Where a physician selected the use of a guideline without selecting awareness of the guideline, responses were edited to reflect both awareness and use of the guideline.

2. **Skip Pattern Errors**

   Skip patterns were incorporated into the PPMQ design to reduce respondent burden. Question 2 was an eligibility question about practice setting. Question 4 was designed to filter out physicians who did not treat pain, and question 9 to filter out those who did not prescribe opioids for pain. Though the survey instructed respondents who answered "none" for these questions to skip the rest of the survey, some respondents who answered "none" went on to complete the survey anyway. During editing, responses that should have been skipped based on the filter questions were edited to accurately reflect a "nonapplicable" response in the final edited datafile.

Coding of Verbatim Responses

Some PPMQ questions had "other" as a response option. In these cases, respondents were given the option to enter a verbatim response. When the verbatim response could fit into an existing selection category, the response was recoded accordingly. In other cases, a new variable was created that would account for both selected and verbatim responses.

Edits to Maintain Confidentiality

For those physicians sampled for PPMQ, NCHS assured confidentiality of their participation and survey responses. Data edits were applied to the final data file to maintain confidentiality. The PPMQ sample included the list of personally identifiable information shown below (direct and indirect). For each data element (bolded), the following edits were performed to ensure confidentiality.

- **Physician's full name:** Suppressed and instead an arbitrary physician ID number was assigned.
- **Physician's addresses:** Suppressed and instead the four-category U.S. Census region of the sampling address was used as a proxy for location.
- **Physician's specialty:** Collapsed into broader groups; subspecialties were suppressed.
- **Physician's NPI:** Suppressed.
- **Physician's sex:** Maintained given suppression of the above identifiers.

Summary of Results From Fielding

Eligibility

Data collection lasted for a period of 8 months, from late June 2021 to mid February 2022. Physician eligibility was determined based on responses to specific eligibility questions on the survey (questions 1, 2, and 4) or through locating activities for surveys that were undeliverable. Of the 1,000 physicians sampled, 193 submitted survey responses, 703 did not respond at all (refusals), and 104 physicians could not be located. Of the 193 responses received, 149 were deemed eligible and 43 ineligible. An additional 65 physicians were determined to be ineligible during locating activities because their surveys were returned as undeliverable. Of the total 108 ineligible physicians, 4 were federal employees, 40 were retired, 45 had inactive medical licenses, and 19 specialized outside the PPMQ clinical scope. Of the 704 physicians classified as having unknown eligibility, 703 were refusals and 1 partially completed the survey but did not answer the eligibility questions. Tables B and C have more details on respondent eligibility.

Disposition

Table B. Eligibility in the Physician Pain Management Questionnaire sample

Description	Frequency (n = 1,000)	Unweighted percent
Eligible (n = 149)		
Survey respondents	149	14.9
Ineligible (n = 108)		
Federal employee	4	0.4
Retired	40	4.0
Inactive medical license	45	4.5
Out of scope	19	1.9
Unknown (n = 743)		
Unlocated	39	3.9
Refusals	704	70.4

NOTES: Responses based on 1,000 physicians are unweighted, and the results are not nationally representative of physicians. Percent distribution of responses is shown for methodological purposes only.

SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Table C. Final dispositions of the Physician Pain Management Questionnaire sample

Description	Frequency (n = 1,000)	Unweighted percent
Eligible (n = 149)		
Eligible and complete	144	14.4
Eligible, responded as refused	3	0.3
Eligible and partial complete	2	0.2
Ineligible (n = 108)		
Ineligible based on survey responses	43	4.3
Ineligible based on locating activities	65	6.5
Unknown eligibilty (n = 743)		
Unknown eligibility, refused	703	70.3
Unknown eligibility, partial complete	1	0.1
Unknown eligibility, unlocatable	39	3.9

NOTES: Responses based on 1,000 physicians are unweighted, and the results are not nationally representative of physicians. Percent distribution of responses is shown for methodological purposes only.

SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Survey disposition was determined in the following manner. A survey with responses to questions 1 through 5 was considered partially complete; a survey with responses to all questions on page 1 and most or all questions on page 2 was considered fully complete; and a survey with responses only to the eligibility questions (1, 2, and 4) was considered an explicit refusal. Of the 1,000 surveys fielded, 193 surveys were received. Based on responses to eligibility questions, among the 193 respondents, 149 were deemed eligible, 43 were deemed ineligible, and 1 was deemed to have unknown eligibility (did not answer the eligibility questions). Of the eligible respondents (n = 149), 144 respondents completed the survey fully, 2 completed the survey partially, and 3 only completed the eligibility questions

and were classified as explicit refusals. Out of the entire sample (*n* = 1,000), 703 respondents to whom survey packages were successfully delivered did not send in responses and were classified as implicit refusals. Respondents whose addresses could not be located were considered unable to be located (*n* = 39). Table C shows the final dispositions of the PPMQ sample.

Item Nonresponse

Several methods were applied to reduce item nonresponse, including skip patterns, limiting the survey to 15 questions, and improving the clarity of questions flagged during cognitive testing. Unweighted item nonresponse rates were low for PPMQ, ranging from 0.0% to 4.4%. For questions with multiple parts (questions 5, 6, 10, and 14), nonresponse rates were calculated for each subitem. Except for question 6, the nonresponse rate was constant across all subparts.

Nonresponse rates above 5.0% are generally reported (23). No items on PPMQ met this criterion. Because this is a pilot study aimed at developing a national, larger-scale study, items with nonresponse rates exceeding 3.0% are reported (Table D) for informative purposes. The denominators for the rates of missing values are adjusted to account for skip patterns in the survey instrument. For example, only physicians who reported treating patients with opioids are included in the item nonresponse calculation for items relating to opioid prescribing.

Response Rates

Out of the 961 surveys that were successfully delivered to respondents (that is, excluding the 39 that were unable to be located), 193 total responses (both eligible and ineligible) were received, resulting in a 20.1% return rate. Because this was conducted as a developmental study on survey design and data collection activities, the data were not weighted; hence, only an unweighted response rate was calculated. Based on the American Association for Public Opinion Research standard rate calculator for mail surveys (24), the unweighted response rate for PPMQ was 16.1%. The response rate calculation considers partial responses, fully completed responses, and respondents who could not be located. Table E shows a breakdown of the response rates.

Assessment of Nonresponse Bias

Despite efforts to increase response rates, a high level of survey nonresponse was observed. A chi-square analysis was performed to assess whether significant differences existed between respondents and nonrespondents. For this analysis, respondents were physicians who submitted responses to the survey and were found to be eligible. Nonrespondents were those who did not respond at all. Physicians who did not establish contact (were unable to be located) or were deemed ineligible through tracing efforts are not included in this analysis. The association between response outcome and physician sex, physician type (M.D. or D.O.), U.S. Census region of practice at the time of sampling, and sampled specialty was examined. Based on the chi-square analysis, respondents and nonrespondents did not differ significantly based on these characteristics. The detailed analyses can be found in Appendix X.

Table D. Physician Pain Management Questionnaire item nonresponse for rates more than 3.0%

Item	Item description	Denominator	Unweighted percent of nonresponse
Question 9	How many of your pain patients are currently being treated with opioids prescribed by you?	All eligible physician respondents who treat pain (*n* = 121)	4.1
Question 11	After you start opioid therapy on a pain patient, when do you re-evaluate him or her?	All eligible physician respondents who prescribe opioids (*n* = 90)	4.4
Question 12	When you prescribe opioids to your pain patients, how many days on average does the prescription cover?	All eligible physician respondents who prescribe opioids (*n* = 90)	3.3

SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Table E. Physician Pain Management Questionnaire response rates

Total sample released	Unweighted contact rate (percent)	Unweighted cooperation rate (percent)	Total sample released, minus ineligible	Unweighted cumulative response rate (percent)
1,000	16.7	96.6	149	16.1

NOTES: Responses based on 1,000 physicians are unweighted, and the results are not nationally representative of physicians. Percent distribution of responses is shown for methodological purposes only. Rates are calculated using the American Association of Public Opinion Research standard rate calculator for mail surveys.

SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Data Access and Guidelines for Data Use

PPMQ received clearance through an OMB package for developmental studies (OMB No. 0920–1030). As specified in the clearance package for this developmental study, the data are not weighted, national estimates are not provided, the findings are not nationally representative, and the data are only to be used for methodology-related purposes. Subsequently, no public-use files were made available. Instead, the methodological aggregate results and lessons from these data will be disseminated through publications and additional products. People interested in accessing the data for methodological purposes should contact the NCHS Division of Health Care Statistics, Ambulatory and Hospital Care Statistics Branch (ambcare@cdc.gov) to discuss use of these data in the NCHS Research Data Center or for provision of aggregate statistics from these data.

Discussion

Limitations

Response rates for physician surveys have been shown to vary widely, ranging from 6.0% to 70.0% (25). Those surveys with response rates at the upper one-half of this range tend to use incentives and mixed modes of administration. Given the resources available, the PPMQ pilot was conducted as only a self-administered mail survey without any incentives. Accordingly, in planning for PPMQ, a response rate of less than or equal to 30% was expected, based on recent literature on response rates (25), and earlier experience with NCHS' National Electronic Health Records Survey, which resembles the PPMQ in methodology (17,26). The final PPMQ pilot response rate was 16.1%, which was low but consistent with findings in previous research (25). This was likely due in part to the COVID-19 pandemic, which presented several hurdles to data collection, not just for PPMQ but across all National Health Care Surveys fielded during this time (27).

The COVID-19 pandemic made it harder to reach providers and likely expedited retirements, movement or changes of practices, and the use of telemedicine, all of which were expected to play a role in the response rates of healthcare surveys (27). Many physician practices were closed or only conducted telemedicine visits during the pandemic, conceivably reducing the number of physicians who received the surveys because the practice location was the primary address used for fielding. Even though the survey may have been delivered to the correct address, if the practice was temporarily closed or the physician continued to provide telemedicine from their home, these physicians may have never seen the survey. Furthermore, the PPMQ sample was largely composed of primary care physicians (Appendix III), a group of physicians that experienced a significant degree of burnout during the COVID-19 pandemic (28,29). This burnout may have led to an increased number of retirements among physicians, or simply made it challenging to respond to the survey.

In addition to hurdles presented by the COVID-19 pandemic, some aspects of the survey methodology used may have influenced the response rate. Administering the PPMQ using a single mode of administration as opposed to multiple modes of administration likely prevented response rates from reaching anticipated levels. Study designs using multiple modalities tend to yield higher response rates, as seen in other surveys at NCHS (17,26). Furthermore, an e-mail invitation with a link to a web-based survey may have been more convenient for busy providers, and e-mail could have been used as a low-cost reminder method. Unfortunately, limited resources made it difficult to use these approaches.

While the NPI datafile served as a cost-effective sampling frame, the contact information did lead to some undelivered survey packages (n = 284). This could have been a result of both the information in the NPI not being updated regularly or changes in physician practice locations during the COVID-19 pandemic. Moreover, the lack of age or date-of-birth data on the NPI datafile resulted in sampling physicians who were retired or out of practice (n = 64). To effectively use the NPI datafile, it may be best to use a supplemental source from which contact information (that is, mailing address and e-mail) could be confirmed or verified. While resources for performing contact tracing before fielding were not available for this pilot study, use of such tracing in the future may further increase the number of completed surveys returned.

Summary

The first objective of this pilot study was to evaluate the questions to be used in the questionnaire. The extensive evaluation of the questions on physician knowledge, awareness, and use of prescription opioid guidelines reveals potential issues with the original survey questions on this topic, even among questions that may have been previously used. Results from cognitive testing also demonstrate that from a conceptual perspective, the topic of pain management and guidelines for prescribing opioids are difficult concepts to capture in survey questions. Through this evaluation, the questions were edited, resulting in a final questionnaire that took into consideration key lessons learned (Appendix II).

The second objective of this pilot study was to assess the feasibility of conducting a national physician survey to gain a better understanding of physician opioid prescribing practices for pain management. From the pilot study, evidence showed that the final questionnaire performed well in the field. Specifically, nonresponse bias was not observed in the physicians who did and did not complete PPMQ. Furthermore, in examining each question, little evidence of item nonresponse on any of the survey items was observed, which supports the effectiveness of pretesting on question improvement. On the other hand, while skip

patterns are helpful for decreasing respondent burden, the study showed that some physicians may find these hard to follow. Thus, future fielding of PPMQ may consider these skip patterns, and how they could potentially be simplified to make it easier for physicians to understand. If using a web mode of administration, a computerized instrument that automatically applies skip patterns could be a better alternative and would require the use of different modalities to conduct the survey. As noted previously, the use of a multimode survey (pending available resources) would also be expected to increase response rates.

In addition to these two objectives, this pilot study allowed for an exploration of the use of the NPI datafile to draw an effective sample of physicians at the national level. While the NPI datafile has benefits and is cost-effective, for this survey some limitations were observed, including missing age and date-of- birth data. Additionally, some of the mailing addresses listed for physicians were inaccurate and led to undelivered survey packages, although this problem is not unique to the NPI datafile (30). Thus, if the NPI datafile (or other national database) were to be used for a nationally representative PPMQ survey (or any other national survey), use of strategies such as tracing and using complementary address data to ensure mailing addresses are updated and accurate would be beneficial.

Several lessons were learned from the pilot of PPMQ that can be applied to future surveys aimed at collecting data to better understand this topic. While no immediate plans exist to conduct a larger PPMQ that would yield nationally representative data, a selection of the PPMQ questions have been adapted and will be included in the redesigned 2023 National Ambulatory Medical Care Survey Provider Interview, a nationally representative survey of physicians and physician assistants that will be administered using both the web and mail (16). This selection of PPMQ questions will be asked to all physicians sampled for the 2023 NAMCS Provider Interview.

References

1. Centers for Disease Control and Prevention. Opioids. Understanding the opioid overdose epidemic. 2021. Available from: https://www.cdc.gov/opioids/basics/epidemic.html.
2. Centers for Disease Control and Prevention. Annual surveillance report of drug-related risks and outcomes: United States, 2019. Available from: https://www.cdc.gov/drugoverdose/pdf/pubs/2019-cdc-drug-surveillance-report.pdf.
3. Mattson CL, Tanz LJ, Quinn K, Kariisa M, Patel P, Davis NL. Trends and geographic patterns in drug and synthetic opioid overdose deaths—United States, 2013–2019. MMWR Morb Mortal Wkly Rep 70:202–7. 2021.
4. National Institutes of Health. Interagency Pain Research Coordinating Committee. Available from: https://www.iprcc.nih.gov/.
5. National Institutes of Health. Interagency Pain Research Coordinating Committee. National pain strategy report. Available, from: https://www.iprcc.nih.gov/national-pain-strategy-overview/national-pain-strategy-report.
6. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. MMWR Recomm Rep 65(1):1–49. 2016.
7. Harris PA. The opioid epidemic: AMA's response. Am Fam Physician 93(12):975. 2016.
8. U.S. Department of Veterans Affairs. VHA pain management: Opioid safety initiative (OSI). 2017. Available from: https://www.va.gov/PAINMANAGEMENT/Opioid_Safety_Initiative_OSI.asp.
9. Opioid Response Network. Opioid regulations: State by state guide. 2021. Available from: https://www.acep.org/globalassets/sites/acep/media/by-medical-focus/opioids/opioid-guide-state-by-state.pdf.
10. Maryland Department of Health. Md. Medicaid initiatives to combat opioid epidemic rolling out July 1 [press release]. June 30, 2017. Available from: https://health.maryland.gov/newsroom/Pages/July-1-brings-Medicaid-innovations-to-combat-opioid-epidemic.aspx#:~:text=Baltimore%2C%20MD%20%28June%2030%2C%202017%29%20%E2%80%93%20On%20July,to%20curb%20opioid%20prescribing%20in%20the%20Medicaid%20program.
11. National Center for Injury Prevention and Control. Overdose death rates involving opioids, by type, United States, 1999–2020. 2021. Available from: https://www.cdc.gov/drugoverdose/data/od-death-data.html.
12. National Institute on Drug Abuse. Drug overdose death rates. 2022. Available from: https://nida.nih.gov/drug-topics/trends-statistics/overdose-death-rates.
13. Kroenke K, Alford DP, Argoff C, Canlas B, Covington E, Frank JW, et al. Challenges with implementing the Centers for Disease Control and Prevention opioid guideline: A consensus panel report. Pain Med 20(4):724–35. 2019.
14. Franklin GM, Fulton-Kehoe D, Turner JA, Sullivan MD, Wickizer TM. Changes in opioid prescribing for chronic pain in Washington State. J Am Board Fam Med 26(4):394–400. 2013.
15. McCalmont JC, Jones KD, Bennett RM, Friend R. Does familiarity with CDC guidelines, continuing education, and provider characteristics influence adherence to chronic pain management practices and opioid prescribing? J Opioid Manag 14(2):103–16. 2018.

16. National Center for Health Statistics. Ambulatory health care data. 2022. Available from: https://www.cdc.gov/nchs/ahcd/index.htm.

17. National Center for Health Statistics. National Electronic Health Records Survey. 2022. Available from: https://www.cdc.gov/nchs/nehrs/about.htm.

18. Massey M. Results of cognitive testing of physician opioid questions–March 2021. National Center for Health Statistics. 2021. Available from: https://wwwn.cdc.gov/QBank/Search/Reports.aspx#/Reports/1218.

19. Centers for Medicare & Medicaid Services. National Provider Identifier standard (NPI). Data dissemination. 2021. Available from: https://www.cms.gov/Regulations-and-Guidance/Administrative-Simplification/NationalProvIdentStand/DataDissemination.

20. Dillman DA, Smyth JD, Christian LM. Internet, phone, mail, and mixed-mode surveys: The tailored design method, 4th edition. Hoboken, NJ: John Wiley. 2014.

21. Federation of State Medical Boards. Find a doctor query. Available from: https://www.fsmb.org/PDC/.

22. Doximity. The medical network. Where care comes together. 2022. Available from: https://www.doximity.com/.

23. U.S. Census Bureau. 2020 census operational quality metrics: Item nonresponse rates. 2021. Available from: https://www.census.gov/newsroom/blogs/random-samplings/2021/08/2020-census-operational-quality-metrics-item-nonresponse-rates.html.

24. American Association for Public Opinion Research. Standards and ethics. Standard definitions. Response rate calculator V4.1. 2020. Available from: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Faapor.org%2Fwp-content%2Fuploads%2F2023%2F06%2FResponse-Rate-Calculator-5-1_04142023.xlsx&wdOrigin=BROWSELINK.

25. Brtnikova M, Crane LA, Allison MA, Hurley LP, Beaty BL, Kempe A. A method for achieving high response rates in national surveys of U.S. primary care physicians. PLoS One 13(8):e0202755. 2018.

26. National Center for Health Statistics. 2019 National Electronic Health Records Survey (NEHRS): Public-use file documentation. Available from: https://www.cdc.gov/nchs/data/nehrs/NEHRS2019Doc-508.pdf.

27. Ward BW, Sengupta M, DeFrances CJ, Lau DT. COVID-19 pandemic impact on the National Health Care Surveys. Am J Public Health 111(12):2141–8. 2021.

28. Melnikow J, Padovani A, Miller M. Frontline physician burnout during the COVID-19 pandemic: National survey findings. BMC Health Serv Res 22(1):365. 2022.

29. Apaydin EA, Rose DE, Yano EM, Shekelle PG, McGowan MG, Antonini TL, et al. Burnout among primary care healthcare workers during the COVID-19 pandemic. J Occup Environ Med 63(8):642–5. 2021.

30. DesRoches CM, Barrett KA, Harvey BE, Kogan R, Reschovsky JD, Landon BE, et al. The results are only as good as the sample: Assessing three national physician sampling frames. J Gen Intern Med 30(Suppl 3): 595–601. 2015.

Appendix I. Original Untested Physician Pain Management Questionnaire Survey Instrument

National Survey on Best Practices for Patient Pain Management and Opioid Use

1. We have your specialty listed as: _____ . Is this correct?

1. Yes
2. No → What is your specialty? _____

2. Do you provide direct care for patients?

1. Yes
2. No ***(Please stop here and return the questionnaire in the envelope provided. Thank you for your time)***.
3. No longer in practice ***(Please stop here and return the questionnaire in the envelope provided. Thank you for your time)***.

3. In what setting do you typically provide care to the most patients? (Check all that apply)

1. Solo or group practice
2. Freestanding clinic or urgent care center
3. Pain management center or clinic
4. Community health center (e.g., Federally Qualified Health Center (FQHC), federally-funded clinics or "look-alike clinics")
5. Mental health center
6. Non-federal government clinic (e.g., state, county, city, maternal and child health, etc.)
7. Family planning clinic (including Planned Parenthood)
8. Health maintenance organization or other prepaid practice (e.g., Kaiser Permanente)
9. Faculty practice plan (an organized group of physicians that treat patients referred to an academic medical center)
10. Hospital emergency or hospital outpatient department
11. None of the above

4. How many of your patients have non-cancer acute pain, that is, any pain lasting less than 3 months?

1. None
2. 1% to 25%
3. 26% to 50%
4. 51% to 75%
5. More than 75%

5. How many of your patients have non-cancer chronic pain, that is, any pain lasting 3 months or more?

1. None
2. 1% to 25%
3. 26% to 50%
4. 51% to 75%
5. More than 75%

If you answered "None" to both questions 4 and 5, please stop here and return the questionnaire in the envelope provided. Thank you for your time.

6. I apply the following clinical practice guideline(s) when developing a non-cancer pain management treatment plan for my patients. (Check all that apply)

1. My U.S. state's guidelines
2. American Academy of Pain Medicine Guidelines
3. American College of Physicians Guidelines for low back pain
4 American College of Rheumatology Guidelines
5. American Geriatrics Society Guidelines
6. American Pain Society Guidelines
7. American Society of Anesthesiologists Guidelines
8. American Society of Interventional Pain Physicians Guidelines
9. U.S. Department of Defense Guidelines
10. U.S. Centers for Disease Control and Prevention Opioid Guidelines
11. U.S. Veterans Health Administration Guidelines
12. U.S. DHHS Office of the Assistant Secretary of Health Pain Management Best Practices Task Force Guidelines
13. Other clinical practice guidelines
14. I do not apply any clinical guidelines

7. I track my patients' non-cancer pain using assessment tools such as numerical or visual-analog pain scales.

1. Never
2. Rarely
3. Sometimes
4. Most of the time
5. Always

8. I track my non-cancer pain patients' physical function using a standardized questionnaire.

1. Never
2. Rarely
3. Sometimes
4. Most of the time
5. Always

The next series of questions asks about the use of opioids to treat non-cancer pain patients, REGARDLESS of whether their pain is acute or chronic.

9. How many of your non-cancer pain patients are currently being treated with opioids?

1. None ***(Skip to question 12)***
2. 1% to 25%
3. 26% to 50%
4. 51% to 75%
5. More than 75%

10. After a non-cancer pain patient starts opioid therapy, when do you re-evaluate him/her?

1. Within 1 week
2. Within 4 weeks
3. Within 3 months
4. Within 1 year
5. After 1 year
6. I don't re-evaluate patients after they start opioid therapy

11. I discuss risks and benefits with non-cancer pain patients before starting an opioid pain management approach.

1. Never
2. Rarely
3. Sometimes
4. Most of the time
5. Always

12. I recommend non-pharmacological approaches to non-cancer pain patients before or instead of opioid therapy.

1. Never ***(Skip to question 14)***
2. Rarely
3. Sometimes
4. Most of the time
5. Always

13. What types of non-pharmacological approaches do you currently recommend to non-cancer pain patients? (Check all that apply)

1. Acupuncture
2. Chiropractic care
3. Exercise and/or stretching
4. Locally-applied heat/cold
5. Massage therapy
6. Mind-body approaches such as biofeedback, progressive relaxation, meditation, or guided imagery
7. Occupational therapy
8. Physical therapy
9. Yoga, tai chi, or qi gong
10. Other → Please specify: _____

14. I recommend non-opioid medications to non-cancer pain patients before or instead of opioid therapy.

1. Never ***(Skip to question 16)***
2. Rarely
3. Sometimes
4. Most of the time
5. Always

15. What types of non-opioid medications do you currently recommend to non-cancer pain patients? (Check all that apply)

1. Acetaminophen
2. Anticonvulsants
3. Antidepressants
4. Benzodiazepines
5. Non-steroidal anti-inflammatory drugs
6. Other non-opioid drugs

If you answered "None" to question 5 above, please stop here and return the questionnaire in the envelope provided. Thank you for your time.

The next series of questions asks about the use of opioids to treat chronic non-cancer pain patients.

16. I screen my non-cancer chronic pain patients for depression and other mental health disorders prior to starting treatment.

1. Never
2. Rarely
3. Sometimes
4. Most of the time
5. Always

17. I establish treatment goals with my non-cancer chronic pain patients (e.g., less pain, improved function, increased social activities, better sleep quality, etc.).

1. Never
2. Rarely
3. Sometimes
4. Most of the time
5. Always

18. How many of your non-cancer chronic pain patients are currently being treated with opioids?

1. None ***(Skip to question 22)***
2. 1% to 25%
3. 26% to 50%
4. 51% to 75%
5. More than 75%

19. When you prescribe opioids to your non-cancer chronic pain patients, how many days on average does the prescription cover?

1. Fewer than 4 days
2. 4 to 7 days
3. 8 to 14 days
4. 14 to 30 days
5. More than 30 days

20. On average, how often do you re-evaluate non-cancer chronic pain patients who are prescribed long-term opioids?

1. Once per week
2. Once per month
3. Once every 3 months
4. Once every 6 months
5. Once per year
6. Less than once per year
7. I don't prescribe long-term opioids to my non-cancer chronic pain patients

21. For your non-cancer chronic pain patients, how often do you…?

	Never	Rarely	Sometimes	Most of the time	Always
Use an opioid risk assessment before starting opioid therapy					
Prescribe naloxone to patients receiving opioids					
Establish an opioid treatment plan with my patients					
Review and/or evaluate patient history of drug or alcohol abuse before starting opioid therapy					
Use random urine toxicology screening before starting opioid therapy, and at least quarterly for long-term opioid therapy					
Review my U.S. state's prescription drug monitoring program database before starting opioid therapy					
Co-prescribe benzodiazepines with opioids					

22. How confident are you in successfully treating/managing non-cancer chronic pain?

1. Not confident at all
2. Somewhat confident
3. Very confident
4. Completely confident

23. Which of these have interfered with successful management of your non-cancer chronic pain patients? (Check all that apply)

1. Complex pain patients with multiple comorbid conditions
2. Inadequate access to pain specialist or specialized pain clinics
3. Inadequate non-opioid drugs
4. Inadequate opioid drugs
5. Inadequate non-pharmacological approaches
6. Lack of information on how to recommend or make referrals for non-pharmacological approaches
7. Insufficient practice time
8. Lack of training in pain management
9. Patient unwillingness to engage in self-care
10. Patient unwillingness to use non-opioid approaches
11. Patient lack of or insufficient health insurance coverage for required treatments
12. Other
13. None of these have interfered with successful management

Appendix II. Final Physician Pain Management Questionnaire Survey Instrument

Physician Pain Management Questionnaire

Form Approved
OMB No. 0920-1030
Exp. Date: 06/30/2023

NOTICE – CDC estimates the average public reporting burden for this collection of information as 15 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 (0920-1030).

Assurance of Confidentiality – We take your privacy very seriously. All information that relates to or describes identifiable characteristics of individuals, a practice, or an establishment will be used only for statistical purposes. NCHS staff, contractors, and agents will not disclose or release responses in identifiable form without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42U.S.C. 242m(d)) and the Confidential Information Protection and Statistical Efficiency Act (Title III of the Foundations for Evidence-Based Policymaking Act of 2018 (Pub. L. No. 115-435, 132 Stat. 5529 § 302)). In accordance with CIPSEA, every NCHS employee, contractor, and agent has taken an oath and is subject to a jail term of up to five years, a fine of up to $250,000, or both if he or she willfully discloses ANY identifiable information about you.

Physician Pain Management Questionnaire

The purpose of this survey is to understand physician's awareness and use of various clinical practice guidelines for managing pain. The survey should only be completed by the physician to whom it is addressed. Your participation in this survey is voluntary and greatly appreciated. Your answers are completely confidential. If you have any questions or comments about this survey, please call 301-458-4220. Please return your questionnaire in the envelope provided.

1. What is your specialty?

- ☐1 General practice/family medicine
- ☐2 Internal medicine
- ☐3 Obstetrics and Gynecology
- ☐5 Anesthesiology (Pain Medicine)
- ☐6 Emergency Medicine
- ☐7 General Surgery
- ☐8 Surgical Specialty (please specify): _____
- ☐9 Other (please specify): _____

2. Do you provide direct care for patients?

- ☐1 Yes
- ☐2 No
- ☐3 I am no longer in practice.

} *Please stop here and return the questionnaire in the envelope provided. Thank you for your time.*

3. In what setting do you typically provide care to the most patients? CHECK ALL THAT APPLY.

- ☐1 Solo or group practice (inpatient and/or outpatient)
- ☐2 Freestanding clinic or urgent care center
- ☐3 Pain management center or clinic
- ☐4 Community health center (e.g., Federally Qualified Health Center (FQHC), federally funded clinics or "look-alike" clinics
- ☐5 Mental health center
- ☐6 Emergency Room
- ☐7 Non-federal government clinic (e.g., state, county)

4. How many of your patients are you currently treating for pain?

☐1 None ☐2 Few ☐3 Some ☐4 Almost All ☐5 All

If you answered "None" to question 4, please stop here and return the questionnaire in the envelope provided. Thank you for your time.

5. Of the following categories of clinical practice guidelines for pain management, select those you are aware of and select those that you use when treating pain patients. CHECK ALL THAT APPLY.	**I am aware of these guideline(s)**	**I use these guideline(s) to treat pain**
a. Guidelines from professional medical organizations or societies (e.g., the American Academy of Pain Medicine Guidelines)	☐1	☐2
b. Guidelines established by the state where you primarily provide care	☐1	☐2
c. The CDC Guideline for Prescribing Opioids for Chronic Pain *also known as* The U.S. Centers for Disease Control and Prevention Opioid Guideline	☐1	☐2
d. Hospital or practice-based guidelines; that is guidelines established by the organization where you provide care.	☐1	☐2
e. Guidelines established by the Department of Health and Human Services or Veteran Administration	☐1	☐2

6. When managing your pain patients, how often do you?	**Never**	**Rarely**	**Some-times**	**Often**	**Always**
a. Establish treatment goals with your recently diagnosed pain patients? (e.g., less pain, improved function, increased social activities, better sleep quality, etc.)	☐1	☐2	☐3	☐4	☐5
b. Recommend non-pharmacological approaches to your recently diagnosed pain patients before or instead of opioid therapy	☐1	☐2	☐3	☐4	☐5

If you answered "Never" to question 6b, please skip to question 8.

If you have misplaced the envelope, please send the questionnaire to: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics –AHCSB, 3311 Toledo Road, Room 3409 Hyattsville, MD 20782

Box for Administrative Use Only

1

Form Approved
OMB No. 0920-1030
Exp. Date: 06/30/2023

7. What types of non-opioid medications do you currently recommend to pain patients? CHECK ALL THAT APPLY.

☐1 Acetaminophen ☐2 Anticonvulsants
☐3 Antidepressants ☐4 Benzodiazepines
☐5 Non-steroidal anti-inflammatory **drugs** (NSAIDs) ☐6 Other non-opioid drugs

8. How confident are you in successfully treating/managing pain?

☐1 Not confident at all ☐2 Somewhat confident
☐3 Very confident ☐4 Completely confident

The next series of questions asks about the use of opioid therapy to treat pain patients.

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

☐1 None ☐2 Few ☐3 Some
☐4 Almost All ☐5 All

If you answered "None" to question 9, please stop here and return the questionnaire in the envelope provided. Thank you for your time.

10. Prior to starting opioids for pain management, how often do you do the following?	**Never**	**Rarely**	**Some-times**	**Often**	**Always**
a. Screen patients for depression and other mental health disorders	☐1	☐2	☐3	☐4	☐5
b. Discuss risks and benefits of using opioids for pain treatment	☐1	☐2	☐3	☐4	☐5

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

☐1 Within 1 week ☐2 Within 4 weeks
☐3 Within 3 months ☐4 Within 1 year
☐5 I don't re-evaluate patients after starting opioid therapy

12. When you prescribe opioids to your pain patients, how many days on average does the prescription cover?

☐1 Fewer than 4 days ☐2 4 to 7 days
☐3 8 to 14 days ☐4 15 to 30 days
☐5 More than 30 days

13. On average, how often do you re-evaluate pain patients to whom you have prescribed long-term opioids (*more than 3 months*)?

☐1 Once per week
☐2 Once per month
☐3 Once every 3 months
☐4 Once every 6 months
☐5 Once per year
☐6 Less than once per year
☐7 I don't prescribe long-term opioids to my pain patients

14. When prescribing opioid therapy to your pain patients, how often do you?	**Never**	**Rarely**	**Some-times**	**Often**	**Always**
a. Perform a substance abuse risk assessment before prescribing opioids (e.g., CAGE, COWS, TAPS)	☐1	☐2	☐3	☐4	☐5
b. Establish an opioid treatment plan with your patients	☐1	☐2	☐3	☐4	☐5
c. Review the patient's history of substance use	☐1	☐2	☐3	☐4	☐5
d. Perform a urine toxicology screening **before** starting opioid therapy	☐1	☐2	☐3	☐4	☐5
e. Review your U.S. state's prescription drug monitoring program database (PDMP)	☐1	☐2	☐3	☐4	☐5
f. Prescribe naloxone to patients receiving opioids	☐1	☐2	☐3	☐4	☐5
g. Perform a random urine toxicology screening **quarterly** for **long-term opioid therapy**	☐1	☐2	☐3	☐4	☐5

15. What type of non-pharmacological approaches do you currently recommend to your recently diagnosed pain patients? CHECK ALL THAT APPLY.

☐1 Acupuncture/Massage therapy ☐2 Chiropractic care ☐3 Exercise and/or stretching ☐4 Local heat/cold therapy
☐5 Mind-body techniques (e.g., biofeedback) ☐6 Occupational/Physical therapy ☐7 Talk therapy (CBT, group therapy) ☐8 Yoga, Tai-Chi, Qi Gong
☐9 None ☐10 Other _____

If you have misplaced the envelope, please send the questionnaire to: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics –AHCSB, 3311 Toledo Road, Room 3409 Hyattsville, MD 20782

Box for Administrative Use Only

2

Appendix III. Physician Pain Management Questionnaire Inclusion and Exclusion Criteria

Inclusion and Exclusion Criteria

Participation Inclusion Criteria:	**Participation Exclusion Criteria**
Physicians who met the following criteria were included in the final sampling frame. 1. Practice in the 50 U.S. states and D.C. 2. Active National Provider Identifier (NPI) 3. Active medical license 4. Physician MD or DO 5. **Included Specialties (In Scope):** • Anesthesiology • Family medicine • General practice • Internal medicine • Neuromusculoskeletal medicine and osteopathic manipulative medicine (OMM) • Neuromusculoskeletal medicine, sports medicine • Obstetrics and gynecology • Oral and maxillofacial surgery • Orthopaedic surgery • Pain medicine • Pediatrics • Physical medicine and rehabilitation • Preventive medicine • Psychiatry and neurology	Physicians who meet the following criteria were excluded from the final sampling frame. 1. Physicians practicing in the United States' territories 2. Physicians with a deactivated or inactive NPI 3. Trainees (resident physicians, interns, fellows). 4. Federally employed physicians 5. Physicians sampled in any of the National Health Care Surveys in the past 2 years 6. Physicians without a documented medical license number 7. Physicians in out-of-scope specialties: • Nonprescribing specialties (for example, radiology, pathology, informatics, administrative medicine) • Emergency medicine • Hospital-based specialties (for example, hospitalists, critical care) • Specialties that rarely treat pain (for example, cardiology, gastroenterology, pulmonology, allergy and immunology).

Detailed list of the specialties included in the sampling frame, using NPI taxonomy

Classification (Specialty)	**Specialization (Sub-specialty)**
Anesthesiology	Pain medicine
Family medicine	Adolescent medicine Adult medicine Geriatric medicine Sports medicine Family medicine
General practice	General practice
Internal medicine	Adolescent medicine Geriatric medicine Hematology Rheumatology Sports medicine Internal medicine
Neuromusculoskeletal medicine and OMM	Neuromusculoskeletal medicine and OMM

Classification (Specialty)	Specialization (Sub-specialty)
Neuromusculoskeletal medicine and sports medicine	Neuromusculoskeletal medicine and sports medicine
Obstetrics and gynecology	Gynecology Obstetrics Obstetrics and gynecology
Oral and maxillofacial surgery	Oral and maxillofacial surgery
Orthopaedic surgery	Adult reconstructive orthopaedic surgery Foot and ankle surgery Hand surgery Orthopaedic surgery of the spine Orthopaedic trauma Pediatric orthopaedic surgery Sports medicine Orthopaedic surgery
Pain medicine	Interventional pain medicine Pain medicine
Pediatrics	Adolescent medicine Pediatric rheumatology Sports medicine Pediatrics
Physical medicine and rehabilitation	Brain injury medicine Neuromuscular medicine Pain medicine Pediatric rehabilitation medicine Spinal cord injury medicine Sports medicine Physical medicine and rehabilitation
Preventive medicine	Occupational medicine Preventive medicine and/or occupational environmental medicine Public health and general preventive medicine Sports medicine
Psychiatry and neurology	Brain injury medicine Geriatric psychiatry or neurology Neuromuscular medicine Pain medicine Psychiatry Psychosomatic medicine Sports medicine

Appendix IV. Physician Pain Management Questionnaire Invitation Letter

U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

National Center for Health Statistics
3311 Toledo Road, Room 3409
Hyattsville, Maryland 20782

June 23, 2021

First Last
Doctors Hospital
0000 Physicians Lane
Someplace, MD 00000

Dear Dr. First Last Name,

You have been randomly selected to respond to a brief mail survey on the knowledge and use of various clinical guidelines when prescribing opioids for pain management. The survey is conducted by the National Center for Health Statistics, a part of the Centers for Disease Control and Prevention (CDC). The NCHS collects data from physicians to help inform and improve health care delivery in the United States. Results from the Physician Pain Management Questionnaire (PPMQ) will be used to understand how physicians use clinical guidelines to prescribe opioids.

Participation in this 15-minute survey is voluntary, and you may stop at any time. You are not being asked to provide any patient information. All information we collect is used for statistical purposes only. There are no penalties for nonparticipation. If you choose to participate, you are giving consent for your deidentified information to be used for future survey development by NCHS or other investigators.

The NCHS Ethics Review Board has approved this survey. NCHS complies with numerous federal laws to protect your data, privacy, and confidentiality. Data collection is authorized under Section 306 of the Public Health Service Act (42 U.S.C. 242k). NCHS is required to keep your survey data confidential in accordance with Section 308(d) of the Public Health Service Act (42 U.S.C. 242m(d)) and the Confidential Information Protection and Statistical Efficiency Act (CIPSEA, Title III of Public Law 115-435).

We are eager to get information from you for this study. Within 2-4 weeks, you will receive a mailed packet containing the survey, instructions on completing it, and a pre-paid return envelope. Please prepare the time to complete the 15-minute survey and return it to us.

We rely on the generosity of physicians like you to provide the much-needed information to improve the health of this Nation. If you have any questions or comments regarding this study, please call the study coordinator at (301) 458-4220. If you have questions about your rights as a study participant, please call the NCHS Ethics Review Board at (800) 223-8118 and say you are calling about Protocol #2021-04.

Thank you in advance for your valuable participation in this important study.

Sincerely,

FREQUENTLY ASKED QUESTIONS ABOUT THE NATIONAL HEALTH CARE SURVEYS

HOW WAS I CHOSEN FOR THE SURVEY?

You were randomly selected from all nonfederal physicians in the U.S. who are engaged in direct patient care. We picked 1,000 physicians across the entire country. All nonfederal physicians have a chance to be picked. This process ensures that the physicians selected represent all practitioners in the United States.

WHAT ARE YOU GOING TO ASK ME?

Some examples of what we collect about you include general information about the office location(s) where you practice, types of direct patient care you provide, patient characteristics, and your approaches to managing pain. We do not expect physicians to have difficulty with any of the questions. We are asking about how patients on opioids are managed; some may find this question sensitive. Be assured that these questions are only used to understand how guidelines are being used. There are no penalties for answering truthfully. The information we collect is very important. We need your help to ensure that the survey results are complete and correct. You are getting a special chance to make a difference in the health of the Nation.

WHO WILL SEE MY ANSWERS?

We take your privacy very seriously. The answers you give us are used for statistical purposes only. This means that your answers will be combined with other physicians' answers in a way that protects everyone's identity. As required by federal law, only those NCHS employees who must use your personal information for a specific reason can see your answers.

WHAT LAWS PROTECT MY PRIVACY?

Strict laws prevent us from releasing information that could identify you to anyone else without your consent. Congress authorized this data collection in Section 306 of the Public Health Service Act (Title 42, United States Code (U.S.C), 242k). Several federal laws require that all information we collect be held in strict confidence: Section 308(d) of the Public Health Service Act (42 U.S.C. 242m(d)), the Confidential Information Protection and Statistical Efficiency Act (CIPSEA, Title III of Public Law 115-435), and the Privacy Act of 1974 (5 U.S.C. § 552a). Every NCHS employee, contractor, research partner, and agent has taken an oath to keep your information private. Anyone who willfully discloses ANY identifiable information about ANYONE in the survey could get a jail term of up to five years, a fine of up to $250,000, or both.

WHO PROTECTS THE INTERESTS OF SURVEY PARTICIPANTS?

Every year, the Ethics Review Board of the National Center for Health Statistics reviews survey content and methods to protect study participants. You may call the Ethics Review Board to ask about your rights as a participant in this study. The toll-free number is (800) 223-8118. You will get an answering service. Please leave a brief message with your name and phone number. Say you are calling about Protocol #2021-04. Your call will be returned promptly.

CAN I COMPLETE THE SURVEY ONLINE?

There is no online option for the Physician Pain Management Questionnaire (PPMQ).

Appendix V. Physician Pain Management Questionnaire Introductory Letter

U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

National Center for Health Statistics
3311 Toledo Road, Room 3409
Hyattsville, Maryland 20782

June 23, 2021

First Last
Doctors Hospital
0000 Physicians Lane
Someplace, MD 00000

Dear Dr. First Last Name,

About two weeks ago, we invited you to participate in a brief mail survey on the knowledge and use of various clinical guidelines when prescribing opioids for pain management. The survey is conducted by the National Center for Health Statistics (NCHS), a part of the Centers for Disease Control and Prevention (CDC). The NCHS collects data from physicians to help inform and improve health care delivery in the United States. Results from the enclosed Physician Pain Management Questionnaire (PPMQ) will be used to understand how physicians use clinical guidelines to prescribe opioids.

We are eager to get information from you! Please take 15 minutes to complete the survey and return it in the enclosed pre-paid envelope. Participation is voluntary, and you may stop at any time. If you choose not to participate, please answer Questions 1 and 2 before returning the survey to us in the enclosed envelope. There are no penalties for nonparticipation. If you choose to participate, you are giving consent for your deidentified information to be used for future survey development by NCHS or other investigators.

All information we collect is used for statistical purposes only. The NCHS Ethics Review Board has approved this survey. NCHS complies with numerous federal laws to protect your data, privacy, and confidentiality, as described in detail under the section: Frequently Asked Questions.

We rely on the generosity of physicians like you to provide the much-needed information to improve the health of this Nation. If you have any questions or comments regarding this study, please call the study coordinator at (301) 458-4220. If you have questions about your rights as a study participant, please call the NCHS Ethics Review Board at (800) 223-8118 and say you are calling about Protocol #2021-04.

Thank you for your valuable participation in this important study.

Sincerely,

FREQUENTLY ASKED QUESTIONS ABOUT THE NATIONAL HEALTH CARE SURVEYS

HOW WAS I CHOSEN FOR THE SURVEY?

You were randomly selected from all nonfederal physicians in the U.S. who are engaged in direct patient care. We picked 1,000 physicians across the entire country. All nonfederal physicians have a chance to be picked. This process ensures that the physicians selected represent all practitioners in the United States.

WHAT ARE YOU GOING TO ASK ME?

Some examples of what we collect about you include general information about the office location(s) where you practice, types of direct patient care you provide, patient characteristics, and your approaches to managing pain. We do not expect physicians to have difficulty with any of the questions. We are asking about how patients on opioids are managed; some may find this question sensitive. Be assured that these questions are only used to understand how guidelines are being used. There are no penalties for answering truthfully. The information we collect is very important. We need your help to ensure that the survey results are complete and correct. You are getting a special chance to make a difference in the health of the Nation.

WHO WILL SEE MY ANSWERS?

We take your privacy very seriously. The answers you give us are used for statistical purposes only. This means that your answers will be combined with other physicians' answers in a way that protects everyone's identity. As required by federal law, only those NCHS employees who must use your personal information for a specific reason can see your answers.

WHAT LAWS PROTECT MY PRIVACY?

Strict laws prevent us from releasing information that could identify you to anyone else without your consent. Congress authorized this data collection in Section 306 of the Public Health Service Act (Title 42, United States Code (U.S.C), 242k). Several federal laws require that all information we collect be held in strict confidence: Section 308(d) of the Public Health Service Act (42 U.S.C. 242m(d)), the Confidential Information Protection and Statistical Efficiency Act (CIPSEA, Title III of Public Law 115-435), and the Privacy Act of 1974 (5 U.S.C. § 552a). Every NCHS employee, contractor, research partner, and agent has taken an oath to keep your information private. Anyone who willfully discloses ANY identifiable information about ANYONE in the survey could get a jail term of up to five years, a fine of up to $250,000, or both.

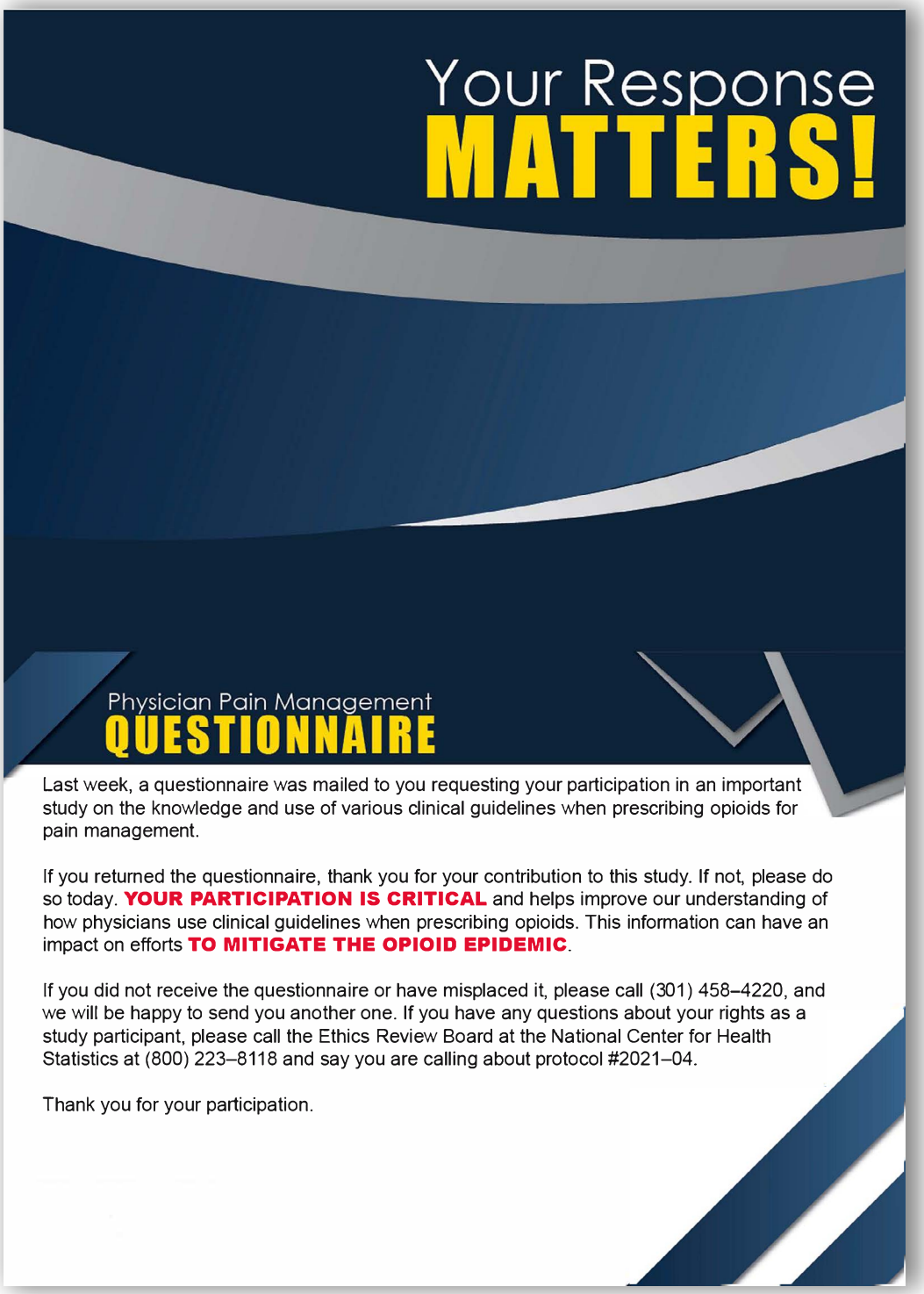
WHO PROTECTS THE INTERESTS OF SURVEY PARTICIPANTS?

Every year, the Ethics Review Board of the National Center for Health Statistics reviews survey content and methods to protect study participants. You may call the Ethics Review Board to ask about your rights as a participant in this study. The toll-free number is (800) 223-8118. You will get an answering service. Please leave a brief message with your name and phone number. Say you are calling about Protocol #2021-04. Your call will be returned promptly.

CAN I COMPLETE THE SURVEY ONLINE?

There is no online option for the Physician Pain Management Questionnaire (PPMQ).

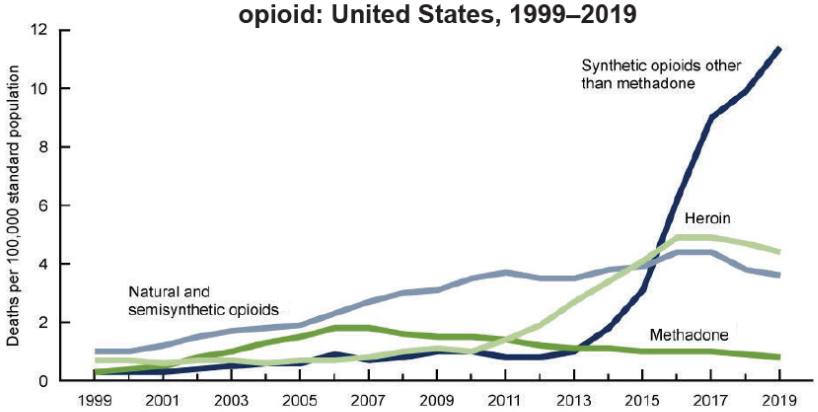
Appendix VI. Physician Pain Management Questionnaire Reminder Postcard



CS323880

U.S. Department of Health & Human Services
Centers for Disease Control and Prevention
National Center for Health Statistics—AHCSB
3311 Toledo Road, Room 3409
Hyattsville, MD 20782

Age-adjusted rates of drug overdose deaths involving opioids, by type of opioid: United States, 1999–2019



NOTE: For more information, see NCHS Data Brief No. 394, available from: https://www.cdc.gov/nchs/products/databriefs/db394.htm.
SOURCE: National Center for Health Sta istics, National Vital Statistics System, Mortality.

Your Response
MATTERS!

Appendix VII. Physician Pain Management Questionnaire Follow-up Letter

U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

National Center for Health Statistics
3311 Toledo Road, Room 3409
Hyattsville, Maryland 20782

June 23, 2021

First Last
Doctors Hospital
0000 Physicians Lane
Someplace, MD 00000

Dear Dr. First Last Name,

About four weeks ago, we sent you the Physician Pain Management Questionnaire, which is an important survey study on the knowledge and use of various clinical guidelines when prescribing opioids for pain management. As of this mailing, we have not received your completed survey. Enclosed is a copy of the survey. I urge you to complete the survey and return it in the enclosed envelope. It should take only 15 minutes to complete. If you are no longer in practice or do not provide direct patient care, please answer Question 2 on the survey and return it in the postage-paid envelope. If you choose not to participate, please answer Questions 1 and 2 before returning the survey in the enclosed envelope.

The National Center for Health Statistics (NCHS), a part of the Centers for Disease Control and Prevention (CDC), collects data from physicians to help inform and improve health care delivery in the United States. The opioid epidemic continues to be a major health crisis in this Nation. Your participation is extremely important. We need to hear from you, as we cannot substitute your unique insight and experiences with those from another physician. You are not being asked to provide any patient information.

All information we collect is used for statistical purposes only. The NCHS Ethics Review Board has approved this survey. NCHS complies with numerous federal laws to protect your data, privacy, and confidentiality, as described in detail under the section: Frequently Asked Questions. Your participation is voluntary, and you may stop at any time. There are no penalties for nonparticipation. If you choose to participate, you are giving consent for your deidentified information to be used for future survey development by NCHS or other investigators.

Thank you in advance for your time, effort, and contribution to this important study. If you have any questions or comments, please do not hesitate to contact the study coordinator at (301) 458-4220. If you have questions about your rights as a study participant, please call the NCHS Ethics Review Board at (800) 223-8118 and say you are calling about Protocol #2021-04.

Thank you for your valuable participation in this important study.

Sincerely,

FREQUENTLY ASKED QUESTIONS ABOUT THE NATIONAL HEALTH CARE SURVEYS

HOW WAS I CHOSEN FOR THE SURVEY?

You were randomly selected from all nonfederal physicians in the U.S. who are engaged in direct patient care. We picked 1,000 physicians across the entire country. All nonfederal physicians have a chance to be picked. This process ensures that the physicians selected represent all practitioners in the United States.

WHAT ARE YOU GOING TO ASK ME?

Some examples of what we collect about you include general information about the office location(s) where you practice, types of direct patient care you provide, patient characteristics, and your approaches to managing pain. We do not expect physicians to have difficulty with any of the questions. We are asking about how patients on opioids are managed; some may find this question sensitive. Be assured that these questions are only used to understand how guidelines are being used. There are no penalties for answering truthfully. The information we collect is very important. We need your help to ensure that the survey results are complete and correct. You are getting a special chance to make a difference in the health of the Nation.

WHO WILL SEE MY ANSWERS?

We take your privacy very seriously. The answers you give us are used for statistical purposes only. This means that your answers will be combined with other physicians' answers in a way that protects everyone's identity. As required by federal law, only those NCHS employees who must use your personal information for a specific reason can see your answers.

WHAT LAWS PROTECT MY PRIVACY?

Strict laws prevent us from releasing information that could identify you to anyone else without your consent. Congress authorized this data collection in Section 306 of the Public Health Service Act (Title 42, United States Code (U.S.C), 242k). Several federal laws require that all information we collect be held in strict confidence: Section 308(d) of the Public Health Service Act (42 U.S.C. 242m(d)), the Confidential Information Protection and Statistical Efficiency Act (CIPSEA, Title III of Public Law 115-435), and the Privacy Act of 1974 (5 U.S.C. § 552a). Every NCHS employee, contractor, research partner, and agent has taken an oath to keep your information private. Anyone who willfully discloses ANY identifiable information about ANYONE in the survey could get a jail term of up to five years, a fine of up to $250,000, or both.

WHO PROTECTS THE INTERESTS OF SURVEY PARTICIPANTS?

Every year, the Ethics Review Board of the National Center for Health Statistics reviews survey content and methods to protect study participants. You may call the Ethics Review Board to ask about your rights as a participant in this study. The toll-free number is (800) 223-8118. You will get an answering service. Please leave a brief message with your name and phone number. Say you are calling about Protocol #2021-04. Your call will be returned promptly.

CAN I COMPLETE THE SURVEY ONLINE?

There is no online option for the Physician Pain Management Questionnaire (PPMQ).

Appendix VIII. Physician Pain Management Questionnaire Modified Follow-up Letter

U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

National Center for Health Statistics
3311 Toledo Road, Room 3409
Hyattsville, Maryland 20782

June 23, 2021

First Last
Doctors Hospital
0000 Physicians Lane
Someplace, MD 00000

Dear Dr. First Last Name,

We have been trying to reach you about an important survey study on the knowledge and use of various clinical guidelines when prescribing opioids for pain management. We have not received your completed survey. Results from the enclosed Physician Pain Management Questionnaire will be used to inform health services researchers about how physicians use clinical guidelines to prescribe opioids and to develop broader studies to investigate this topic.

The study period is coming to an end, and a concern is that physicians who have not responded to the survey may have different experiences from those who responded. We need to hear from all types of physicians, and we cannot substitute your responses with another physician's responses. The survey should take only 15 minutes to complete. If you are no longer in practice or do not provide direct patient care, please answer Question 2 on the survey and return it in the pre-paid envelope. If you choose not to participate, please answer Questions 1 and 2 before returning the survey to us in the enclosed pre-paid envelope.

You are not being asked to provide any patient information, and participation is voluntary. You may stop participation at any time. There are no penalties for nonparticipation, however, the information we collect is very important. We rely on information from physicians like you to improve the health of this Nation. If you choose to participate, you are giving consent for your deidentified information to be used for future survey development by the National Center for Health Statistics (NCHS) or other investigators.

All information we collect is used for statistical purposes only. The NCHS Ethics Review Board has approved this survey. NCHS complies with numerous federal laws to protect your data, privacy, and confidentiality, as described in detail under the section: Frequently Asked Questions.

Thank you in advance for your time, effort, and contribution to this important study. If you have any questions or comments regarding this study, please do not hesitate to contact the study coordinator at (301) 458-4220. If you have questions about your rights as a study participant, please call the NCHS Ethics Review Board at (800) 223-8118 and say you are calling about Protocol #2021-04.

Sincerely,

FREQUENTLY ASKED QUESTIONS ABOUT THE NATIONAL HEALTH CARE SURVEYS

HOW WAS I CHOSEN FOR THE SURVEY?

You were randomly selected from all nonfederal physicians in the U.S. who are engaged in direct patient care. We picked 1,000 physicians across the entire country. All nonfederal physicians have a chance to be picked. This process ensures that the physicians selected represent all practitioners in the United States.

WHAT ARE YOU GOING TO ASK ME?

Some examples of what we collect about you include general information about the office location(s) where you practice, types of direct patient care you provide, patient characteristics, and your approaches to managing pain. We do not expect physicians to have difficulty with any of the questions. We are asking about how patients on opioids are managed; some may find this question sensitive. Be assured that these questions are only used to understand how guidelines are being used. There are no penalties for answering truthfully. The information we collect is very important. We need your help to ensure that the survey results are complete and correct. You are getting a special chance to make a difference in the health of the Nation.

WHO WILL SEE MY ANSWERS?

We take your privacy very seriously. The answers you give us are used for statistical purposes only. This means that your answers will be combined with other physicians' answers in a way that protects everyone's identity. As required by federal law, only those NCHS employees who must use your personal information for a specific reason can see your answers.

WHAT LAWS PROTECT MY PRIVACY?

Strict laws prevent us from releasing information that could identify you to anyone else without your consent. Congress authorized this data collection in Section 306 of the Public Health Service Act (Title 42, United States Code (U.S.C), 242k). Several federal laws require that all information we collect be held in strict confidence: Section 308(d) of the Public Health Service Act (42 U.S.C. 242m(d)), the Confidential Information Protection and Statistical Efficiency Act (CIPSEA, Title III of Public Law 115-435), and the Privacy Act of 1974 (5 U.S.C. § 552a). Every NCHS employee, contractor, research partner, and agent has taken an oath to keep your information private. Anyone who willfully discloses ANY identifiable information about ANYONE in the survey could get a jail term of up to five years, a fine of up to $250,000, or both.

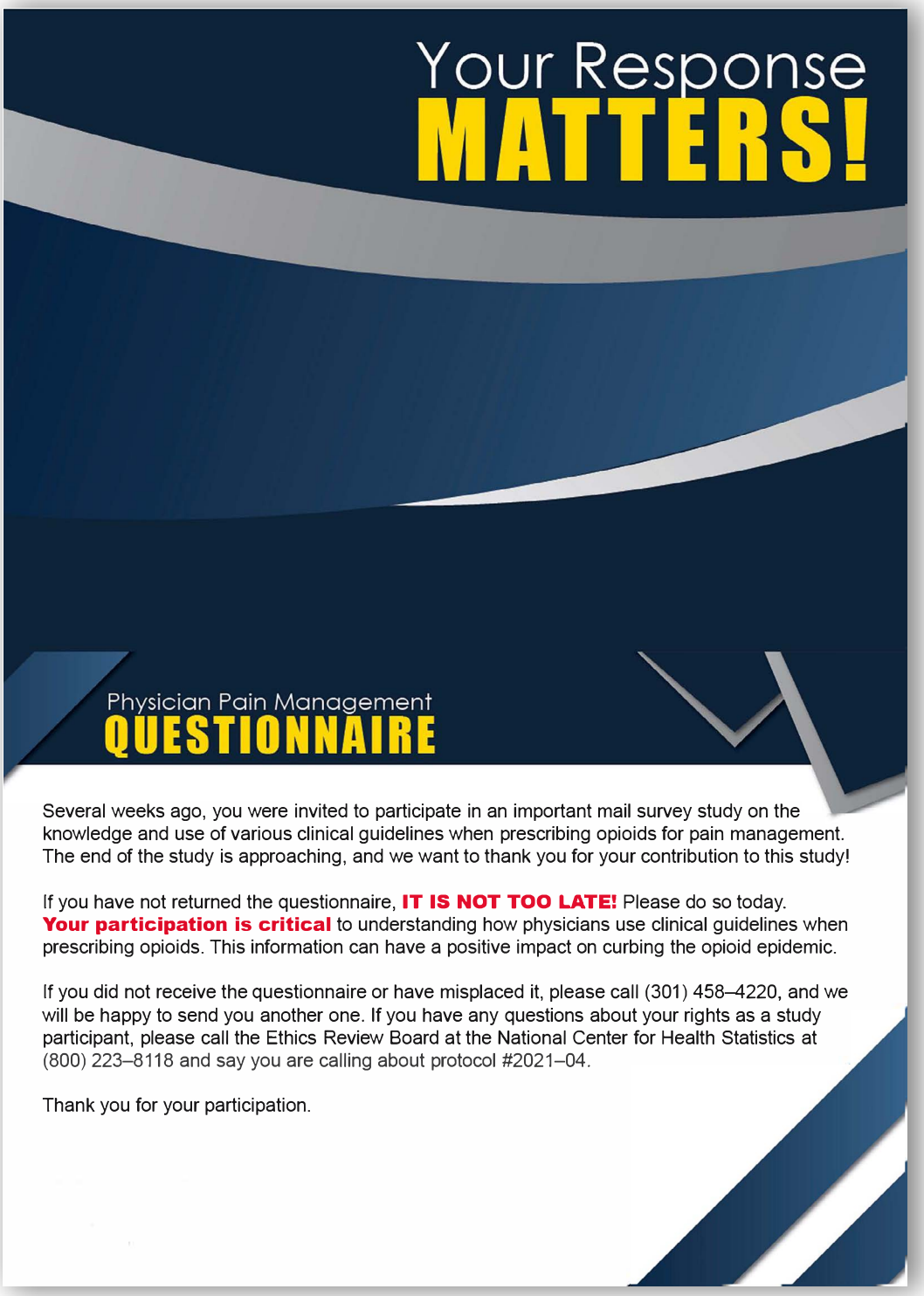
WHO PROTECTS THE INTERESTS OF SURVEY PARTICIPANTS?

Every year, the Ethics Review Board of the National Center for Health Statistics reviews survey content and methods to protect study participants. You may call the Ethics Review Board to ask about your rights as a participant in this study. The toll-free number is (800) 223-8118. You will get an answering service. Please leave a brief message with your name and phone number. Say you are calling about Protocol #2021-04. Your call will be returned promptly.

CAN I COMPLETE THE SURVEY ONLINE?

There is no online option for the Physician Pain Management Questionnaire (PPMQ).

Appendix IX. Physician Pain Management Questionnaire Gratitude Postcard



CS323860

U.S. Department of Health & Human Services
Centers for Disease Control and Prevention
National Center for Health Statistics—AHCSB
3311 Toledo Road, Room 3409
Hyattsville, MD 20782

Thank you For Your Response!

Age-adjusted rates of drug overdose deaths involving opioids, by type of opioid: United States, 1999–2019

NOTE: For more information, see NCHS Data Brief No. 394, available from: https://www.cdc.gov/nchs/products/databriefs/db394.htm.
SOURCE: National Center for Health Statistics, Na ional Vital Statis ics System, Mortality.

Appendix X. Physician Pain Management Questionnaire Nonresponse Bias Analysis

The Physician Pain Management Questionnaire had a response rate of 16.1%. To assess the potential for nonresponse bias, a chi-square test of independence was performed to examine whether significant differences existed between respondents and nonrespondents across select characteristics. For this analysis, respondents had to have responded to the survey either by phone call, or by mail. Nonrespondents were those who did not respond at all. Physicians who did not establish contact, or were ineligible through locating efforts or survey responses, were not included in this analysis.

The association between survey response and the following physician characteristics was examined: Sex, physician type (allopathic [MD] or osteopathic [DO]), U.S. region of practice at the time of sampling, and sampled specialty. Some sampled specialties had low cell counts, which would have required computation of Fischer's exact statistics. To simplify the analysis, sampled specialties were collapsed into three broader categories; primary care specialties, medical specialties, and surgical specialties. Table I outlines which specialties were represented by each broader category. The remainder of the characteristics were examined without any modifications.

Based on the chi-square analysis, respondents and nonrespondents did not differ significantly based on gender, U.S. region of practice, and sampled specialty. Table II shows a comparison of characteristics for the PPMQ respondents and nonrespondents, as well as the p-value from the chi-square analysis conducted using SAS v.9.4.

Appendix Tables

Table I. Physician Pain Management Questionnaire sampled specialties collapsed into broader categories for nonresponse bias analysis

Sampled specialty category	Sampled specialty
Primary care specialty	Family medicine
	General practice
	Obstetrics and gynecology
	Pediatrics
	Preventive medicine
Medical specialty	Anesthesiology
	Internal medicine
	Neuromuskuloskeletal medicine
	Pain medicine
	Physical medicine and rehabilitation
	Psychiatry and neurology
Surgical specialty	Oral maxillofacial surgery
	Orthopaedic surgery

SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Table II. Frequency of physicians in the Physician Pain Management Questionnaire, by selected characteristics of physician respondents and nonrespondents

Characteristic of physician	Frequency of nonrespondents (n = 706)	Unweighted percent	Frequency of respondents (n = 147)	Unweighted percent	p value
Sex					
Female	262	37.1	57	38.8	0.7
Male	444	62.9	90	61.2	
Physician type					
Doctor of medicine	611	86.5	124	84.4	0.5
Doctor of osteopathy	95	13.5	23	15.6	
Region of practice					
Northeast	144	20.4	33	22.4	0.3
Midwest	147	20.8	39	26.5	
South	231	32.7	39	26.5	
West	184	26.1	36	24.5	
Physician specialty					
Primary care	282	39.9	58	39.5	0.2
Surgical specialty	76	10.8	9	6.1	
Medical specialty	348	49.3	80	54.4	

NOTE: p value is from a chi-square test of independence.

SOURCE: National Center for Health Statistics, Physician Pain Management Questionnaire, 2021.

Vital and Health Statistics Series Descriptions

Active Series

Series 1. **Programs and Collection Procedures**
Reports describe the programs and data systems of the National Center for Health Statistics, and the data collection and survey methods used. Series 1 reports also include definitions, survey design, estimation, and other material necessary for understanding and analyzing the data.

Series 2. **Data Evaluation and Methods Research**
Reports present new statistical methodology including experimental tests of new survey methods, studies of vital and health statistics collection methods, new analytical techniques, objective evaluations of reliability of collected data, and contributions to statistical theory. Reports also include comparison of U.S. methodology with those of other countries.

Series 3. **Analytical and Epidemiological Studies**
Reports present data analyses, epidemiological studies, and descriptive statistics based on national surveys and data systems. As of 2015, Series 3 includes reports that would have previously been published in Series 5, 10–15, and 20–23.

Discontinued Series

Series 4. **Documents and Committee Reports**
Reports contain findings of major committees concerned with vital and health statistics and documents. The last Series 4 report was published in 2002; these are now included in Series 2 or another appropriate series.

Series 5. **International Vital and Health Statistics Reports**
Reports present analytical and descriptive comparisons of U.S. vital and health statistics with those of other countries. The last Series 5 report was published in 2003; these are now included in Series 3 or another appropriate series.

Series 6. **Cognition and Survey Measurement**
Reports use methods of cognitive science to design, evaluate, and test survey instruments. The last Series 6 report was published in 1999; these are now included in Series 2.

Series 10. **Data From the National Health Interview Survey**
Reports present statistics on illness; accidental injuries; disability; use of hospital, medical, dental, and other services; and other health-related topics. As of 2015, these are included in Series 3.

Series 11. **Data From the National Health Examination Survey, the National Health and Nutrition Examination Surveys, and the Hispanic Health and Nutrition Examination Survey**
Reports present 1) estimates of the medically defined prevalence of specific diseases in the United States and the distribution of the population with respect to physical, physiological, and psychological characteristics and 2) analysis of relationships among the various measurements. As of 2015, these are included in Series 3.

Series 12. **Data From the Institutionalized Population Surveys**
The last Series 12 report was published in 1974; these reports were included in Series 13, and as of 2015 are in Series 3.

Series 13. **Data From the National Health Care Survey**
Reports present statistics on health resources and use of health care resources based on data collected from health care providers and provider records. As of 2015, these reports are included in Series 3.

Series 14. **Data on Health Resources: Manpower and Facilities**
The last Series 14 report was published in 1989; these reports were included in Series 13, and are now included in Series 3.

Series 15. **Data From Special Surveys**
Reports contain statistics on health and health-related topics from surveys that are not a part of the continuing data systems of the National Center for Health Statistics. The last Series 15 report was published in 2002; these reports are now included in Series 3.

Series 16. **Compilations of Advance Data From Vital and Health Statistics**
The last Series 16 report was published in 1996. All reports are available online; compilations are no longer needed.

Series 20. **Data on Mortality**
Reports include analyses by cause of death and demographic variables, and geographic and trend analyses. The last Series 20 report was published in 2007; these reports are now included in Series 3.

Series 21. **Data on Natality, Marriage, and Divorce**
Reports include analyses by health and demographic variables, and geographic and trend analyses. The last Series 21 report was published in 2006; these reports are now included in Series 3.

Series 22. **Data From the National Mortality and Natality Surveys**
The last Series 22 report was published in 1973. Reports from sample surveys of vital records were included in Series 20 or 21, and are now included in Series 3.

Series 23. **Data From the National Survey of Family Growth**
Reports contain statistics on factors that affect birth rates, factors affecting the formation and dissolution of families, and behavior related to the risk of HIV and other sexually transmitted diseases. The last Series 23 report was published in 2011; these reports are now included in Series 3.

Series 24. **Compilations of Data on Natality, Mortality, Marriage, and Divorce**
The last Series 24 report was published in 1996. All reports are available online; compilations are no longer needed.

For answers to questions about this report or for a list of reports published in these series, contact:

Information Dissemination Staff
National Center for Health Statistics
Centers for Disease Control and Prevention
3311 Toledo Road, Room 4551, MS P08
Hyattsville, MD 20782

Tel: 1–800–CDC–INFO (1–800–232–4636)
TTY: 1–888–232–6348
Internet: https://www.cdc.gov/nchs
Online request form: https://www.cdc.gov/info
For e-mail updates on NCHS publication releases, subscribe online at: https://www.cdc.gov/nchs/email-updates.htm.

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention
National Center for Health Statistics
3311 Toledo Road, Room 4551, MS P08
Hyattsville, MD 20782–2064

For more NCHS Series Reports, visit:
https://www.cdc.gov/nchs/products/series.htm

Series 2, No. 204
CS341987