

The 2021 Physician Pain Management Questionnaire Pilot Study: Lessons Learned and Future Implications

Brian W. Ward and Doreen Gidali

Division of Health Care Statistics

National Center for Health Statistics

2023 FCSM Research & Policy Conference

October 26, 2023

Session I-6

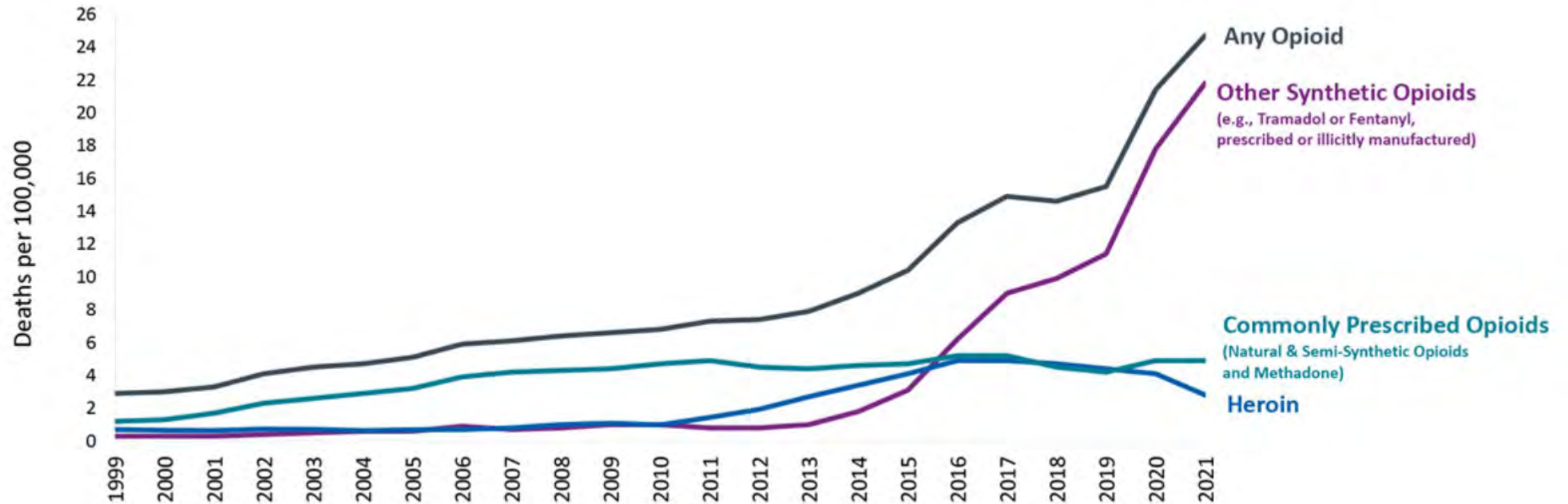


All views expressed in this presentation are those of the authors and do not necessarily reflect those of the Centers for Disease Control and Prevention or the National Center for Health Statistics.



Physician Pain Management Questionnaire (PPMQ): Background

Background: The Opioid Epidemic: Three Waves of Opioid Overdose Deaths



↑
Wave 1: Rise in Prescription Opioid Overdose Deaths Started in the 1990s

↑
Wave 2: Rise in Heroin Overdose Deaths Started in 2010

↑
Wave 3: Rise in Synthetic Opioid Overdose Deaths Started in 2013

SOURCE: National Vital Statistics System Mortality File.

Background: Strategies & Guidelines

- ❖ Strategies were developed to focus on effective and safe treatment of chronic pain, while reducing opioid misuse and overdose



CDC Guideline for Prescribing Opioids for Chronic Pain (2016; revised 2022)

- National guideline for prescribing opioids for chronic pain



HHS National Pain Strategy (2011)

- Strategy with goals of safe delivery of pain therapies



Independent prescription guidelines:

- U.S. states, health organizations, and health practices established their own guidelines

Background: PPMQ Rationale and Goals

- ❖ The need for a survey to **assess physician's awareness and use of guidelines** was identified by:
 - The NIH National Center for Complementary and Integrative Health (NCCIH)
 - Interagency Pain Research Coordinating Committee (IPRCC)
 - NIH Pain Consortium
- ❖ **NCCIH funded NCHS** to conduct the PPMQ pilot study with the following goals



Evaluate survey questions on physician knowledge, awareness, and use of guidelines for prescribing opioids.



Conduct a pilot study to assess the feasibility of a national physician survey to understand physician opioid prescribing practices for pain management.



NCHS-specific goal: explore the use of widely available national provider databases for sampling physicians.



PPMQ Pilot Study: Questionnaire Design

Questionnaire Design: Question development

- ❖ Multiple sources were used to develop the initial PPMQ questions.



Questionnaire Design: Cognitive Interview Testing

- ❖ NCHS Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER) performed 60-minute cognitive interviews.
- ❖ 20 interviews were conducted among physicians and physician associates (PAs) who prescribed opioids among non-cancer patients.
- ❖ All questions were tested and analyzed for:
 - Overall performance
 - Question-by-question performance

Questionnaire Design: Cognitive Interview Testing (cont.)

- ❖ Three broad patterns emerged:
 - ❖ No differentiation between acute vs. chronic pain
 - Response error
 - ❖ Assessment of quantity using percentages
 - Increased burden
 - Response error
 - ❖ Number of opioid guidelines
 - Increased burden
 - Response error
 - Social bias



Complete cognitive testing results are available at:

<https://wwwn.cdc.gov/QBank/Search/Reports.aspx#/Reports/1218>.

Questionnaire Design: Applying Cognitive Test Results

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. Veteran's 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

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%

The next series of questions ask 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.

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)	<input type="checkbox"/> 1	<input type="checkbox"/> 2
b. Guidelines established by the state where you primarily provide care	<input type="checkbox"/> 1	<input type="checkbox"/> 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	<input type="checkbox"/> 1	<input type="checkbox"/> 2
d. Hospital or practice-based guidelines; that is guidelines established by the organization where you provide care.	<input type="checkbox"/> 1	<input type="checkbox"/> 2
e. Guidelines established by the Department of Health and Human Services or Veteran Administration	<input type="checkbox"/> 1	<input type="checkbox"/> 2



PPMQ Pilot Study: Sample Design

Sample Design: Data Source

- ❖ The purpose of the study was methodological.
 - Results **would not be weighted or nationally representative**
 - In accordance with General Information Clearance OMB approval
- ❖ Opportunity to explore the use of the National Plan and Provider Enumeration System (NPPES), developed by CMS.
 - **Not the database** traditionally used by NCHS for its **physician surveys**
- ❖ NPPES includes the National Provider Identifier (NPI) database of healthcare providers used to assign a unique NPI to healthcare providers, as mandated by the Health Insurance Portability and Accountability Act of 1996.



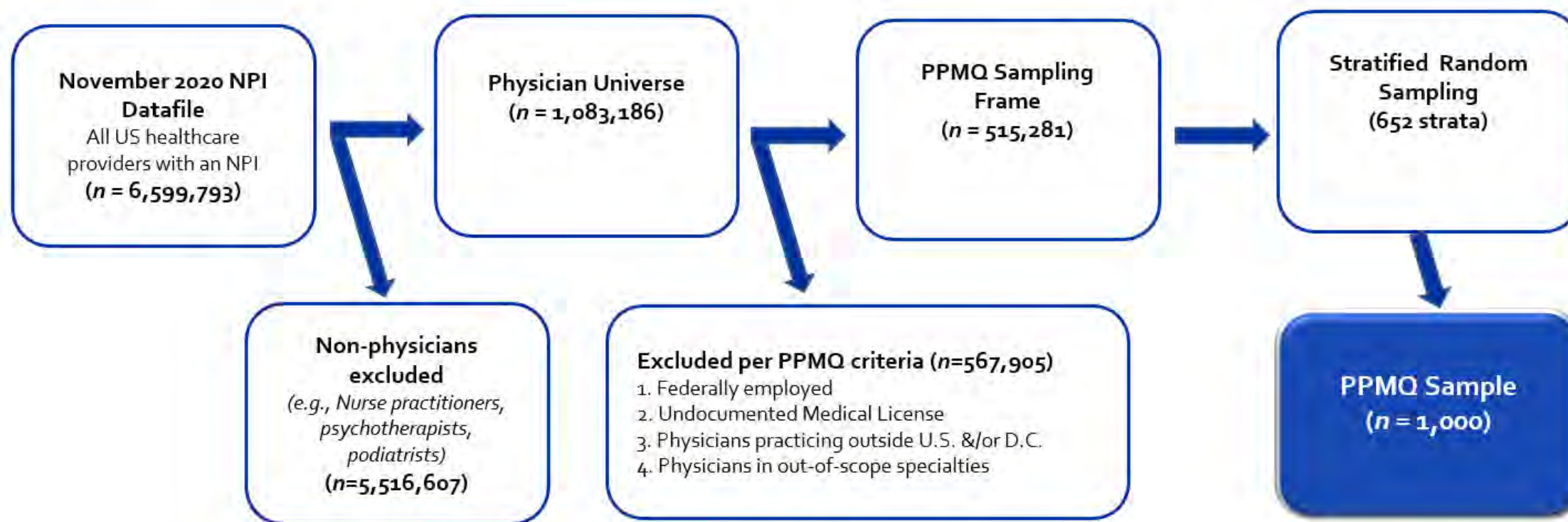
Sample Design: Eligibility Criteria

- ❖ NCHS and NCCIH collaboratively decided upon eligibility criteria for inclusion in the study universe.

Eligible	Ineligible
<ul style="list-style-type: none">✓ MD or DO✓ Active NPI✓ Active medical license✓ Practicing in the 50 U.S. states/ District of Columbia (DC)✓ Specialized in select specialties E.g., anesthesiology, family medicine, pain medicine, etc.	<ul style="list-style-type: none">× Practicing in U.S territories/ abroad× Federally employed physicians× Specialties unlikely to treat pain× Unlicensed× Retired× Revoked licensure in the sampled state

Sample Design: Drawing the Sample

- ❖ Stratified random sampling with proportional allocation.
 - Strata: U.S. Census region, U.S. state (including DC), and physician specialty.





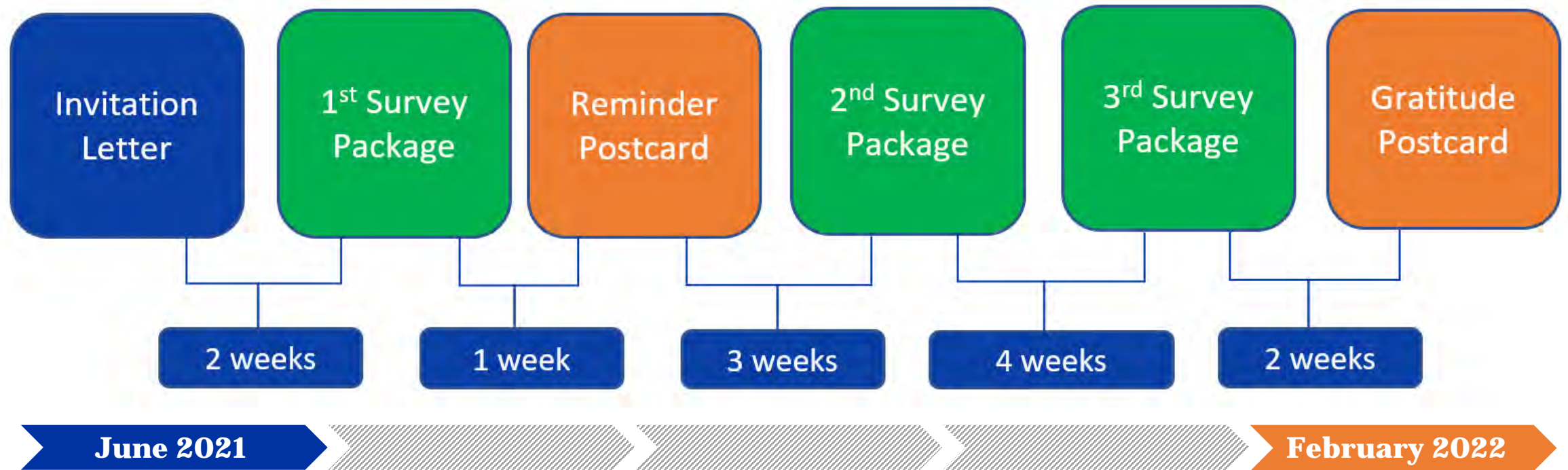
PPMQ Pilot Study: Data Collection & Fielding

Data Collection

- ❖ Self-administered, paper questionnaire mailed to physicians' current practice as listed in the NPPES.
- ❖ Although not mixed-mode, the survey drew from the Tailored Design Method:
 - Personalized letters
 - Prepaid return envelopes included with mailed questionnaire
 - Thank you/reminder postcards
 - Multiple survey packets sent to nonrespondents over set time intervals

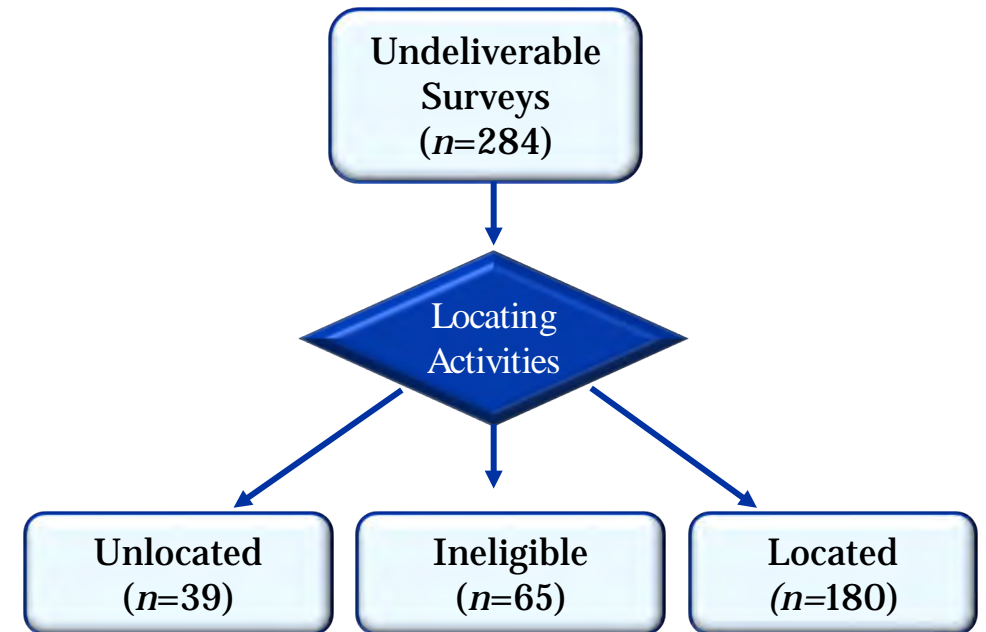


The Tailored Design Method & Fielding Timeline



Mailing Address Tracing & Locating

- ❖ 284 of 1,000 mailed surveys were returned as undeliverable.
 - 65% due to change in address
- ❖ Undeliverable surveys are common
 - Literature supports tracing as an important role in increasing response rates.
- ❖ Multiple tracing strategies used to locate physicians:
 - Monthly NPI datafile updates
 - Web searching
 - Federation of State Medical Boards
 - Doximity





PPMQ Pilot Study: Results

Study Results: Eligibility Status and Disposition

Eligibility Status & Disposition	Count	%
Eligible (<i>n</i>=149)		
Eligible and complete	144	14.4
Eligible, responded as refused	3	0.3
Eligible and partial complete	2	0.2
Ineligible (<i>n</i>=108)		
Ineligible based on survey responses	43	4.3
Ineligible based on locating activities	65	6.5
Unknown eligibility (<i>n</i>=743)		
Unknown eligibility, refused	703	70.3
Unknown eligibility, partial complete	1	0.1
Unknown eligibility, unlocatable	39	3.9

Study Results: Survey Outcome Rates

Total Sample (n)	Contact Rate (%)	Cooperation Rate (%)	Sample Released, Minus Ineligible (n)	Response Rate (%)
1,000	16.7	96.6	149	16.1

Notes: Counts and percentages are unweighted. All rates are calculated using AAPOR standards.
AAPOR Response Rate 3 reported.
Source: NCHS, PPMQ, 2021.

Study Results: Comparison of Respondents vs. Nonrespondents

Characteristic	Respondents	Nonrespondents	p-value
	%	%	
Physician Sex			0.7
Female	37.1	38.8	
Male	62.9	61.2	
Physician Type			0.5
MD	86.5	84.4	
DO	13.5	15.6	
Region of Practice			0.3
Northeast	20.4	22.4	
Midwest	20.8	26.5	
South	32.7	26.5	
West	26.1	24.5	
Sampled specialty category			0.2
Primary Care	39.9	39.5	
Surgical Specialty	10.8	6.1	
Medical Specialty	49.3	54.4	

Notes: Counts and percentages are unweighted. p-values from chi-square test. Source: NCHS, PPMQ, 2021.

Study Results: Item Nonresponse

- ❖ Item nonresponse rates were overall low (<5.0%)
 - Range from 0.0% to 4.4%
 - Only 3 items >3.0%

Question	Denominator/ Universe	%
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
After you start opioid therapy on a pain patient, when do you re-evaluate him/ her?	All eligible physician respondents who prescribe opioids (n=90)	4.4
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

Notes: Percentages are unweighted. Source: NCHS, PPMQ, 2021.



PPMQ Pilot Study: Limitations & Lessons Learned

Summary: Limitations

- ❖ Low response rates
 - Retired physicians
- ❖ Single mode of administration
- ❖ Timing
 - Seasonal impact
 - COVID-19 pandemic
- ❖ Limited resources

Summary: Lessons Learned

Objective: Evaluate survey questions on physician knowledge, awareness, and use of prescription opioid guidelines.

❖ Evaluation of questions is important!

- Issues found in multiple questions (even previously used)
- Several changes were necessary
- Revised questions performed well in the field

💡 **Low item nonresponse rates!**



❖ Lessons from cognitive testing.

- The topic of pain management and guidelines for prescribing opioids are difficult concepts to capture in survey questions.

Summary: Lessons Learned (cont.)

Objective: 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.

- ❖ NPI Datafile decent source for sampling providers IF
 - Have a supplement data source for
 - Age, addresses, medical license information

- ❖ Multiple modes of administration important for improving:
 - Response rates
 - Analytical statistical power

- ❖ Tracing and use of secondary sources are important!
 - Increase contact rate and possibly response rates

💡 **63.4% of physicians' mailing addresses were found through tracing!!**



Summary: Moving Forward

- ❖ Although the opioid epidemic remains a public health concern, there are no plans for fielding a nationally representative PPMQ.
- ❖ Recognizing the need remains for capturing the understanding of physician opioid prescribing practices for pain management, a nine-question module based on the PPMQ was added beginning with the 2023 NAMCS.



NAMCSTM
National Ambulatory Medical Care Survey


Thank you!

Gidali DM, Ward BW. The 2021 Physician Pain Management Questionnaire pilot study. *Vital and Health Statistics* 2023;2(204):1-36.


https://www.cdc.gov/nchs/data/series/sr_02/sr02-204.pdf

For more info: Brian W. Ward (bward@cdc.gov)

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>

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

