I. Introduction

This report summarizes the findings of a cognitive interview study conducted by the Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER) to test physician opioid questions for the Division of Healthcare Statistics (DHCS) at the National Center for Health Statistics (NCHS). The physician opioid questions were compiled and developed by the National Pain Strategy Workgroup. Questions 1 and 2 are standard questions included on national physician surveys such as the National Ambulatory Medical Care Survey and the National Electronic Health Records Survey which are both conducted by NCHS. Questions 4 and 5 were developed directly by the National Pain Strategy Workgroup to gather specific screening information. The rest were developed by the National Pain Strategy Workgroup based on survey instruments, findings, and/or recommendations from previous studies. The instrument is included as Appendix 1.

The overall purpose of this project was to identify various patterns of interpretation that respondents consider when formulating answers to physician opioid questions, as well as to uncover any difficulties, confusion, or response error that occurs during administration of the instrument.

II. Methods

This section details the methodology for this question evaluation study.

Cognitive Interviewing: As a question evaluation method, cognitive interviewing studies investigate how respondents answer survey questions. Cognitive interviewing studies typically involve semi-structured interviews with a small sample of approximately twenty respondents to understand the cognitive processes of question response: comprehension, retrieval, judgment and response. Findings from cognitive interviewing projects often lead to recommendations for question improvement, provide an evidence basis for question validity, and help to inform research by providing an understanding of the range of patterns of interpretation that underlie survey data.

Through these interviews, respondents are asked each of the survey items and then are asked a series of follow-up probe questions to reveal how they arrived at their particular response choices. These probes can be either concurrent – asked with each survey item – or retrospective – asked after answering a set of survey items.

Sample selection for cognitive interview projects is purposive; that is, the sample is theoretically driven. Respondents are selected with particular characteristics to address the questions being evaluated in context to the objectives of the study. Ideally, a diverse set of respondents with
different experiences related to the goals of the study are sought to get a full picture of the phenomena captured in the questions being tested. For example, the purposive sample selected for this study included physicians who prescribe opioid medication for pain.

Analysis for a cognitive interviewing study is conducted through a process of data synthesis and reduction. An interview is conducted with a respondent, collecting their answer to a question as well as the reasoning behind that answer. Researchers then make summaries to document respondent answers and note any difficulties experienced when answering the question, including any emerging themes or possible patterns in how respondents may be interpreting the question. Then, comparisons are made across respondents to fully understand the phenomena captured by each question.

Sample: For this study, the CCQDER research team recruited a purposive sample of 20 physicians and physician’s assistants through contacts of the National Pain Strategy Workgroup and through word of mouth. Inclusion criteria for the study included being a physician (later expanded to include physician’s assistants) and prescribing opioid medications to non-cancer pain patients.

Most respondents identified as white, non-Hispanic, and 30-49 years of age. Most respondents were physicians. Characteristics for the full sample of respondents are shown in Table 1.

Table 1. Respondent Characteristics

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Interviewing procedures: All interviews were conducted face-to-face by CCQDER staff at locations convenient for the respondents. Interviews lasted up to 60 minutes. Respondents were given $100 once the interviews were completed.

Data Analysis: Interviewers used video recordings and written notes taken during the interviews as the basis for analysis. After completing each interview, researchers entered question summaries for each cognitive interview. Summary notes were then compared across interviews to identify common patterns of interpretation or themes, as well as any response difficulties observed for each question. Analysis was conducted using Q-Notes, a CCQDER data entry and analysis software package (www.cdc.gov/qnotes). Q-Notes provides a systematic and transparent way to document each stage of data synthesis and reduction described earlier. Q-Notes also provides analysts with an audit trail to demonstrate how findings were generated from the raw interview data.

III. Overall Findings

Pain complexity and opioids: The questions on treating pain with opioids were not easy for respondents to answer. There was a tension between physicians’ clinical expertise, pressure from regulatory agencies concerned about the opioid crisis in the United States and patients’ desire for pain relief. This tension caused respondents to be very hesitant when responding although it did not always lead directly to response error. In general, when answering these questions, respondents expressed concern and frustration about how issues with pain management and opioids affected their ability to care for patients effectively.

Pain is extremely complex, and there are many different types of pain. These complexities sometimes lead to response difficulties. For example, it was often difficult for respondents to estimate the percentage of their patients who had pain. Many medical conditions cause some form of pain, so patients are often in pain when they see a physician. As one Emergency Department (ED) physician noted, “If they’re here [in the ED], they probably have some type of pain.” However, several respondents noted that medical focus on pain and its management is a relatively new and problematic phenomenon. One respondent explained that patients believe “they should have zero pain. Now the focus of much of what we do is treating pain. That’s not how it used to be.” Thus, while patients focus on having their pain treated, as physicians, respondents were focused on treating patients’ primary medical conditions. Therefore, respondents were not always sure how to estimate how many of their patients have pain since pain is not the physicians’ primary concern.

Additionally, respondents were not always able to distinguish between acute and chronic pain or between types of chronic pain. In response to the question asking how many of his patients have chronic pain, one respondent asked, “Do you mean is the pain constant over time? Or are you asking about pain from a condition that comes and goes? For example, migraines can be chronic, but the pain isn’t constant.” Similarly, in response to the question asking about non-opioid alternatives to pain management, one respondent said, “Are you asking how often I suggest these things or how often patients want to do them?” Respondents were usually able to resolve their
hesitation enough to provide a response, but the complexities involved often gave respondents pause as they considered the questions in the larger context.

The complex relationship between opioids and pain also led to some response hesitancy. While patients often want opioids, many respondents noted that opioids are not always very effective at treating pain. One respondent said, “Opioids can increase sensitivity to pain and of course we always worry about rebound pain.” Another said, “NSAIDS are really much better at treating acute pain. They should always be a front line.” Yet another respondent said, “From what I’ve seen, exercise will fix the problem 90% of the time. But that’s not what patients want. They want a pill. They want an easy fix.” Therefore, there is a tension between what providers understand about the most effective ways to treat pain and what patients want and expect. This tension led some respondents to hesitate or ask for clarification when answering questions about alternatives to opioids.

**Provider type, setting and specialty:** Whether the respondent was a physician or a physician’s assistant had no discernable impact on question performance, while provider setting and specialty had a much greater influence on question performance.

**Type:** Both physicians and physician’s assistants were included in the sample. There are no differences in prescribing privileges or practices between the two types of providers. There were no differences in the ways physicians and physician’s assistants understood or answered the questions.

**Setting:** Provider setting, whether hospital or ambulatory care, provided a context for opioid pain management which affected question response. For providers in a hospital setting, opioids were often administered in the hospital rather than sent home with the patient. For example, a provider in the Neonatal Intensive Care Unit (NICU) treats babies, many of whom are on opioids for drug withdrawal. She described the way she administers opioids to her patients, “I never write a prescription. I would administer medication intravenously.” Similarly, emergency physicians often thought about opioids they administer in the ED, often intravenously. Therefore, respondents who administer opioids but do not write prescriptions for opioids were not sure if the questions on opioid treatment applied to them.

In fact, many of the questions did not apply at all in a hospital or emergency medicine setting. For example, questions on screening, follow up or long-term pain management did not apply in an emergency medicine setting since emergency providers are focused on treating emergent symptoms and do not follow up after their patients leave the ED. Additionally, one respondent who works in a hospital setting explained why the question on guidelines was difficult to answer, “I don’t know what to say. We don't really do long-term pain management in an acute care setting. We wouldn't be developing the plan but more like following that plan that's been put into place by a specialist.”

**Specialty:** A wide range of specialties were represented in the sample including family medicine, addiction psychiatry, pain management, neurology and emergency medicine. Providers in
different specialties saw patients with different types of pain. For example, providers who worked in emergency settings had more experience with acute pain and relatively little experience managing chronic pain while the pain management physician saw relatively few patients for acute pain. These differences in provider specialty and patient population led to differences in the ways respondents understood and responded to the questions.

Non-emergency, ambulatory care providers were the least familiar with the use of opioids for pain management. Several of these providers screened into the questionnaire based on very occasional, short-term use of opioids for their patients. For example, some providers had only one or two patients on long-term opioids whose treatment they had taken over when older colleagues retired. Most ambulatory care providers reported a general reluctance to prescribe opioids at all. For the most part, they reported that they refer their patients to other providers when opioids are needed. For example, a family medicine physician said, “If they have ongoing pain, I’d refer to a pain management clinic. I’m not going to manage that.” Therefore, while these respondents screened into the questionnaire, most of the questions did not apply to the vast majority of their practice.

In contrast, both the pain management specialist and the addiction psychiatrist had a lot of experience with patients on opioids, and while both indicated that they tried to keep their patients off opioids as much as possible, almost all of their patients had been on opioids at some point. Since the bulk of their practices dealt with pain and opioid management, the questions applied directly to a much greater percentage of their practice than for other specialties.

**Chronic vs Acute pain:** Although all respondents understood the basic definitions of chronic pain as pain lasting longer than three months and acute pain as any shorter-term pain, questions on acute and chronic pain were not always simple to answer. Sometimes acute pain turns into chronic pain. Patients with chronic pain can also have acute pain. For example, several ED providers noted that due to their geographic location, they had many patients with sickle cell disease, a condition that causes chronic pain. These sickle cell patients often came to the ED with severe pain as a result of their chronic disease. However, they also sometimes came to the ED with acute pain due to other conditions. Therefore, it is possible to have both chronic and acute pain at the same time. The pain management specialist also noted that many of his chronic pain patients also had episodes of acute pain. Respondents with these types of patients weren’t sure whether to count these patients twice or whether to count them only as chronic pain patients. Additionally, because chronic pain can be either continual or episodic, sometimes patients can have acute episodes of chronic pain. Therefore, it wasn’t always clear to respondents what type of pain, acute or chronic, their patients had, and this made it difficult to provide accurate responses to the questions on chronic vs acute pain.

IV. Question by Question Review

1. We have your specialty listed as: _________________. Is this correct?
   1. Yes
   2. No ➔ What is your specialty? ________________
Respondents all understood this question as asking about the focus of their medical practice. Respondents indicated that they were in various specialties including emergency care, neonatology, family medicine, pain management and addiction psychiatry.

2. Do you provide direct care for patients?
   1. Yes
   2. No

Respondents all understood this question as asking about whether they work directly to treat patients in a clinical, hands-on setting. All respondents answered “yes” and described their work with patients. One respondent said, “I see about 15 patients a day- although it really varies.” Another said, “I do work directly with patients. I see children 22 and under in the pediatric emergency room. I usually see between 20 and 30 children on a 8-hour shift.”

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

Respondents all understood this question as asking about where they see the most patients, and all respondents were able to select from the response options provided. Respondents described working in settings such as EDs, clinics, health centers and residential treatment facilities. A few respondents provided care in multiple settings, but this did not lead to response error. For example, one respondent answered that he provides care to the most patients “in an emergency room setting.” He later described his part-time work in a varicose vein clinic but did not include that work in his response to this question.

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%

Although almost all respondents understood this as a question about short-term (acute) pain, arriving at an accurate response was not always easy for respondents.

Respondents all had similar understandings of acute pain. One respondent described this type of pain as, “Any short-term pain that they report. It could be anything from a sickle-cell episode to a sore throat.” Other examples of acute pain provided by respondents were fractures, pregnancy, neck and shoulder pain, injuries and appendicitis. Several of the respondents worked in ED settings and noted that many of their patients have pain of some sort. One ED physician said, “Most patients who go to the ER have symptoms and the majority of the time it’s a painful symptom. Pain is not necessarily an emergency, but people absolutely think it is.”

Some response difficulty occurred when respondents had to select from the answer categories provided. It was often difficult for respondents to think about the percentage of their patients with different types of pain and most respondents had to pause for quite a while before selecting a response. Two respondents who thought about acute pain changed their responses after some reflection. Both initially responded “26-50%” but then revised their responses to “51-75%.” One said, “Now that I think about it and all the types of pain, it’s going to be more than half. Not more than 75% but definitely more than half.”

A few respondents initially thought about both short- and long-term pain when answering. One respondent, a pain management specialist, initially responded “More than 75%” but then later changed his response to “1-25%” saying, “Oh! Acute pain. That’s going to be less. That would be maybe an injury or before and after surgery.” He noted that as a pain management specialist, all his patients have chronic pain. Therefore, those of his patients with acute pain are also patients with chronic pain.

A single respondent who worked as a Physician’s Assistant in an ED wondered if sickle-cell should be counted as non-cancer pain. Ultimately, she included sickle-cell patients (a large portion of her pain patients) in her response.

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%

When answering the previous question, which asked respondents to focus on acute pain, some respondents thought about all pain, both acute and chronic. In contrast, respondents all answered this question based only on their patients with chronic pain. The framing effect of the previous
question on acute pain likely helped to keep respondents focused on the intended scope of this question.

Respondents defined chronic pain as pain that lasts for more than a few months, pain that requires multiple visits to the doctor over a long period of time and pain that won’t go away. Initially, a few respondents weren’t sure whether to include episodic pain, such as migraines that come and go, but ultimately, all included both episodic and on-going pain in their responses. Respondents gave examples of the types of chronic pain that they treat which included arthritis, migraines, musculoskeletal issues and dental pain.

A single respondent included cancer pain when answering the question.

6. Which of the following clinical practice guideline(s) do you use when developing a non-cancer pain management treatment plan for your 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
10. U.S. Centers for Disease Control and Prevention opioid Guidelines
11. U.S. Veteran’s Health Administration Guidelines
13. Other clinical practice guidelines
14. I do not apply any clinical guidelines

All but one respondent was able to choose an answer from the response options provided. A single respondent answered “Don’t Know” because she does not follow guidelines. She indicated that, instead, she uses her “experience and training” to guide her practice. In fact, although this was the only respondent who did not select from the response options, other respondents had similar rationales for their responses.

Most respondents either were not certain exactly which guidelines they follow or did not strictly follow any particular guideline. These respondents selected answers based on their assumptions of which sets of guidelines probably align most closely with their practice protocols. However, when questioned about their familiarity with the guidelines and how they apply these guidelines, it became clear that almost none of them actually follow specific guidelines. One respondent who indicated that he follows the American Society of Anesthesiologists Guidelines and the U.S. Centers for Disease Control and Prevention (CDC) guidelines said, “I take the best of each as it applies to my practice and include it in the practice. Really you’re just making your own
guidelines. Usually you just use your best judgment.” Another respondent indicated that she follows the CDC guidelines but later explained, “We use specific treatment tools. I’m not sure exactly what guidelines they follow. I assume they follow CDC guidelines.”

Many respondents mentioned that most guidelines were the same or similar, so it didn’t really matter which guidelines they chose to follow. For example, one respondent who said she “more or less” followed her state’s guidelines, CDC guidelines and American Academy of Addiction Psychiatry guidelines explained, “These are the guidelines I’ve internalized, but they all say the same thing. You read one and then read the others to see if they’re different, but they never are.”

Several respondents chose the response category “other clinical guidelines” to indicate that they don’t follow any specific guideline. One respondent, an ED physician, said, “We don’t really follow guidelines. We have a standard protocol, but I don’t know where they come from.”

Only two respondents indicated that they closely adhere to any specific set of guidelines. These two respondents both chose the response category “other clinical guidelines” and named other guidelines or recommendations that they follow. For example, one respondent who is a physician in a neonatal intensive care unit said, “I don’t necessarily use any of these that are listed. I’d say other because we use the American Academy of Pediatrics recommendation for conscious sedation and pain management.”

A single respondent who is a physician’s assistant in an ED did not think the question was applicable to her clinical setting. This respondent chose the answer “I do not apply any clinical guidelines.” She said, “I would say none because we don’t really do long-term pain management in an acute care setting.”

7. How often do you track your 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

All but one of the respondents were immediately able to select from the response categories. A single respondent wondered whether the question referred to acute pain patients or chronic pain patients. Eventually, this respondent decided that the question probably referred to both acute and chronic pain patients and answered based on both.

All other respondents were able to select a response from the categories provided. Almost all of the remaining respondents answered based on whether patients were given any type of pain assessment at some point during their visit. Respondents mentioned several types of pain assessment including numerical scores (1-10), the faces scale (for children), the Finnegan
Scoring System for drug withdrawal and the FLAC scale. Some respondents included qualitative assessments of pain such as questions like, “How’s your pain?” and “Is your pain better today?”

Respondents indicated that these assessments were often administered by nursing staff at the start of the clinical visit. Therefore, respondents answered based on how often patients were administered pain assessments even if the respondent was not always the person collecting the information. One respondent answered “always” and said, “They do that at every visit. The nurse does it when they come in. It’s in the chart, so I see it in there but I don’t do it.”

Potential response error was seen in a single respondent who answered “rarely” but then described how she assesses her patients’ pain. She said, “I don’t use a formal tool. I always ask them about their pain. I ask 1-10 and track it like that, but I don’t use a formal tool.”

8. How often do you track your non-cancer pain patients’ physical function using a standardized questionnaire?

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

All respondents were able to select from the response options although potential response error (detailed below) was seen in many of the responses. In general, respondents indicated that they were not familiar with standardized tools for assessing patients’ physical functioning.

Some respondents answered based on whether they assess functioning with any type of standardized tool. Most of these respondents answered “never” and indicated that they were not familiar with any type of standardized tool to measure functioning. For example, an ER physician answered that he never assesses functioning with a standardized questionnaire and said, “They may have that in other settings but I’m not familiar with anything like that.”

While these providers don’t use a standardized questionnaire, many of them do assess their patients’ functioning. One respondent who answered “never” said, “I mean, I ask. It’s just not standardized.” Another provider, who also answered “never,” said, “I ask if they have pain. I ask what they can do. Can they do more than they could last week? Last week they couldn’t walk. Now they can. That’s improvement.”

Potential response error was seen in two respondents who indicated that they did not use standardized questionnaires to track their patients’ functioning but who answered “rarely.” When asked why she answered in this way, one respondent said, “Well. I don’t know. I don’t really know of a standardized tool but there may be some situation where I’d need to use one.”

Potential response error was also seen in some respondents who answered based on whether their patients’ functioning is assessed in any way. These respondents or nursing staff used open-ended questions and observation rather than standardized questionnaires to assess patients’ functioning. One said, “I just observe what they can do and how they are functioning.” Another said, “The
nurses do that for ambulation. It’s a functional assessment. Can they walk? That’s what we need to know.”

Response error was also seen in the single respondent who answered based on using standardized opioid assessment tools. This respondent answered “always” and said, “CAGE or COWS always when you start opioid meds.” He later clarified that he did not use any standardized assessment to track patients’ functioning.

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%

A single respondent was unable to answer this question because she felt it did not apply to her as a physician in an ED. She said, “I don’t HAVE patients. I SEE patients. Does that make sense?” She described occasionally writing prescriptions for short-term, acute pain but did not consider these HER patients and, therefore, was not able to provide a response.

Several other respondents initially clarified whether the question referred only to patients with chronic pain. One respondent asked, “So that’s chronic pain, right?” After the question was repeated, all were able to select a response from the options provided. However, several respondents also noted that it was difficult to think of their patient population in terms of percentages. One said, “Well I don’t know what percent, but it’s not very many so I’ll choose the lowest category.” Another respondent chose “1-25%” and said, “It’s just 2. I don’t know what percent that is.”

Respondents answered this question in two ways. Some respondents answered based on the percentage of their patients who have a long-term prescription for opioids, that is, patients who are “on opioids” while others answered based on their own prescribing practices, that is, how many of their patients they prescribe opioids to.

Those who answered based on having patients on long-term opioids often described patients who started opioids under other providers. The respondent above with 2 patients on long-term opioids described how she had inherited them when she took over the practice. She did not start them on the opioids but she did manage their opioid regime. Other respondents were thinking of their patients who have opioid prescriptions that are managed by other providers. One ER physician said, “The sickle cell patients always have a prescription for opioids to manage their pain when they need it. We don’t write those. That’s their specialist. But if someone with SC comes in for
anything, pain or even a rash, those are the patients I’m thinking of who have the opioids.” This respondent answered that “26-50%” of her patient population has a long-term prescription for opioids.

Respondents who answered based on their own prescribing practices thought about how many of their patients “leave here with opioids” as one ED physician’s assistant put it. For example, one respondent said, “Some of them may come in with narcotics. If they’ve been to the ER they may have gotten a prescription there, but I’m thinking of whether I write a prescription. Usually it would be a small amount for a short amount of time.”

Another respondent, an addiction psychologist, described the very complex situation with her patients in addiction recovery. None of her chronic pain patients used opioids. She said, “They can’t. They’re in treatment for addiction.” However, most of her patients were on opioids for addiction management. “That’s the long-term strategy. That keeps them functioning.” Sometimes she prescribes opioids for short-term, acute pain such as surgery or injury. She said, “Periods of pain do come up from time to time and then we’d have them take a narcotic.” This respondent answered based on the prescriptions she writes for this short-term, acute pain and not for the long-term opioids her patients are on for addiction management.

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. With 3 months
   4. Within 1 year
   5. After 1 year
   6. I don’t re-evaluate patients after they start opioid therapy

11. How often do you 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

All respondents understood this as a question about whether they tell their patients about the risks and benefits of taking opioids before they write a prescription for opioids. Some of the risks mentioned include addiction, constipation, nausea, dizziness, increased pain, and respiratory depression. The only benefit mentioned was decreased pain.

A few providers answered that they rarely or never discuss the risks and benefits with their patients, and this had to do with their patient population or the setting of their practice. For example, a physician in the neonatal intensive care said that she “never” discusses the risks and benefits with her patients. Her patients are babies. She occasionally discusses the risks and
benefits with their parents but often not. Another respondent who works in a pediatric ED said that he rarely discusses risks and benefits with patients because he is not worried about addiction in the population he treats. He will discuss risks and benefits if the family asks.

12. How often do you 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

Respondents answered this question in two ways. Most respondents answered based on how often they try other approaches before prescribing opioids. For example, a physician in a Neonatal Intensive Care Unit setting answered “most of the time” and said, “We always try to use non-pharmacological approaches, but sometimes there’s nothing else to do for our most painful patients or those in life-threatening drug withdrawal.” Another respondent who provides care in an ED setting answered “rarely” and said, “Because of the setting, we don’t offer other approaches. We’re not doing PT in the ER.” Respondents in this group considered all patients and conditions when answering the question.

Some respondents answered based on how often they encourage non-pharmacological approaches when they are available for certain conditions. For example, one respondent answered “always” and said, “I always recommend alternatives for musculoskeletal things.” Another provider answered “always” and said, “Always for the ones that apply. Sometimes there’s not another fix. For example, abdominal pain, you can’t just apply ice, but for musculoskeletal pain, I recommend stretch and exercise.” Respondents in this group excluded patients for whom non-pharmacological approaches would not be effective.

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
Respondents were all able to answer using the response categories provided, and all respondents understood this as a question about which alternatives to opioids they offer to their patients. Respondents mentioned physical therapy, heat/cold and stretching as therapies they found most effective as alternatives to opioids. Some of the respondents mentioned that some of the alternatives mentioned like yoga, meditation and acupuncture were difficult to recommend due to lack of resources. For example, one provider who works in an ED said, “I’d love to recommend these but it’s hard from the ED. We might have a few brochures but we don’t have the resources to hook people up to providers.” Other respondents noted that some therapies are not well-received by their patients or are not covered by insurance. One provider said, “Sometimes they want to avoid opioids but for most people if it’s a choice between doing exercise or taking a pill, they’re going to choose the pill.”

14. How often do you 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

The response pattern for this question was similar to that of the previous question. Most respondents considered all of their patients and all conditions when answering this question while others excluded conditions for which there was no alternative to opioids.

Most respondents answered with their entire patient population in mind. For example, one respondent answered “most of the time” and said, “Almost always, but there are some conditions that only opioids will treat such as a severe break. It depends on the condition but if it’s possible, I offer other things first.”

A few respondents excluded some conditions that would not respond to non-opioid medications. For example, one respondent answered “always” and said, “Sure always try NSAIDS at the front line. Well, except for things like severe burns. There’s no point. There you go straight for opioids to treat the pain.”

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
All respondents were able to choose from the response options provided. All respondents understood this as a question about which drugs they offered as alternatives to opioids.

The response options “Acetaminophen” and “Non-steroidal anti-inflammatory drugs” were selected by all respondents. Lidocaine patches and over-the-counter menthol patches were mentioned in “other non-opioid drugs.”

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

16. How often do you screen 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

All respondents were able to choose from the response options provided. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses. Most respondents understood this as a question about whether their patients are screened for mental health issues before they are given opioids. However, most respondents were thinking of mental health screening that is done, either by the provider or by a nurse, during the course of every appointment rather than screening that is done specifically when prescribing opioids. For example, one respondent answered “always” and said, “Everyone gets screened every visit regardless of condition. Come for a sore throat; get screened for depression.” Similarly, another respondent answered “sometimes” and said, “All teenagers get screened at triage by a nurse. No one under 12 is screened.”

The types of screenings included varied from informal conversations that were not recorded in the patients’ files to formal assessment tools that were used to track patients’ mental health. One respondent who answered “most of the time” said, “I don’t use a screening tool. I ask about mood. I’d say most of the time it’s part of the conversation.” In contrast, another respondent answered “always” and said, “We use the PHQ2 and then the PHQ9. It goes in the EHR for tracking. The nurse does the PHQ2 on all patients for all visits.”

A few respondents who work in an ED setting thought about whether the mental health screening was done in the context of administering opioids. For example, one of these respondents who works in a pediatric ER answered “never” and said, “I focus on what’s presenting at the moment. If opioids are needed, that’s what I focus on. The nurse screens all the teens for suicidality early in the visit.”

17. How often do you establish treatment goals with 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  

Almost all respondents understood this as a question about setting goals with pain patients. Goals discussed included reduced pain, increased functioning, increased quality of life and getting off opioids. For example, one respondent who works in a clinic answered “always” and said, “The goal is pain control and functioning. Can they do the things they want and need to do?” Another respondent who is a pain management specialist answered “always” and said, “The goal is better. For chronic pain, it’s better, not gone.”  

All respondents were able to choose from the response options provided. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses. Some respondents thought of all their patients; others thought of patients with both acute and chronic pain. A single respondent who is a provider in an ED setting thought only of the patients he refers to pain management from the ED.  

A few respondents answered based on setting goals with their patients who are on opioids. For example, a respondent answered “sometimes” and said, “We discuss when and when not to take the meds. It’s as needed to reduce pain.” Similarly, a provider in a NICU said, “There’s a protocol for neonatal abstinence. Evaluate their score on the meds and then reduce the dose.”  

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%  

A single respondent was again unable to answer this question because she felt it did not apply to her as a physician in an ED. All other respondents were able to provide an answer from the response options provided. Almost all respondents understood this as a question about how many of their patients who had chronic pain were also on opioids. For example, a provider in an ED setting answered “1-25%” and said, “Many of our sickle cell patients have a prescription for oxy as needed.” Similarly, a physician in a clinic answered “1-25%” and said, “I have a few who are on methadone for chronic pain. I don’t manage that, but I know they are.”  

Two respondents thought only about patients for whom they had written the opioid prescription. For example, one respondent answered “none” and said, “I never initiate opioids for pain. Some come in with prescriptions from older neurologists.”
A single respondent, a physician in a NICU answered based on how many of her patients are on opioids for any condition. She described a baby who was being weaned off opioids for drug withdrawal.

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

All respondents were able to choose from the response options provided. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses. All respondents understood this as a question about the usual length of the prescriptions they write for opioids. Most respondents referred to very short prescriptions they write for patients to use until they can see a specialist. For example, one respondent answered “4-7 days” and said, “I don’t write very many but it would just be to tie them over a weekend or until they can see a specialist.” Some also mentioned longer prescriptions. Another respondent answered “14-30 days” and said, “Well the longer ones would be on it for years but the prescriptions are broken up monthly.”

Many of the respondents referred to regulations and guidelines that affect how long they write prescriptions for. For example, several noted that insurance won’t pay for opioid prescriptions that are longer 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

All respondents were able to choose from the response options provided. All respondents understood this as a question about how frequently they check in with patients for whom they’ve written long-term opioids. Most respondents chose the response option “I do not prescribe long-term opioids to my non-cancer chronic pain patients.” Respondents who do write prescriptions for long-term opioids considered long-term to be anything that is not for an acute issue, generally longer than a month. One respondent described how she re-evaluates her long-term opioid
patients. She said, “Usually I see them once a month once they’re on maintenance. They have a pain contract that we go over every month with the long-term patients.”

21a. For your non-cancer chronic pain patients, how often do you use an opioid risk assessment before starting opioid therapy?

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

A few respondents could not answer this question because they felt it did not apply to their situation as ED providers. The addiction psychologist was also not able to answer because patients who come to her have all already had problems with opioid addiction. All other respondents understood this as a question about gathering information about patients in order to determine if it is safe for them to take opioids. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses. None of the providers used a formal risk assessment tool. Instead they used questions about medical history, family history and history of drug use. A physician in a family practice clinic answered “most of the time” and said, “We ask about conditions and family history. It’s part of the regular history we take.”

21b. For your non-cancer chronic pain patients, how often do you prescribe naloxone to patients receiving opioids?

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

All respondents were able to provide a response and all understood this as a question about whether they prescribe naloxone at the same time they prescribe opioids. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses. One respondent who answered “rarely” said, “I don’t prescribe it as often as I should.” Another respondent who answered “always” said, “I’m not sure if they fill the prescription, but just in case.” Almost all respondents answered “never” and noted that due to their patient population or practice setting, it didn’t make sense to prescribe naloxone. For example, one pediatric ED provider who answered “never” said, “It doesn’t really apply to our setting. I’m not worried about this with children.”
21c. For your non-cancer chronic pain patients, how often do you establish an opioid treatment plan with my patients?

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

All respondents were able to provide a response, but they understood the question in several different ways. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses.

Some respondents thought the question referred to whether they had a discussion with their patients about how opioids fit into their treatment. For example, one provider who answered “always” said, “I guess always? I always discuss their treatment with my patients.”

Other respondents understood the question to be asking about an agreement about using opioids responsibly. One provider answered “always” and explained that she makes sure her patients know to be careful when using opioids. She said, “And they know I don’t give opioids easily so not to come asking me over and over for more.”

A single ED provider answered “always” because the ED she works in has a protocol for prescribing opioids. This provider understood the protocol as an established “treatment plan” even though she did not always discuss it with her patients.

Another ED provider answered “sometimes” based on the patients he refers to his hospital’s pain management program.

21d. For your non-cancer chronic pain patients, how often do you review and/or evaluate patient history of drug or alcohol abuse before starting opioid therapy?

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

All respondents were able to provide a response, and all respondents understood this as a question about whether they ask their patients about drug and alcohol use before they prescribe opioids. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses. Most respondents thought about drug and alcohol screening that is done for all patients. One provider who answered “most of the time” said, “It’s part of the screening for all teens. We ask about drugs, alcohol, sex, depression. All those things.
The NICU physician answered “always” but noted that she did not screen her patients, who are babies, but rather their mothers.

21e. For your non-cancer chronic pain patients, how often do you use random urine toxicology screening before starting opioid therapy, and at least quarterly for long-term opioid therapy?

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

Many respondents had difficulty providing an answer to this question. One provider explained the difficulty saying, “It’s not random before the beginning. If you're first starting it's not random. You're testing them the first time. Test at beginning and first few months and then randomly.” Another said, “I can’t say. If we test them, it’s not random. It’s for a medical reason.”

A few respondents answered based on whether they do random drug testing after their patients are on opioid therapy, but they weren’t focused only on chronic pain patients. For example, one respondent who answered “never” said, “We don’t do any testing after because the prescription is very short.”

One respondent answered based on testing before initiating opioid therapy. She said, “We always test before starting opioids.”

21f. For your non-cancer chronic pain patients, how often do you review my U.S. state’s prescription drug monitoring program database before starting opioid therapy?

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

All respondents were able to provide a response, and all respondents understood this as a question about whether they look their patients up in the drug monitoring database before they prescribe opioids. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses. One respondent who answered “most of the time” said, “I usually log-in and look. If I have a patient I’m questioning, I’ll always check.” Another respondent who answered “never” said, “We never check in the ER. We’re focused on the presenting issue.”

21g. For your non-cancer chronic pain patients, how often do you co-prescribe benzodiazepines with opioids?
1. Never
2. Rarely
3. Sometimes
4. Most of the time
5. Always

All respondents were able to provide a response, and all respondents understood this as a question about whether they prescribe benzodiazepines with opioids. Although the question asks respondents to focus on chronic pain patients, respondents did not limit the scope of their responses. All respondents answered “never.” One explained, “No one is going to admit this. It’s like saying, ‘Do you want to kill your patients?’” Another respondent explained that patients may get both opioids and benzodiazepines “when they’re getting different things from different providers.”

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

One respondent could not provide a response because she couldn’t distinguish between “somewhat confident” and “very confident.” All other respondents were able to provide a response.

All respondents understood this as a question about their level of confidence in treating patients with chronic pain. For example, one respondent who answered “not confident at all” said, “I’ve never been in a position to manage chronic pain. I’ve only worked in an acute setting. I’m very confident in managing acute pain that we see in the ER.” In contrast, another respondent answered “completely confident” said, “I’m a pain management doctor. This is my area. It’s what I do.” Many respondents noted that they don’t have a lot of experience treating chronic pain because they send their chronic pain patients to pain management specialists.

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

All respondents understood this as a question about things that may get in the way of their treatment of pain patients. Most respondents selected all or almost all of the answer categories (except “other” and “none”) and said that all of these things can interfere with their treatment of chronic pain. One respondent who chose all of the response categories explained:

These patients have a lot going on medically - obesity plus orthopedic problems. Then they have inadequate access to care. There aren’t enough pain specialists and there are long wait times. Non-opiate drugs are often inadequate. I wish there were more targeted to pain. Patients don't want to exercise; they don't keep with exercise or they don't think it helps or it feels better so they stop doing it. Not to mention they don't even get in the door if they don’t have insurance.
References


Appendix 1

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

1. We have your specialty listed as: ____________________. Is this correct?
   3. Yes
   4. No → What is your specialty? ____________________

2. Do you provide direct care for patients?
   3. Yes
   4. No

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?
   6. None
   7. 1% to 25%
   8. 26% to 50%
   9. 51% to 75%
   10. More than 75%

5. How many of your patients have non-cancer chronic pain, that is, any pain lasting 3 months or more?
   6. None
   7. 1% to 25%
   8. 26% to 50%
   9. 51% to 75%
   10. More than 75%
6. Which of the following clinical practice guideline(s) do you use when developing a non-cancer pain management treatment plan for your patients? (Check all that apply)
   15. My U.S. state’s Guidelines
   17. American College of Physicians Guidelines for low back pain
   18. American College of Rheumatology Guidelines
   19. American Geriatrics Society Guidelines
   20. American Pain Society Guidelines
   22. American Society of Interventional Pain Physicians Guidelines
   24. U.S. Centers for Disease Control and Prevention opioid Guidelines
   25. U.S. Veteran’s Health Administration Guidelines
   27. Other clinical practice guidelines
   28. I do not apply any clinical guidelines

7. How often do you track your patients’ non-cancer pain using assessment tools such as numerical or visual-analog pain scales?
   6. Never
   7. Rarely
   8. Sometimes
   9. Most of the time
   10. Always

8. How often do you track your non-cancer pain patients’ physical function using a standardized questionnaire?
   6. Never
   7. Rarely
   8. Sometimes
   9. Most of the time
   10. 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?
   6. None (Skip to question 12)
   7. 1% to 25%
   8. 26% to 50%
   9. 51% to 75%
   10. More than 75%
10. After a non-cancer pain patient starts opioid therapy, when do you re-evaluate him/her?
   7. Within 1 week
   8. Within 4 weeks
   9. With 3 months
   10. Within 1 year
   11. After 1 year
   12. I don’t re-evaluate patients after they start opioid therapy

11. How often do you discuss risks and benefits with non-cancer pain patients before starting an opioid pain management approach?
   6. Never
   7. Rarely
   8. Sometimes
   9. Most of the time
   10. Always

12. How often do you recommend non-pharmacological approaches to non-cancer pain patients before or instead of opioid therapy?
   6. Never (Skip to question 14)
   7. Rarely
   8. Sometimes
   9. Most of the time
   10. Always

13. What types of non-pharmacological approaches do you currently recommend to non-cancer pain patients? (Check all that apply)
   11. Acupuncture
   12. Chiropractic care
   13. Exercise and/or stretching
   14. Locally-applied heat/cold
   15. Massage therapy
   16. Mind-body approaches such as biofeedback, progressive relaxation, meditation, or guided imagery
   17. Occupational therapy
   18. Physical therapy
   19. Yoga, tai chi, or qi gong
   20. Other

14. How often do you recommend non-opioid medications to non-cancer pain patients before or instead of opioid therapy?
   6. Never (Skip to question 16)
   7. Rarely
   8. Sometimes
   9. Most of the time
15. What types of non-opioid medications do you currently recommend to non-cancer pain patients? (Check all that apply)
  7. Acetaminophen
  8. Anticonvulsants
  9. Antidepressants
  10. Benzodiazepines
  11. Non-steroidal anti-inflammatory drugs
  12. Other non-opioid drugs

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

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   6. Never
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   6. Fewer than 4 days
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   8. 8 to 14 days
9. 14 to 30 days
10. More than 30 days

20. On average, how often do you re-evaluate non-cancer chronic pain patients who are prescribed long-term opioids?
   8. Once per week
   9. Once per month
   10. Once every 3 months
   11. Once every 6 months
   12. Once per year
   13. Less than once per year
   14. 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…?

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<tr>
<th>Activity</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Most of the time</th>
<th>Always</th>
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<td>Prescribe naloxone to patients receiving opioids</td>
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<td>Establish an opioid treatment plan with my patients</td>
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<td>Review and/or evaluate patient history of drug or alcohol abuse before starting opioid therapy</td>
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23. Which of these have interfered with successful management of your non-cancer chronic pain patients? (Check all that apply)
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23. Patient unwillingness to use non-opioid approaches
24. Patient lack of or insufficient health insurance coverage for required treatments
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26. None of these have interfered with successful management