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Executive Summary

This national online survey of 242 U.S. dentists and oral surgeons, fielded between December 2021 and January 2022, identifies the key beliefs and assumptions that determine how dentists make decisions about providing pain relief to their patients.

We focused the survey on several key barriers and drivers of behavior according to the following innovation adoption framework:

Innovation Adoption Framework	Research Questions
KNOWLEDGE	Is there a gap in dentists' knowledge about the severity of the opioid epidemic, the role they can play in reducing opioid use, or their awareness and use of alternatives?
PERSUASION	Is the barrier in persuading dentists to change the way they prescribe and, if so, what messages, influencers, and channels are most likely to help?
DECISION	Do dentists need more information or guidance to help them decide to practice opioid-free dentistry?
IMPLEMENTATION	Are there problems with implementing new ways of prescribing or getting patients to accept opioid-free alternatives to acute pain management?
CONFIRMATION	Do dentists need confirmation or validation to support consistently prescribing opioid alternatives?

There are clear directions and recommendations for next steps based on the survey results—much of which is positive news for the Benter Foundation's effort to reduce and eventually eliminate opioid prescribing for routine dental pain.

KNOWLEDGE: The problem is not lack of knowledge about opioid alternatives, nor is it a lack of concern about the seriousness of the opioid epidemic.

The vast majority of dentists know about, prefer, and generally prescribe opioid-free solutions for pain relief. Nearly 100% of those surveyed are familiar with nonsteroidal anti-inflammatory drug (NSAID)-acetaminophen combinations for pain relief, and say that they are effective for pain management. Just under 3% say that opioids provide the best pain relief after routine dental procedures.

Nearly 100% of respondents say the opioid epidemic is at least somewhat serious, and 9 in 10 say that dentists have a role to play in combating the opioid epidemic.

While 70% of respondents say that they prescribe opioids at times, only 20% say they often or always prescribe opioids for pain management; most strive to limit their prescribing.

Dentists' reasons for prescribing often show a nuanced approach to the issue:

How likely would you be to adopt an opioid-free practice? Please explain your response:

"I strive to use as little opioids as possible, but using zero opioids is not a reasonable expectation."

"I only prescribe opioids in the rarest of occasions when combination NSAIDs are unavailable in the pharmacy's formulary and they are unlikely to comply with alternating meds. Also, if severe contraindications exist for ibuprofen."

"I am already trying to be opioid-free, but I still consider referrenting [sic] to medical colleagues for opioids if necessary."

Some dentists describe a more hard-line approach:

How likely would you be to adopt an opioid-free practice? Please explain your response:

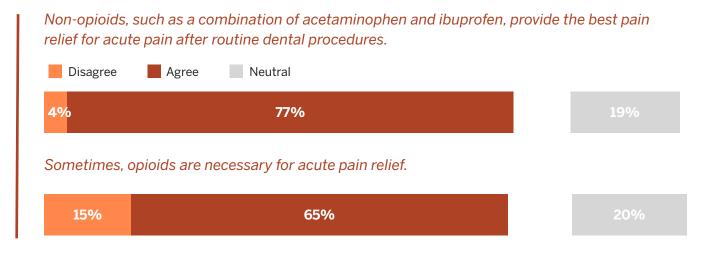
"I should not have to limit the scope of my practice, and I want all available means of pain management available to me."

"I still believe a low-dose three-day supply is acceptable for patients."

"I will not tolerate the alphabet agencies to take MY PLACE IN doing what is needed for my patients."

PERSUASION: Despite their high level of knowledge, dentists remain of two minds when it comes to opioids.

Dentists' attitudes show that they are conflicted about opioids in dentistry. A significant majority (77%) agree that non-opioids are the best options for pain management. Yet two-thirds also say that sometimes opioids are necessary.



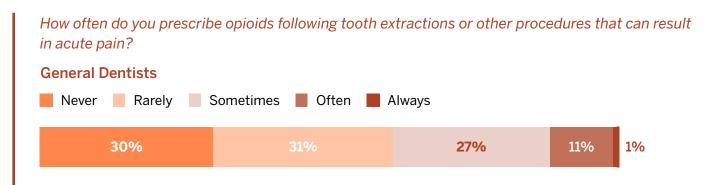
These attitudes translate into dentists' actions: 4 in 10 respondents still agree that "just in case" prescriptions are appropriate.

Non-opioids should be first-line options for management of acute pain after routine dental procedures, but I like my patients to have a prescription for opioids just in case.

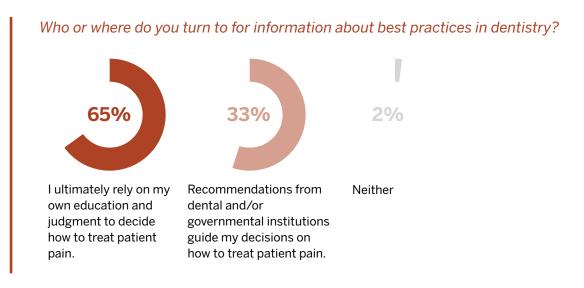


DECISION: Most general dentists are already practicing opioid-free dentistry most of the time—that is, prescribing non-opioids first. Their decision to do so is deeply informed by personal experience and understanding of their patients' needs, not just professional or regulatory guidelines.

Six in 10 general dentists say they never or rarely prescribe opioids, and our message testing showed that the number of dentists who said they were already practicing opioid-free dentistry doubled after that were shown messaging about opioid-free dentistry (although the overall number was small, from 5% to 9%).

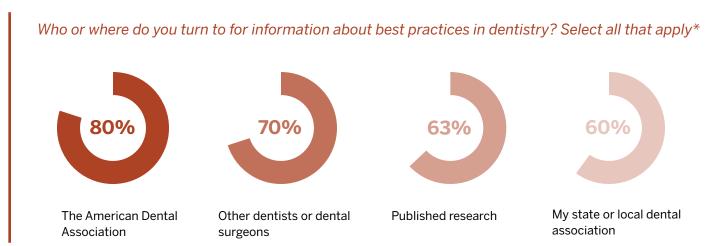


Survey data show that dentists make practice decisions primarily based on their own assessments and practice histories. This suggests that blanket recommendations (which may conflict with the personal experience necessary for good dental care) are unlikely to significantly change prescribing behaviors.



IMPLEMENTATION: Monolithic or top-down approaches are unlikely to be effective with dentists.

When asked about where dentists turn for information overall, the research shows that 8 in 10 dentists look to the American Dental Association (ADA) for information on best practices in dentistry. However, we also found that nearly as many say they rely on informal relationships with colleagues.



Dentists also value independence and autonomy in their work. Taken together, these findings suggest that a nuanced and multipronged effort, one that taps into day-to-day practice needs and informal networks, is the best way to reinforce and extend current behaviors.

What is the best thing about being a dentist?

"Being my own boss."

"Controlling how much I want to work and being in charge of myself."

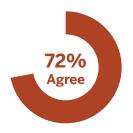
"I enjoy a variety of treatment procedures, having the freedom to treat patients like you'd want to be treated, and having a flexible schedule."

CONFIRMATION: Social norms are the most compelling reason for a dentist to adopt an opioid-free practice.

We tested arguments for transitioning to an opioid-free practice in a series of statements linked to the prompt: "I would adopt an opioid-free practice if..." The top answer confirms dentists would do so if they knew it was the norm, followed by if doing so was part of a larger movement in dentistry; 3 in 4 dentists were convinced. Given that opioid-sparing practices are already the norm among most respondents, this data offers a powerful tool to encourage dentists to continue reducing opioid prescribing.

On a scale of 1 to 5, where 1 means DO NOT AGREE and 5 means COMPLETELY AGREE, how much do you agree with each of these endings to this sentence: "I would adopt an opioid-free practice if..."*

Note: by "opioid-free practice," we mean one that requires prescribing non-opioid pain relievers first whenever possible.



Non-opioid pain management after routine dental procedures was the norm.

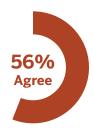


I knew that my commitment was part of a larger movement to end dentistry's contribution to opioid misuse in the U.S.

Conversely, arguments that focus directly on opioid abuse are less persuasive, with fewer dentists agreeing that they would adopt an opioid-free practice.

On a scale of 1 to 5, where 1 means DO NOT AGREE and 5 means COMPLETELY AGREE, how much do you agree with each of these endings to this sentence: "I would adopt an opioid-free practice if..."*

Note: by "opioid-free practice," we mean one that requires prescribing non-opioid pain relievers first whenever possible.



I believed that by prescribing opioid-sparing pain management, I'd be saving lives.



I had stronger evidence of dentistry's negative impact on the opioid crisis.

*Charts not inclusive of all response options

CONFIRMATION: Messaging focused on patient care is the most persuasive.

When asked what the best thing about being a dentist is, many respondents say they value helping people and improving patient health and well-being.

What is the best thing about being a dentist?

"Helping people, getting them out of pain, giving them confidence to smile."

"To restore the oral health and transform the lives of my patients."

"Getting patients out of pain. Educating patients on how to maintain a healthy mouth."

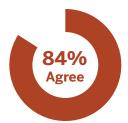
The messages we tested focused on dentists' core concern: helping patients heal safely. This was most often cited as a good reason to reduce opioid prescribing.

Other messages focusing on reducing opioid damage to communities, running a more efficient practice, or personal skills, are less powerful. The messages that narrowly focus on opioid issues are the least likely to be cited as good reasons to eliminate opioids.

Please rate each statement on a scale from 1 to 5, where 1 means it is NOT A GOOD REASON to adopt opioid-free dentistry, and 5 means it is a VERY GOOD REASON.

Note: by "opioid-free practice," we mean one that requires prescribing non-opioid pain relievers first whenever possible.

A Better Way to Heal



"There's a better way to heal: My patients who take acetaminophen and ibuprofen after dental procedures have fewer side effects than opioids in the short term, and it is a safer choice in the long term."

Trusted Expertise



"As a dentist, I've been through extensive education and training to be trusted with one of the most sensitive and vulnerable parts of the body. I aim to do everything I can to help my patients through recovery. Patients trust me, and I trust acetaminophen and ibuprofen because they are proven to be the best management for acute oral pain, without the unwanted side effects of other pain relief options."

Modern, Informed Dentistry



"The science is clear:
Acetaminophen and ibuprofen out-perform opioids for pain management after a routine dental procedure. With this data in hand, I'm opting out of prescribing opioids for acute oral pain. Informed providers know that the routine use of opioids is history—I'm joining the leading edge of dentistry's opioid-free future."

Caretaker for Patients and Community



"I'm not just a dentist, I'm a caretaker for my community. My patients trust me, and I'm committed to their health, comfort, and safety. Knowing the damage opioids can cause to people and to entire regions, practicing opioid-free pain management is just another expression of my professional and ethical care."

Doing My Part



"We've all seen the way opioids have ravaged communities across the U.S. Knowing there is a better way to manage pain with acetaminophen and ibuprofen, going opioid-free in my dental practice is the best way forward. One unnecessary opioid prescription is one prescription too many and I won't have that on my conscience."

A Simple Solution



"By making my practice opioid-free, I'm saving money on my prescribing license and no longer spending precious minutes searching through PDMPs. My patients will thank me when they skip long pharmacy lines and get right to healing comfortably at home, managing their pain with the acetaminophen and ibuprofen they already have in their medicine cabinets."

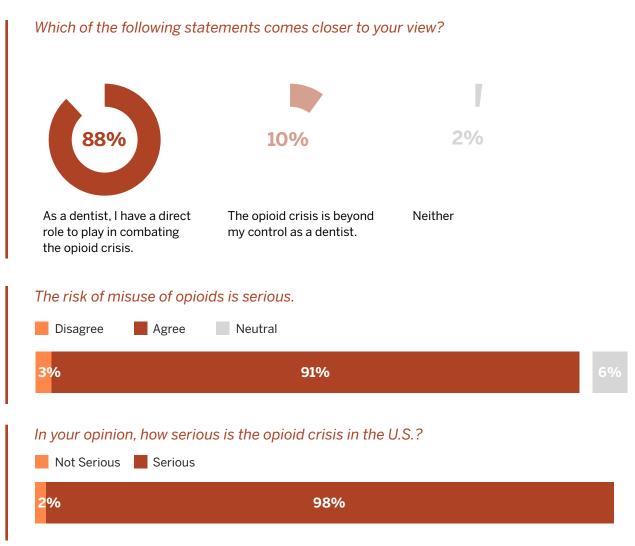
Research Findings



Use of and Attitudes About Opioids

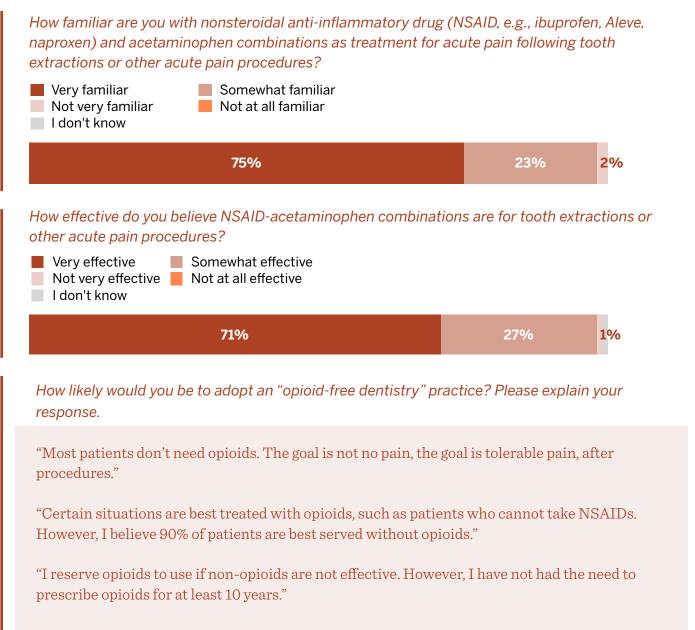
Dentists are almost universally aware of the seriousness of the opioid crisis, and believe they have a role to play in combating it.

Respondents overwhelmingly agree that opioids are a risk that affects their work.



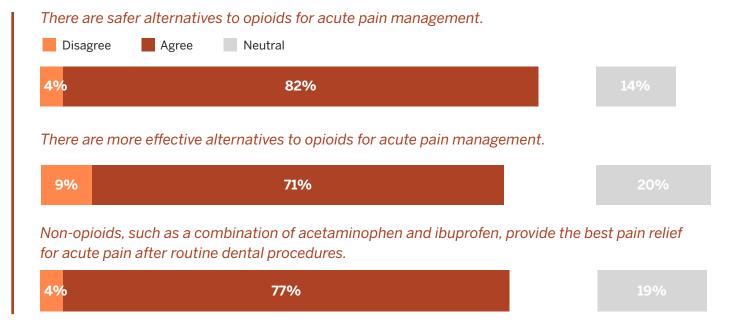
Dentists are aware that safe, effective non-opioid alternatives exist.

Nearly all of the dental professionals surveyed are familiar with the use of NSAIDs paired with acetaminophen for the management of acute pain following a routine dental procedure. Nearly all of them believe the combination is an effective alternative to opioids for most cases, but acknowledge the nuances at the individual patient level.



Not only are dentists familiar with NSAID-acetaminophen combinations, but they largely see them as the better option, trusting them to be safer and more effective than opioids.

When given the option of NSAID-acetaminophen combinations or opioids, most dentists consistently opt for the non-opioid combination.



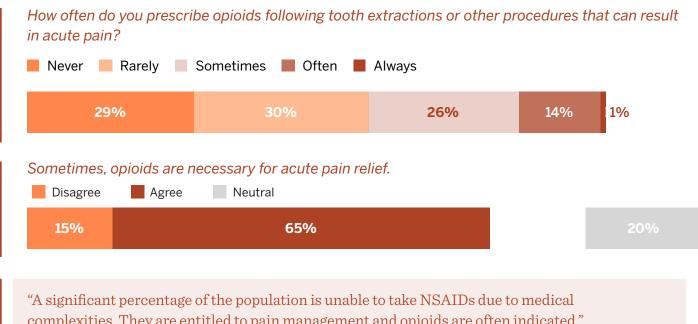
"Knowing the data behind the efficacy of NSAIDs + acetaminophen, I would gladly go that route first."

"I have never freely prescribed opioids in 42 years of practice. I started using NSAIDs and APAP [acetaminophen] over 20 years ago. I was one of the pioneers. Rarely, but at times, narcotics are needed. That said, I will not be renewing my DEA registration number next time."

"I started this about two years ago and am noticing that ibuprofen by itself or as a combination with acetaminophen works pretty well."

While dentists confirm that the opioid crisis is a problem, that they have a role to play, and that there are effective alternatives, 7 in 10 still prescribe opioids at least once in a while.

Dentists describe the complexity of pain management, the unique needs of different patients, and the need to respond to patients' concerns as reasons for why opioids are sometimes necessary.



complexities. They are entitled to pain management and opioids are often indicated."

"I believe the inherent fear that patients have about dental procedures needs to be mitigated first."

"There are plenty of patients who are on blood thinners or allergic to NSAIDs, and I don't have a choice."

General dentists and oral surgeons are distinct audiences with separate prescribing practices and sentiments about opioids as pain management.

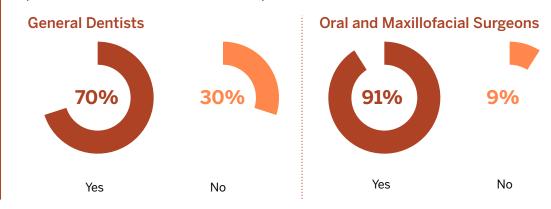
Patterns in survey responses from general dentists and oral and maxillofacial surgeons clarify that these are two distinct audiences with different attitudes and practices for a communications campaign.

Nine in 10 oral surgeons say they prescribe opioids, with slightly more than half categorizing themselves as regular prescribers. General dentists and oral surgeons also indicate different influencing factors on their approaches to prescribing, with general dentists relying more on ADA recommendations and oral surgeons relying on a multimodal approach.

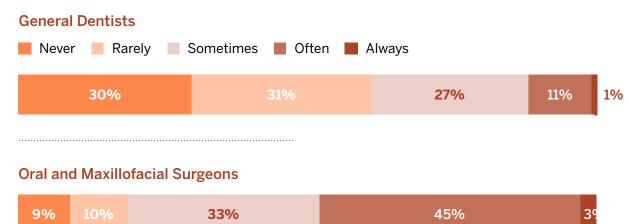
"I am a surgeon performing invasive procedures; I strive to use as little opioids as possible, but using zero opioids is not a reasonable expectation."

"As a maxillofacial surgeon, I perform procedures that may be very painful post-op and require opioids. I never prescribe more than 12 and then monitor the patient."

In your practice, do you ever prescribe or recommend opioids following tooth extractions or other procedures that can result in acute pain?

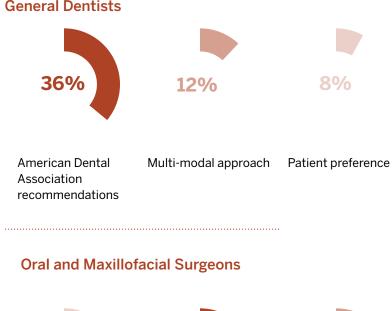


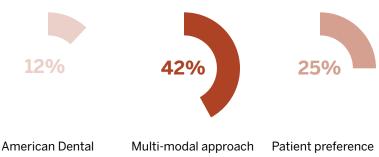
How often do you prescribe opioids following tooth extractions or other procedures that can result in acute pain?



When prescribing medication to manage acute pain, which factors are most important to you:*

General Dentists



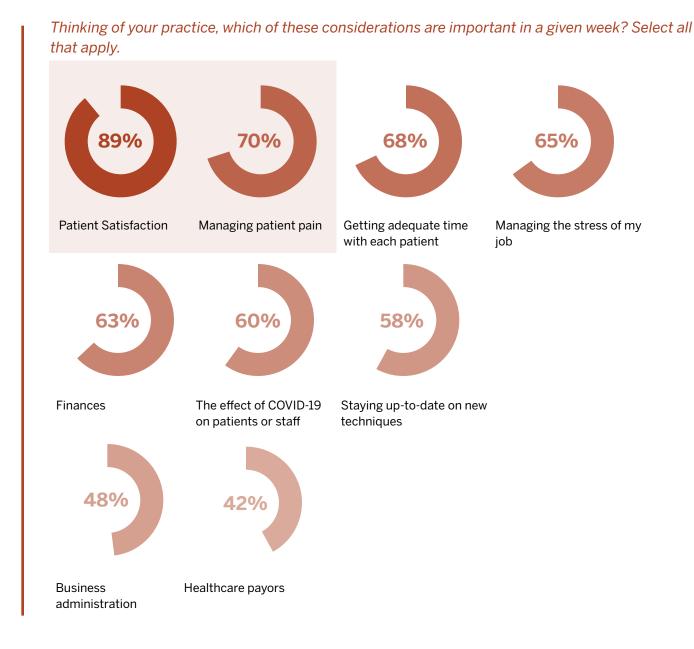


Association recommendations

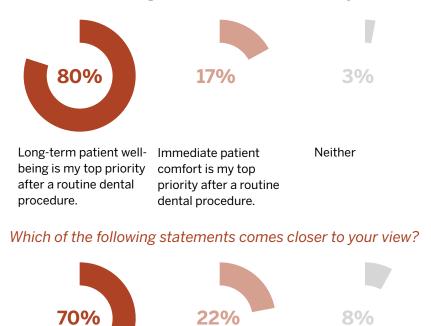
Dentists Mindsets

Dentists fundamentally want to help patients.

The patient experience is a top priority and motivator for dentists. The top-two considerations for dentists in a given week are patient satisfaction and patient pain management; business considerations rank third. Many dentists describe wanting their patients to be healthy, happy, and proud of their smiles for the long term, and largely understand that sometimes patients will experience pain in the short term.



Which of the following statements comes closer to your view?



The goal of pain management is to make pain tolerable for my patients. I'll do anything I can to eliminate pain for my patients.

Neither

The open-ended responses surrounding the best thing about their job speak to quality patient care.

What is the best thing about being a dentist?

"Helping those who are in pain get out of pain. Along with changing people's smiles so they are proud to show their teeth."

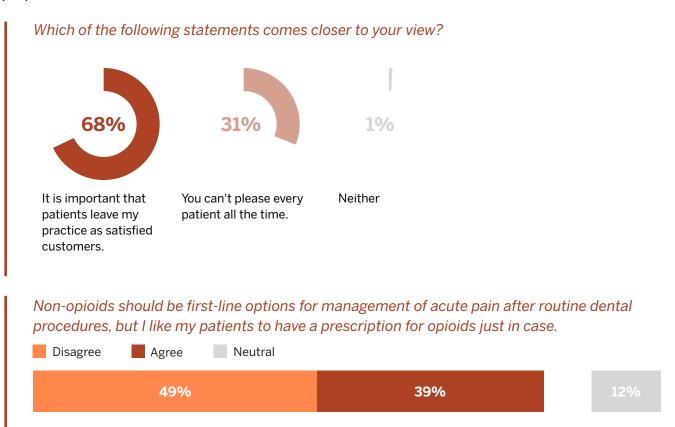
"I can provide excellent care through careful diagnosis, current protocols, and methodical treatment plans."

"The interaction with different people and making their lives better."



While dentists aspire to provide long-term patient care, many also maintain the mindset of small-business owners who rely on short-term customer satisfaction for their practices to succeed.

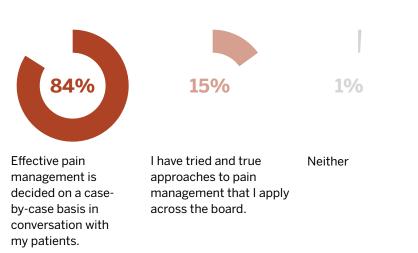
After routine dental procedures, 4 in 10 dentists agree that a "just in case" opioid prescription is appropriate.



Dentists care deeply about maintaining their autonomy.

Dentists value the ability to manage their approaches and practices independently. Two-thirds of survey respondents say they trust their own judgment to manage patients' acute pain rather than defer to institutional recommendations, and most prefer to make decisions on a case-by-case basis.

Which of the following statements comes closer to your view?



Which of the following statements comes closer to your view?



Some dentists place a high value on their flexible schedules and express concern that eliminating opioids would impact their schedules. And when asked to share their favorite things about being a dentist in their own words, autonomy is a common theme.

What is the best thing about being a dentist?

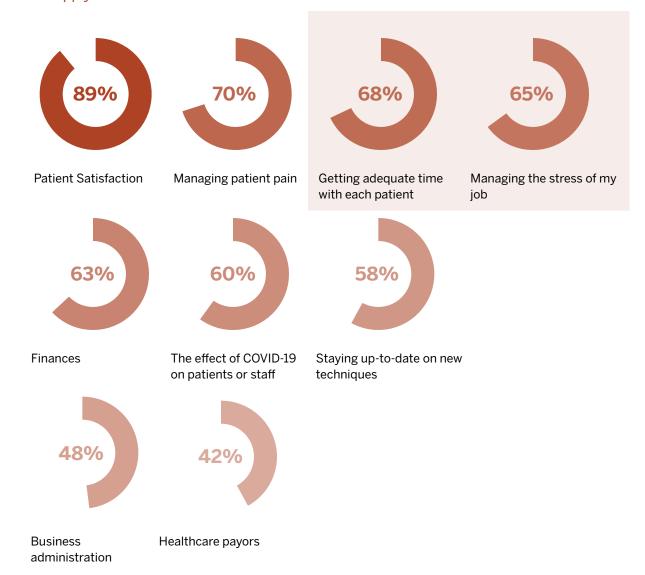
"Being my own boss."

"Controlling how much I want to work and being in charge of myself."

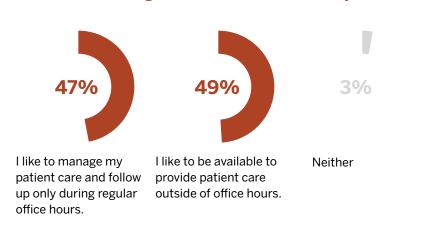
"I enjoy a variety of treatment procedures, having the freedom to treat patients like you'd want to be treated, and having a flexible schedule."



Thinking of your practice, which of these considerations are important in a given week? Select all that apply.



Which of the following statements comes closer to your view?



Despite their current prescribing norms, many dentists are hesitant to identify their practices as "opioid-free."

The survey asked respondents whether they would be likely to adopt an "opioid-free practice"—defined as "adopting guidelines that require dentists to prescribe non-opioid pain relievers first whenever possible"—both before and after reading messages in support of it.

Before seeing messages, 19% of survey respondents say they are unlikely to adopt an opioid-free practice. After seeing supportive messages, only 11% of respondents remain unlikely to switch. The number of respondents who say they already practice opioid-free dentistry doubled—revealing a potential willingness to reconsider their understanding of an opioid-free practice.

Despite current prescribing habits that limit opioids, some dentists are wary of the opioid-free label, describing concern about applying a black-and-white approach to circumstances that might require opioids, and the need for individualized patient solutions.

Some dental practices are adopting what they're calling "opioid-free dentistry." That is, they are adopting guidelines that require dentists to prescribe non-opioid pain relievers first whenever possible.

Pre-message testing
Likely Neither
Unlikely I already practice opioid-free dentistry

64%

Post-message testing

12%

19%

5%

Please explain your response:

64%

"I feel like for some cases, opioids are warranted. I don't think it's appropriate to take a hard-line stance to say, 'no opioids ever,' when every situation is different."

11%

9%

"Opioid reduction is one thing. Opioid-free is another. If we go opioid-free, make no mistake ... some patients, especially in certain age groups, will suffer. Proper prescribing is hard, but going opioid-free (completely) is a cop-out."

"I already use as little as possible opioids in practice, but opioid-free is a naively definitive term."

"I've tried to run an opioid-free practice, but a few patients demand them."

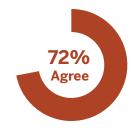
Influence Approach

To adopt opioid-free practices, dentists want to see that prescribing an NSAID-acetaminophen combination is the new normal.

The dentists surveyed would be more receptive to changing prescribing habits if they knew opioid-free dentistry was the status quo and it contributed to a broad decline in opioid misuse.

Dentists do not want to be the first ones to experiment with opioid-free practices. For dentists who currently prescribe opioids at least once in a while, nearly 3 in 4 would be motivated to switch if they knew that non-opioid pain management was already a practice norm.

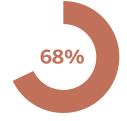
On a scale of 1 to 5, where 1 means DO NOT AGREE and 5 means COMPLETELY AGREE, how much do you agree with each of these endings to this sentence: "I would adopt an opioid-free practice if ... " Note: by "opioid-free practice," we mean one that requires prescribing non-opioid pain relievers first whenever possible.*



Non-opioid pain management after routine dental procedures was the norm.



I knew that my commitment was part of a larger movement to end dentistry's contribution to opioid misuse in the U.S. patient pain



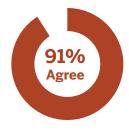
I had stronger evidence of dentistry's negative impact on the opioid crisis.



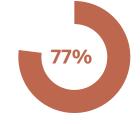
My patients believed nonopioids were just as effective or better options for pain after routine dental procedures.

For respondents who already have opioid-free practices, most say it's because it makes them part of a larger movement, and learned from other dentists. Those dentists also value having the tools to efficiently communicate this to patients.

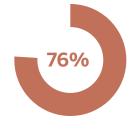
On a scale of 1 to 5, where 1 means DO NOT AGREE and 5 means COMPLETELY AGREE, how much do you agree with each of these endings to this sentence: "I adopted an opioid-free practice because..." *



I knew that my commitment was part of a larger movement to end dentistry's contribution to opioid misuse in the U.S.



I learned from other dentists how to achieve an opioid-free practice.



I could spend more time educating my patients about their pain management options.



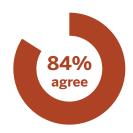
Non-opioid pain management after routine dental procedures was the norm.

*Charts not inclusive of all response options

Dentists are most motivated by messages that speak to quality patient care.

Please rate each statement on a scale from 1 to 5, where 1 means it is NOT A GOOD REASON to adopt opioid-free dentistry, and 5 means it is a VERY GOOD REASON.

A Better Way to Heal



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"As a dentist, I've been through extensive education and training to be trusted with one of the most sensitive and vulnerable parts of the body. I aim to do everything I can to help my patients through recovery. Patients trust me, and I trust acetaminophen and ibuprofen because they are proven to be the best management for acute oral pain, without the unwanted side effects of other pain relief options."

Modern, Informed Dentistry



"The science is clear:
Acetaminophen and ibuprofen out-perform opioids for pain management after a routine dental procedure. With this data in hand, I'm opting out of prescribing opioids for acute oral pain. Informed providers know that the routine use of opioids is history—I'm joining the leading edge of dentistry's opioid-free future."

Caretaker for Patients and Community



"I'm not just a dentist, I'm a caretaker for my community. My patients trust me, and I'm committed to their health, comfort, and safety. Knowing the damage opioids can cause to people and to entire regions, practicing opioid-free pain management is just another expression of my professional and ethical care."

Doing My Part



"We've all seen the way opioids have ravaged communities across the U.S. Knowing there is a better way to manage pain with acetaminophen and ibuprofen, going opioid-free in my dental practice is the best way forward. One unnecessary opioid prescription is one prescription too many and I won't have that on my conscience."

A Simple Solution



"By making my practice opioid-free, I'm saving money on my prescribing license and no longer spending precious minutes searching through PDMPs. My patients will thank me when they skip long pharmacy lines and get right to healing comfortably at home, managing their pain with the acetaminophen and ibuprofen they already have in their medicine cabinets."

Dentists first rely on their own expertise and experience, their patients' unique needs, and experience of other dentists when making prescribing decisions.

Across the board, dentists say they turn to the ADA for information on best practices. But when making prescribing decisions, the top-two priorities for dentists are direct patient needs and medication efficacy. The ADA and other external resources are a distant third. When forced to choose between relying on their own insight versus external practices or recommendations, 2 in 3 respondents choose using their own judgment.

Nearly 70% of dentists turn to their peers for new information, showing the power of informal, personal networks in dentistry.

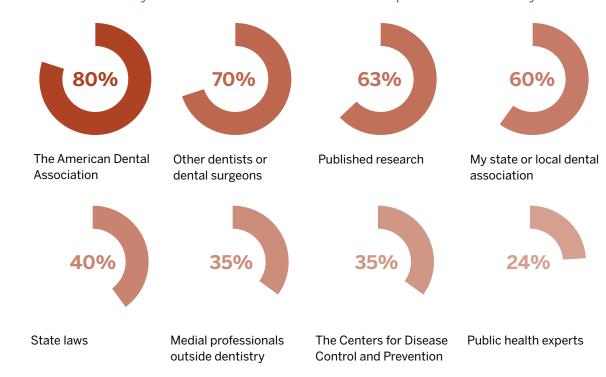
How likely would you be to adopt "opioid-free dentistry"? Please explain your response.

"While opioids may have many negative effects on communities, I must trust my knowledge and experience to care for my patients in the best way possible."

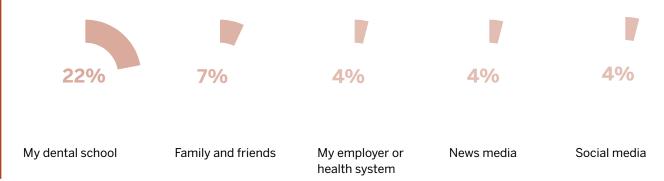
"I have been involved in pain relief for many years. I am constantly educating myself and believe in my prescribing protocols."

"I decide, no one else."

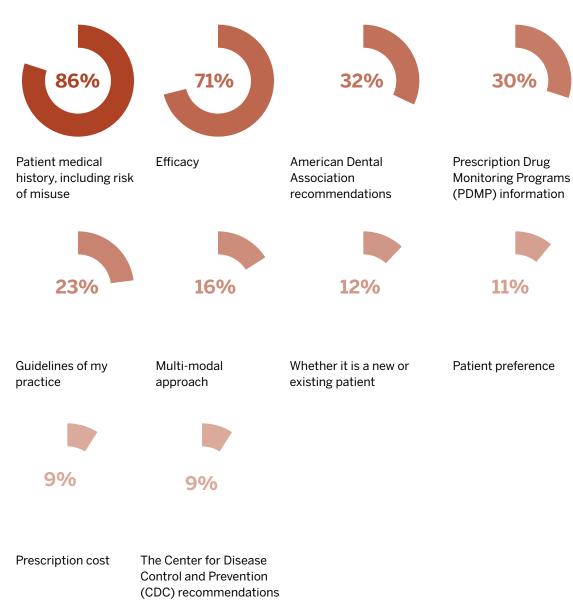
Who or where do you turn to for information about best practices in dentistry?



Who or where do you turn to for information about best practices in dentistry? (Continued from previous page)



When prescribing medication to manage acute pain, which factors are most important to you? Select top three.



Ideas for Campaign Approach

This research provides clear direction for communications aimed at motivating more dentists to reduce their opioid prescribing.

Audience: Who should a campaign target?

It is our recommendation to focus outreach on general dentists.

Most general dentists already know how to follow opioid-free guidelines, believe the guidelines work, and understand the severity of the opioid crisis. And most only prescribe opioids sometimes—when a surgery is particularly invasive, a patient requests them, or "just in case."

We believe that carefully designed, targeted, and persuasive communications will motivate these dentists to prescribe even less or to shift to the "never prescribe" category. They need confidence to adhere to opioid-free guidance in moments of doubt—when an NSAID-acetaminophen combination is medically appropriate but they lean toward the "just in case" prescription.

Oral and maxillofacial surgeons are a different audience, with unique prescribing habits and patients with different needs than those of general dentists. We do not recommend targeting them as part of an initial behavior change campaign given their distinct requirements.

Approach: What should communications aim to do?

Dentists are textbook examples of what we call being of two minds—having ideas that conflict with each other. Communications that help them resolve this conflict will lead to long-term and sustainable behavior change.

Some key campaign elements to explore include:

1. Social norms: Social norms are the informal rules that govern behavior in groups and societies. They are powerful forces that shape behavior—even if they're not based in fact. With regard to desired behaviors, social-norm communications can effect change when there is a disconnect between what's actually happening and what people think is happening.

In this case, our data show the most powerful reason for dentists to reduce opioid prescribing is based on the norm among their peers. The survey confirms that it already is the norm. By sharing this information widely, frequently, and creatively, we can reinforce the norm, which helps give dentists the confidence that an opioid-free practice is both medically sound and widely supported.

2. Shared aspirations: Dentists share a desire to provide greater care, change lives, and help people be healthier and more confident. Linking these ideas to the social norm of how most dentists are practicing today gives us several powerful levers to use in campaign messaging.

Other shared aspirations are autonomy and freedom. These are critical ideals that we need to honor in an outreach campaign. We will avoid dictatorial, rigid, or one-size-fits all messages, because they are not effective.

- **3. Help them think it through:** For audiences who are of two minds, communications that lead them to think through their behaviors and aspirations will help with the decision-making process. These communications will encourage dentists to do the right thing in moments of doubt. Our work will help dentists see how opioid-free practices reflect the kind of people and caregivers they want to be.
- **4. Target patients through their dentists:** The survey shows that more dentists would adopt opioid-free practices if their patients believed non-opioids were as effective or better for pain relief after routine dental procedures. Rather than create separate outreach that directly targets patients, we suggest messaging to dentists that includes tools and materials to educate concerned patients. This support will keep the campaign focused on dentists, but will encourage dentist-patient conversations that help sustain opioid-free actions.



Hattaway Communications fielded a national online survey of 242 U.S. dentists between December 20, 2021 and January 14, 2022. The sample included an oversample of dentists and oral and maxillofacial surgeons in high-prescribing regions in the South Census Region, Michigan, and Pennsylvania. The sample was weighted by age and gender to reflect the demographic makeup of dentists in the U.S.

