



# Flipping the Script

Living with Chronic Pain amid the Opioid Epidemic

*An in-depth look at the other side of a national crisis  
and how the stigma of opioid use is driving patient empowerment  
in the search for non-prescription treatments.*

NEURO**Metrix**<sup>®</sup>

# Introduction

As headlines focus on the national epidemic of drug misuse, the chronic pain community is grappling with how to manage their conditions under increased scrutiny.

Ever-increasing rates of prescription drug addiction and opioid overdose deaths continue to put pressure on doctors to reduce prescriptions, while policymakers are putting stricter guidelines around opioid access. In 2017, the President of the United States declared it a public health emergency, further escalating national attention.

But amidst this chaos, the voice of a large population has been lost. What's regularly missing from the news cycle is how the opioid epidemic is impacting the **100 million Americans living with chronic pain**.<sup>1</sup> Chronic pain is among the most prevalent and debilitating medical conditions, but also among the most controversial

and complex to manage, with economic costs reaching **\$635 billion a year**.<sup>2</sup> For years, the medical community has relied on opioids as the first line of defense to help their patients living with chronic pain find relief. This national discourse has given rise to many false assumptions and an unjustified stigma around the chronic pain community.

To better understand how the stigma around the opioid epidemic has impacted this community and the growing need for alternatives, NeuroMetrix partnered with Vanson Bourne to survey American adults who live with some form of chronic pain. The following report outlines the challenges faced by those living with chronic pain in gaining access to the treatments they need, and how their pain - and the opioid crisis - has changed how they feel and communicate about their condition and how it has impacted their treatment protocols.

## A Closer Look at the Opioid Epidemic

**64,000 overdose deaths** in the U.S. in 2016; by comparison, there were under 9,000 drug overdose deaths in Europe in 2015<sup>3</sup>

**151% increase in opioid prescriptions** dispensed by doctors between 1992 and 2012<sup>4</sup>

**6x as many opioids per capita** prescribed in the U.S. compared to Portugal and France, even though these countries offer far easier access to health care<sup>5</sup>

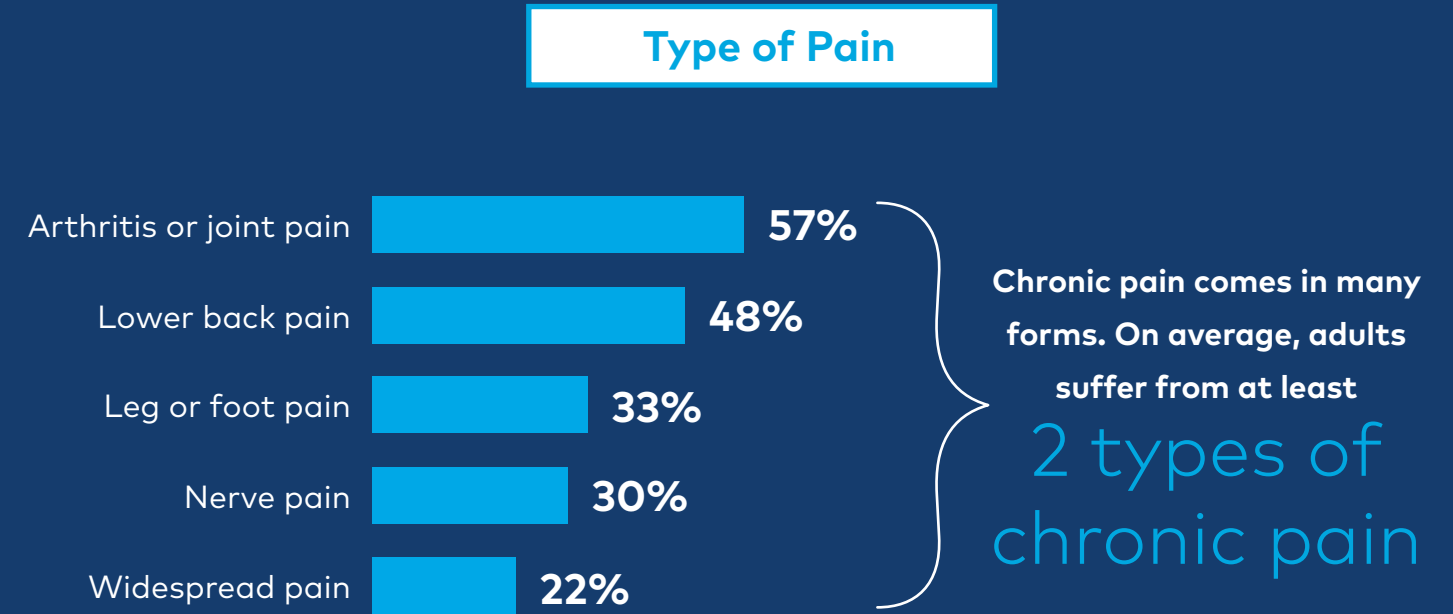
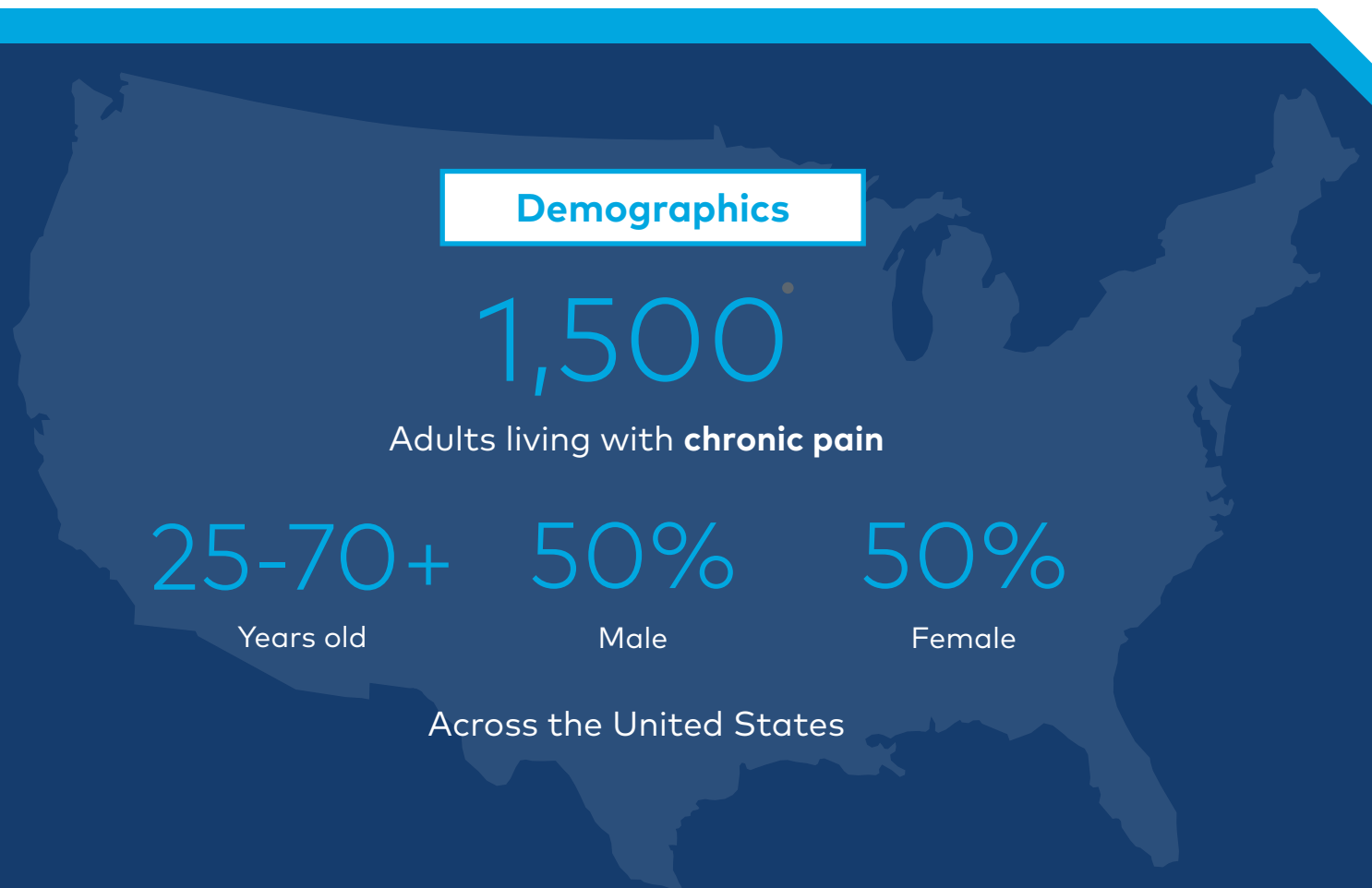
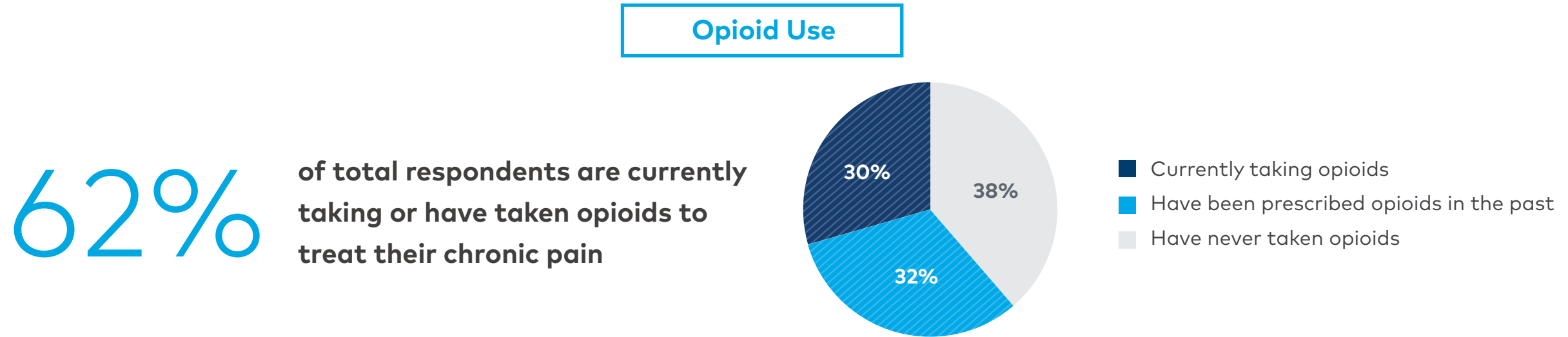
**49 out of 50 states** now have prescription drug monitoring programs, and many have issued restrictions on filling opioid prescriptions<sup>6</sup>

**Less than 1%** of chronic pain patients without a history of substance abuse problems became addicted to opioids during treatment<sup>7</sup>



# The Chronic Pain Community: Who We Surveyed

**What is chronic pain?** Pain lasting three or more months. Unlike acute pain that occurs suddenly as a result of an injury and is usually treatable, chronic pain persists over time and is often difficult to treat via a single modality.<sup>8</sup>



**Chronic pain is personal.** In clinical terms, it's a complex biopsychosocial condition that involves the interplay of biological, psychological and social factors. Its impact goes far beyond the physical symptoms. For some, the primary issue is the direct experience of pain or the pain intensity; for others, the impact of pain is felt through a diminished quality of life, or how it affects sleep, activity, mood and overall lifestyle.

### Beyond the Physical: How Chronic Pain Impacts Day-to-Day Life



**91%** lose sleep



**85%** lose time maintaining their home



**85%** have to skip exercise



**67%** miss out on connecting with friends



**66%** miss out on travel plans



**59%** lose time at work



**57%** lose time playing with their children or grandchildren



**52%** lose quality time with a partner



**52%** lose time caring for a pet

**“ The opioid epidemic has affected the chronic pain community dramatically. The public needs to realize that chronic pain is a disease of the mind and body and not just a collection of symptoms. It must be treated like any other physical or emotional issue and the stigma must be removed.”**

*Nancy Laracy, writer, activist and blogger, [Bunny Boy & Me](#)*

**Sleep is most commonly impacted.** Pain can make falling and staying asleep more difficult, and may lead to more restless, lighter sleep, with more frequent awakenings.<sup>9</sup> The quiet environment of your bedroom before rest can increase the severity of symptoms, and can keep those with pain up at night. A poor night's sleep can exacerbate symptoms into the next day, creating a vicious cycle.

**2 hours**

average hours of sleep lost per night due to pain

**1 in 5**

people report losing 4+ hours of sleep per night





# Findings At-A-Glance

Below are the major themes we'll explore on the following pages of this report.

**The opioid epidemic has created an unfair stigma for those living with chronic pain.**

**84%** believe there is a stigma around opioid use

**50%** have lied about their opioid use as a result

**This stigma is affecting pain treatment.**

**42%** admitted it has impacted how they communicate with their doctor about their pain

**34%** had to stop taking opioids because their doctors would no longer prescribe them

**There's a strong desire for alternatives to treat chronic pain.**

**43%** don't like the side effects of prescription medication<sup>†</sup>

**39%** prefer to treat pain without prescription medication<sup>†</sup>

**There's a fracture in the doctor-patient relationship.**

**59%** feel their doctor is not completely informed about treatment options outside of prescription drugs

**Only 15%** said their doctor suggested looking into alternative treatments<sup>†</sup>

**Individuals living with chronic pain are taking treatment into their own hands.**

**90%** are actively seeking new treatment methods for their chronic pain

Feedback from friends and family (**87%**), online reviews (**80%**) and news coverage (**73%**) are increasingly influential sources when evaluating new treatments

**The "one-size-fits-all" approach to treating chronic pain doesn't work.**

**59%** have tried new treatment methods within the past year

Those with chronic pain use an average of **2 treatment methods** regularly

# 01 A Nation Stigmatized

The medical community, law enforcement and government regulators have taken a strong approach in fighting against the opioid epidemic. Newly implemented programs and guidelines, ranging from drug take back initiatives, limits on prescription refills and public education around the dangers of opioid use and risk of addiction, may be inadvertently affecting those living with chronic pain - many of whom have been relying on opioids for relief.

All of this attention is creating a public misunderstanding around the differences between opioid addiction and the responsible use of the medication for the treatment of chronic pain.

The chronic pain community is in agreement that the zealous efforts to curtail opioid abuse have created a damaging stigma.

84% of all respondents believe there is a stigma around opioid use

50% have felt personally stigmatized

50% have lied about their opioid use



of respondents who are currently or have taken opioids

## How does the chronic pain community feel about opioids?

While opioids have long been a go-to treatment for those suffering with chronic pain and the doctors who treat them, the medication comes with inherent risks and uncomfortable side effects. These factors, along with a potential stigma, leave patients with negative feelings around their use of opioids.

61% of all respondents worry about addiction

51% only take opioids when necessary

42% don't like the side effects

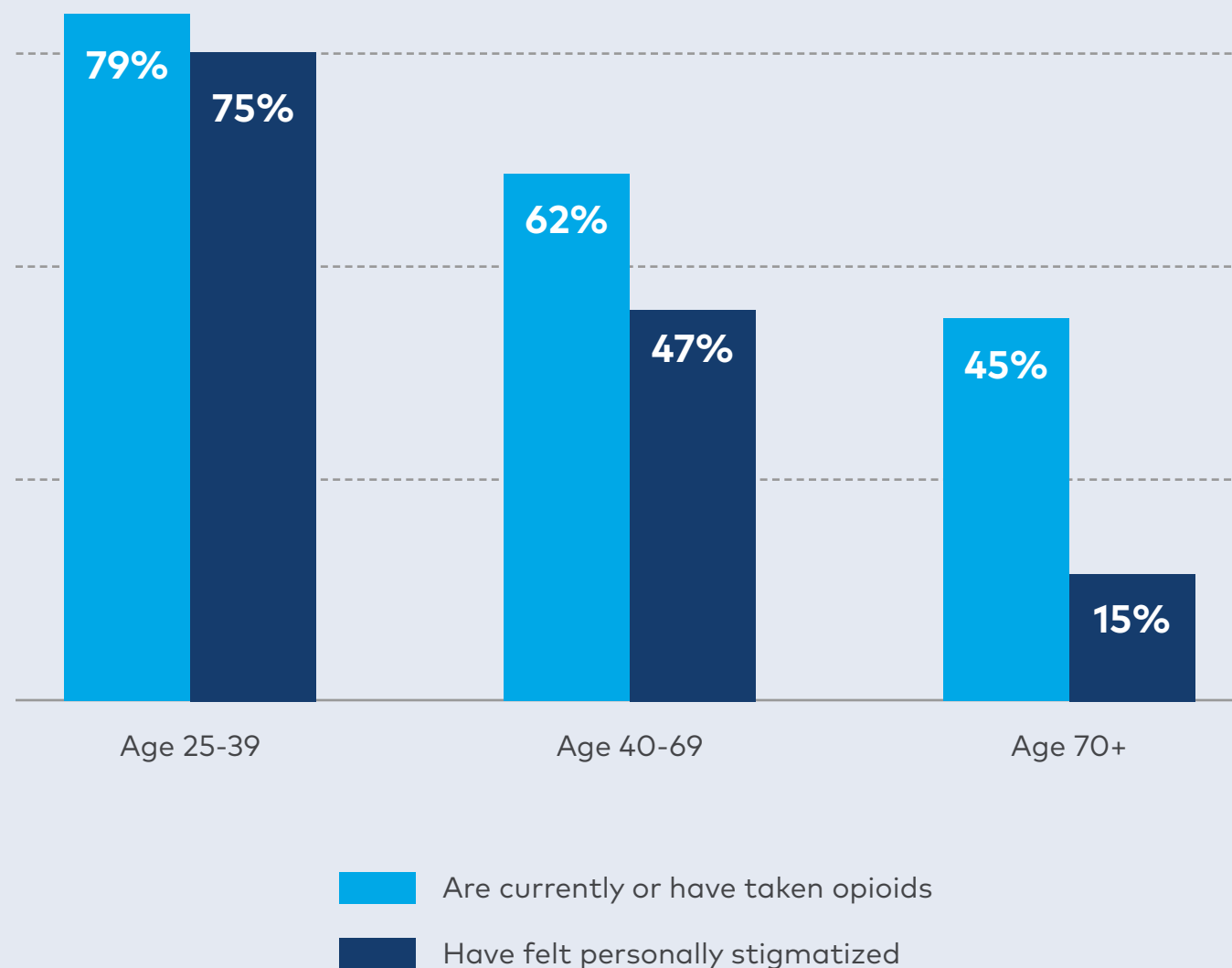


of respondents who are currently or have taken opioids



## A Generational Divide?

The opioid crisis seems to be having a more intense impact on the younger generation (ages 25-39). Not only is this age group more likely to be currently using opioids to treat their chronic pain, but they also seem to be more aware and intensely impacted by the stigma than older generations.



“ I have had opioid medications prescribed after 14 years of symptoms following two car accidents. I’ve been drug tested by disbelieving doctors. I’ve been told my symptoms don’t make sense. People are dying because they can’t handle the pain without medications. I understand that the question ‘pain or overdose’ is one doctors find easy to answer. However, they should consider that many of us simply cannot function without medication, through no fault of our own.”

Jennifer Kain Kilgore,  
Attorney Editor and Blogger, [Wear, Tear & Care](#)

The National Survey on Drug Use and Health states that 75 percent of all opioid misuse starts with people using medication that wasn’t prescribed for them—obtained from a friend, family member or dealer.<sup>10</sup> This stat, along with other anecdotal evidence from physicians and healthcare leaders,<sup>11</sup> shows that the chronic pain community is potentially less likely to develop an opioid addiction than others; however they are still being impacted by new regulations around access to opioids, and are emotionally struggling with the stigma.

In fact, more than half (57 percent) of respondents indicated that they believe the stigma around opioid use is impacting how their chronic pain is treated. **If the opioid stigma is impacting treatment, how is it affecting the doctor-patient relationship?**



# 02 The Doctor- Patient Disconnect

**The stigma around opioid use has an even further reaching impact beyond the individual and their experience with pain.**

**It's having an impact on healthcare providers - how they administer opioids, treat chronic pain and ultimately communicate and work with patients.**

Because doctors have to face the complex challenges that come with treating both opioid addiction and chronic pain, they are under increased scrutiny regarding how they are prescribing drugs - to whom, how often and why. One study by The Boston Globe and SERMO revealed that nearly one in 10 doctors have stopped prescribing opioids, and more than one-third believe that reducing prescribing has hurt patients living with chronic pain.<sup>12</sup>

**34%** stopped taking opioids because their doctors would no longer prescribe them

Similarly, the chronic pain community has sensitivities around opioids when it comes to communicating with their doctors. Considering that many of those living with chronic pain indicated they don't like the side effects of opioids or only take them when absolutely necessary, it was not surprising to see that these negative emotions around opioids have had a ripple effect that has reached their relationships with doctors. More than four in 10 indicated that the stigma around opioid use has had a direct effect on how they communicate

with their doctor and one in five stated that they downplay the level of their pain. While the exact reasoning behind downplaying this pain was not revealed, it can be assumed that some patients may want to avoid an increase in dosage or new prescription.

**42%**

said the stigma around opioids has impacted how they communicate with their doctor about their pain



**20%** said they downplay the level of their pain



**13%** said they are more cautious in their communication



**9%** said they emphasize their level of pain



The spotlight on opioids has led to an increased interest in learning more about alternative treatments to manage pain. However, the survey results reveal that there is skepticism among patients about their doctors' level of knowledge of alternative treatments.

**59%** do not believe their doctor is completely informed of treatments outside of prescription drugs

**Men are more likely to feel their doctor is informed of alternative treatments than women**

While patients still value their doctor's recommendation when it comes to alternative treatments for chronic pain, just 15 percent\* stated that their doctor has recommended looking into alternative treatments. This may be driving more of those living with chronic pain to look outside of their doctor's office to research, test and implement new treatment methods that do not require a prescription.

**“ We must broaden the spectrum of what physicians are educated on when it comes to alternative treatment options, while also fostering awareness among patients. If done correctly and swiftly, reliance on opioids as the single go-to option will decrease. The end result is those with chronic pain regaining greater control over their lives.”**

*Shai N. Gozani, M.D., Ph.D.,  
CEO and founder of NeuroMetrix*



## **In the News: FDA Proposes Changes for Treating Chronic Pain**

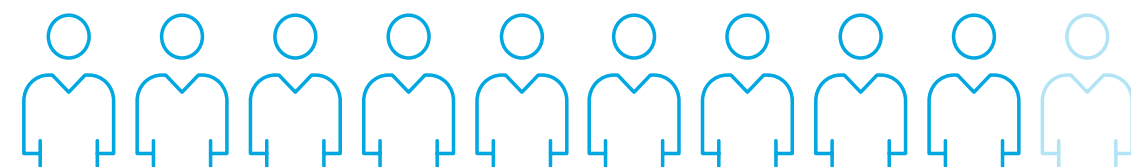
The FDA recently released proposed changes to its blueprint for educating health care providers on treating chronic pain.<sup>13</sup> In an effort to help patients reduce their reliance on opioids, the updates encourage physicians to consider non-pharmacological therapies – such as chiropractic care and acupuncture – for treatment. Recent advances in neuro- and wearable technologies are providing even more options for pain management.

# 03 The Empowered Patient

Navigating pain management has always been a challenge for those with chronic pain, and the opioid crisis is giving them more of a reason to explore new treatments. There's a groundswell among the chronic pain community to take their wellbeing into their own hands outside of the traditional care setting.

Pain management is a long-term process that changes day to day, requiring seemingly constant surveillance of the latest treatments available. An overwhelming majority of those surveyed indicated they are actively seeking treatments to help mitigate their pain symptoms.

**90%** are actively looking for new treatment options to treat their pain



**59%** tried new treatments in the past year



This goes up to **80%** for 25-39 year olds

**35%** tried two+ treatments in the past year



This goes up to **55%** for 25-39 year olds

## Why did you decide to explore non-prescription treatments?†

**43%** "I didn't like the side effects of prescription medication."

**39%** "I prefer to treat pain without prescription medication."

**28%** "Prescription medication didn't provide me with enough relief."

**27%** "I was worried about addiction."

**19%** "Prescription medication negatively impacts my ability to enjoy life."

**15%** "My doctor suggested looking into alternatives."



While many still rely on their doctor to learn about new treatments, they are augmenting their search by tapping additional resources. Further, these sources all have varying levels of influence on those living with chronic pain. Although doctors remain highly influential, the chronic pain community places significant value on the opinions of friends or family members, as well as third-party reviewers.

### Where are they looking?



**51%** do their own online research



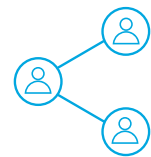
**31%** ask a friend with a similar condition



**27%** engage with online advocacy groups and bloggers



**18%** ask a pharmacist



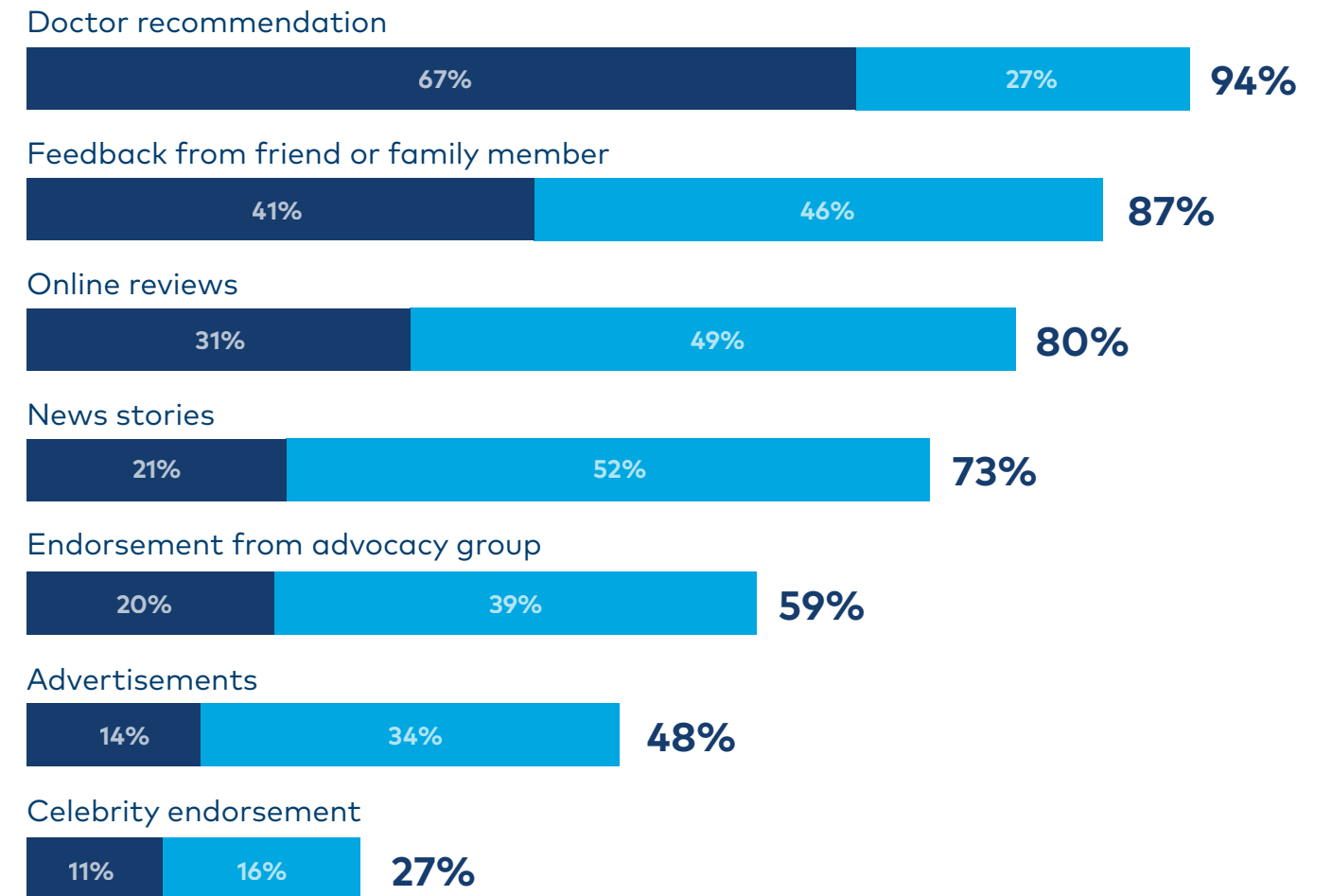
**16%** post on social media



**4%** ask their insurer

### What information sources are most influential when evaluating new treatment methods?

Extremely Somewhat



Despite being willing to try new treatments and uncover alternatives, navigating through the wide range of options is proving to be a challenge for those living with chronic pain. Two-thirds (66 percent) believe that it is difficult to access or find out about non-prescription treatments for chronic pain, with 51 percent stating that there is not enough qualifying information (e.g. online reviews from a third party or clinical research) about treatments, which is causing a barrier to trying them. This underscores the need for key stakeholders (doctors, patients, caregivers, vendors) to collaborate and make information about alternative treatments more widely available.

## A toolbox approach to treatment.

In an effort to reduce their pain symptoms and maximize relief, the chronic pain community explores and uses a number of different treatment protocols, ranging from topical or holistic therapies to technological treatments.

2 the average number of treatments regularly used to manage chronic pain

3 the average number of treatments regularly used to manage chronic pain by 25-39 year olds

“Think of pain management as a toolbox. Rather than relying on a single treatment modality, explore a variety of therapies to find relief - because you want more than one tool in your toolbox. To make alternative therapies more than a 'nice-to-have' chronic pain management tool, awareness and education are needed for both physicians and patients so they know what other options are in the marketplace. This begins with the patient feeling empowered to ask what else is available and the physician knowing what non-pharmacologic options are available to suggest to patients.”

Shai N. Gozani, M.D., Ph.D.,  
CEO and founder of NeuroMetrix

### Top 10 most common alternative treatment methods



65%

Physical therapy



65%

Lotions, rubs, patches



44%

Over the counter TENS



33%

Doctor-prescribed TENS



32%

Herbal or natural supplements



28%

Yoga, pilates, meditation



21%

Acupuncture



16%

Medical marijuana



16%

Cognitive behavioral therapy



15%

Surgery, implantable devices





## Looking Ahead

**The opioid crisis will not be solved overnight.** Coordination among government organizations, the healthcare and pharmaceutical industries and other stakeholders is critical to finding solutions to this problem. In the meantime, it is possible to better support those living with chronic pain and empathize with how the opioid epidemic is affecting their ongoing journey to find relief. The results of this study prove that there is a direct link between the opioid crisis and the chronic pain community - and that the stigma around opioid use is deeply affecting those with pain.

To combat this, the chronic pain community must be open and willing to try new therapies and compile a "toolbox" of treatment modalities that will help them maximize relief. On the other side, doctors must feel empowered and informed enough to provide their patients with recommendations beyond the "one-size-fits-all" approach of prescription medication. This isn't to say that pharmacological treatments don't have a place in the toolbox, but there needs to be more than one tool at your disposal.

Because respondents indicated that finding information about new treatments is challenging, it's more critical than ever for innovators and healthcare providers to make information on new treatments more accessible and for the broader community to take notice and share information widely. Although what works for one person may not work for another, this exchange of information will inevitably help others find new options to minimize their pain, and demonstrate more support for those living with chronic pain. |



## Survey Methodology

In early 2018, NeuroMetrix commissioned independent market research firm Vanson Bourne to interview 1,500 US consumers aged 25 years old and above. In order to qualify for the survey, respondents had to report currently suffering from chronic pain (defined as pain that lasts longer than three months). Responses were collected across an even spread of ages and gender. Interviews were conducted via online interviewing using a rigorous multi-level screening process to ensure that only suitable candidates were given the opportunity to participate.

## About NeuroMetrix

NeuroMetrix is an innovation driven healthcare company combining neurostimulation and digital medicine to address chronic health conditions including chronic pain, sleep disorders, and diabetes. The company's lead product is Quell, an over-the-counter wearable therapeutic device for chronic pain. The company also markets DPNCheck®, a rapid point-of-care test for diabetic neuropathy, which is the most common long-term complication of Type 2 diabetes.

### For more information:

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## References

1. Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research. (2011, June 29). Institute of Medicine. [Available here.](#)
2. Gaskin, D.J., & Richard, P. (2012, May 16). The economic costs of pain in the United States. The Journal of Pain. [Available here.](#)
3. Bugge, A. (2017, October 27). U.S. opioid crisis could spread to Europe, experts say. Reuters. [Available here.](#)
4. Brooks, M. (2018, April 19). Opioid Prescriptions See Largest Annual Drop in 25 Years. MedScape Medical News. [Available here.](#)
5. International Narcotics Control Board. (2017). Narcotic Drugs - Estimated World Requirements for 2018 - Statistics for 2016. United Nations. [Available here.](#)
6. Prescription Drug Monitoring Frequently Asked Questions (FAQ). (n.d.). The PDMP Training and Technical Assistance Center. [Available here.](#)
7. Noble M., Treadwell J.R., Tregear S.J., Coates V.H., Wiffen P.J., Akafomo C., Schoelles K.M., & Chou R. (2010, January 20). Long-term opioid management for chronic noncancer pain. Cochrane Database of Systematic Reviews. [Available here.](#)
8. Ratini, M. (2017, May 11). Do I Have Chronic Pain? WebMD. [Available here.](#)
9. Onen, S. H., Onen, F., Courpron, P., & Dubray, C. (2005). How Pain and Analgesics Disturb Sleep. The Clinical Journal of Pain. [Available here.](#)
10. Results from the 2014 National Survey on Drug Use and Health. (2014). National Survey on Drug Use and Health. [Available here.](#)
11. Wahrman, A. (2017, November 9). America Is Losing the War on Chronic Pain. Healthline. [Available here.](#)
12. Freyer, F. J. (2017, January 2). Doctors Are Cutting Opioids, Even If It Harms Patients. The Boston Globe. [Available here.](#)
13. FDA Education Blueprint for Health Care Providers Involved in the Management or Support of Patients with Pain. (2017, May). US Food and Drug Administration. [Available here.](#)

† Statistics reflect respondents who are aware of non-prescription treatments for chronic pain, which is 99.2% (n=1,489) of total survey respondents