

Understanding America's Pain: Identifying How Americans Experience and Manage Pain

April 2016

Prepared for Iroko Pharmaceuticals, LLC

METHODOLOGY

Kelton Global conducted a nationally representative online survey on behalf of Iroko. Data were collected between December 15, 2015 and December 21, 2015. The sample consists of those surveyed (n=1,056): respondents 18+ years old who reflect the general population of the United States. In addition to all those surveyed, the following subgroups are referenced in this document:

- **Those surveyed who experienced pain** were defined as respondents who have ever experienced at least one of the following: chronic pain, recurrent pain, general pain, pain as a result of surgery, pain as a result of injury, pain as a result of aging (n=810).
- **Medication users** are defined as respondents who have taken prescription nonsteroidal anti-inflammatory drugs (NSAIDs) or over-the-counter (OTC) pain medication in the last 12 months (n=608).

The sample had the following demographic breakdown and generally reflected the U.S. population:

- 51% female, 49% male
- Mean age of 46.0 years old, with the following age distribution:
 - 18-34 years old = 30%
 - 35-54 years old = 35%
 - 55+ years old = 35%
- 66% Non-Hispanic White, 14% Hispanic/Latino, 12% African American, 5% Asian/Asian American, and 3% Other

EXECUTIVE SUMMARY

A high proportion of Americans experience pain at least once a week which impacts physical and emotional well-being, social plans, family obligations, and performance at work. Despite Americans' widespread use of pain medications, both prescription and OTC drugs, a high proportion of people still experience pain at least once a week.

Pain frequently goes untreated. Surprisingly, many Americans do not consult their doctor about appropriate steps to manage pain. It is not surprising, then, that people do not feel their pain is controlled and are not very confident they are appropriately addressing their pain symptoms.

Unfortunately, there is a lack of comprehensive knowledge and understanding regarding non-steroidal anti-inflammatory drugs (NSAIDs), including the risks associated with them. NSAIDs are among the most commonly used pain medications. In 2014, 123 million prescriptions were filled for NSAIDs in the U.S., and it's reported that one-third of the general population have used OTC NSAIDs.^{1,2} Although NSAIDs are widely used for pain management, many consumers are not able to correctly identify them as NSAIDs. To improve this lack of knowledge and improve pain management, people should have conversations with their doctors to become more informed about the medication options available to them as well as how to minimize risks with these options.

The following survey findings come at an important time, as the U.S. Food and Drug Administration (FDA) is strengthening the existing warning labels on all non-aspirin prescription and OTC NSAIDs. Per FDA recommendations, NSAIDs should be used at the lowest effective dose for the shortest duration. These FDA recommendations should motivate medication users to educate themselves on the dose-related risks of NSAID pain medications and explore low-dose NSAID pain relief options with a healthcare professional.

¹ IMS National Prescription Audit, Total Prescriptions, 2010-2014.

² Koffeman A, et al. High-risk use of over-the-counter non-steroidal anti-inflammatory drugs: a population-based cross-sectional study. *Br J Gen Pract.* 2014 Apr; 64(621): e191–e198. Published online 2014 Mar 31. doi: 10.3399/bjgp14X677815.

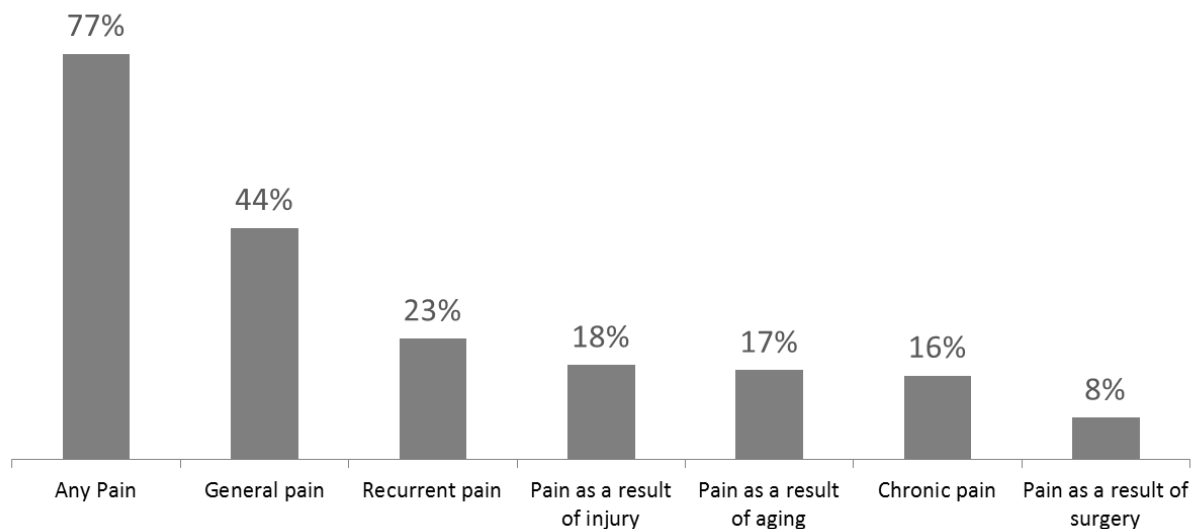
Pain is common in the lives of Americans, with almost 8 in 10 reporting some type of pain.

Nearly 8 in 10 (77%) Americans surveyed have experienced at least one form of pain, whether from general pain, chronic pain, or pain as a result of aging. People are most likely to report general pain (44%), though chronic pain (16%) afflicts about 1 in 6 (Figure 1). More than 3 in 10 (32%) have been diagnosed with some form of arthritis (i.e., osteoarthritis, rheumatoid arthritis, gout and other types of arthritis).

While pain was observed across a variety of demographic factors such as education, ethnicity, income, and marital status, there are gender and age differences in the types of pain experienced. Women are more likely than men to report chronic pain (19% for women vs. 14% for men) and pain due to aging (21% for women vs. 13% for men).

People are experiencing pain frequently. Forty-three percent (43%) of Americans experience some form of pain weekly or more. The frequency varies greatly when looking at specific types of pain. Seventy percent (70%) of those who suffer from chronic pain experience it *every day*, while 81% who report pain related to aging and 69% of those who have been diagnosed with arthritis experience it *at least once per week*. Even 46% of those who report general pain (i.e., pain that usually lasts a short duration, such as a headache) experience it *weekly or more*.

Figure 1. Type of Pain Experienced by Survey Respondents (N=1,056)



- *General pain was defined as pain that usually lasts for a short duration, such as a headache
- *Recurrent pain was defined as pain that comes and goes over time and is repetitive in nature
- *Pain as a result of injury (e.g., sports injury)
- *Pain as a result of aging (e.g., osteoarthritis)
- *Chronic pain was defined as ongoing pain that usually lasts more than 3 months

Pain considerably disrupts the physical, emotional and social well-being of Americans.

As a result of frequent pain from a variety of sources, people's well-being – physical, emotional, and social – is negatively impacted.

In addition to affecting their well-being, pain disrupts various aspects of daily life, from everyday tasks to family responsibilities to employment. Many of those surveyed who experience pain report that it has affected walking (45%), outdoor activities and exercise (57%), household chores (45%), and even sex (40%). It is also altering family life by getting in the way of taking care of family (49%) and forcing people to miss at least one of their children's events (63%).^a Pain even harms the workforce, with 42% of those employed saying that pain has disrupted their ability to work, and over half (56%) have been absent from work at least once because of pain (Table 1).^b

Americans who experience pain also feel the emotional consequences. More than four in ten (42%) feel their general enjoyment of life has been disrupted and they lack motivation to perform daily activities (41%). These effects are even worse for chronic pain sufferers: 7 in 10 (71%) report disruption to their enjoyment of life and 66% are unmotivated to perform daily activities because of their pain. Pain may cause emotional strain on personal relationships as well. The emotional effects of pain are particularly acute for women, as they are more likely than men to feel isolated due to pain (28% vs. 21%) and unmotivated to perform daily activities because of their pain (47% vs. 34%).

Table 1. Consequences of Pain among Americans who Experience Pain

	Americans Who Experience Pain	
	% who report event has happened in past 12 months	Avg. number of times it has happened in past 12 months*
Miss one of my children's events (<i>among parents</i>)	63%	1.6
Absent from work (<i>among those employed</i>)	56%	2.9
Cancel social plans	47%	2.9

* Calculation of average excludes zero and is only among those who report the event has happened in the past 12 months.

^a among pain sufferers with children.

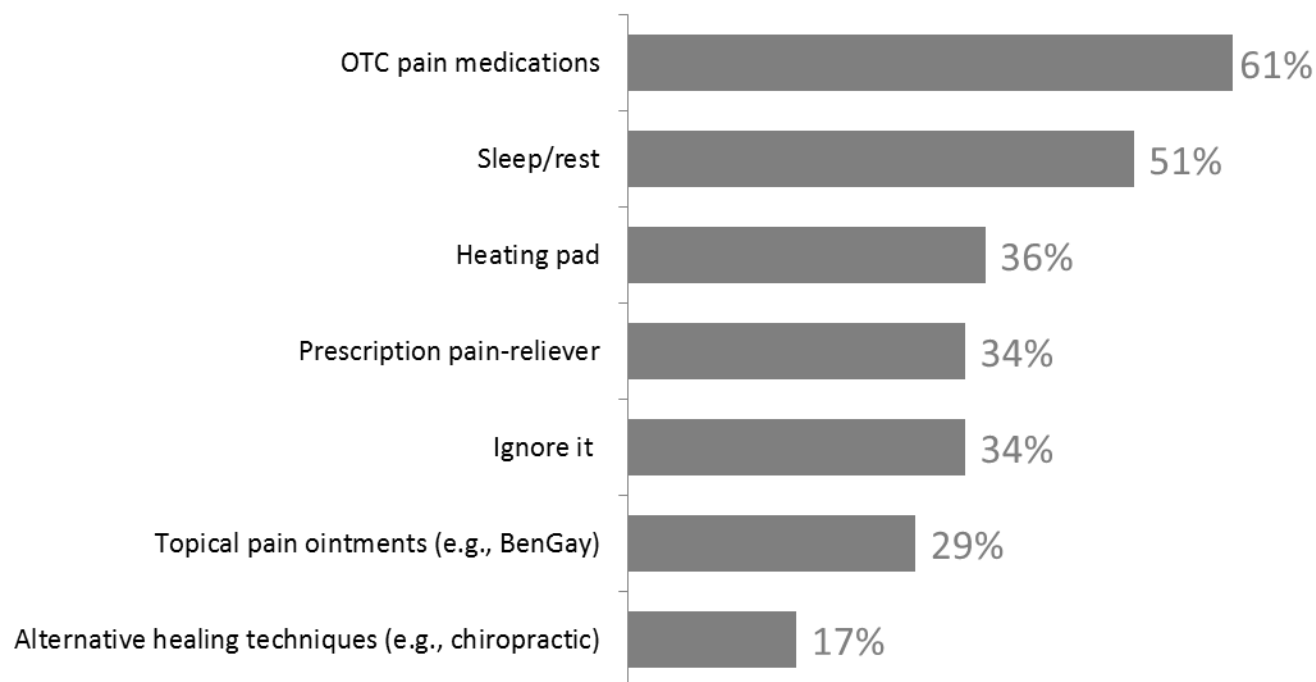
^b among pain sufferers who are employed.

Americans treat their pain with a variety of methods, but many don't feel their pain is under control.

Among those surveyed who experience pain, a variety of methods are being used to treat pain. Six in ten (61%) take OTC medications, about half (51%) try sleep or rest, 36% use a heating pad and 34% use prescription pain relievers (Figure 2). Older individuals are *more likely* to treat pain with OTC medications, as 74% of those ages 55+ use these medications versus 46% of those under age 35. Chronic pain sufferers use several methods to treat pain as well. Prescription pain medications are the most common (63%), but they also report using sleep/rest (53%), OTC medications (50%), and a heating pad (50%).

Of those who took pain medications within the last 12 months, the most common medications identified included OTC pain relievers such as aspirin, Aleve, or Tylenol (76%), prescription NSAIDs such as Celebrex or diclofenac (30%), as well as opioids such as codeine or Vicodin (21%). The 608 respondents who took prescriptions NSAIDs or OTC pain medications in the past 12 months were defined as medication users.

Figure 2. Common Methods for Treating Pain among Those Who Experience Pain (n = 810)



Surprisingly, 34% of those surveyed who experience pain admit that one of their typical strategies is to just ignore it. In addition to ignoring their pain, many who experience pain are not discussing pain management or treatment options with a healthcare professional. Almost 6 in 10 (58%) do not discuss how to manage pain with their doctor and 54% are not taking the opportunity to consult a doctor about the steps they take to relieve pain. At the onset of pain, an overwhelming majority of those who experience pain would rather self-treat (87%) than call a doctor (13%).

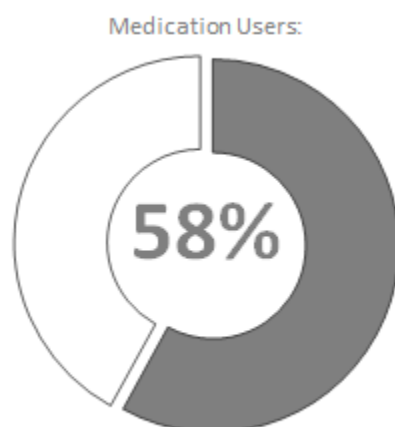
Pain is being inadequately controlled. Among those surveyed who experience pain, only 3 in 10 (31%) feel that their pain is completely controlled and only half (48%) of medication users are very confident that the medications they take are the safest and most effective for their pain symptoms.

The crux of the problem: Consumers do not have adequate knowledge and understanding regarding NSAIDs.

Although OTC pain relievers are most commonly used to treat pain, nearly half (47%) of those surveyed say they don't know what NSAIDs are. Even among those who said they knew what an NSAID was (n=561), many did not correctly identify common NSAID containing medications including: Excedrin (78%), Advil (55%), Aleve (54%), naproxen (54%), and ibuprofen (42%).

Many consumers aren't fully aware of the risks of NSAIDs. Approximately half of medication users (58%) surveyed acknowledge that there are risks associated with NSAIDs (Figure 3) and most also worry about side effects (57%). Side effects are prevalent: 62% of medication users reported experiencing at least some type of side effect. However, only 27% of medication users were aware of U.S. FDA recommendations to use the lowest effective NSAID dose for the shortest duration.

Figure 3. Percentage of Medication Users Who Believe there are Risks Associated with NSAIDs



There is a lack of awareness regarding pain relief options. Many medication users (52%) are not familiar with low-dose pain medication options.

- Among medication users, 3 in 10 (33%) believe that their pain requires high-dose options, and 4 in 10 (42%) believe that higher doses are more effective.

The FDA recommends that both OTC and prescription NSAIDs should be taken at the lowest effective dose for the shortest duration consistent with individual patient treatment goals.³ These recommendations should serve as motivation for medication users to explore safe and effective low-dose pain-relief options. Patients should discuss these options with a healthcare professional:

- Once respondents learned of the FDA recommendations, almost 6 in 10 pain medication users (58%) report that they will talk with a doctor about pain medications.

People should have conversations with their healthcare provider and become more informed about how to safely take pain medications.

³ U.S. Food and Drug Administration. 2005 Public Health Advisory - FDA Announces Important Changes and Additional Warnings for COX-2 Selective and Non-Selective Non-Steroidal Anti-Inflammatory Drugs (NSAIDs). <http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm150314.htm>. Accessed February 17, 2016.