

***Tracking Pain in America:
Patient Outcomes and Insights in an Evolving Pain Management Environment
From the Patient Perspective — Wave II***

July, 2019



PAIN INSIGHTS INC
PROVIDING RESEARCH SOLUTIONS ACROSS THE PAIN SPECTRUM



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- ▶ **The moderate-to-severe pain market is in the midst of a transformation due to a number of factors, including:** the opioid crisis and heightened concerns with overdoses from prescription pain medications, the release of the CDC recommendations, multimodal post-surgical protocols (ERAS), changing marijuana/cannabis medical laws, and the after-effects of the rescheduling of hydrocodone combination products.
 - In March of 2016, the CDC published its “Guideline for Prescribing Opioids for Chronic Pain.” The Guideline was intended to provide recommendations directed toward primary care clinicians about the appropriate prescribing of opioids.
- ▶ **As a result of the above factors, and others,** a 17% decline in total morphine milligram equivalents (MME) dispensed was recorded in 2018¹; the biggest reductions stemmed from higher-dose prescriptions. Based on findings from this survey, the downward trend is expected to continue. Patients with chronic pain acknowledge the opioid crisis caused by addiction/incorrect/illegal use but are very concerned about reduced access and the stigma faced by responsible patients in need.
- ▶ **In response to the heightened concerns with opioid prescribing and the release of recent guidelines,** this study was fielded by Pain Insights, Inc., surveying 1,044 patients suffering from moderate-to-severe chronic pain. ***This report is an update to a study “Harmonizing Clinical Practice and Clinical Guidelines in the Management of Chronic Pain: — From the Patient Perspective” published in June 2017.*** Fielding of the study was completed during the 1st-quarter of 2019, approximately 2 years after the release of the initial study.
- ▶ **Respondents were actively seeking care for their chronic pain by a medical practitioner,** were either already currently taking an opioid (n=499), had previously taken an opioid (n=367), or were taking non-opioid therapies (n=177) for moderate-to-severe pain, and thus could be considered candidates for opioid therapy. The majority of patients in this survey were suffering from long-standing pain (mean=8.8 years; 60%: > 5 years).



Introduction

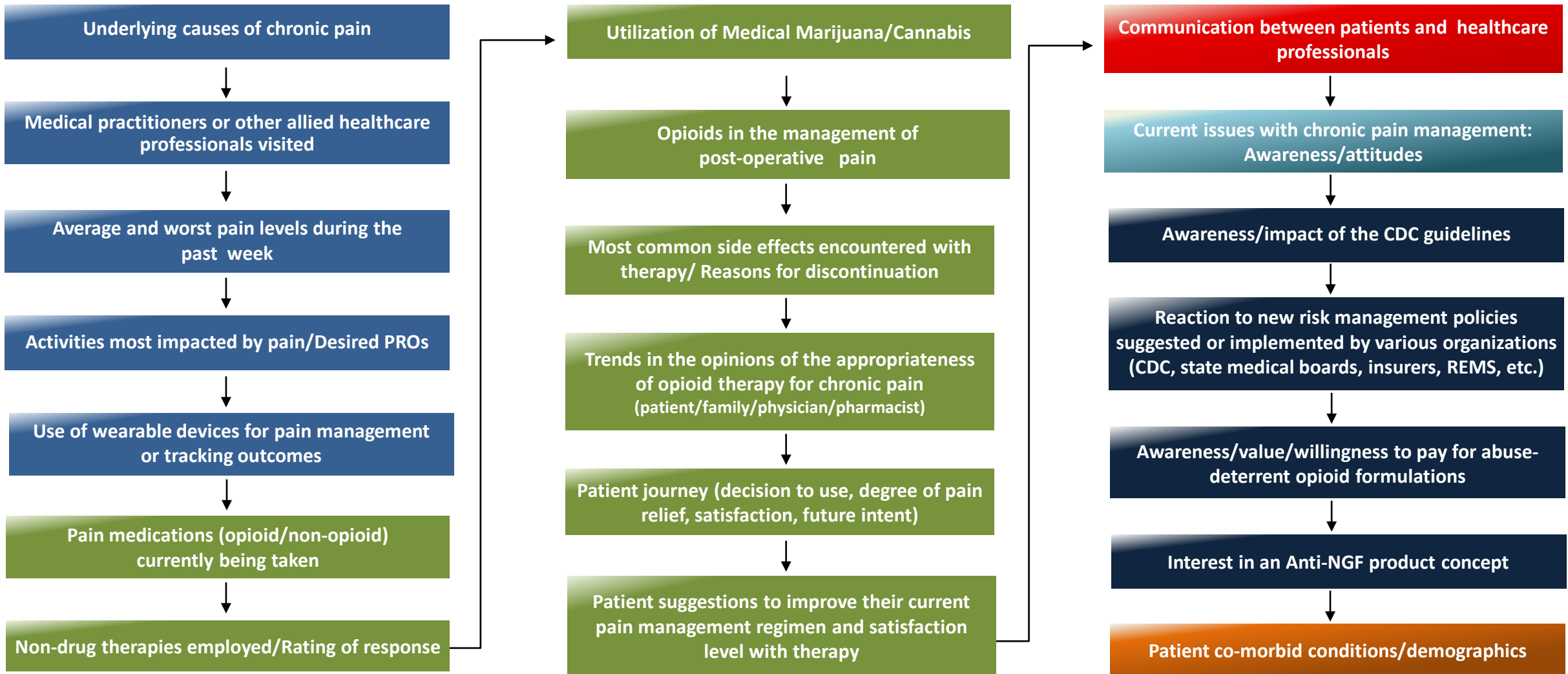
- ▶ ***The primary focus of the study was to characterize the recent dynamics in the treatment of chronic pain from the viewpoint of patients suffering from chronic pain***
 - ***The research was designed to:***
 - Measure fallout from the opioid crisis and the impact on patients
 - Discern the most desired patient-reported outcomes from therapy and identify steps that can be taken to improve therapy from the patient perspective
 - Gauge awareness and impact of governmental actions (e.g. CDC guidelines)
 - Characterize patients who have adopted medical marijuana/cannabis for chronic pain
 - Assess changes in the utilization of opioids in the management of post-operative pain (due to opioid crisis, growth of ERAS protocols) and outcomes
 - Explore treatments being used for opioid-induced constipation (OIC)
 - Investigate utilization of wearable devices to track outcomes and wearable pain relief technologies
 - Explore adoption of topical analgesics for chronic pain
 - Probe interest in new product offerings — abuse-deterrent opioids, monoclonal antibodies directed against nerve growth factor (NGF)
 - Analyze retrospective and future looks at the patient journey (opioid users/past opioid users/opioid naïve patients)

- ▶ **Internet-based surveys (average length: 40 minutes) were completed among one thousand and forty-four patients (1,044) suffering from moderate-to-severe chronic pain**
 - Respondents were selected from a national panel which provided access to over 5 million American consumers profiled for 30 different medical conditions, including chronic pain; patients had already been members of the panel but did have to doubly-opt-in to participate in this market research study.

Key Screening Criteria:

<p>Patient demographics: Representative sample according to age, gender, and ethnicity <i>(weighted according to the National Health Interview Survey for patients with pain “most days/every day”)</i></p>	<p>Patients had to have chronic pain due to an illness or medical condition for at least 3 months</p>	<p>Patients had to experience pain at least monthly</p>
<p>Minimum age: 18 years old</p>	<p>Patients taking non-opioid therapies had to be suffering from at least moderate pain (≥ 4 on an 11-point numeric pain scale)</p>	<p>Patients had to visit a healthcare provider for pain at least one time per year</p>
	<p>Had to be taking an OTC or Rx medication for pain under a doctor’s supervision</p>	<p>Excluded patients suffering only from migraine/headache or only taking migraine-specific medications</p>

Survey Flow





About Pain Insights, Inc.

- ▶ Pain Insights, Inc. is a full service marketing research and strategic planning firm established in 2001. We are the only firm to provide qualitative and quantitative market research, forecasting support, and strategic/marketing consultation exclusively in the area of pain management.
- ▶ We have conducted hundreds of studies focused on pain for clients ranging from large pharma to developmental companies to private investment firms. Studies have included market landscapes, opportunity assessments, new product evaluations, positioning development, promotion/ educational program testing, and patient research, among others.
- ▶ The principals each have more than 25 years of experience in the pain management area.
- ▶ A differentiating feature of Pain Insights is that the principals are intricately involved in all phases of every project, from initial study design, through information collection, data analysis and authoring of all reports, with actionable recommendations.
- ▶ This level of total involvement is enhanced by the breadth of experience and pain market acumen that we bring and apply to each and every study assigned to us.