



American Society of Interventional Pain Physicians

ASIPP® 24TH ANNUAL MEETING

Provider specialty effect on spine pain resource use/costs

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Background & Objective

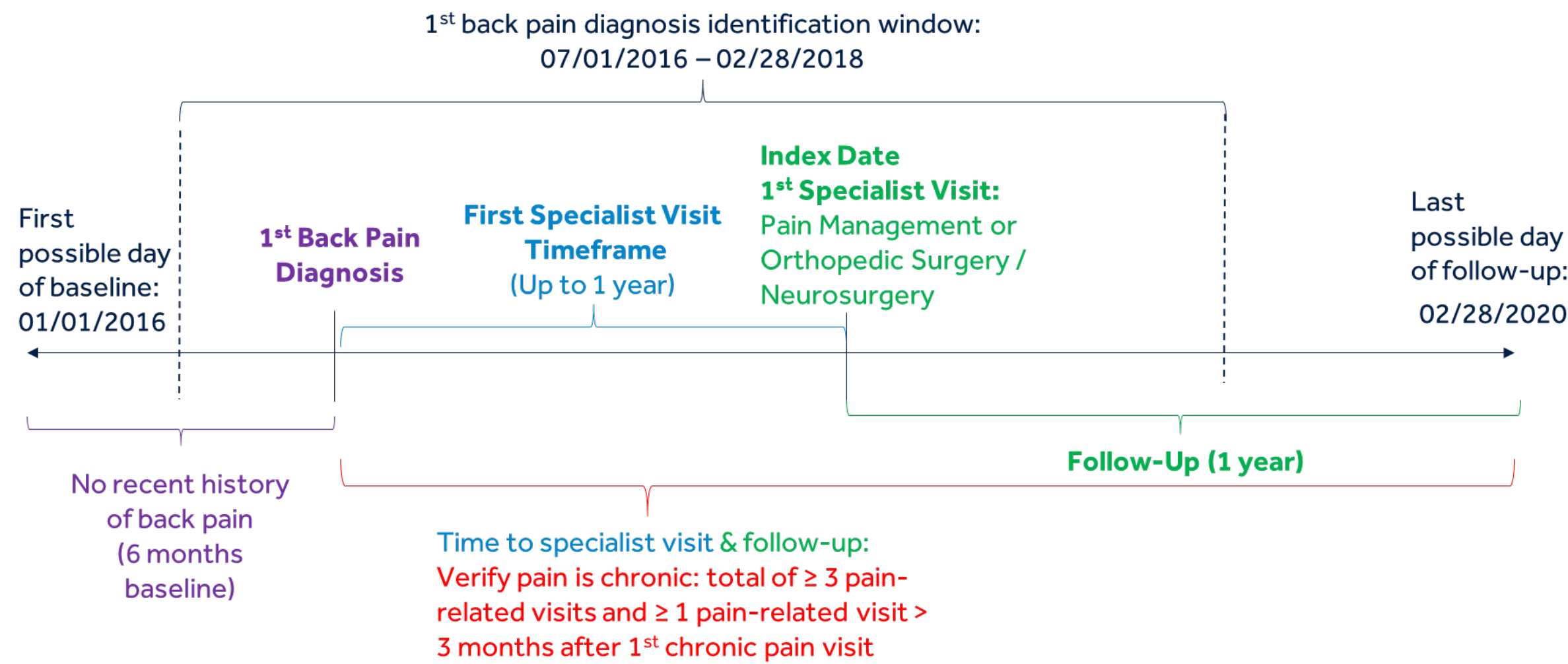
- Total annual costs of chronic pain in the United States have been estimated between **\$560 and \$635 billion**, with losses in annual productivity value between **\$299 and \$335 billion** ⁽¹⁾
- Patients seeking care for new-onset chronic pain may follow a variety of care pathways.
- The aim of this study was to evaluate how initial specialist selection (pain specialist vs. an orthopedic or neurosurgeon) may correlate with healthcare costs in the first year after referral among patients with chronic spinal pain.
- Evaluate opioid use trend in populations served by surgery as well as pain physician.

1. Gaskin DJ, Richard P. The economic costs of pain in the United States. J Pain. 2012;13:715-724. [PMID: 22607834] doi:10.1016/j.jpain.2012.03.009

Methods

Data source and time periods

- Commerically Insured & Medicare Advantage patients with information on ~50 million patients



Years: 2016 – 2020

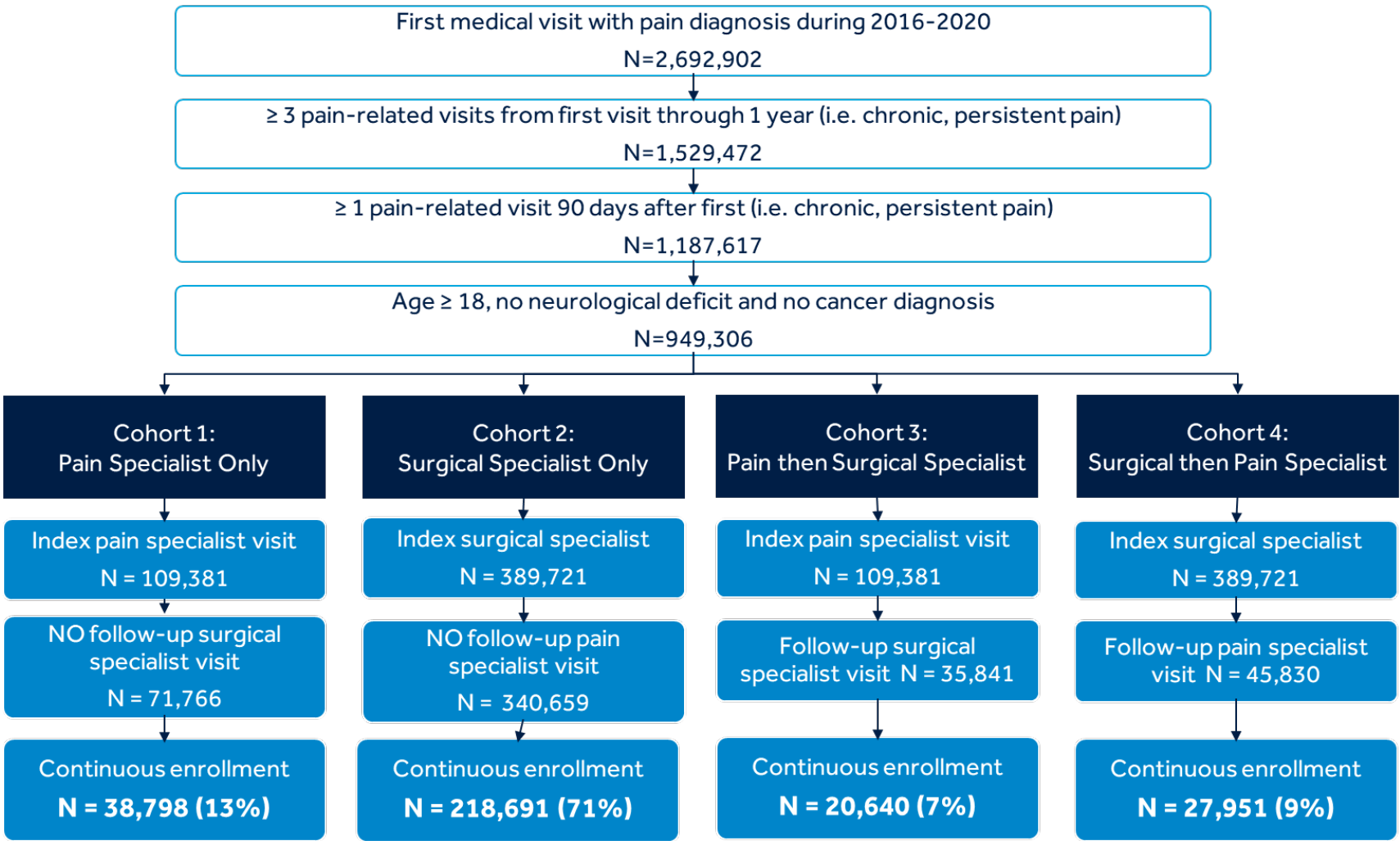


Methods

Study Population

Patients were categorized into four mutually exclusive cohorts based on specialty(ies) seen:

- 1) pain specialist
- 2) surgical specialist
- 3) pain specialist and later a surgical specialist
- 4) surgical specialist and later a pain specialist



Years: 2016 – 2020

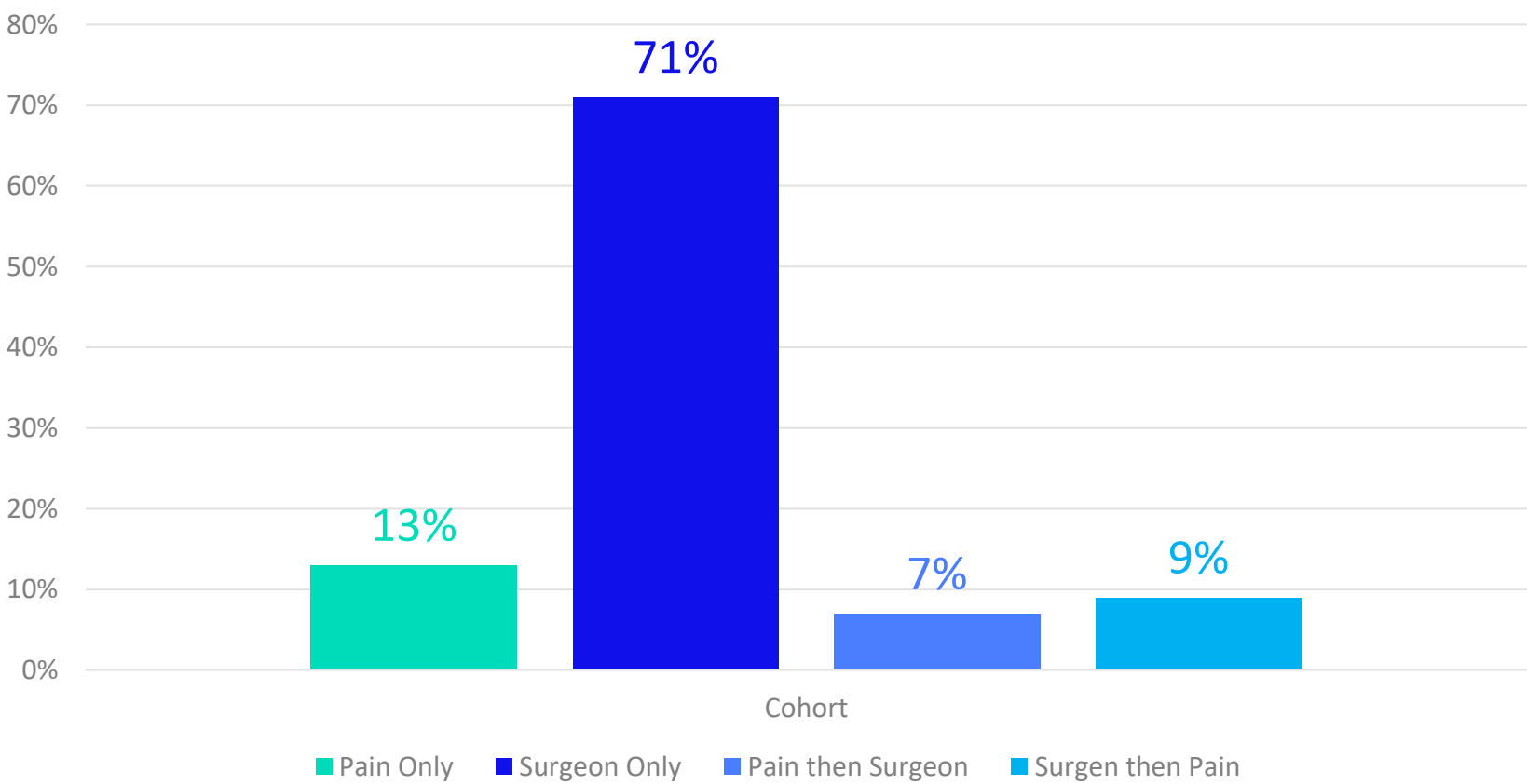


Results

Demographics

- 306,080 patients met selection criteria
- Mean age: 61.6
- Female: 61.5%

Cohort Distribution: Specialist Pathway in the First Year After Developing Chronic Pain (%)



Years: 2016 – 2020



Results

Resource use in the year after 1st specialist visit

	Pain Only	Surgeon Only	Pain then Surgeon	Surgeon then Pain	P-value
Imaging visit (%)	38.7%	65.3%	66.6%	76.7%	<.0001
Spinal Fusion (%)	0.3%	7.4%	7.2%	9.4%	<.0001
Laminectomy (%)	0.4%	8%	8.1%	9.8%	<.0001

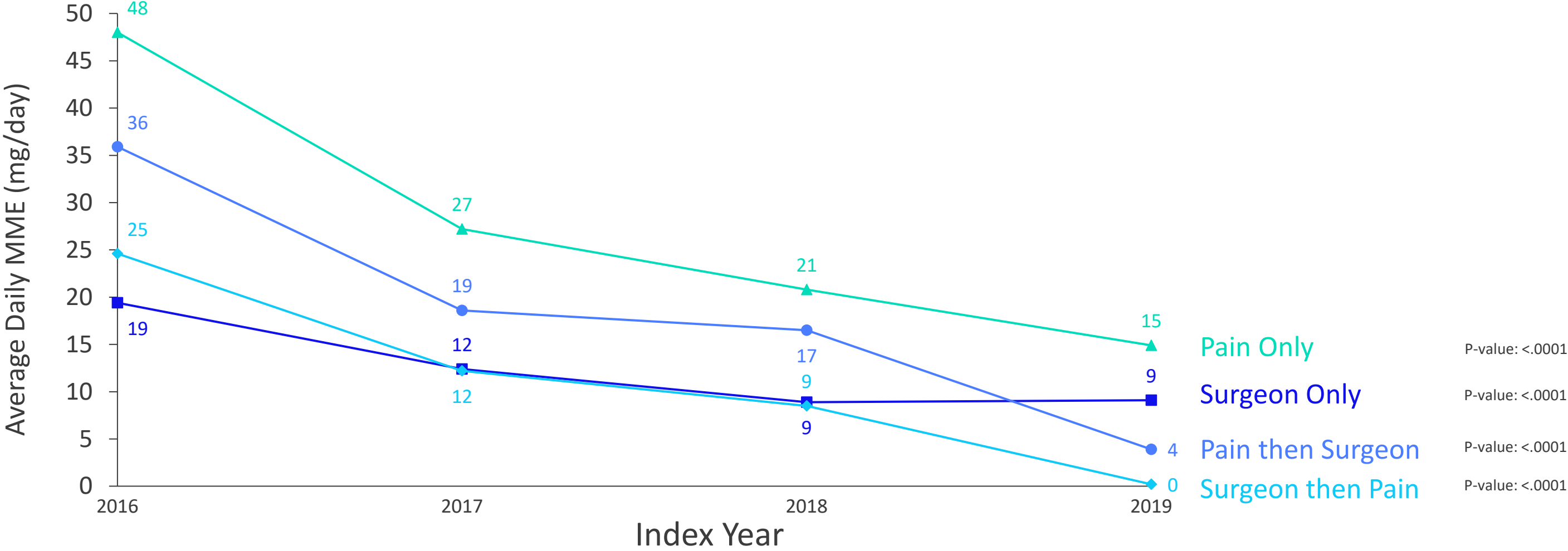
Years: 2016 – 2020



Results

Opioid use

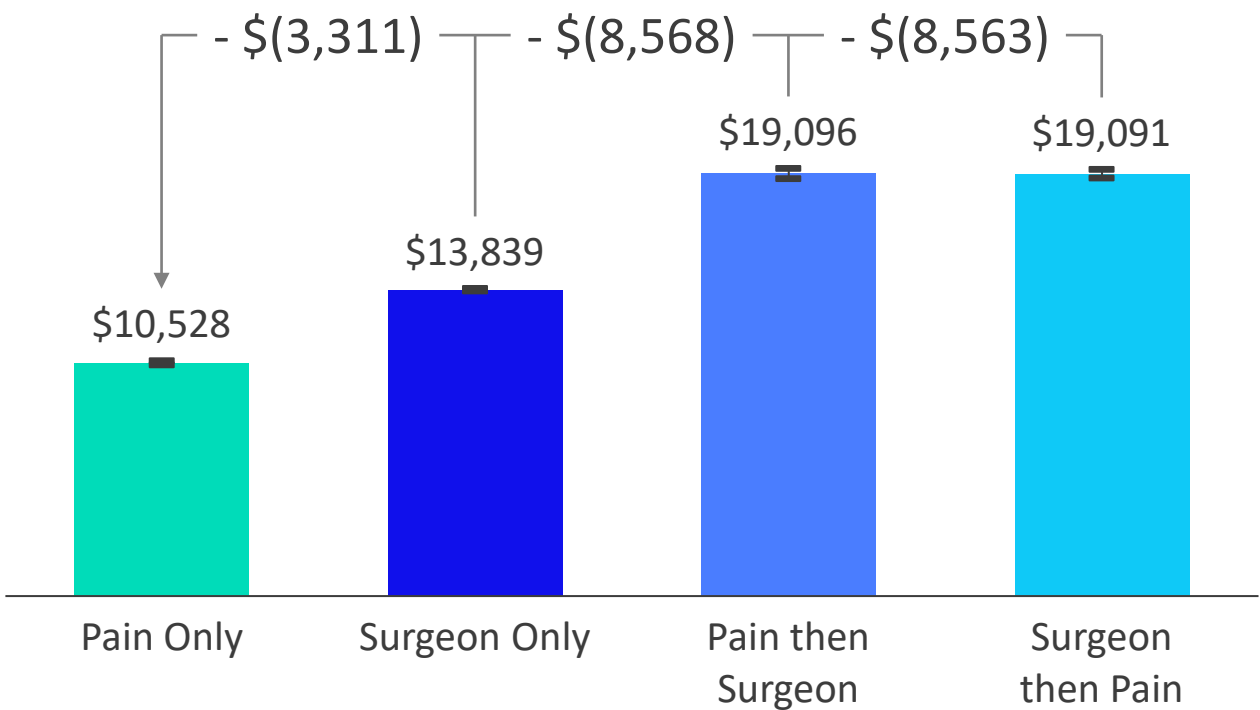
Opioid use – Average daily MME (mg/day) in the year after 1st specialist visit, stratified by 1st visit year



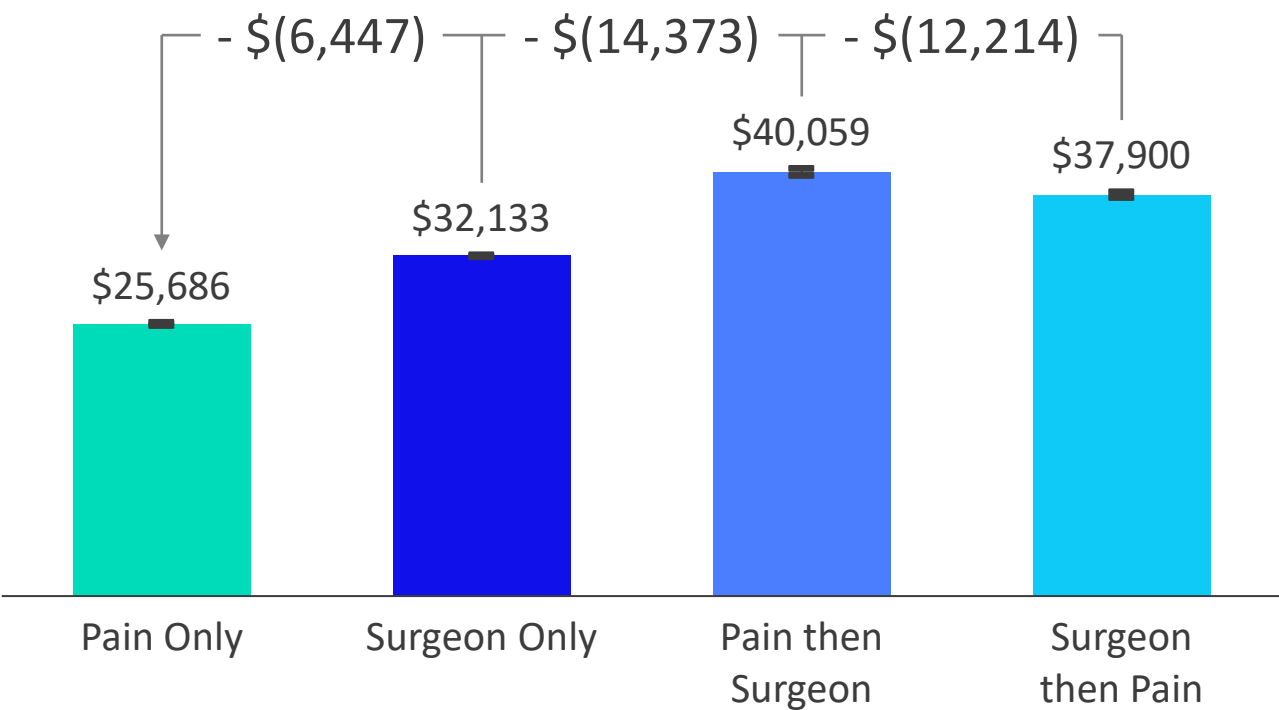
Results

Medical visits and costs in the year after 1st specialist visit

A. Pain-Related Payments.



B. All-Cause Payments.



**Generalized Linear Model (GLM) controlling for: age, sex, region, pain-related diagnosis type P-value for 4 cohort model coefficient P <.0001; overall model P-value <.0001*

“Costs” refer to commercial payer payments plus patient out-of-pocket payments.

“Pain related” – visits/medications with a chronic spinal or chronic pain diagnosis or prescription





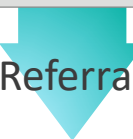
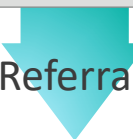
“All-cause” – all visits/medications regardless of reason

Seeing a pain specialist only or first can result in cost savings between \$1,064.13 (pain-related) and \$2,273.01 (all-cause) compared to surgeon only or first.

Years: 2016 – 2020



Referring Patients to Pain Specialists

			
Patient	Chronic Angina	Cancer	Chronic Pain
			
Referral			
Specialist	Cardiologist	Oncologist	Pain Specialist
			
Referral			
Surgeon	Cardiothoracic Surgeon	Surgical Oncologist	Orthopedic Surgeon

Conclusions

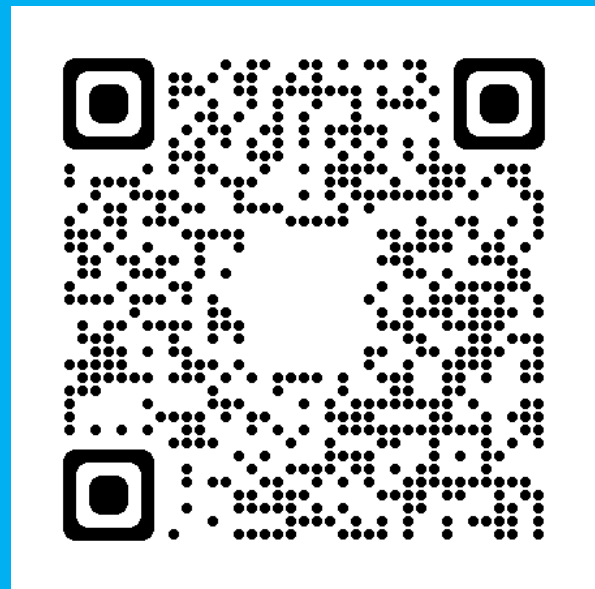
- Management of patients with a pain specialist in the 1st year after developing chronic spinal pain is correlated with significant cost-savings
- Starting therapy with a pain specialist may be a cost-effective option for price-sensitive patients and payers that need to manage overall healthcare expenditures
 - This is not to say there is a role for surgical specialties in patients with an urgent surgical need or after failure with pain management treatment options
- Since 2016, there has been a significant decrease in opioid prescriptions among pain physicians.

Thank you

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