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Annual Insights Symposium **2024**



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Medical Cost Trends— What's in the Mix?

Raji H. Chadarevian

Executive Director—Actuarial Research
NCCI

Jon Sinclair, FCAS, MAAA

Director and Actuary
NCCI



Trends in Healthcare—Hospitals



General Healthcare:

1 in 4 hospitals closed in the past 20 years

“Cross-market, within-state hospital mergers yield price increases of 7%–9% for acquiring hospitals.”

Sources: Hoag Levins, “Hospital Consolidation Continues to Boost Costs, Narrow Access, and Impact Care Quality: A Penn LDI Virtual Seminar Unpacks the Challenging Contradictions of This Continuing Trend,” University of Pennsylvania Leonard Davis Institute of Health Economics, January 19, 2023
Dafny, L., Ho, K. and Lee, R.S. (2019), The price effects of cross-market mergers: theory and evidence from the hospital industry. The RAND Journal of Economics, 50: 286-325.
<https://doi.org/10.1111/1756-2171.12270>

Trends in Healthcare—Hospitals



General Healthcare:

14% fewer inpatient admissions

Workers Compensation:

30% fewer inpatient admissions

Trends in Healthcare—Opioids

General Healthcare



National opioid epidemic continues

Workers Compensation



Significantly reduced opioid prescribing,
contributing to 2.5% annual decrease in drug cost

Sources: <https://injuryfacts.nsc.org/home-and-community/safety-topics/drugoverdoses/>
and NCCI Medical Data Call

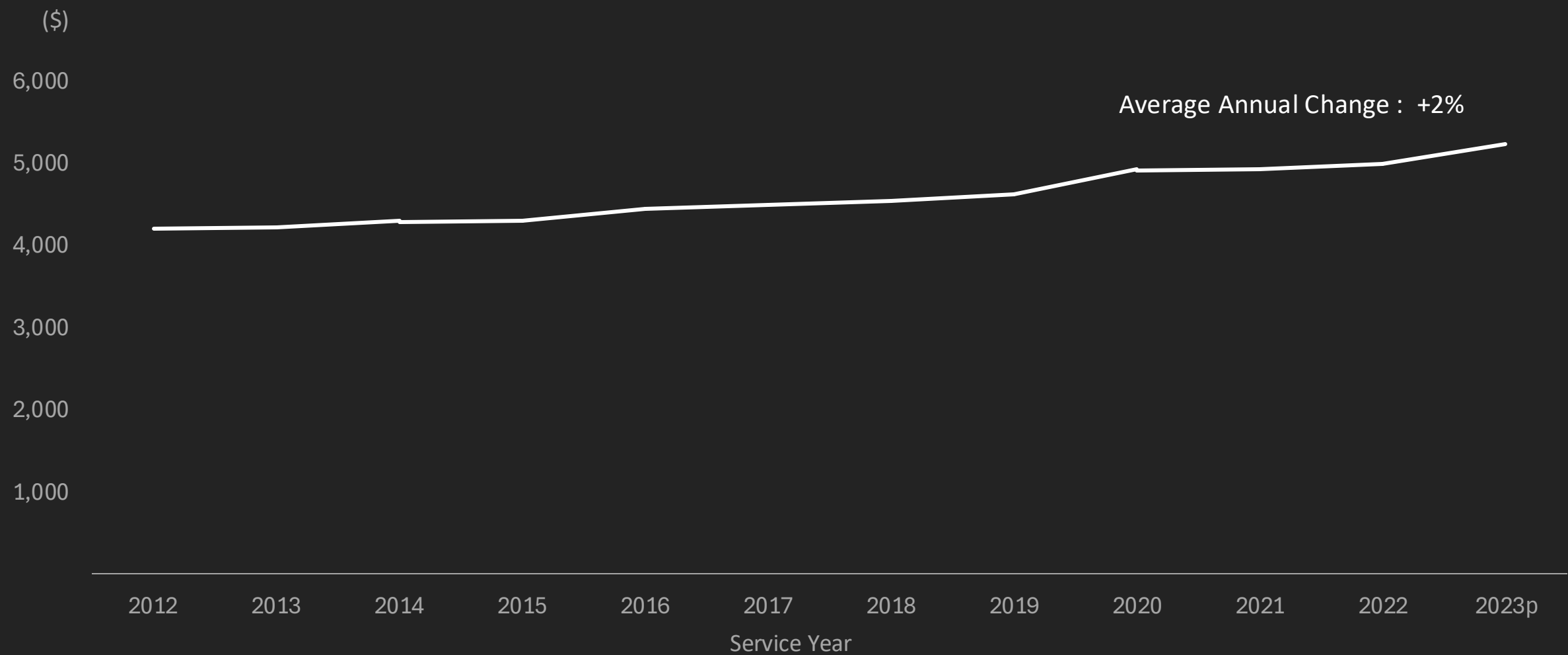
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The background features a dense arrangement of 3D cubes. Most cubes are a vibrant blue, but some on the left edge are a muted purple, and some on the right edge are a bright green. The cubes are scattered across the frame, creating a sense of depth and geometric pattern.

Introduction—What's in the Mix?

Medical Paid Cost per Claim Trend

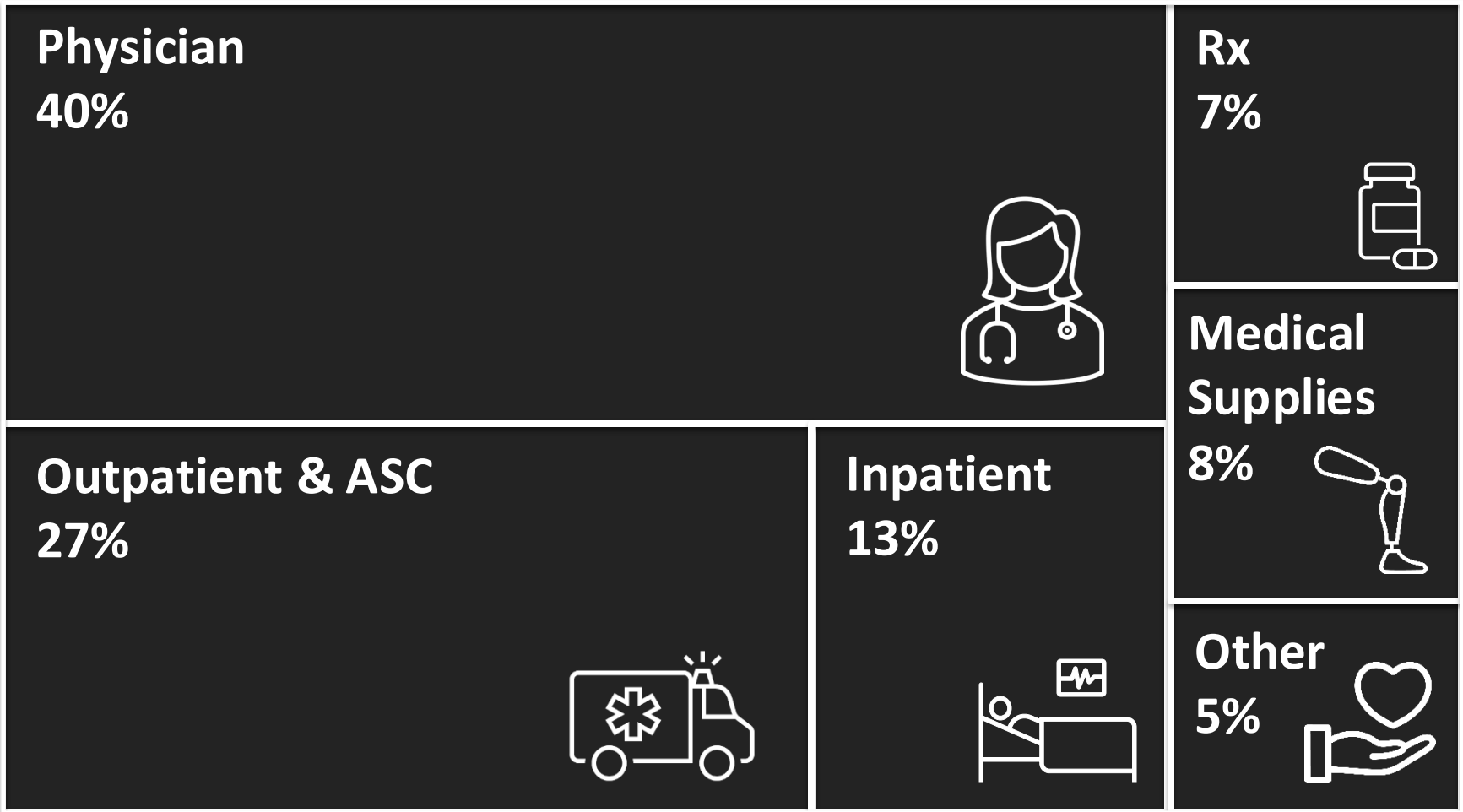


p Preliminary
Source: NCCI Medical Data Call

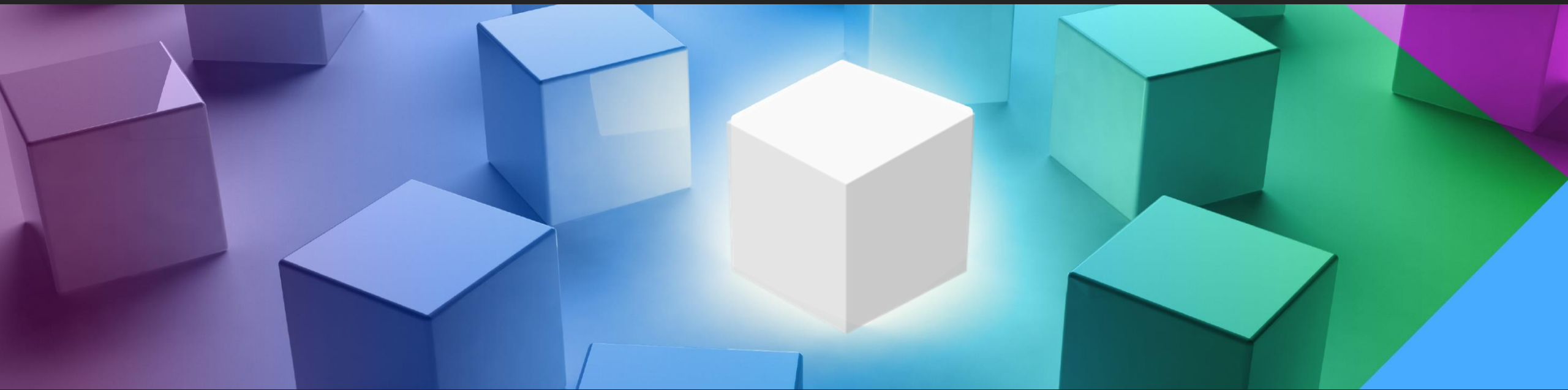
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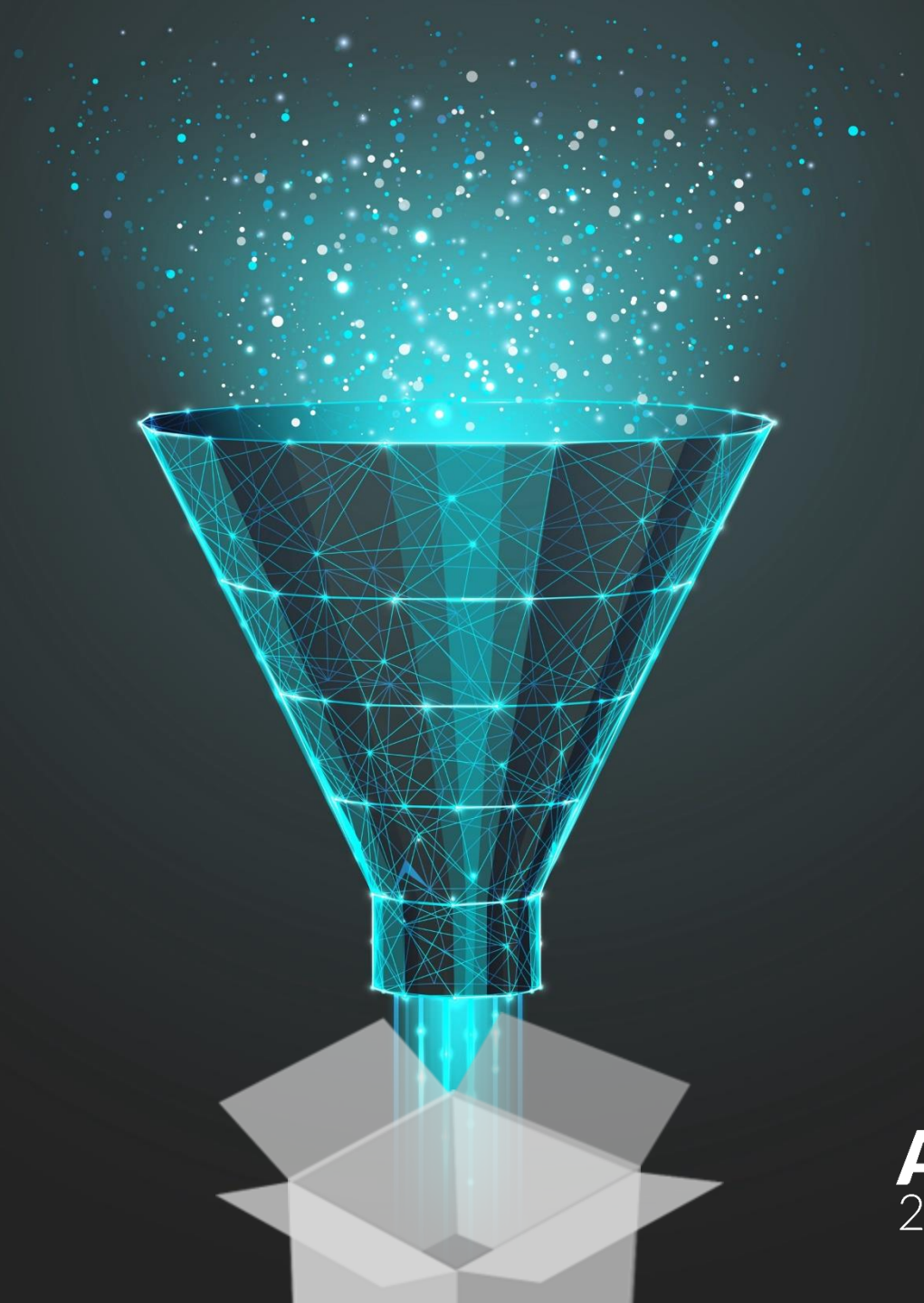
Medical Paid Cost Distribution—Service Year 2022



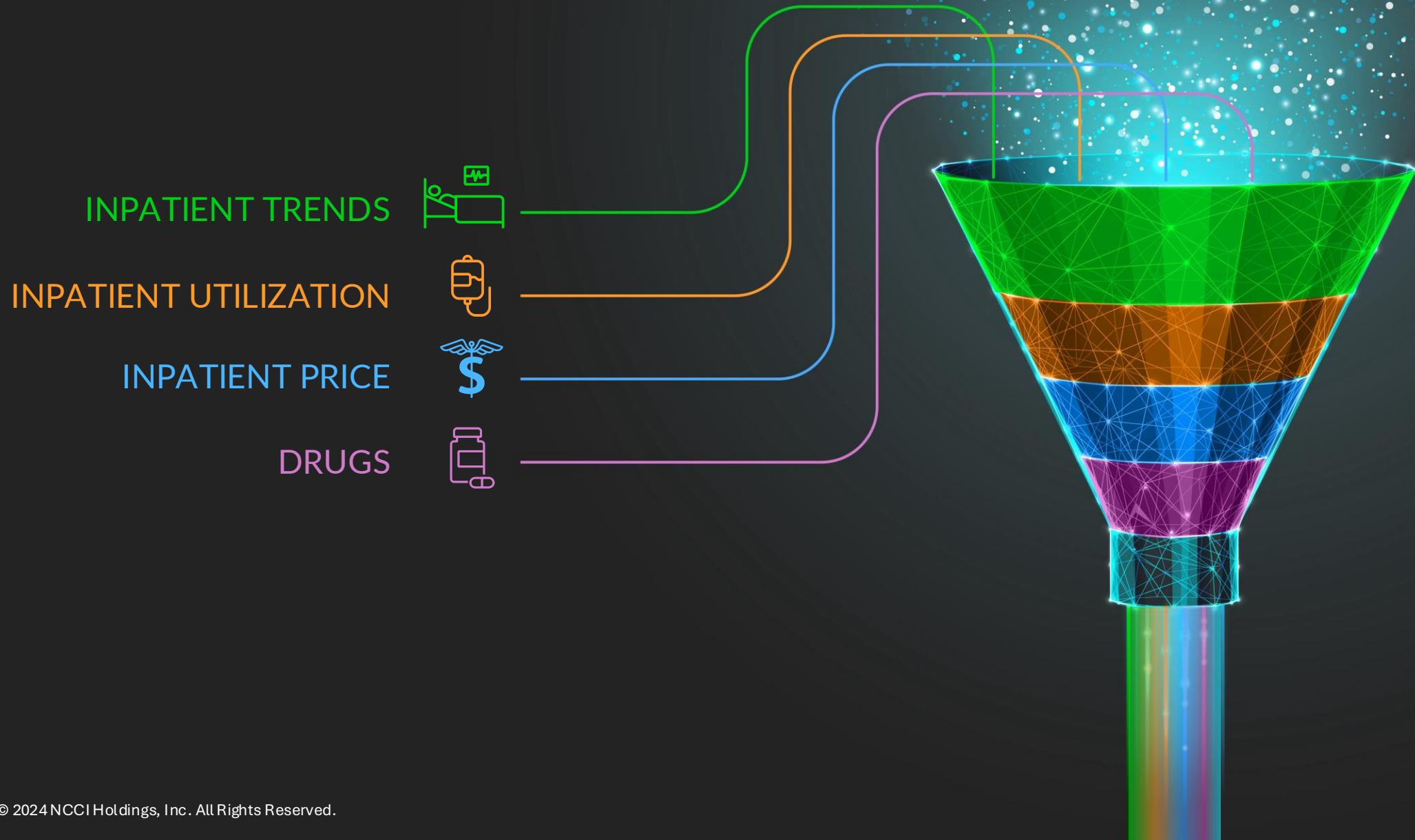
There is much more to the medical story in workers comp.



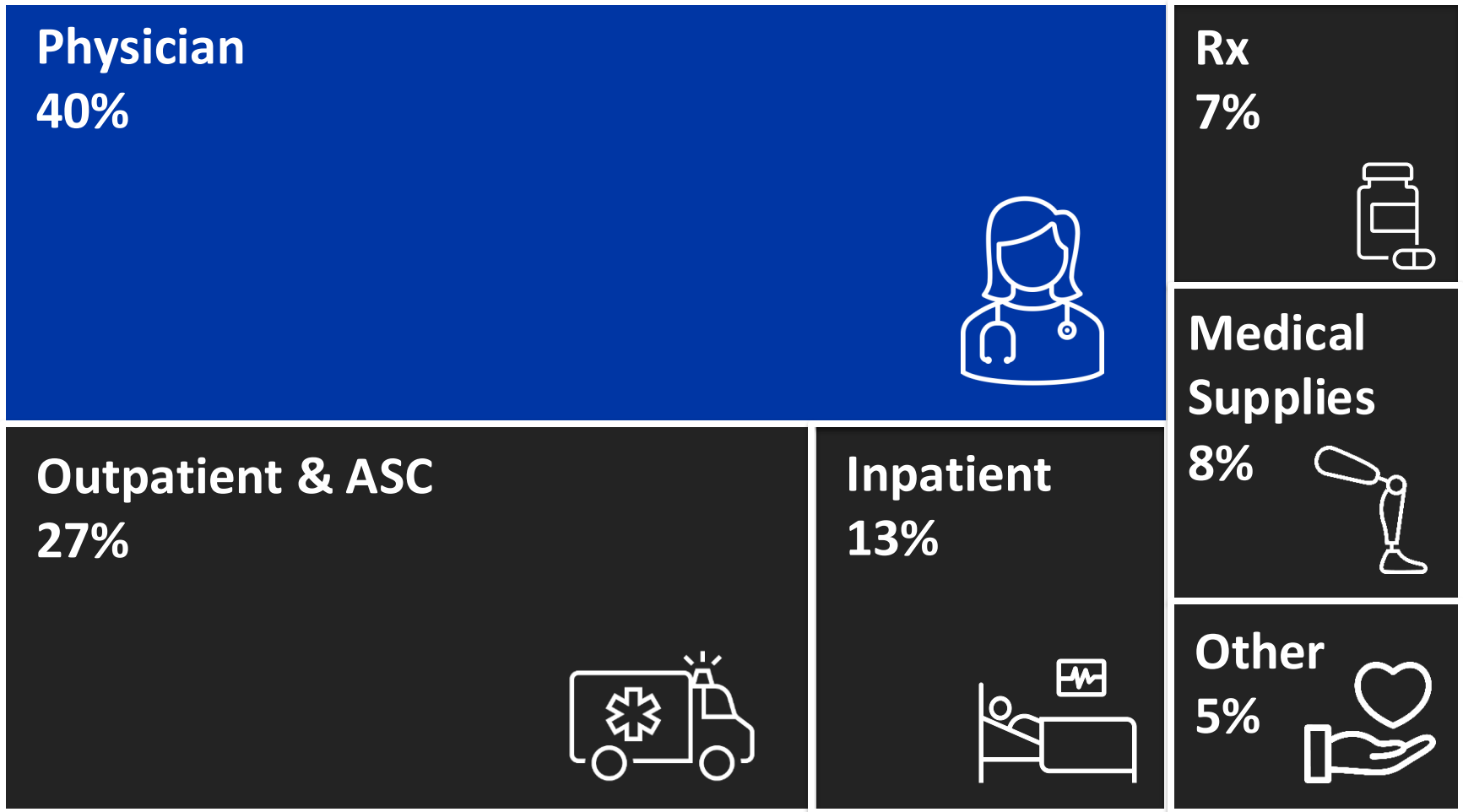
Introduction—What's in the Mix?



Introduction—What's in the Mix?



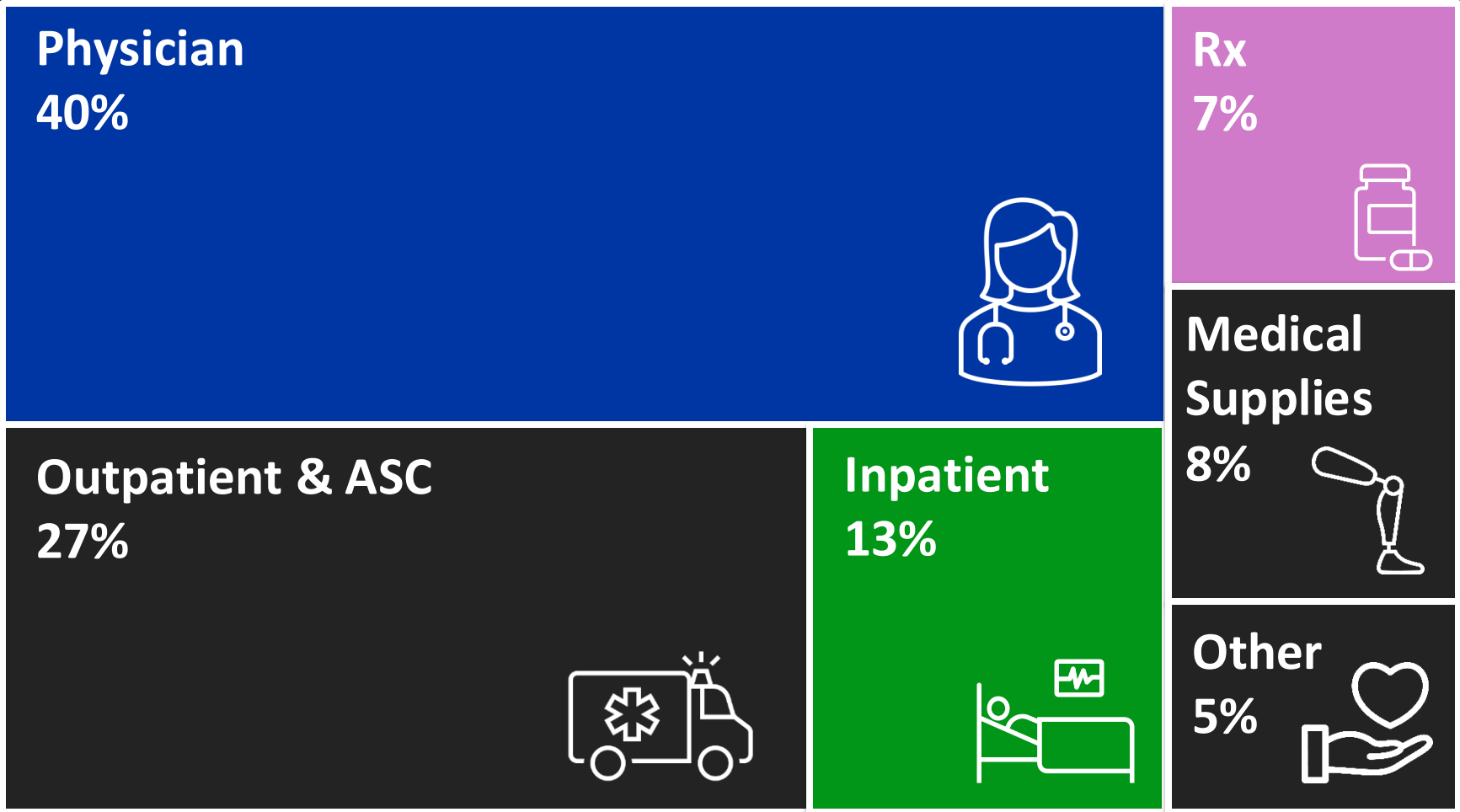
Medical Paid Cost Distribution—Service Year 2022



Source: NCCI Medical Data Call

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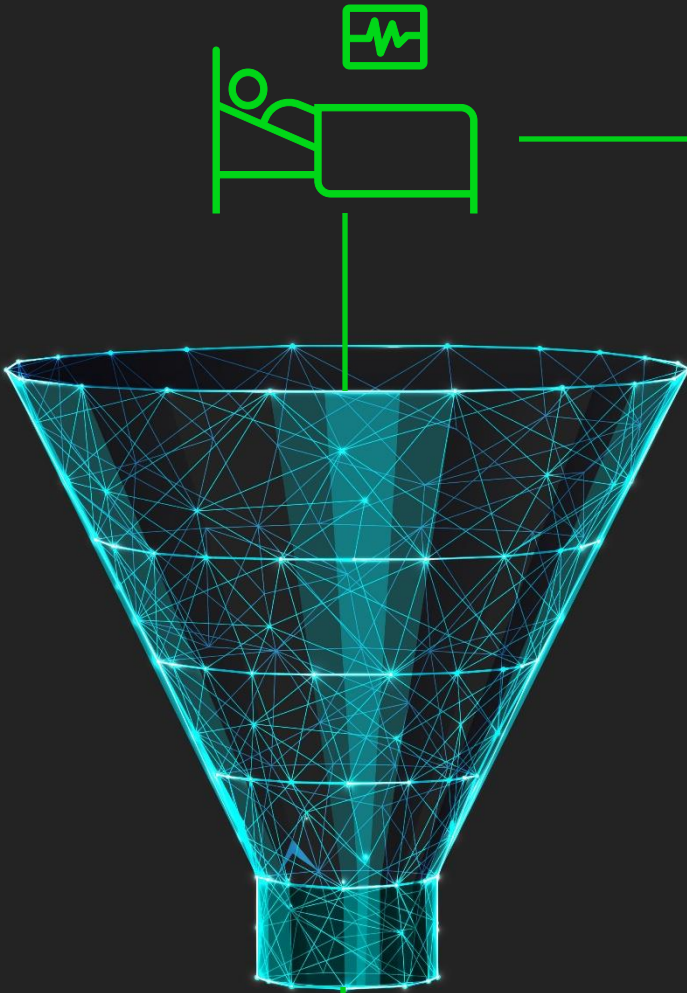
Medical Paid Cost Distribution—Service Year 2022



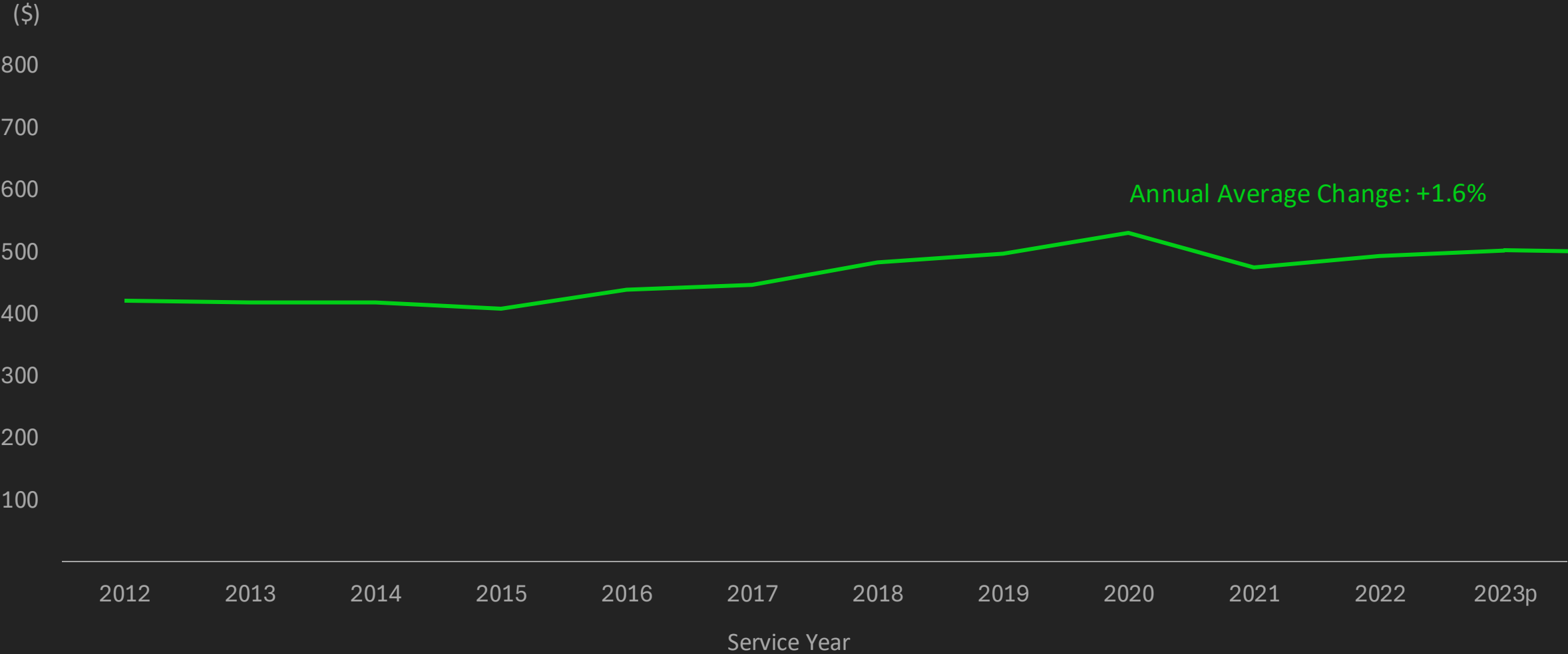
Source: NCCI Medical Data Call

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Inpatient Trends

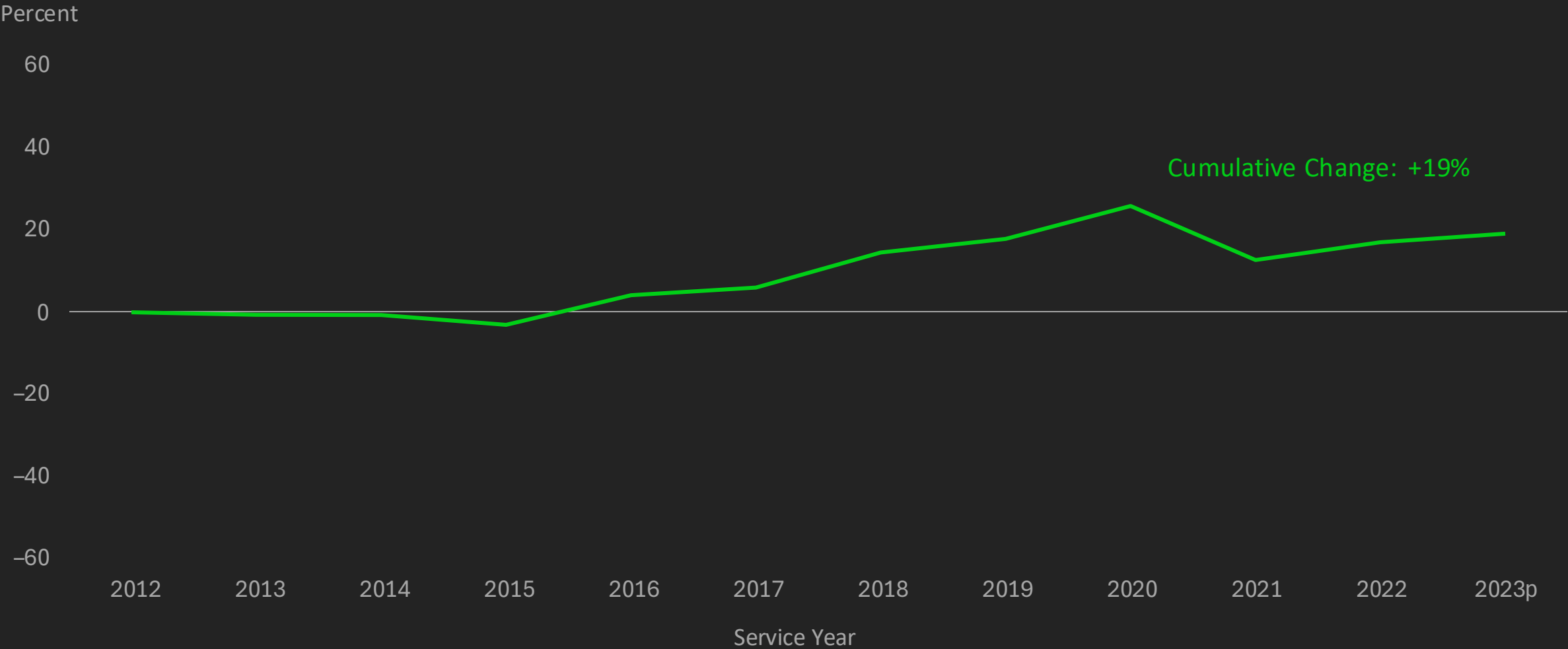


Inpatient Paid Cost per Claim



p Preliminary
Source: NCCI Medical Data Call

Inpatient Paid Cost per Claim



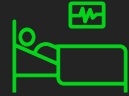
p Preliminary
Source: NCCI Medical Data Call

INPATIENT COST 

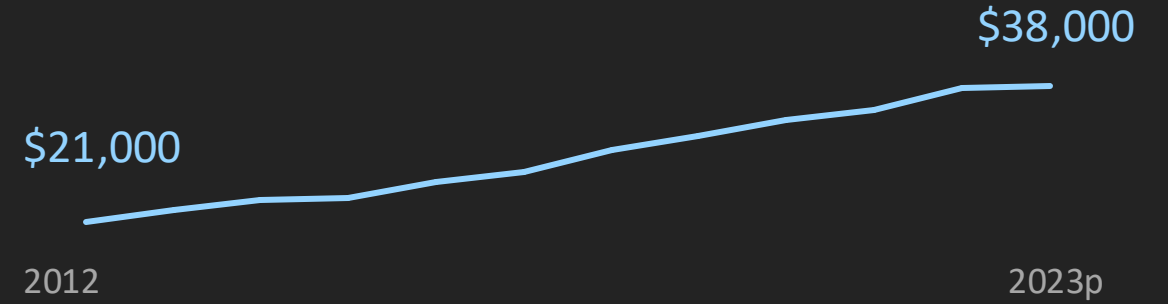
INPATIENT PRICE 

INPATIENT UTILIZATION 

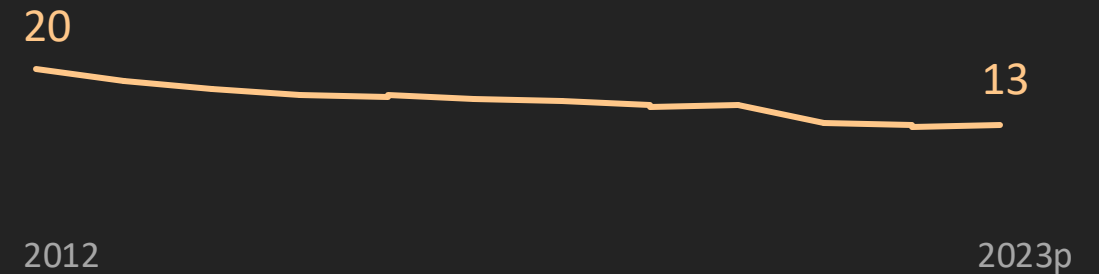
INPATIENT COST



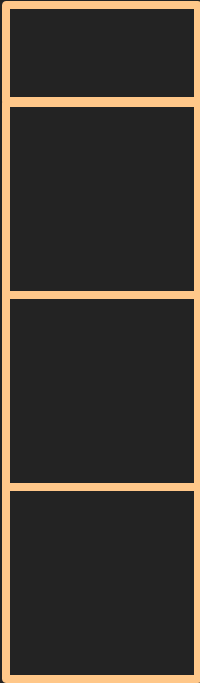
INPATIENT PAID PER STAY



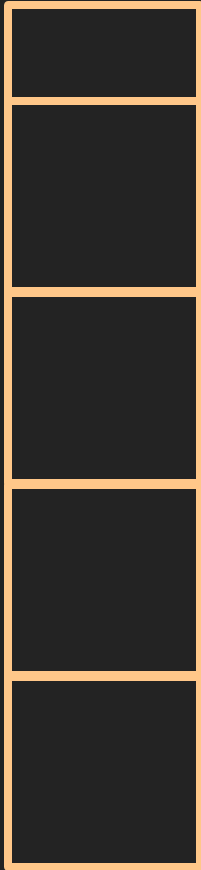
INPATIENT STAYS per 1,000 claims



INPATIENT DAYS



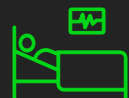
3.5 days per stay in 2012



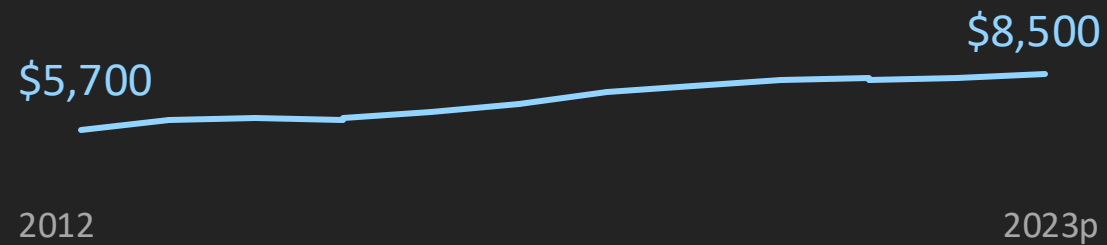
4.5 days per stay in 2023p

p Preliminary
Source: NCCI Medical Data Call

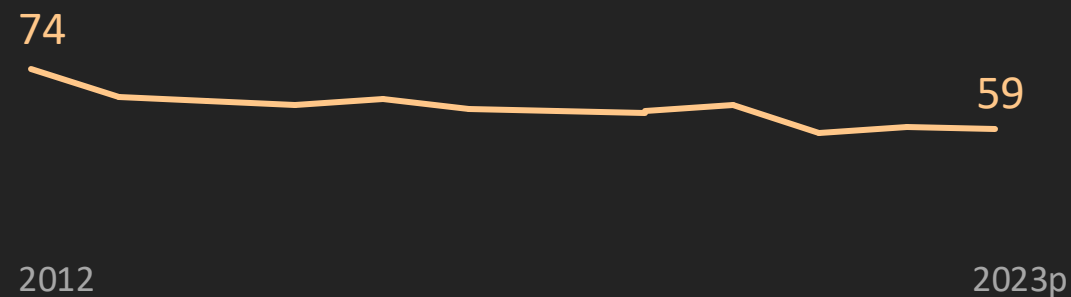
INPATIENT COST



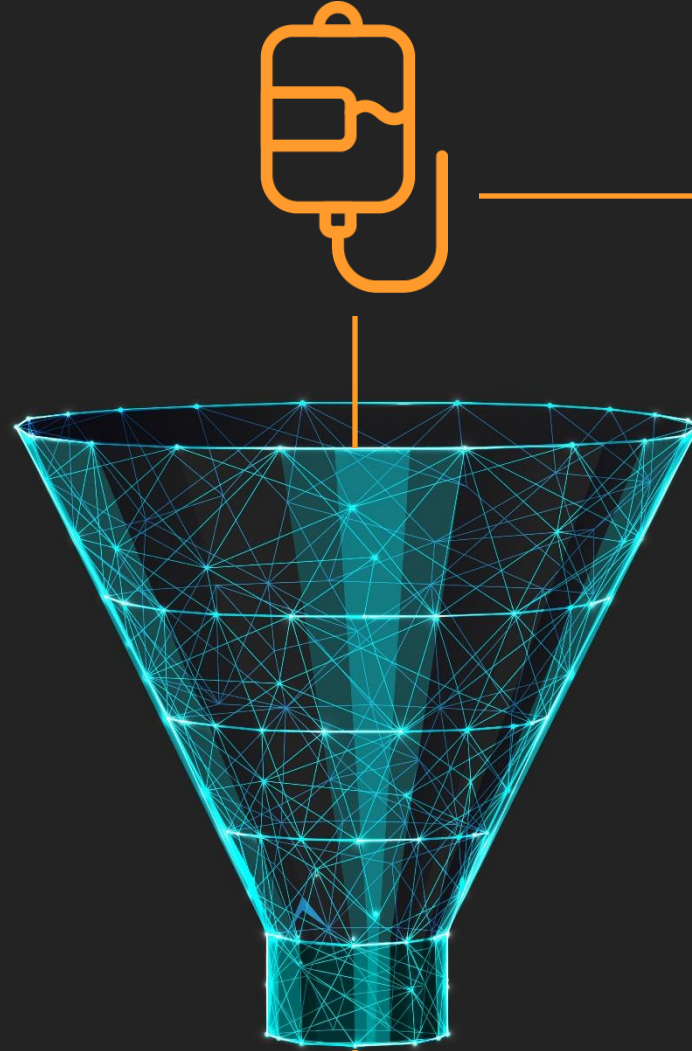
INPATIENT PAID PER DAY



INPATIENT DAYS per 1,000 claims



Inpatient Utilization



Inpatient Utilization is a function of

1. The **medical condition** treated

2. The **type of treatment** provided

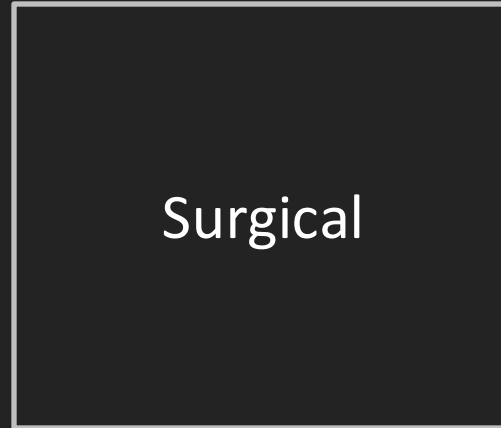
- Intensive care unit (ICU)
- Surgical
- Ordinary observation

Inpatient Day Types

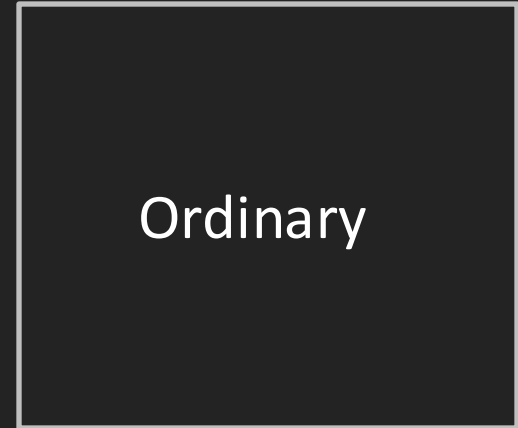
1



2



3



Inpatient Stay Types



ICU

1

2

3

4

ICU

Surgical

Ordinary

Ordinary

Inpatient Stay Types



ICU



Surgical

1

2

3

4

Surgical

Ordinary

Ordinary

Ordinary

Inpatient Stay Types



ICU



Surgical

1

2

3

4

Ordinary

Ordinary

Ordinary

Ordinary

Inpatient Stay Types



ICU



Surgical



Ordinary

Inpatient Stay Types



ICU



Surgical



Ordinary

+

Trauma

Inpatient Utilization Example—Traumatic Brain Injury

An injured worker is admitted for a five-day stay with the principal diagnosis of a traumatic brain injury. The patient is admitted and undergoes surgery. She stays in the hospital for an additional four days before being discharged.

1	2	3	4	5
Surgical	Ordinary	Ordinary	Ordinary	Ordinary
25,000	5,500	5,500	5,500	5,500

Surgical Stay = 47,000 Utilization Units

Inpatient Utilization Example—Pelvis Fracture

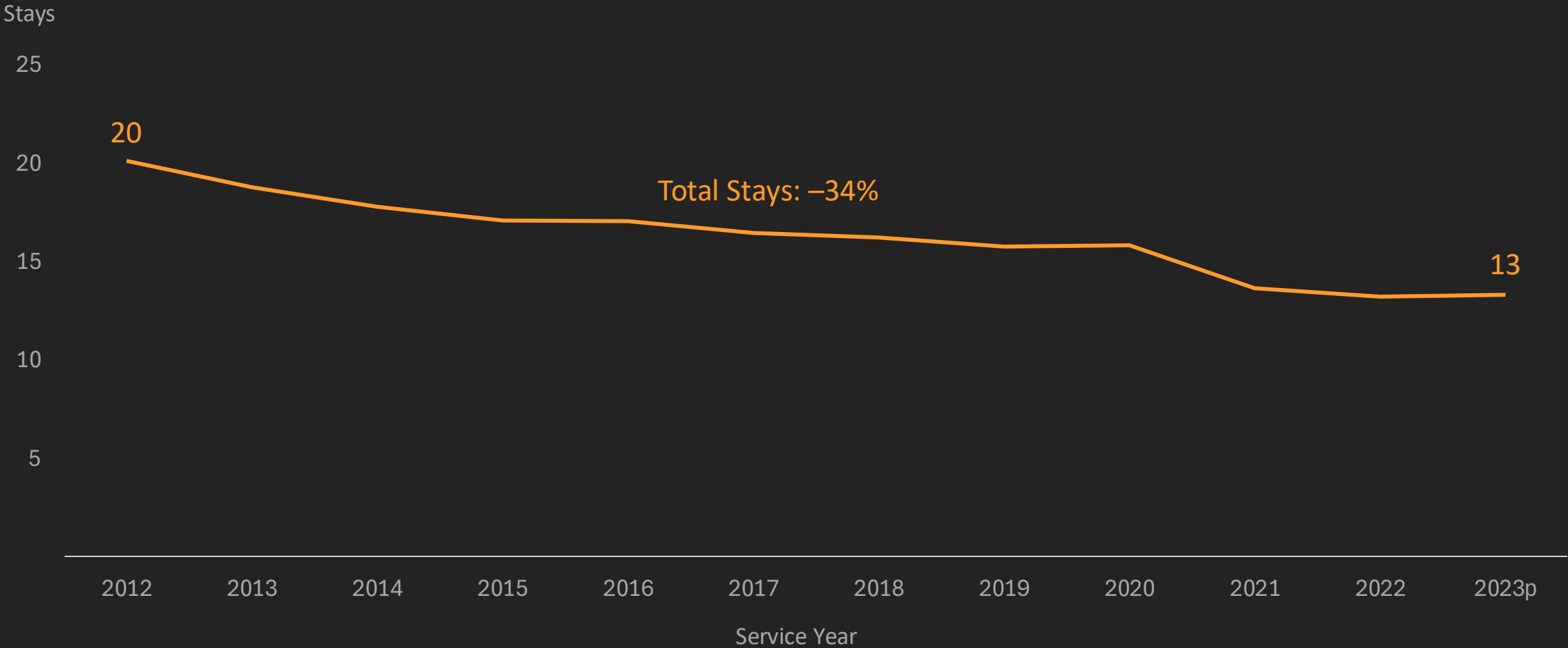
An injured worker is admitted for a five-day stay with the principal diagnosis of a pelvis fracture. The patient is admitted and undergoes surgery. He stays in the hospital for an additional four days before being discharged.

1	2	3	4	5
Surgical	Ordinary	Ordinary	Ordinary	Ordinary
18,000	2,500	2,500	2,500	2,500

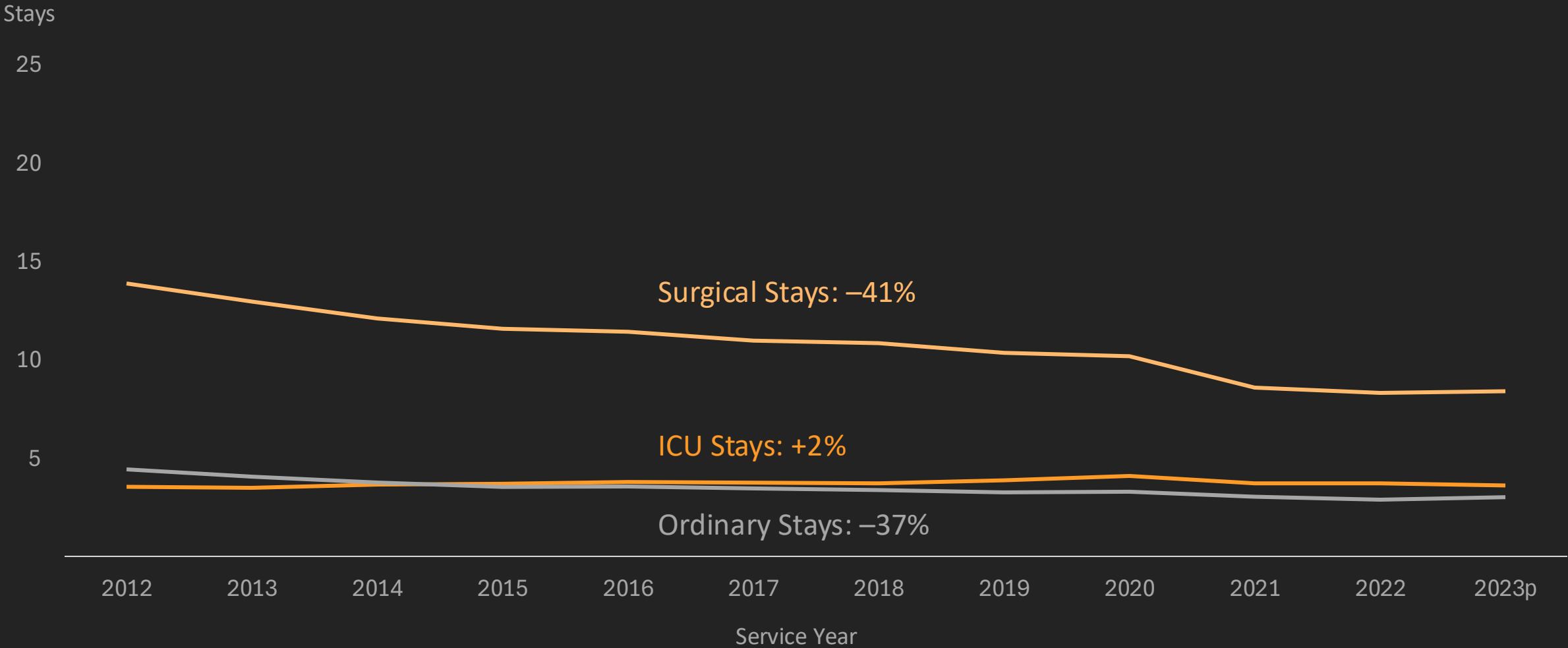


Surgical Stay = 28,000 Utilization Units

Inpatient Stays per 1,000 Claims



Inpatient Stays per 1,000 Claims



p Preliminary
Source: NCCI Medical Data Call

Where Are Surgeries Taking Place?

All facility surgeries per claim
decreased by 16%

ASC visits per claim
increased by 11%

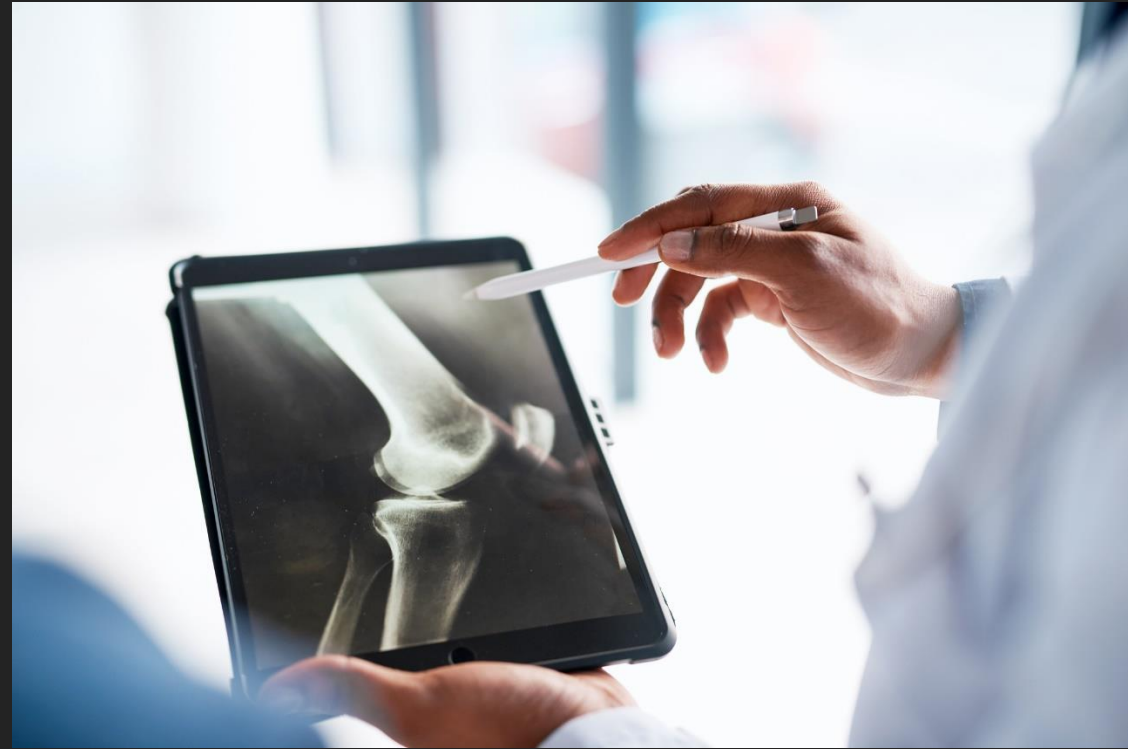
Outpatient visits per claim
decreased by 23%

Inpatient stays per claim
decreased by 46%

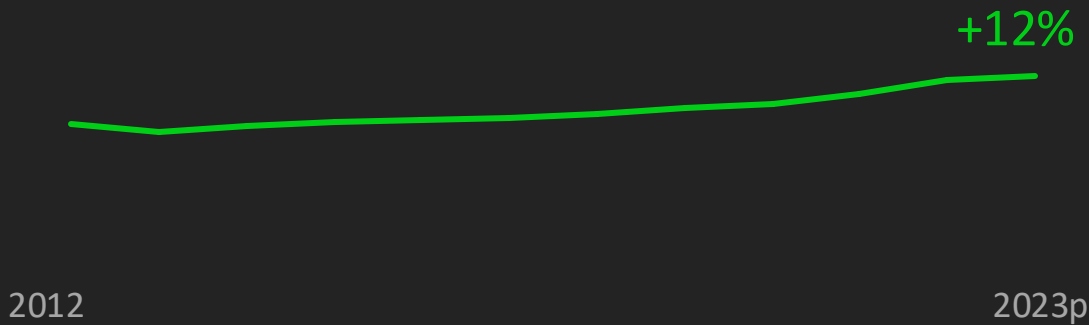
Facility Venue Example—Knee Degeneration/Overuse Injuries

1 in 5 surgeries performed in an inpatient setting in 2012

1 in 20 surgeries performed in an inpatient setting today



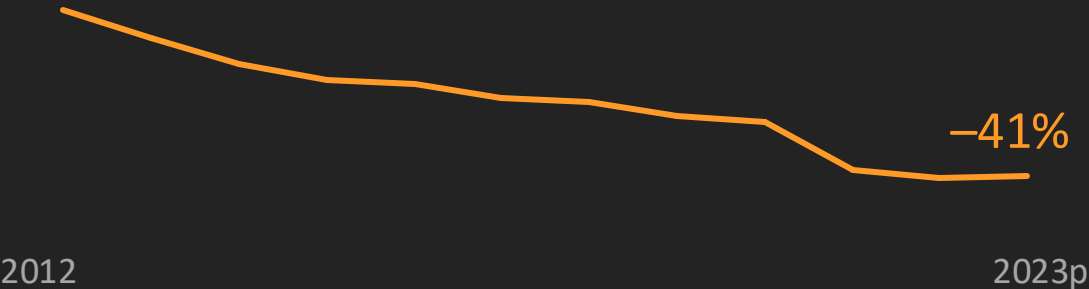
Utilization per Surgical Stay



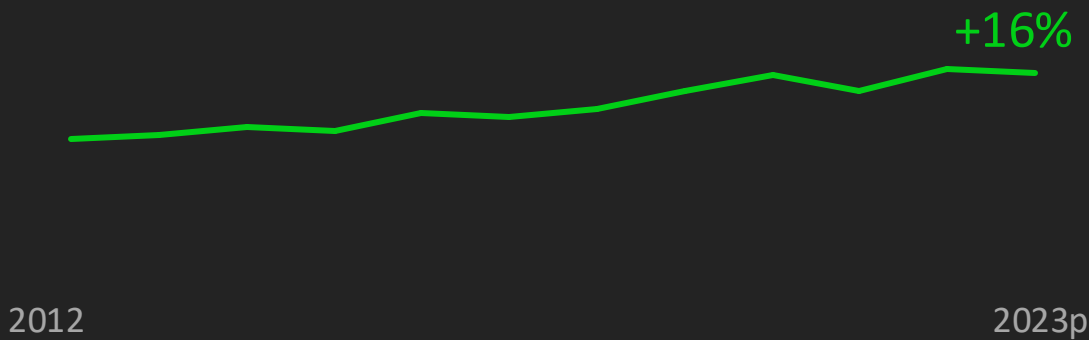
Surgical Utilization per Claim



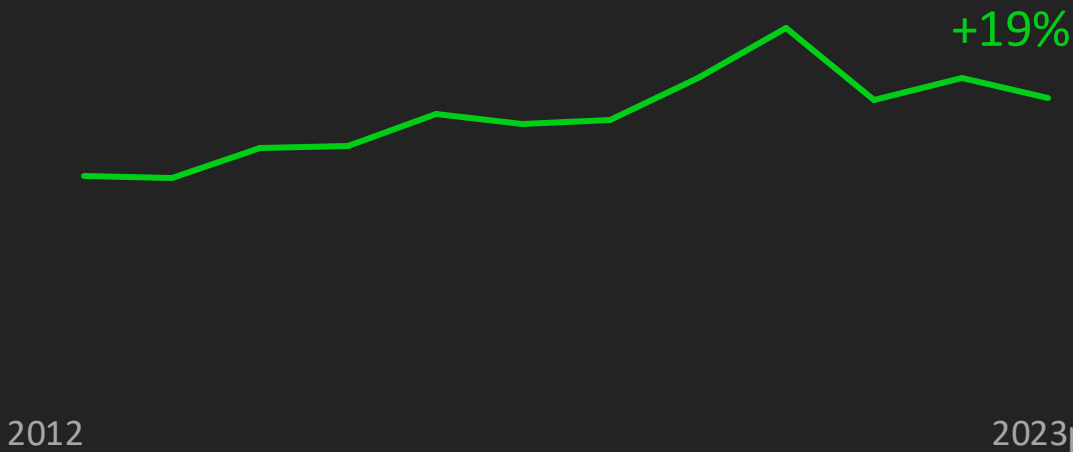
Surgical Stays per Claim



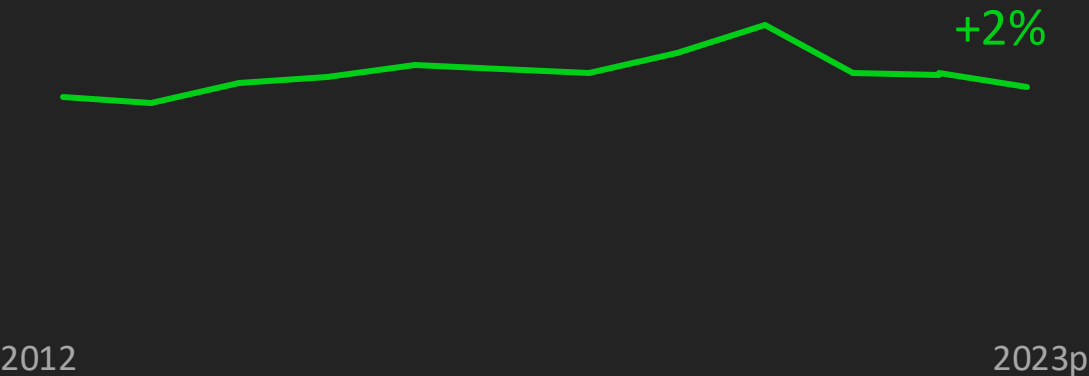
Utilization per ICU Stay



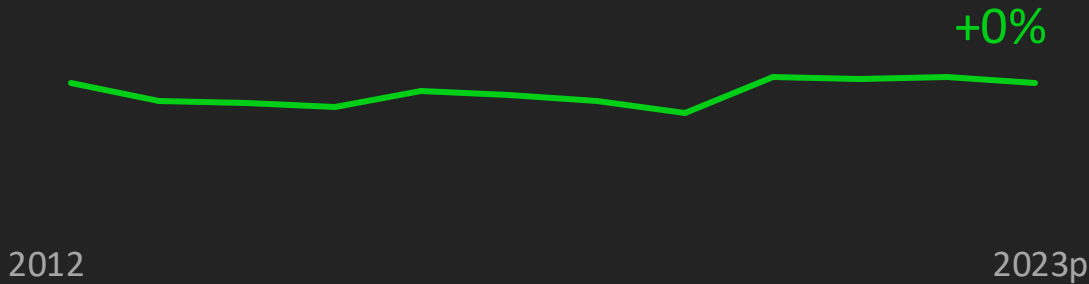
ICU Utilization per Claim



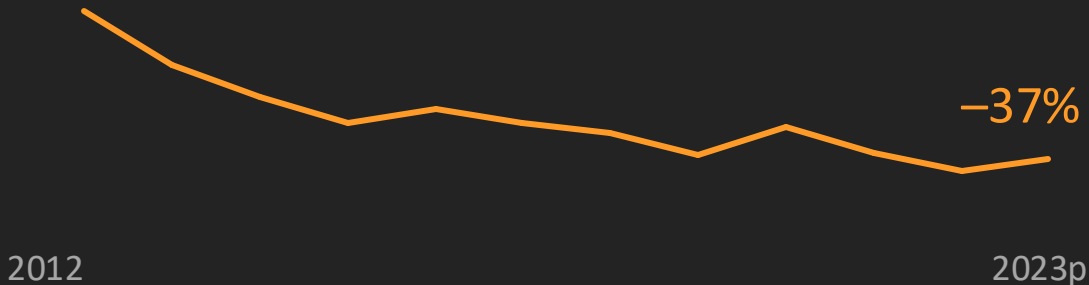
ICU Stays per Claim



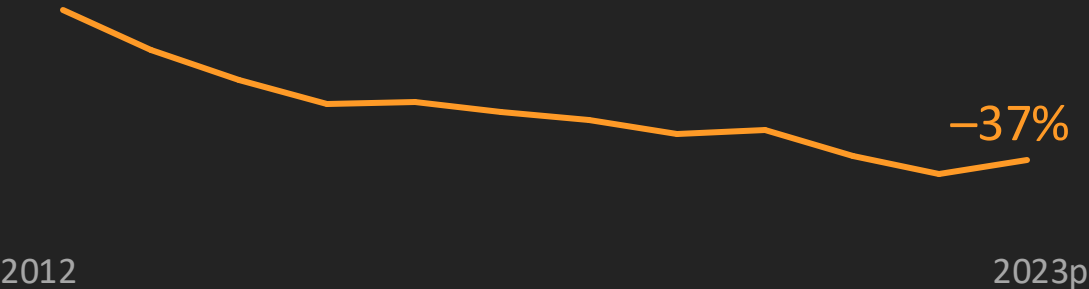
Utilization per Ordinary Stay



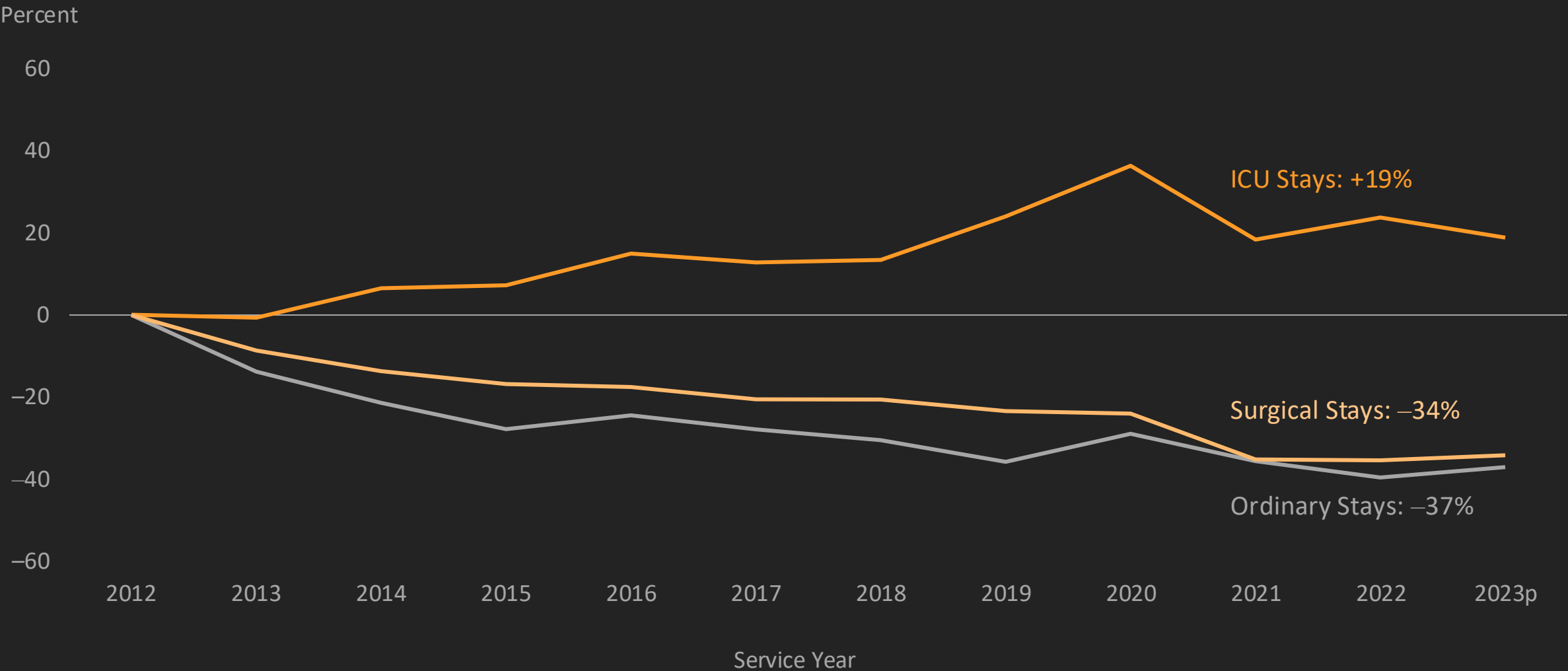
Ordinary Utilization per Claim



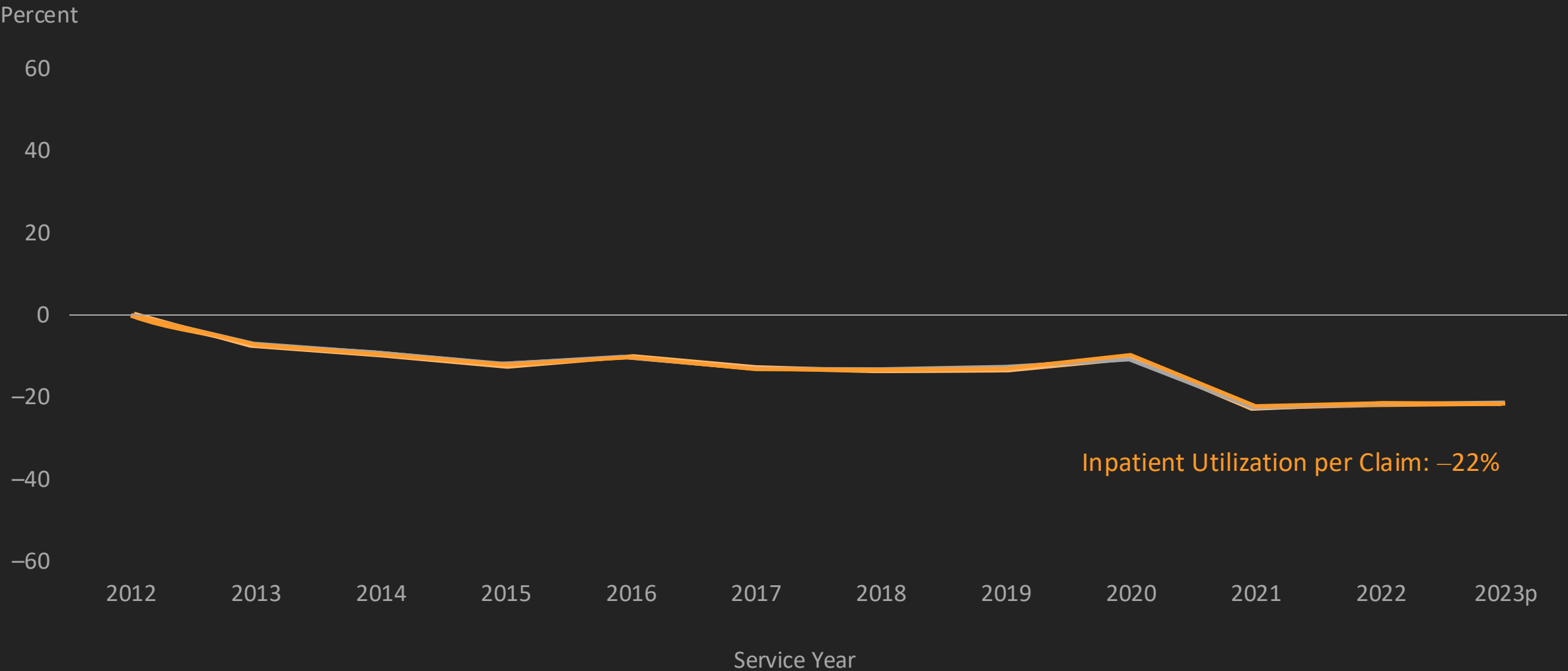
Ordinary Stays per Claim



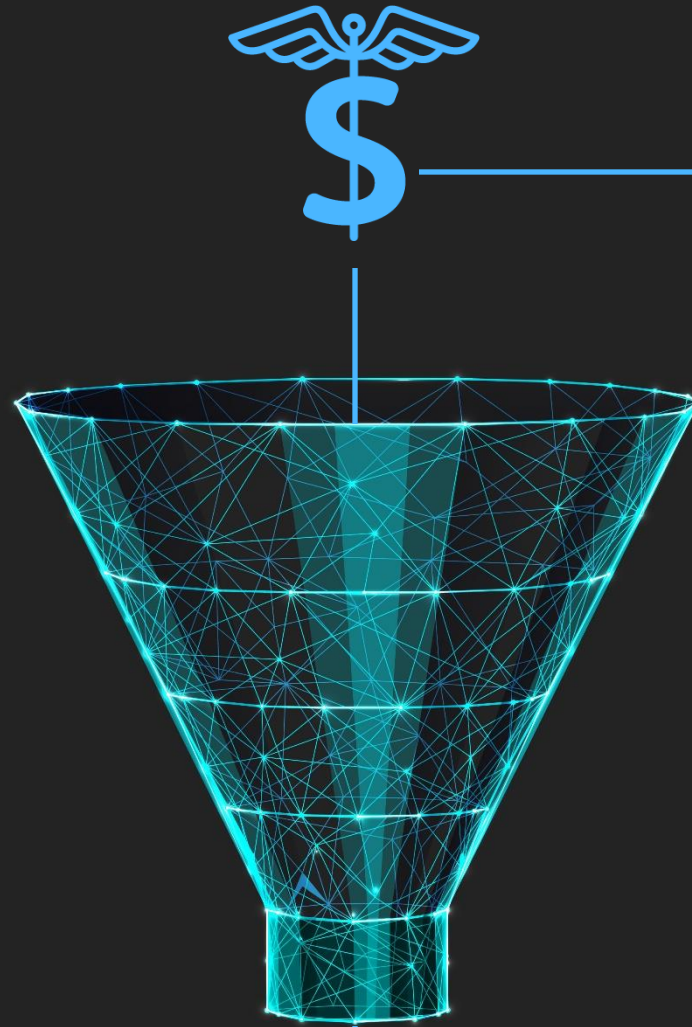
Inpatient Utilization per Claim by Stay Type



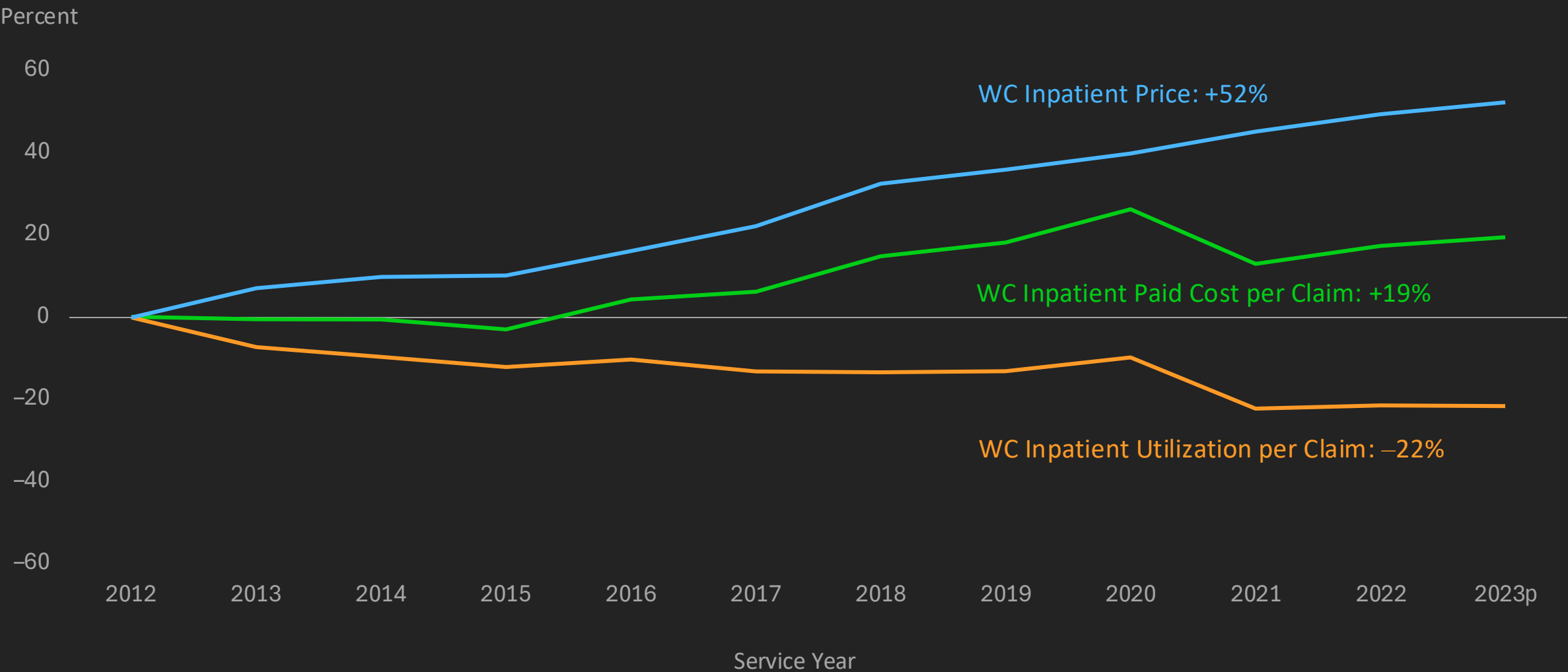
Inpatient Utilization per Claim



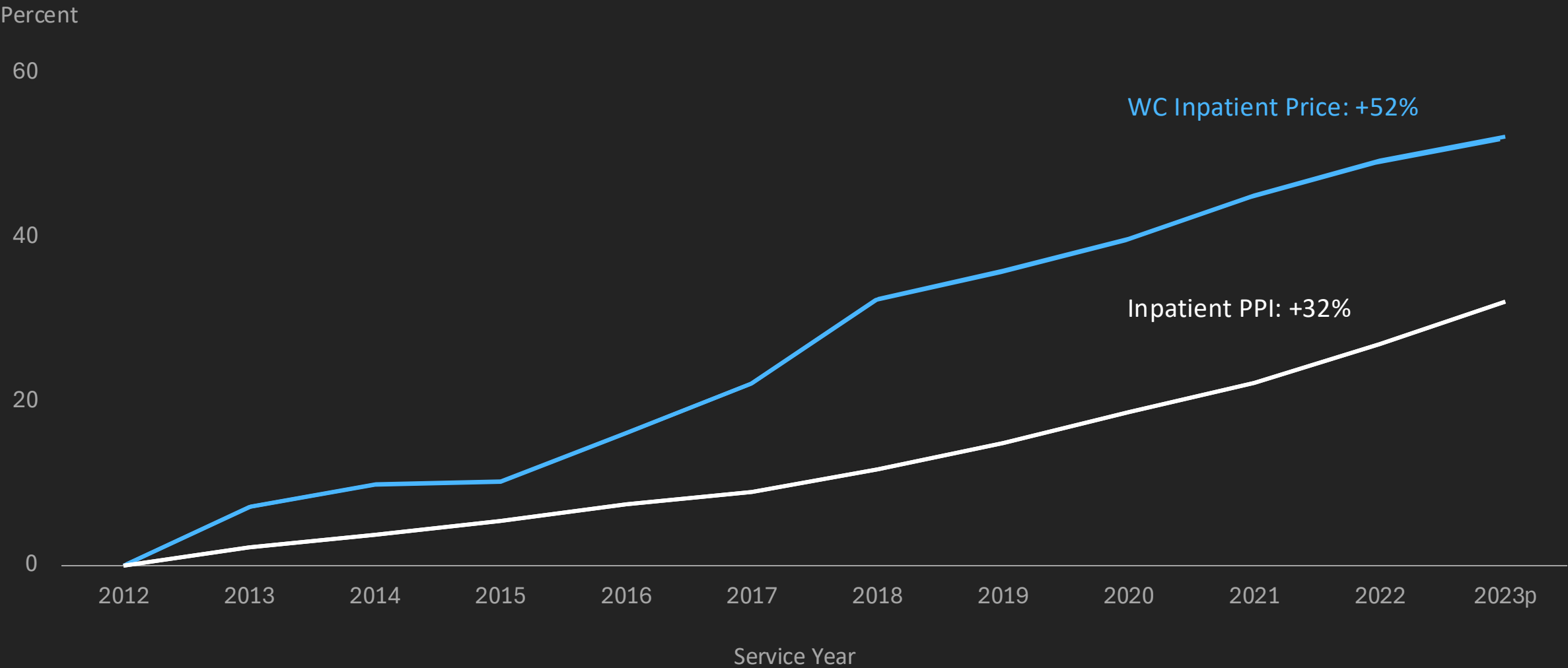
Inpatient Price



Inpatient—Utilization and Price



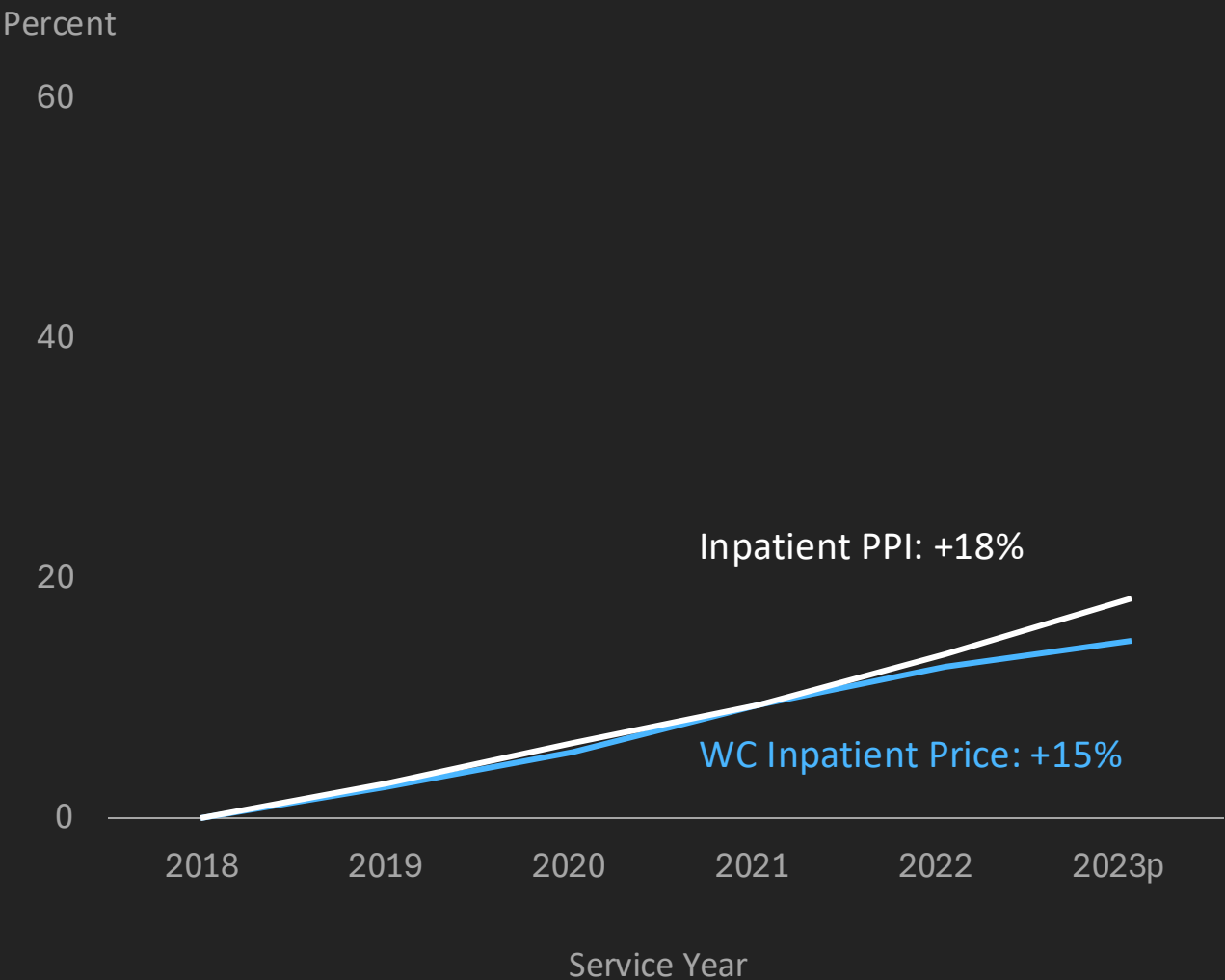
Inpatient Prices Compared to PPI



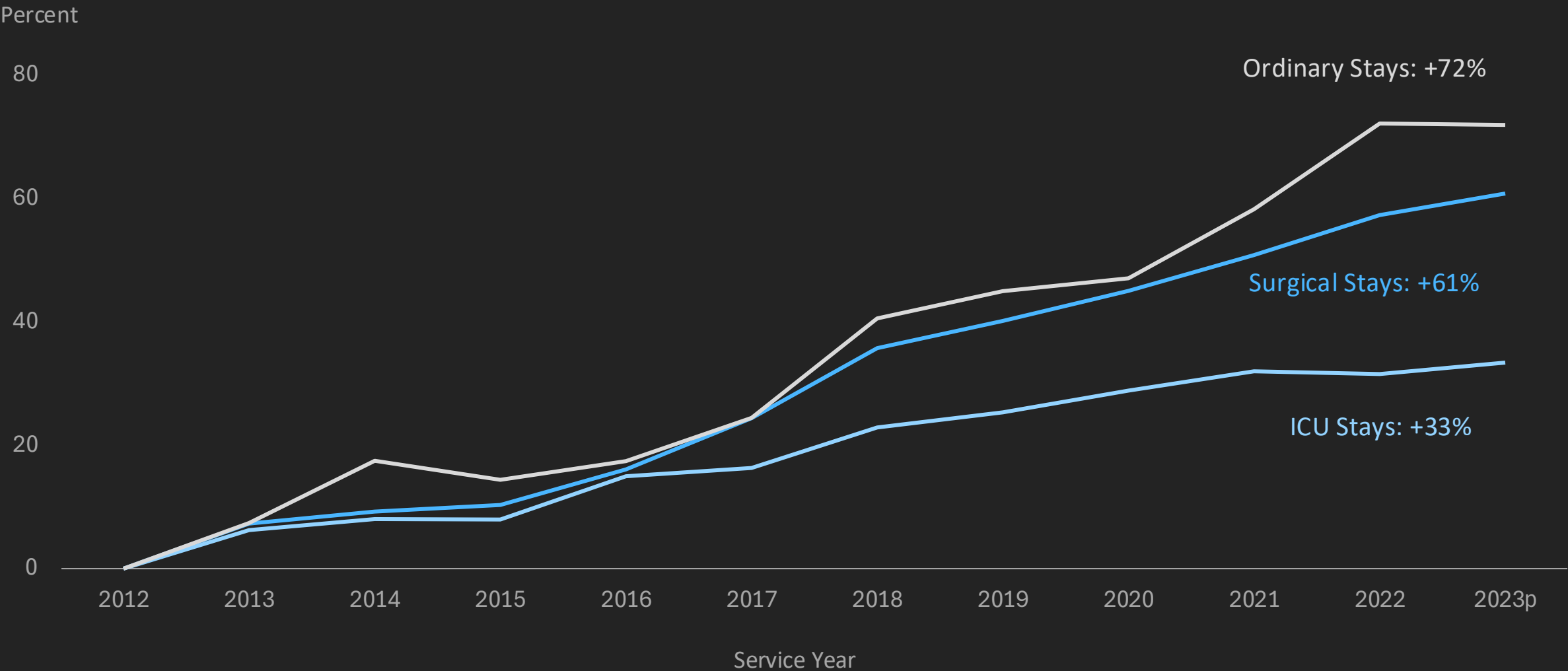
p Preliminary
Sources: NCCI Medical Data Call and Bureau of Labor Statistics (Average Annual)

Inpatient Prices Compared to PPI—2018 to 2023p

In more recent years ...



Inpatient—Price Change by Stay Type

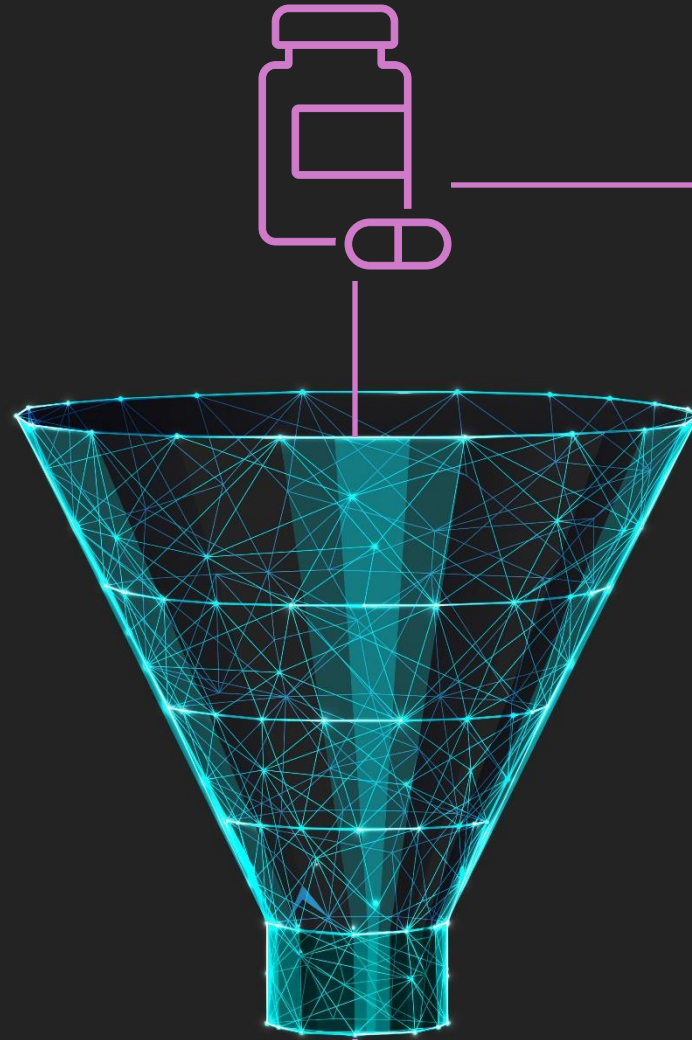


INPATIENT COST 
+19%

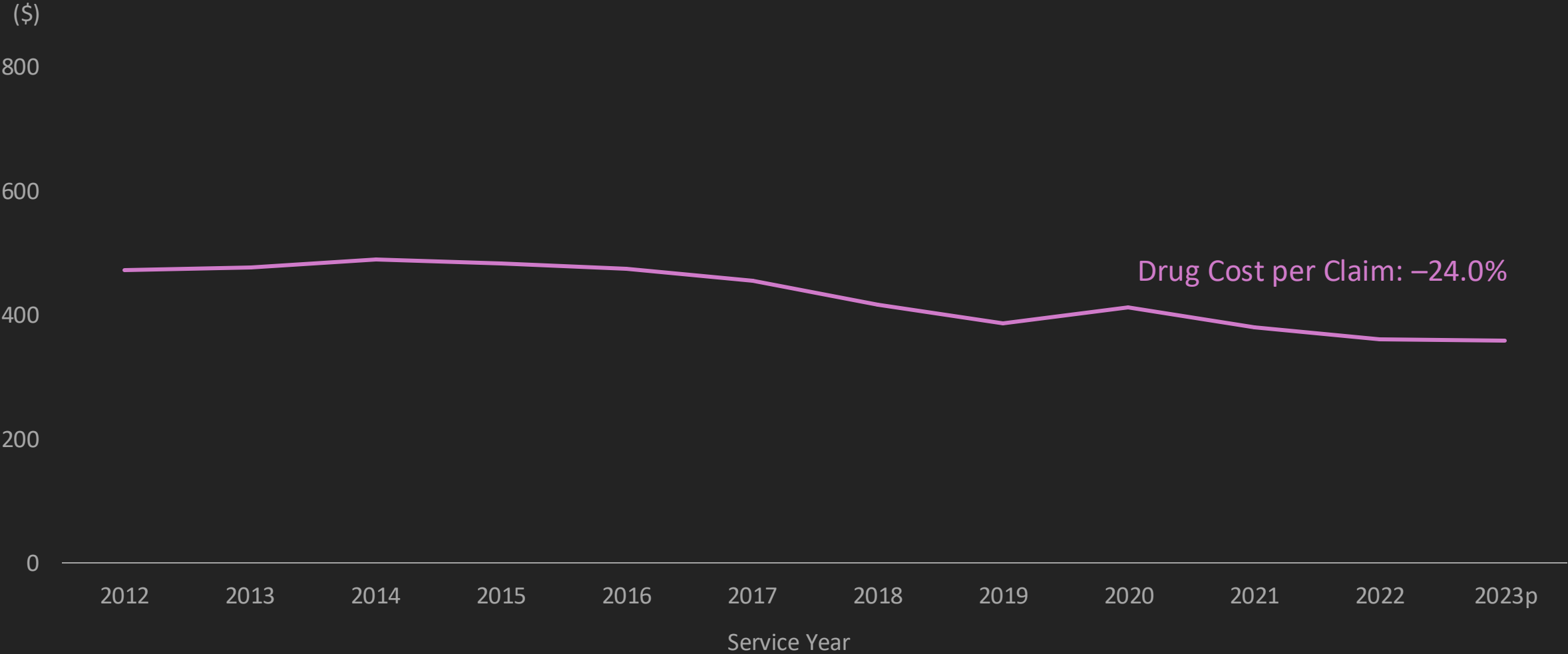
INPATIENT PRICE 
+52%

INPATIENT UTILIZATION 
-22%

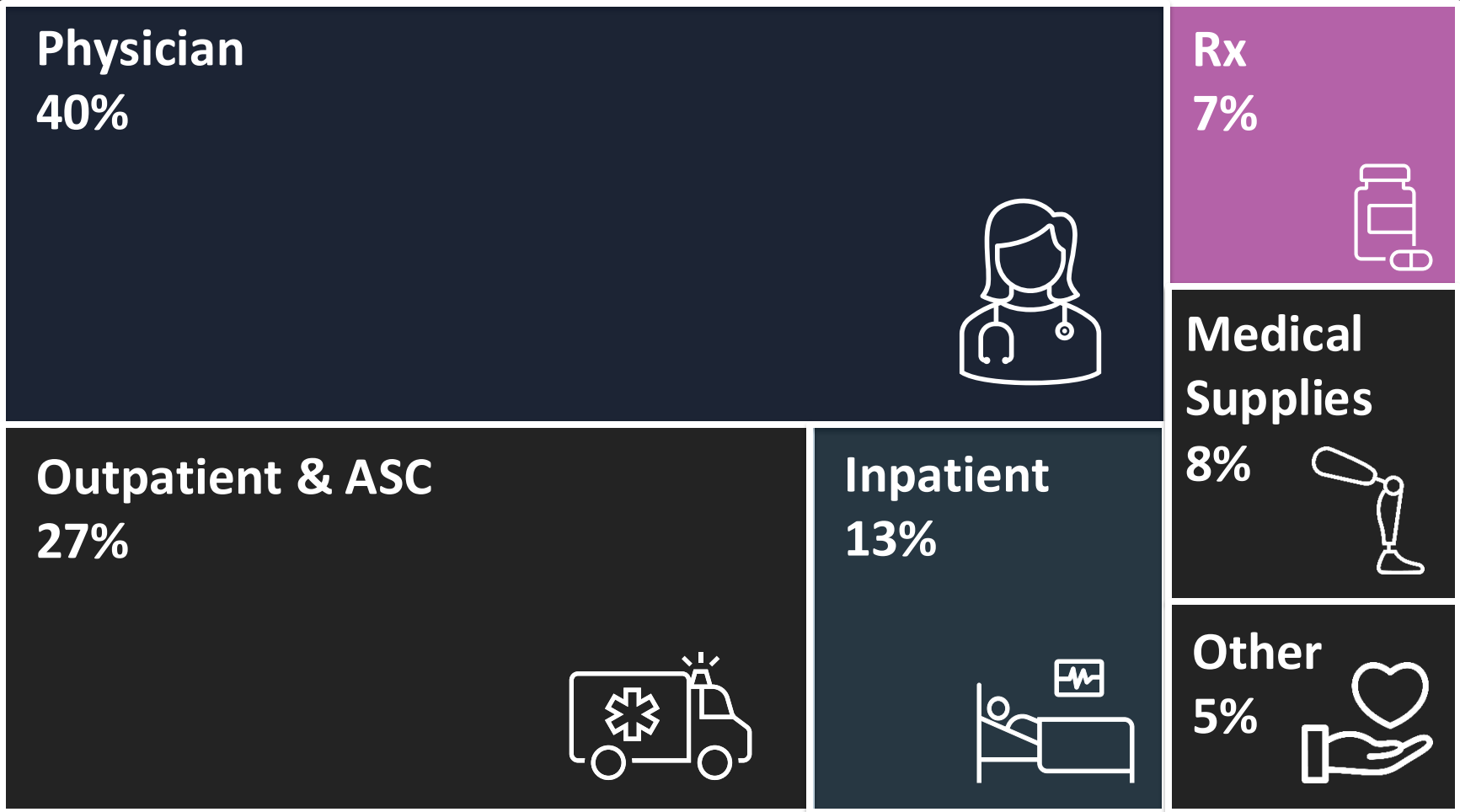
Drugs



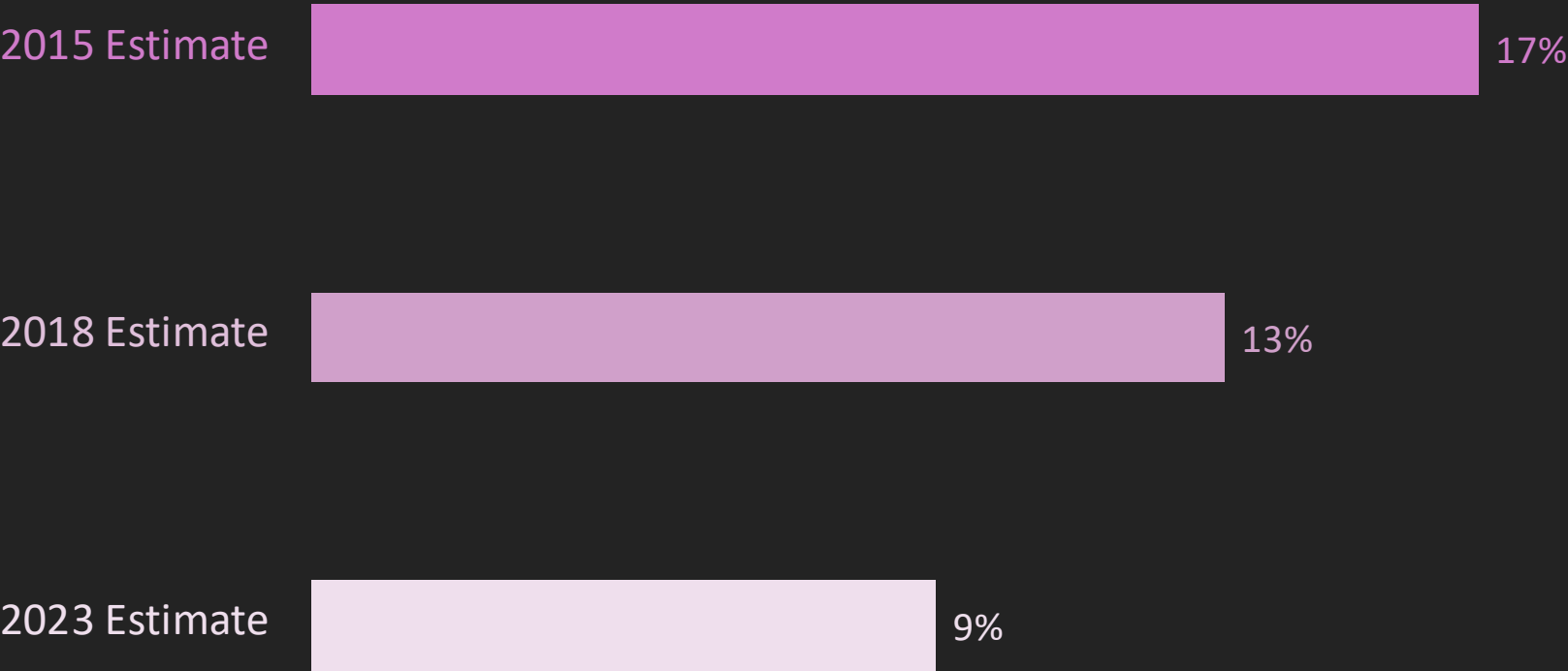
Drugs Paid Cost per Claim



Medical Paid Cost Distribution—Service Year 2022



Estimate of Rx Share of Medical Costs Has Decreased Accident Year 2014



Source: NCCI Medical Data Call

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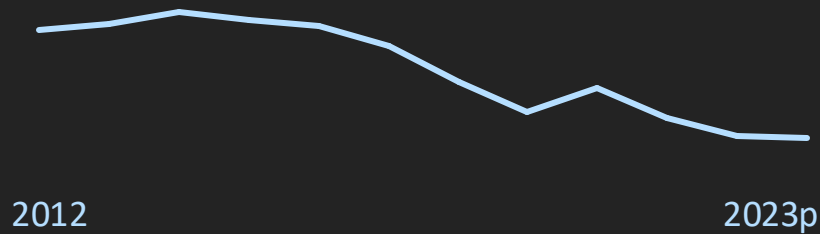
Opioid Usage in Workers Compensation



1 in 4 claims received an opioid prescription in 2012

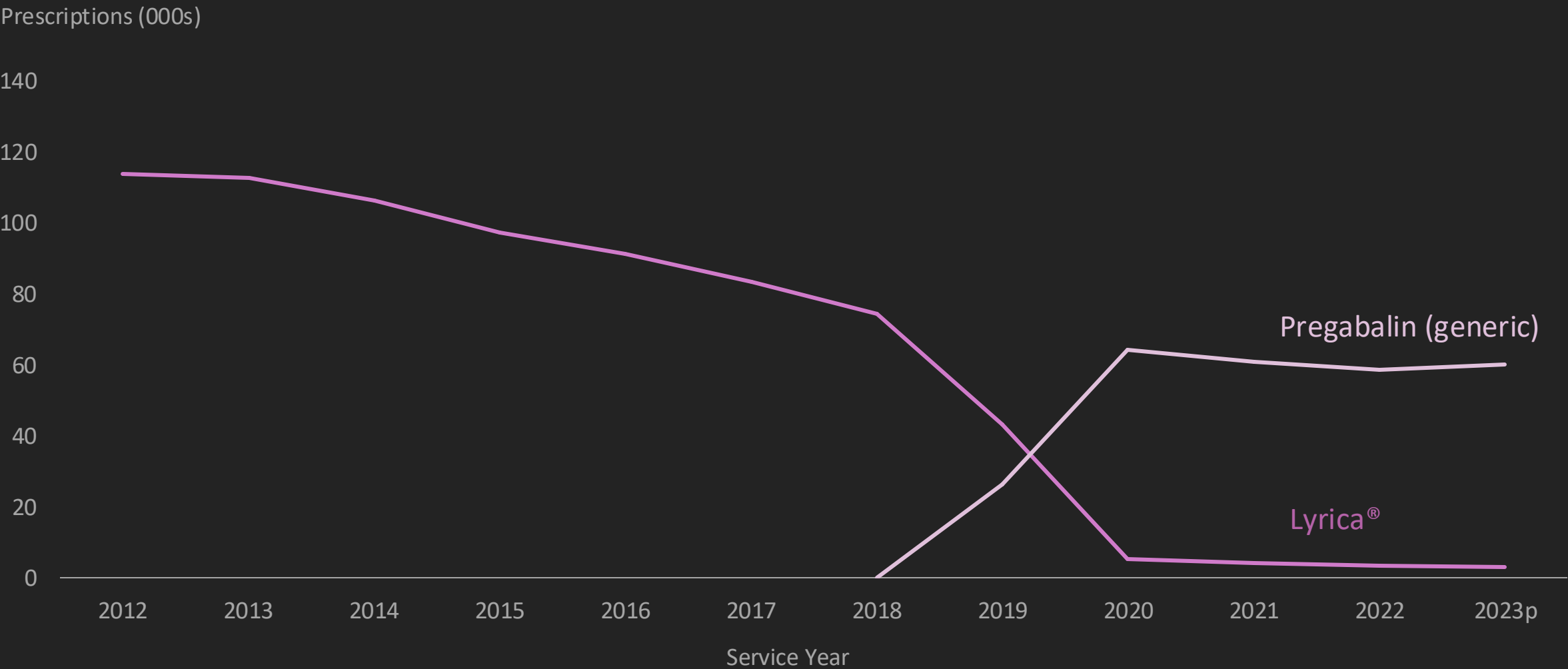
1 in 16 claims received an opioid prescription in 2023

Total Drug Cost per Claim: -24.0%



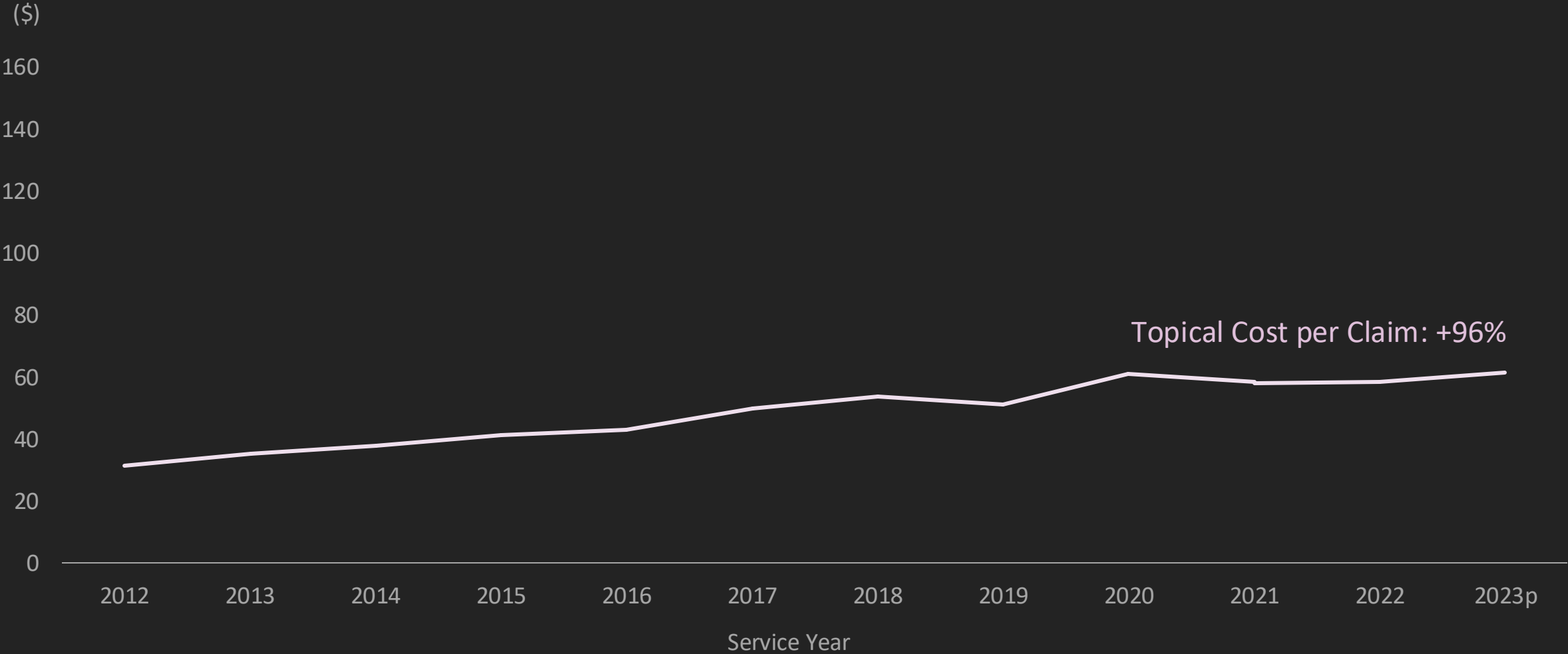
Opioids account for 2/3 of the decrease in total drug cost

Lyrica® and Pregabalin Prescribing



p Preliminary
Source: NCCI Medical Data Call

Topical Paid Cost per Claim



p Preliminary
Source: NCCI Medical Data Call

Putting It All Together



INPATIENT COST 

+19%

INPATIENT PRICE 

+52%

INPATIENT UTILIZATION 

-22%

INPATIENT TRENDS

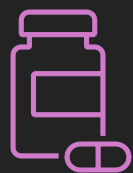


INPATIENT UTILIZATION



INPATIENT PRICE

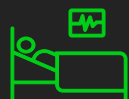




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24% decrease in pharmacy cost

INPATIENT TRENDS



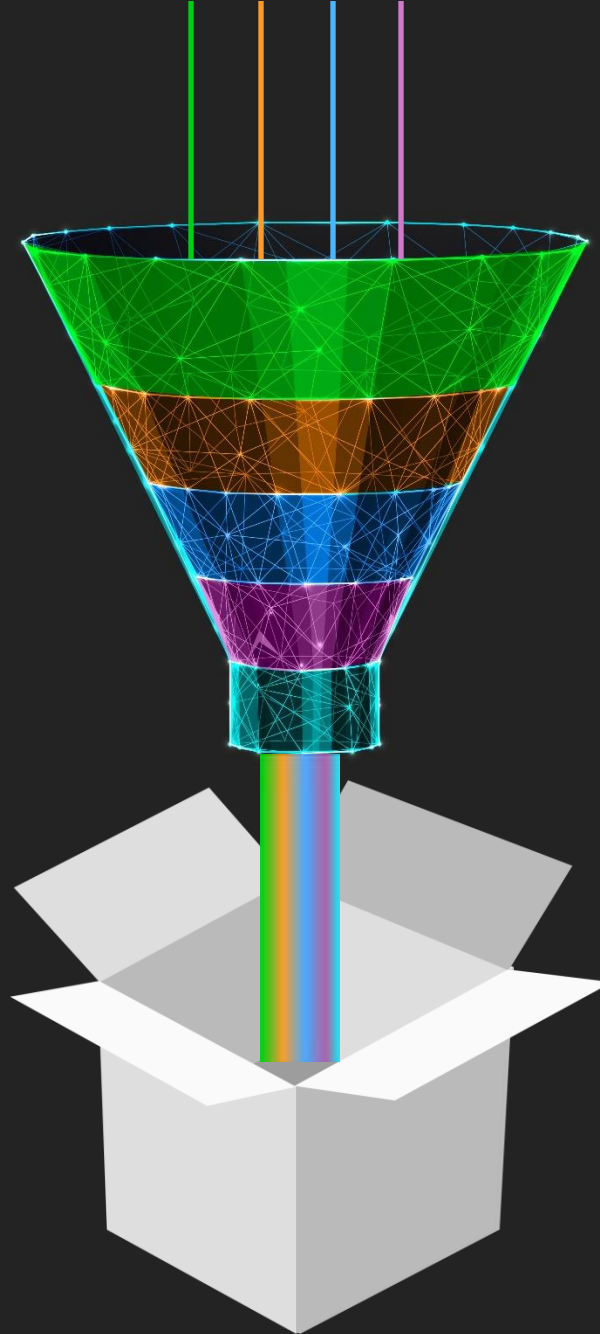
INPATIENT UTILIZATION



INPATIENT PRICE



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INPATIENT TRENDS



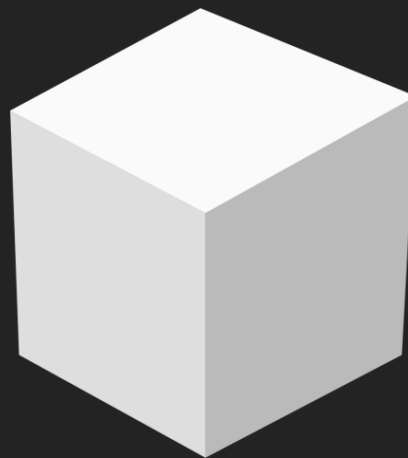
INPATIENT UTILIZATION



INPATIENT PRICE



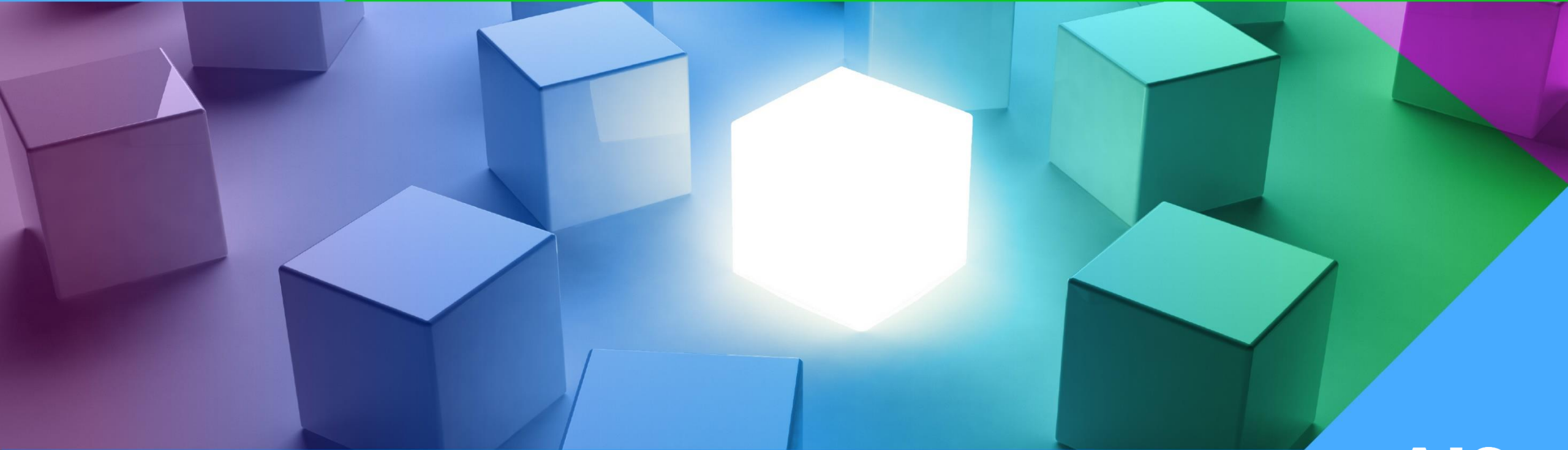
DRUGS





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