

# Under the Microscope: Medical Trends in Comp

**Carolyn Wise, ACAS, MAAA**

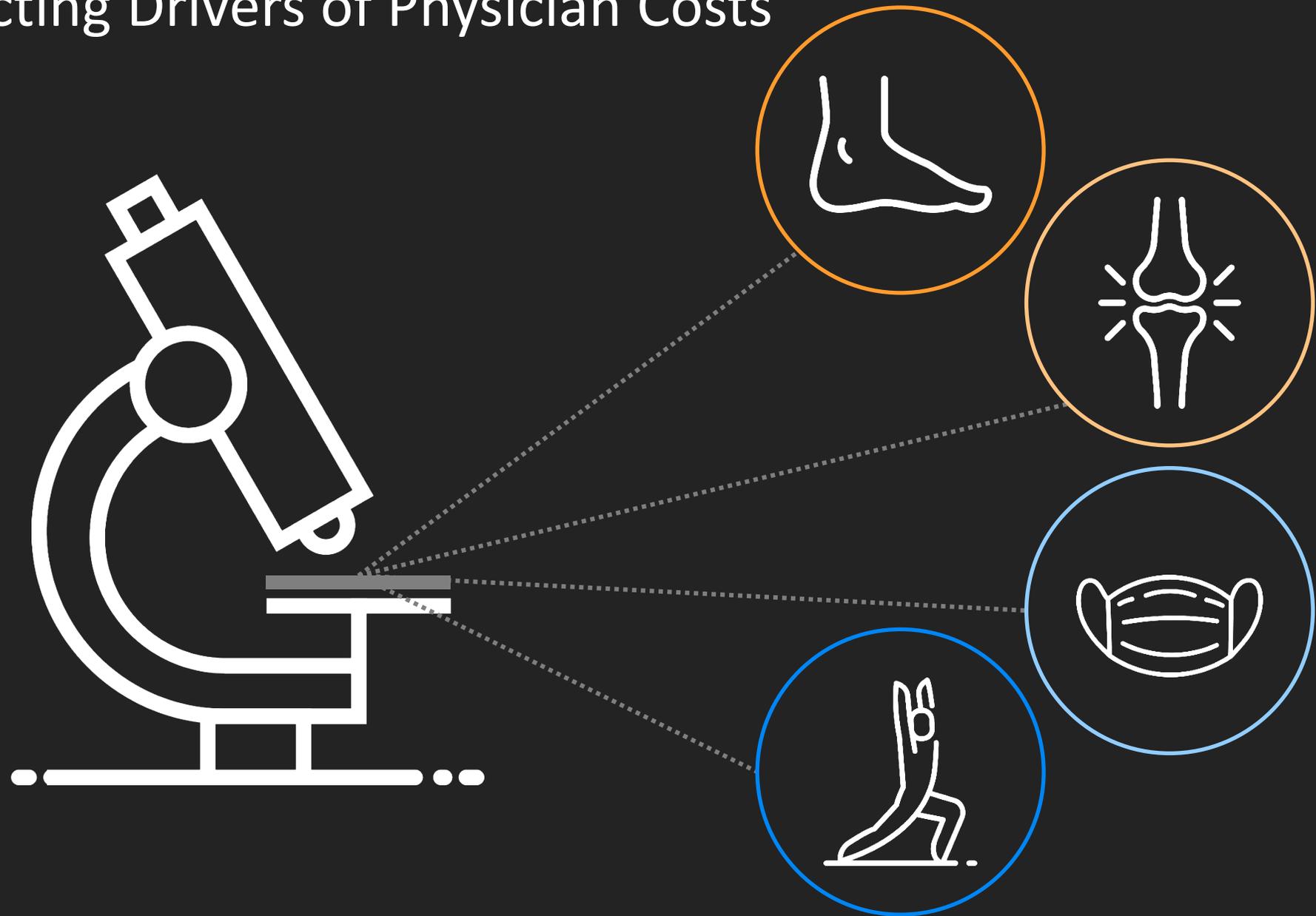
Manager and Associate Actuary  
NCCI

**Leonard F. Herk, PhD**

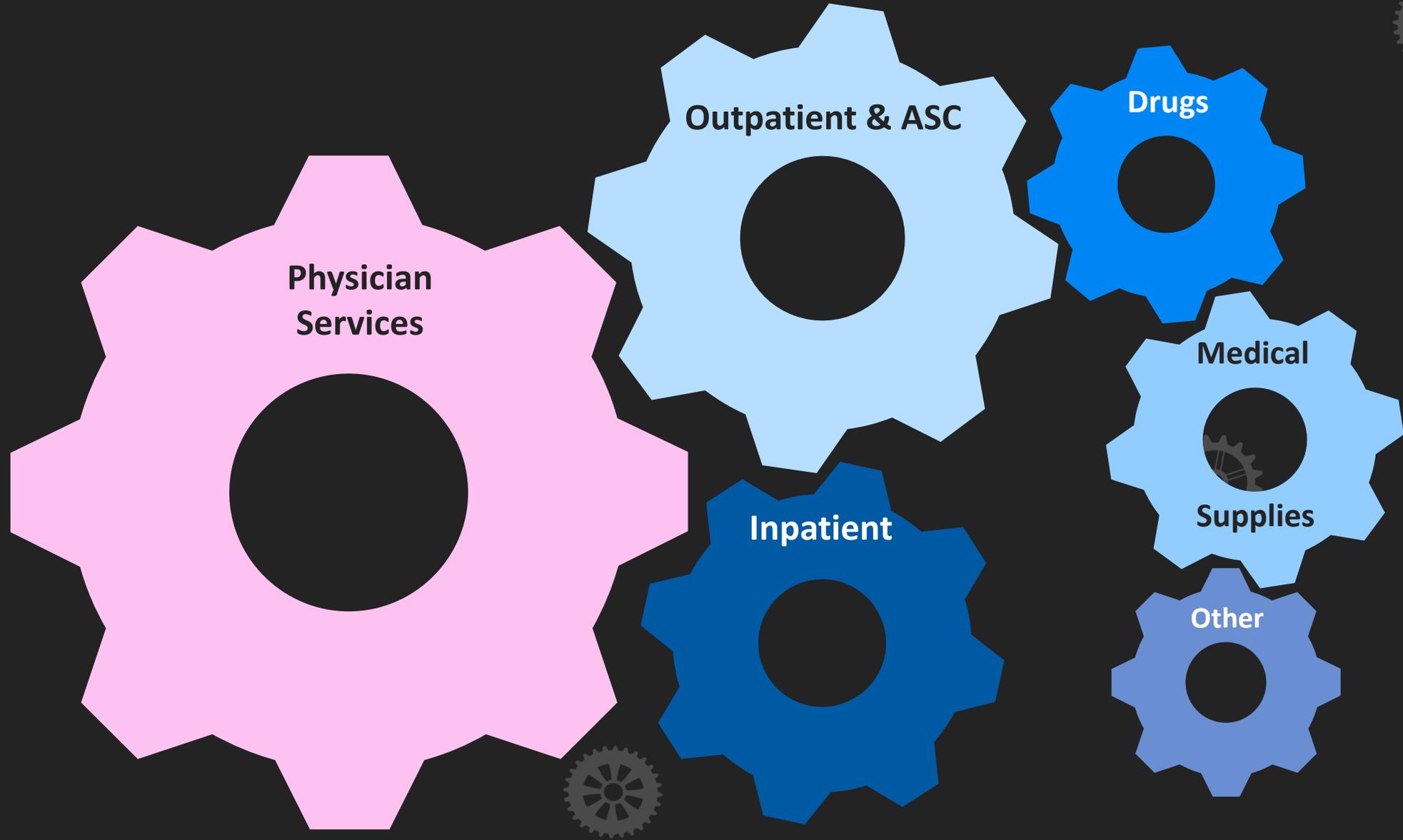
Executive Director and  
Senior Economist  
NCCI



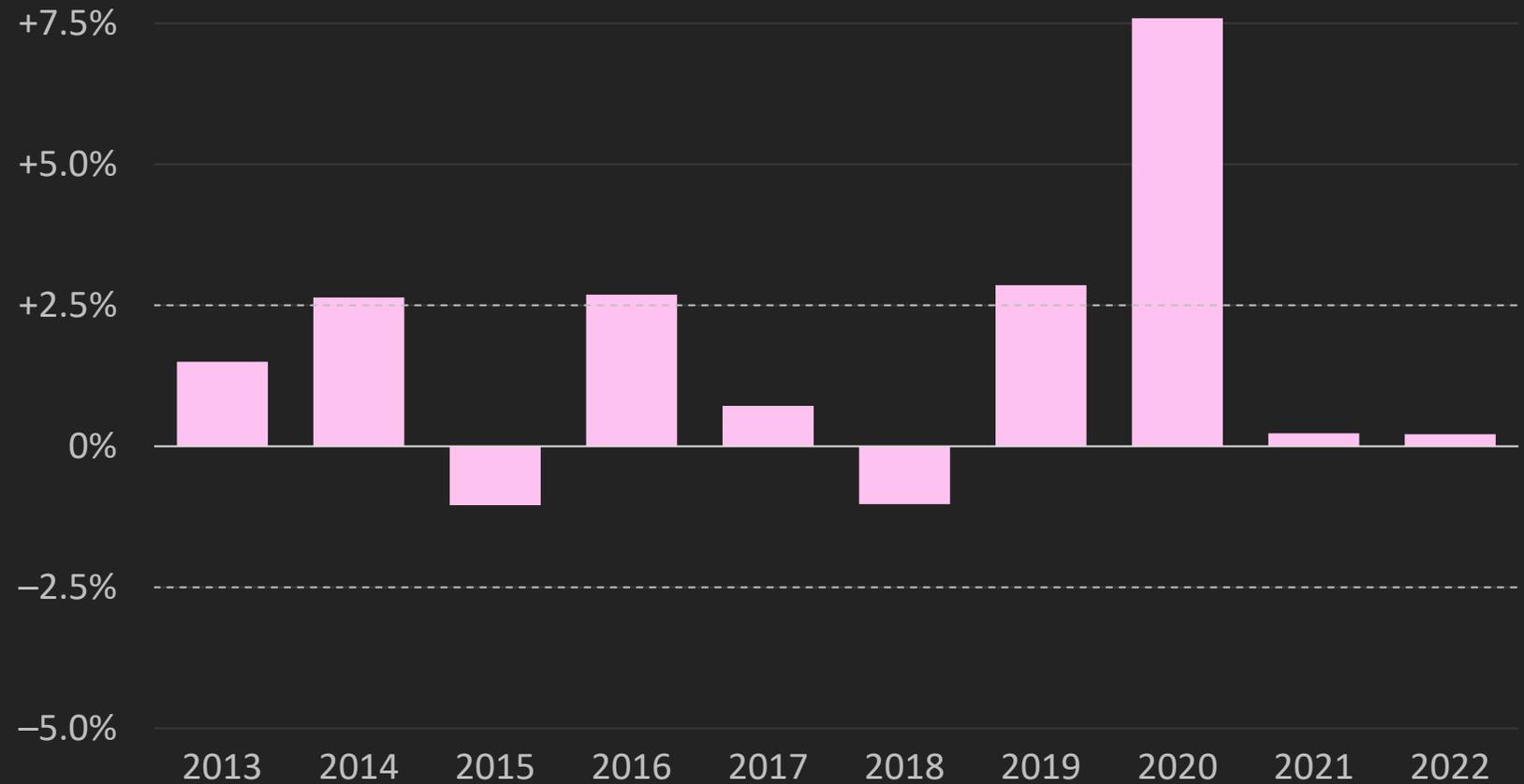
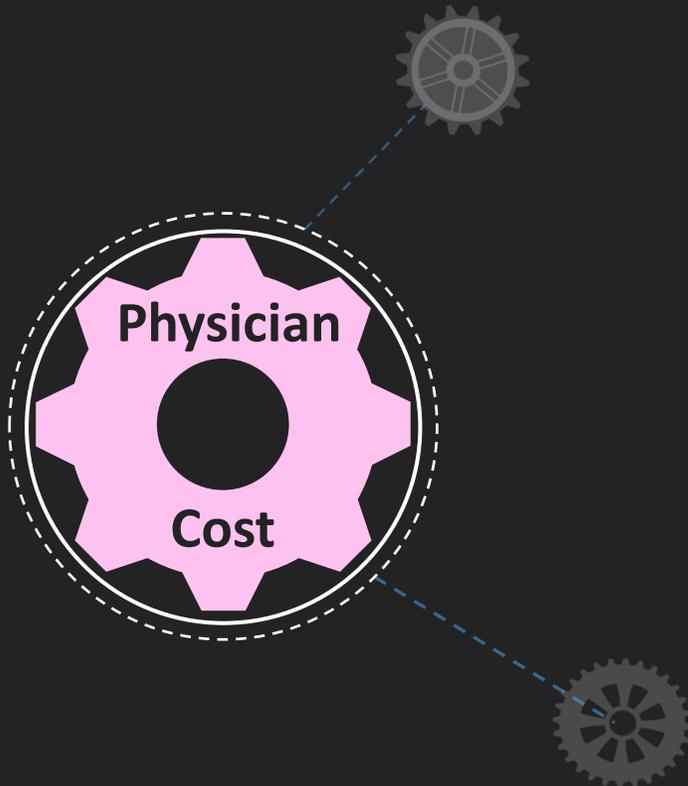
# Deconstructing Drivers of Physician Costs



# Physician Services Drive Medical Severity



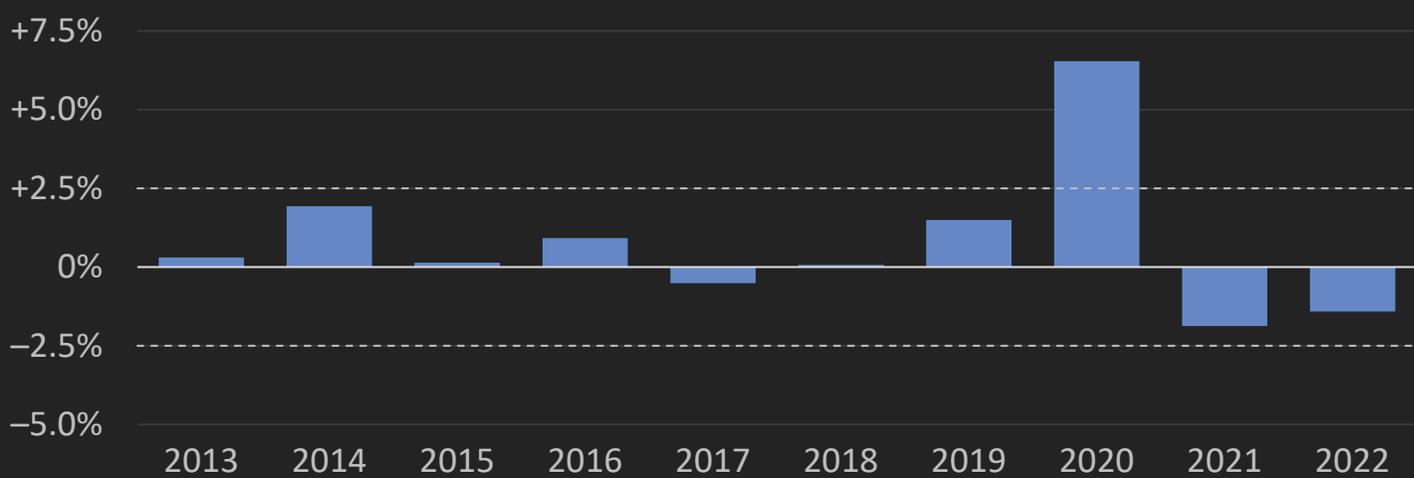
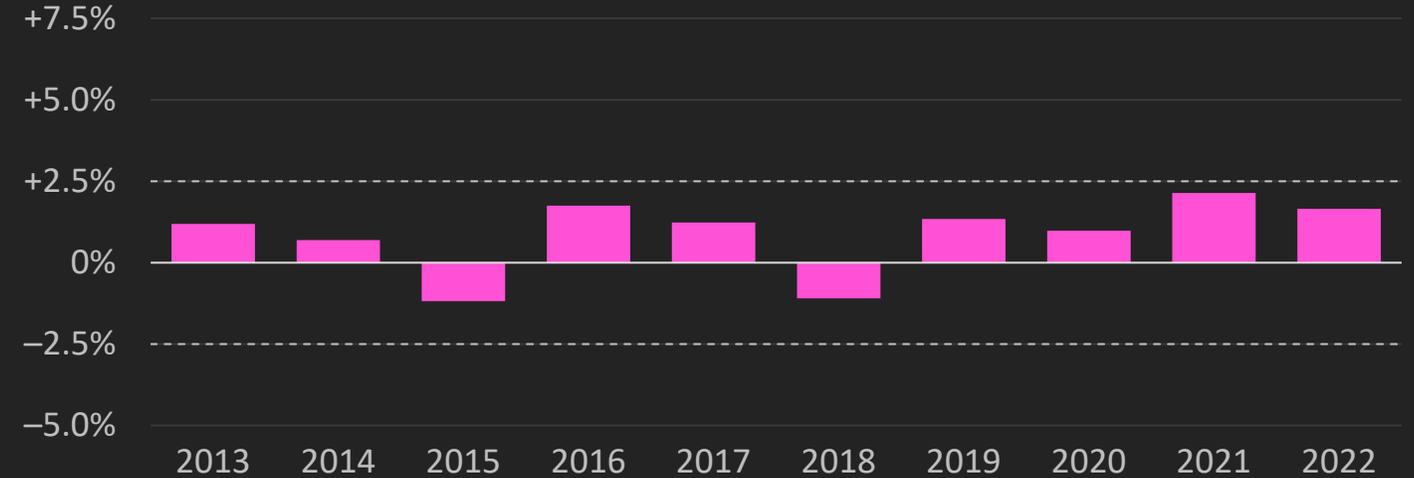
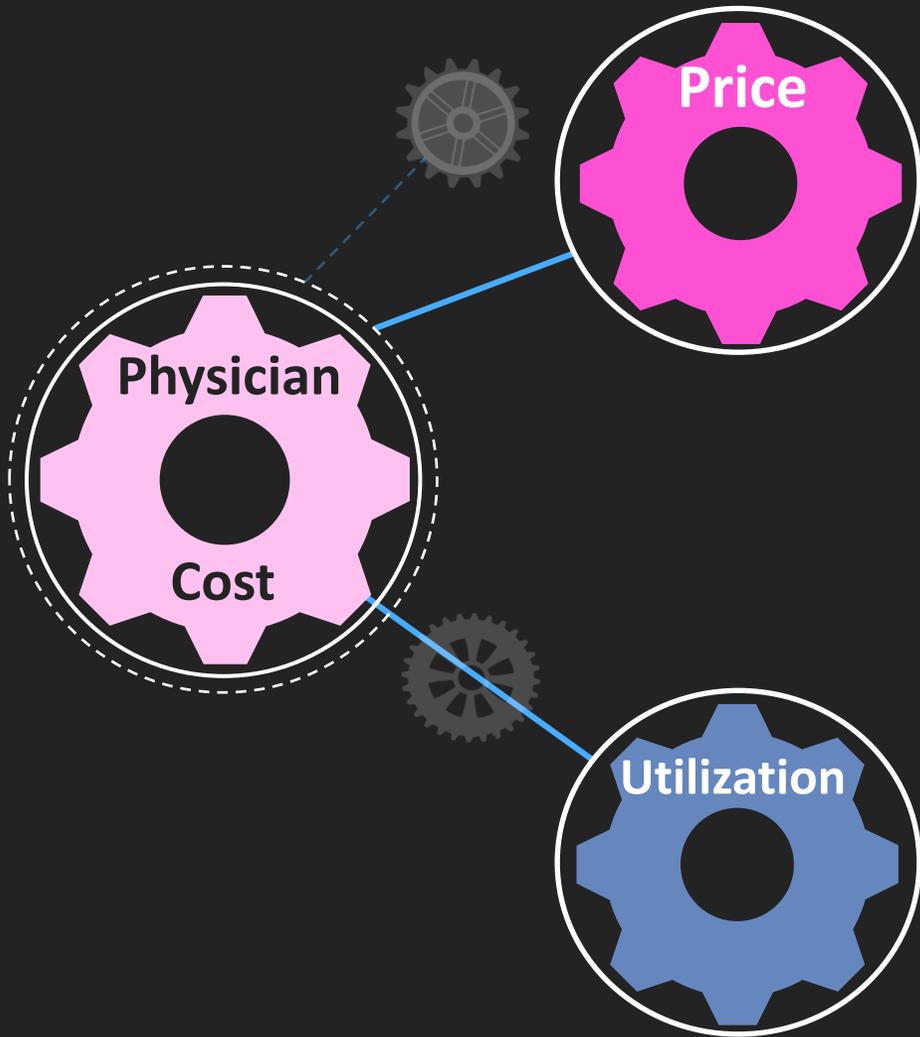
# Annual Changes in Physician Cost per Claim Are (Mostly) Moderate



Source: NCCI's Medical Data Call

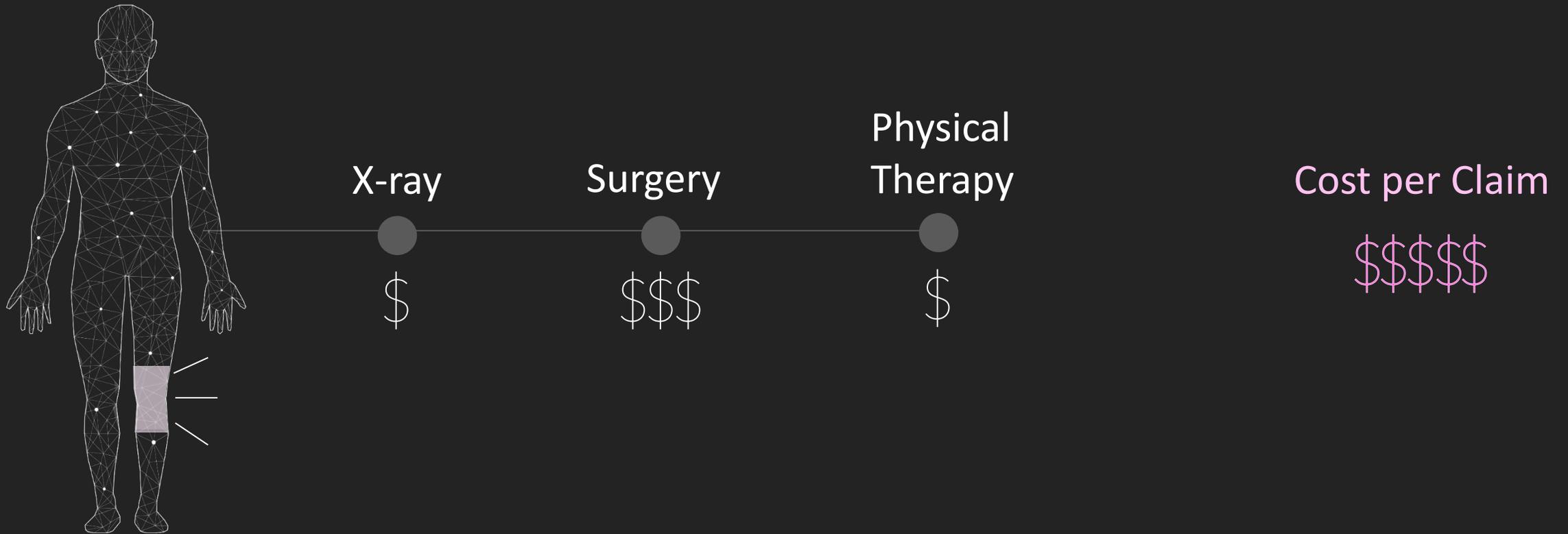
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# Annual Utilization Changes Are Steady, Except for COVID Years

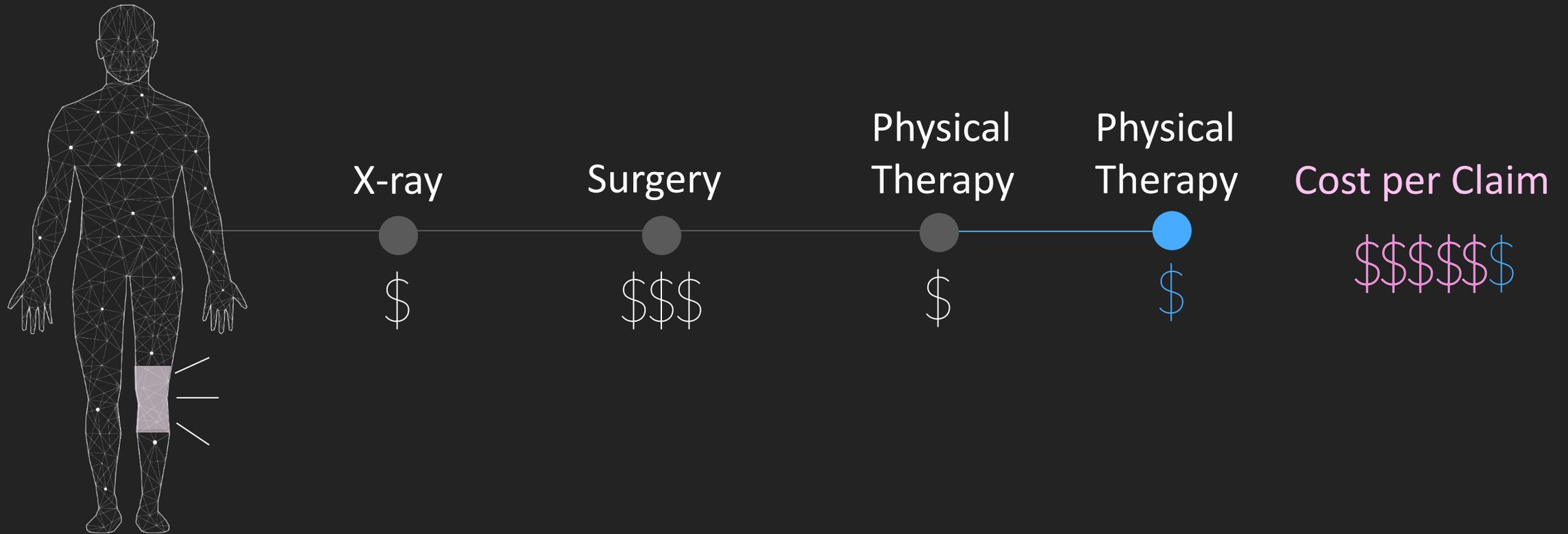


Source: NCCI's Medical Data Call

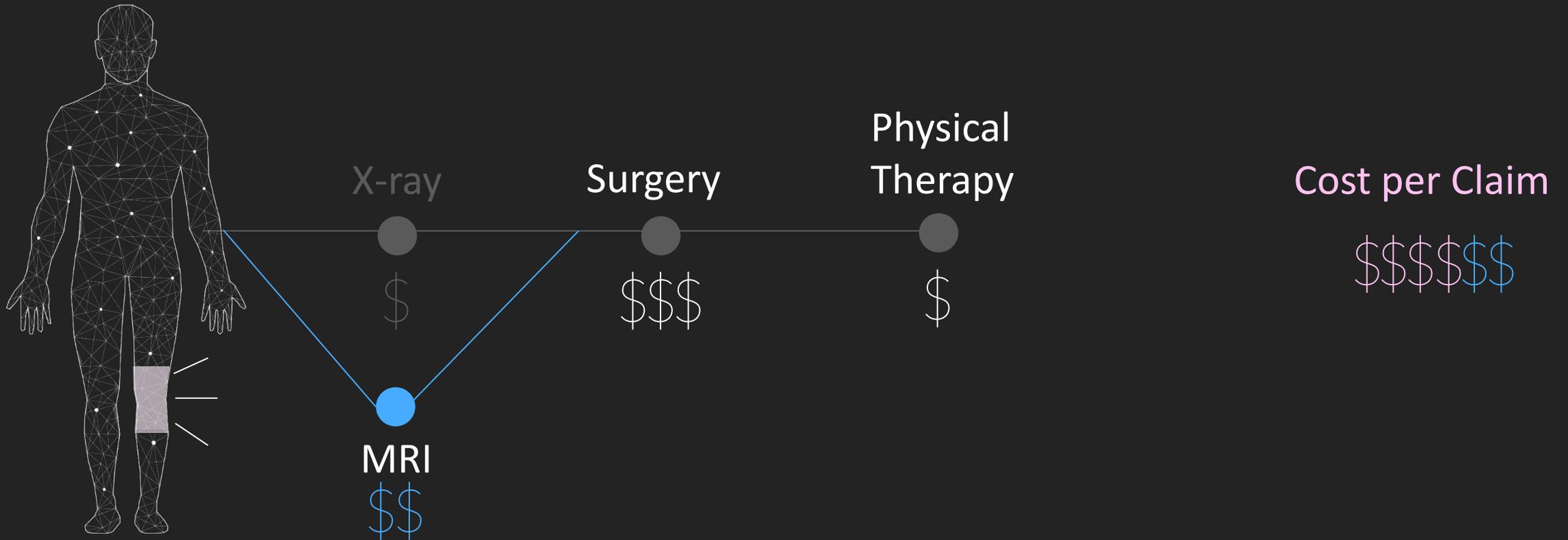
# Paid Cost per Claim Is Driven by Price and Utilization



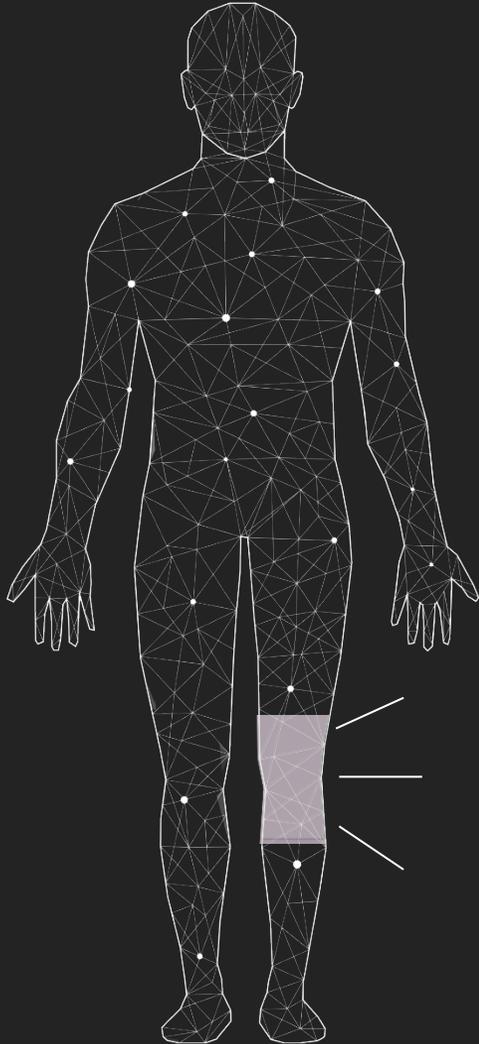
# Utilization Depends on the Quantity of Services ...



# ... and the Type of Service as Well



# Like Paid Cost, Utilization Can Be Quantified



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Service	Utilization Units
X-ray	50
Surgery	2,200
Physical Therapy	40

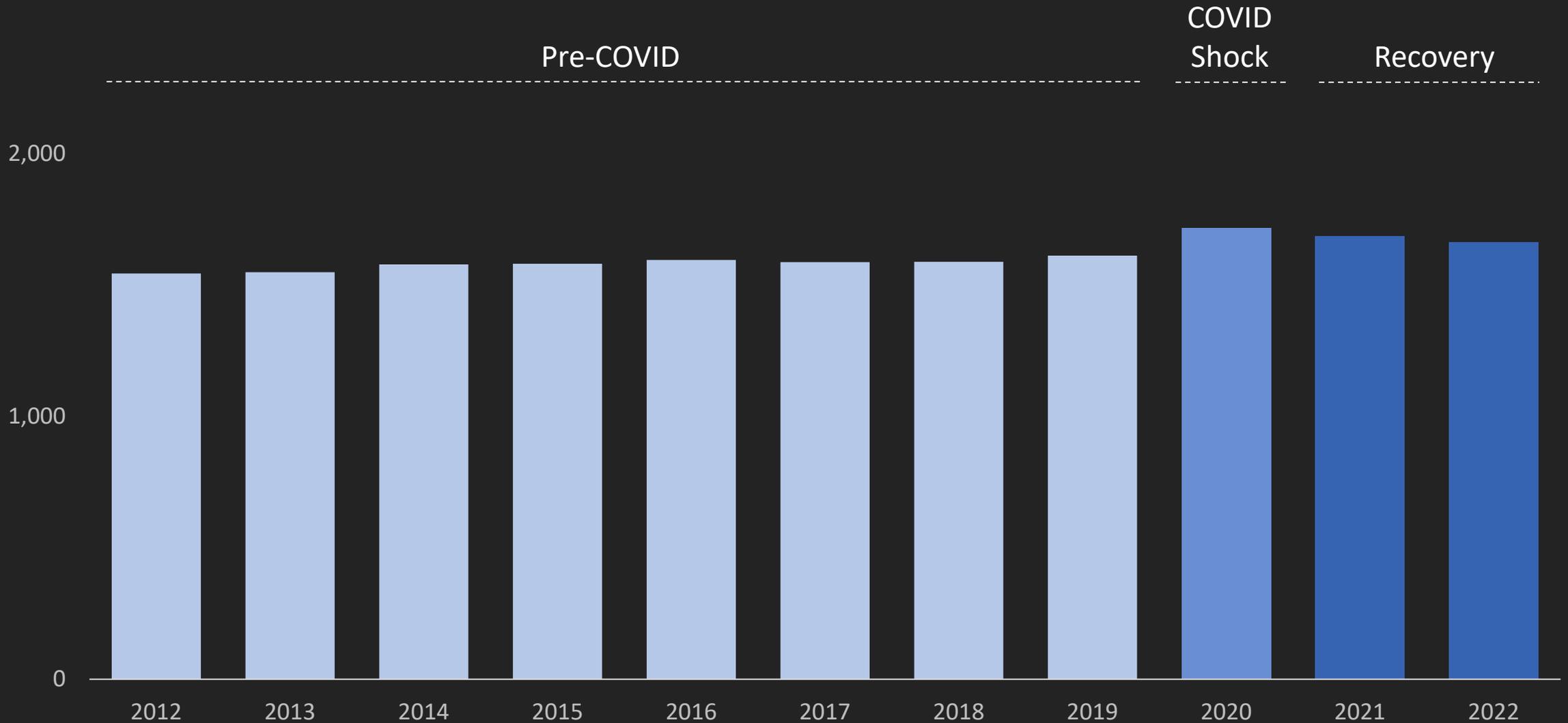
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# Physician Services Utilization

## Trends and Contributions



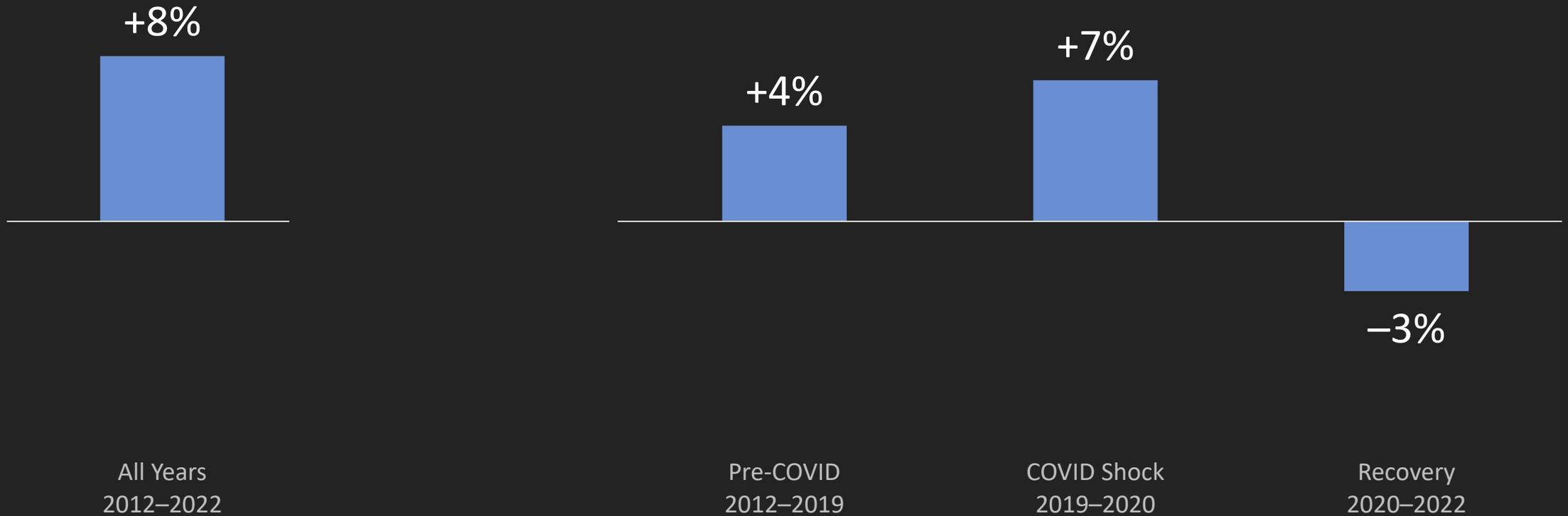
# Utilization of Physician Services per WC Claim Has Been Stable



Source: NCCI's Medical Data Call

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# Steady Increase Through 2019, Then COVID Shock and Recovery



Source: NCCI's Medical Data Call

# What Drives Changes in Physician Service Utilization per Claim?

## Injury Mix

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Body System



Diagnosis

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## Medical Treatment

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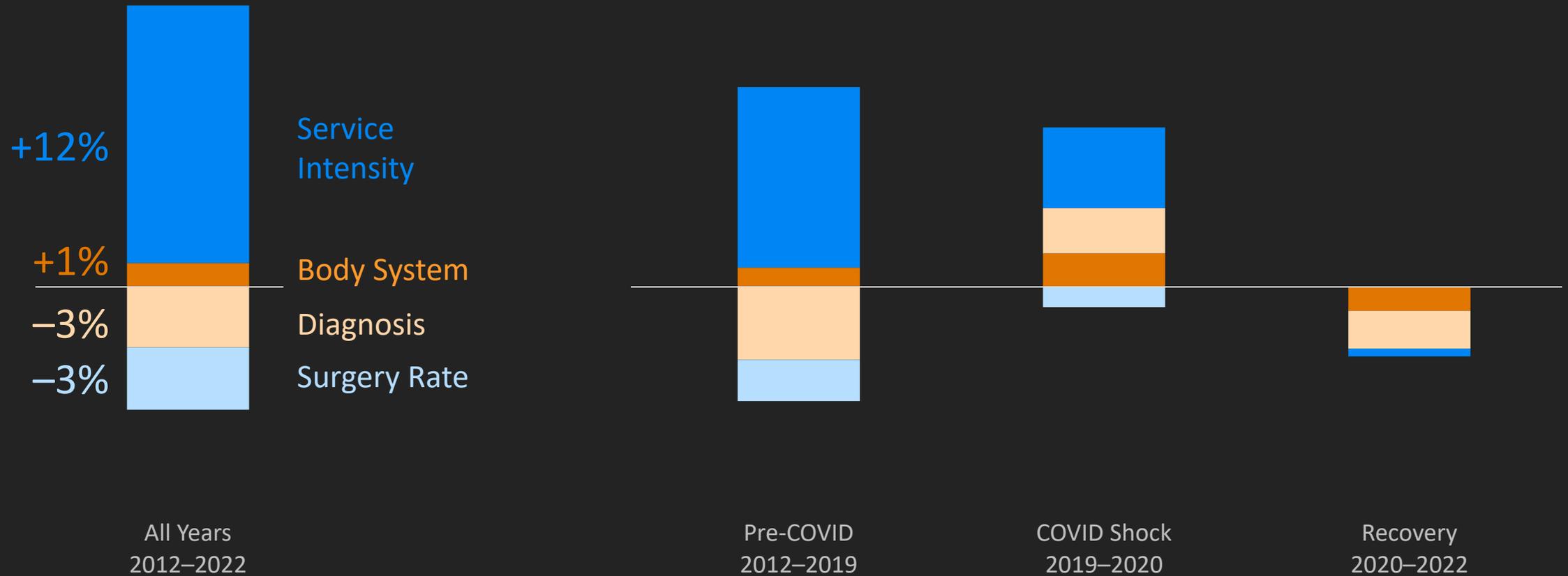
Surgery Rate



Service Intensity

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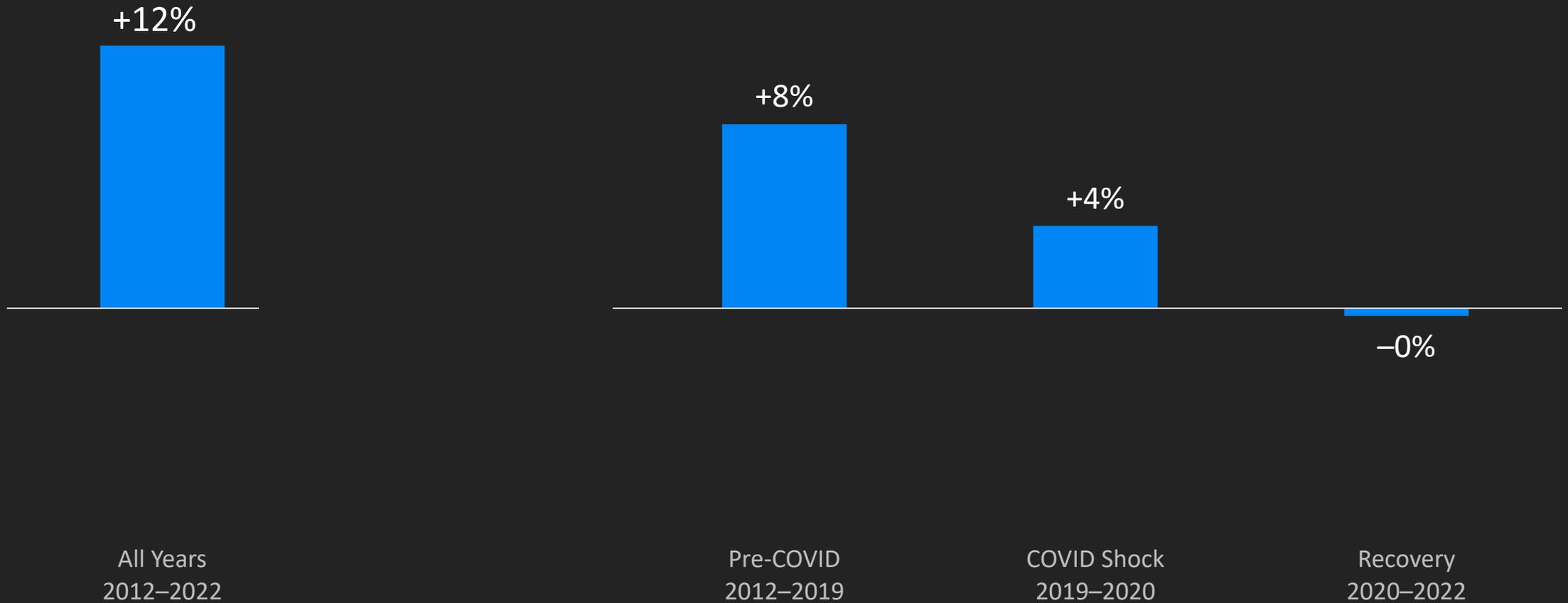
# Contributions via Medical Treatment Dominate Shifts in Mix



Source: NCCI's Medical Data Call

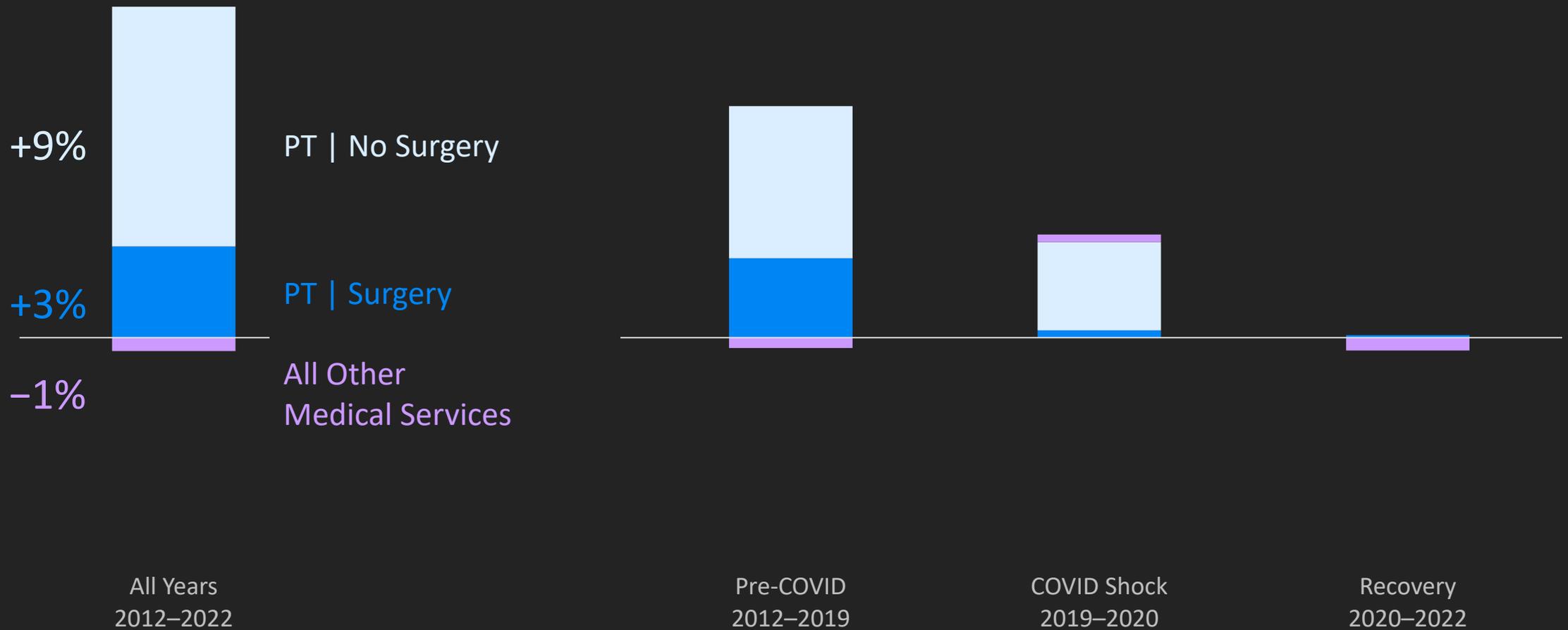
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# Medical Service Intensity per Claim Is the Biggest Contributor ...



Source: NCCI's Medical Data Call

# ... Driven By More Physical Therapy (PT) per Claim



Source: NCCI's Medical Data Call

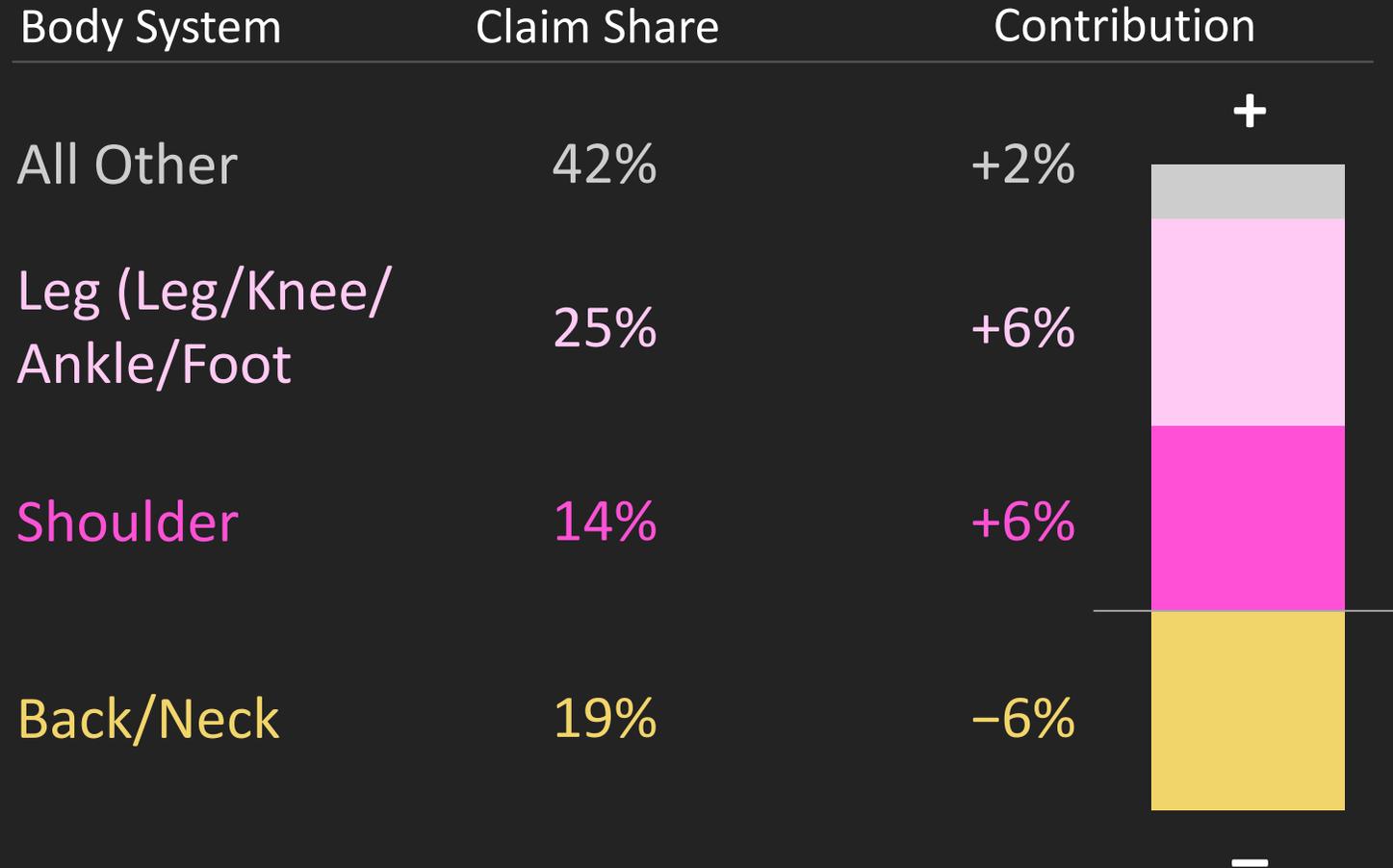
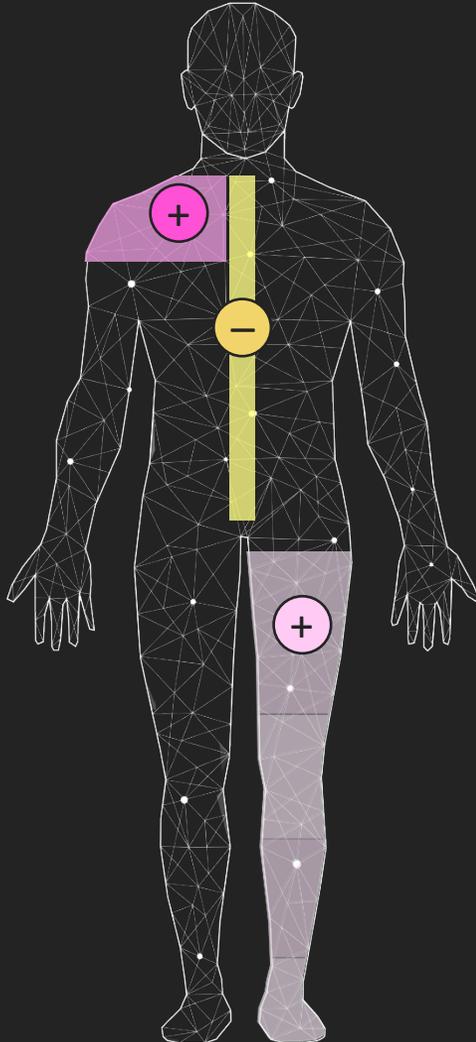
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# Physician Service Utilization Contributions by Body System



# Which Body Systems Are Driving Utilization Trends?

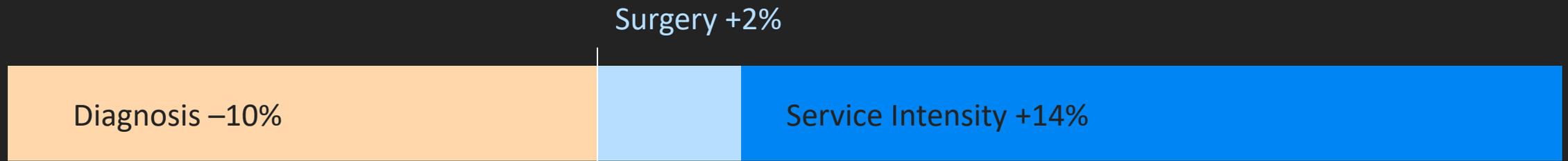
Calendar Year 2012 to 2022



Source: NCCI's Medical Data Call

**AIS**  
2023

# Utilization of Physician Services per Shoulder Claim Is Up +6%



Less severe diagnoses:  
more sprains and strains,  
fewer rotator cuff tears

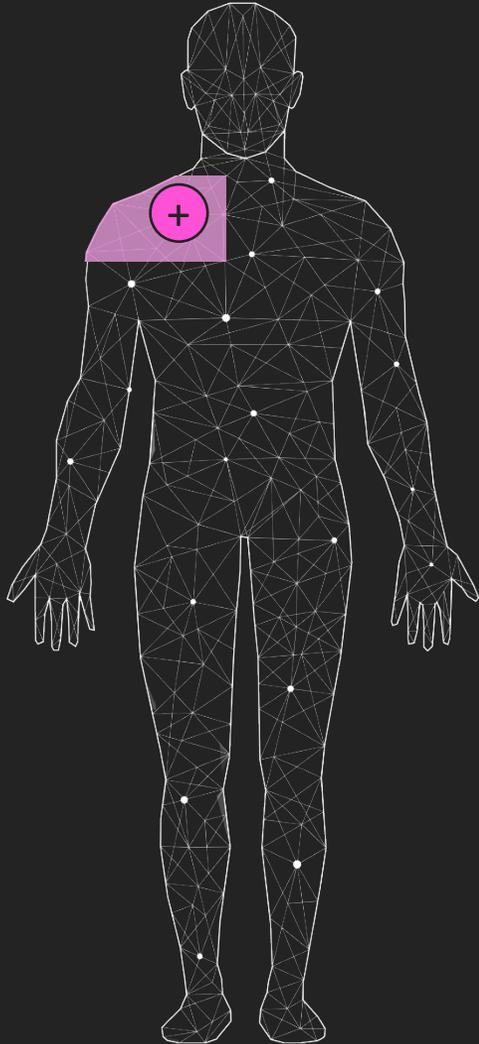


Surgery rates increased



More physical therapy -  
especially in claims  
without major surgery

# And More Shoulder Injuries Push Up Utilization per WC Claim



12% ↑ 14%

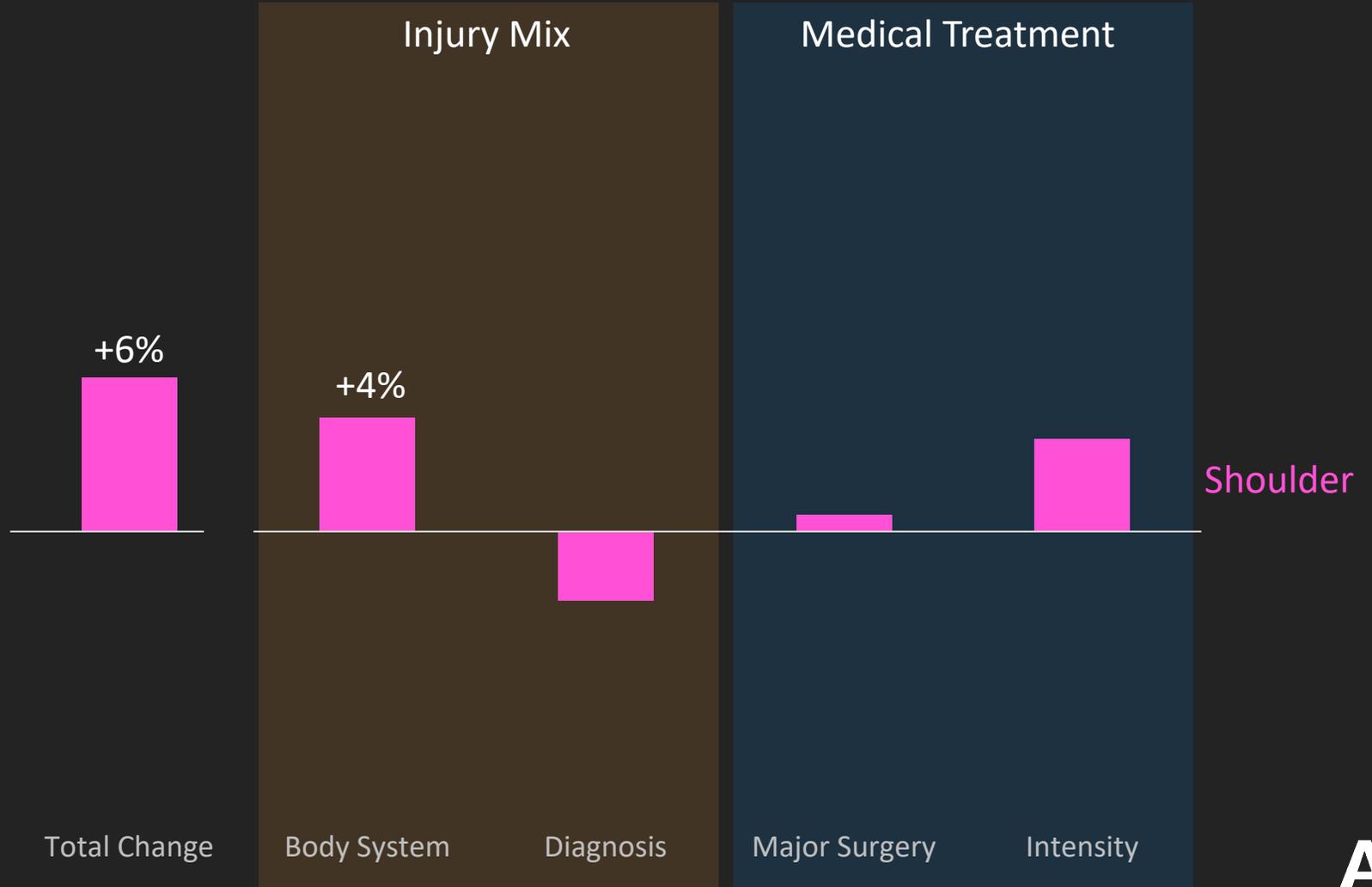
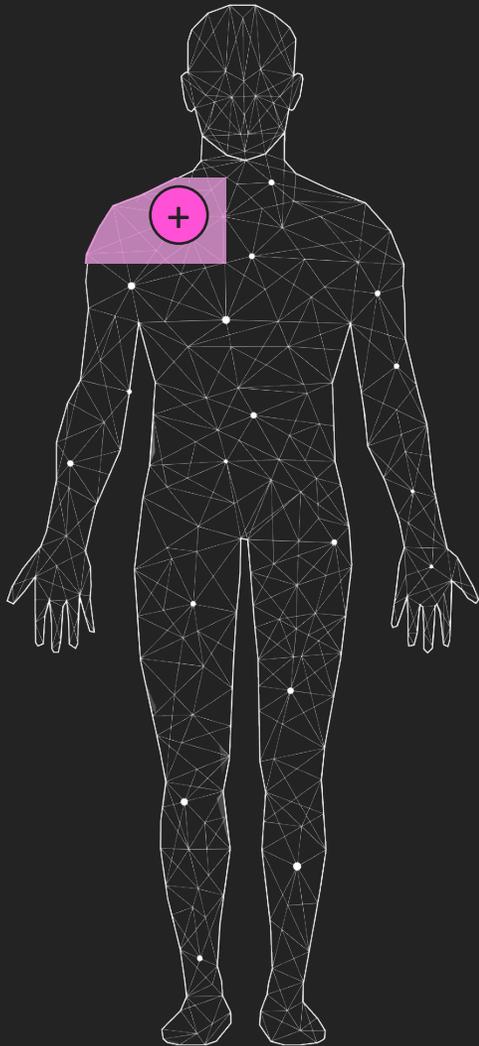
Shoulder  
Claim Share

+4%

Physician Utilization via  
Shoulder Claim Share

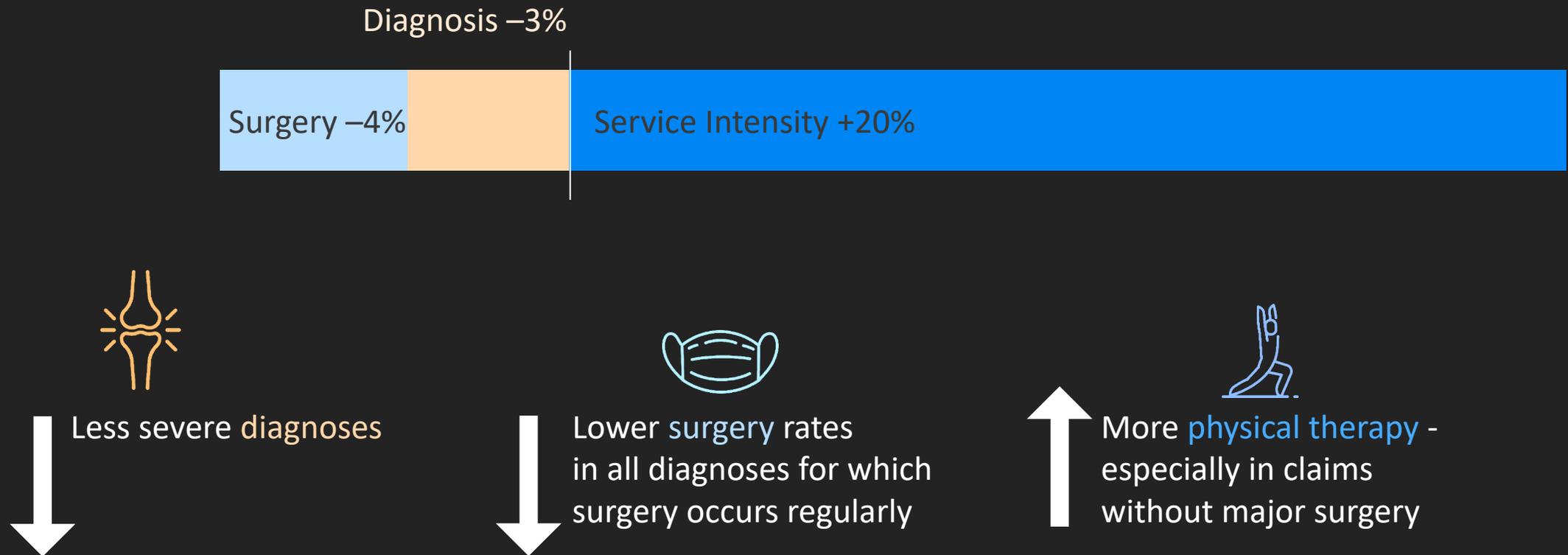
Source: NCCI's Medical Data Call

# Shoulder Injuries Contribute +6% to Utilization Change



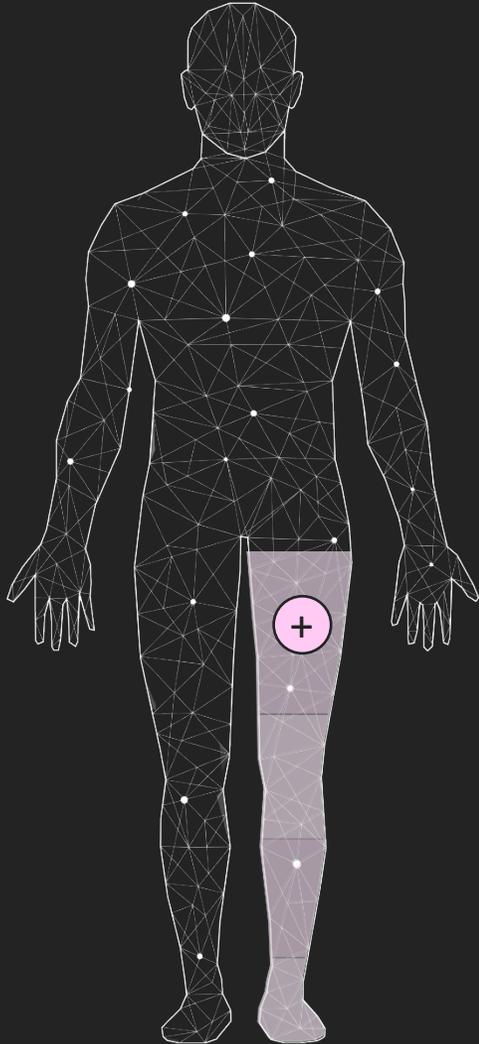
Source: NCCI's Medical Data Call

# Utilization of Physician Services per Leg Claim is Up +13%



Source: NCCI's Medical Data Call

# And More Leg Injuries Push Up Utilization per WC Claim



21% ↑ 25%

+3%

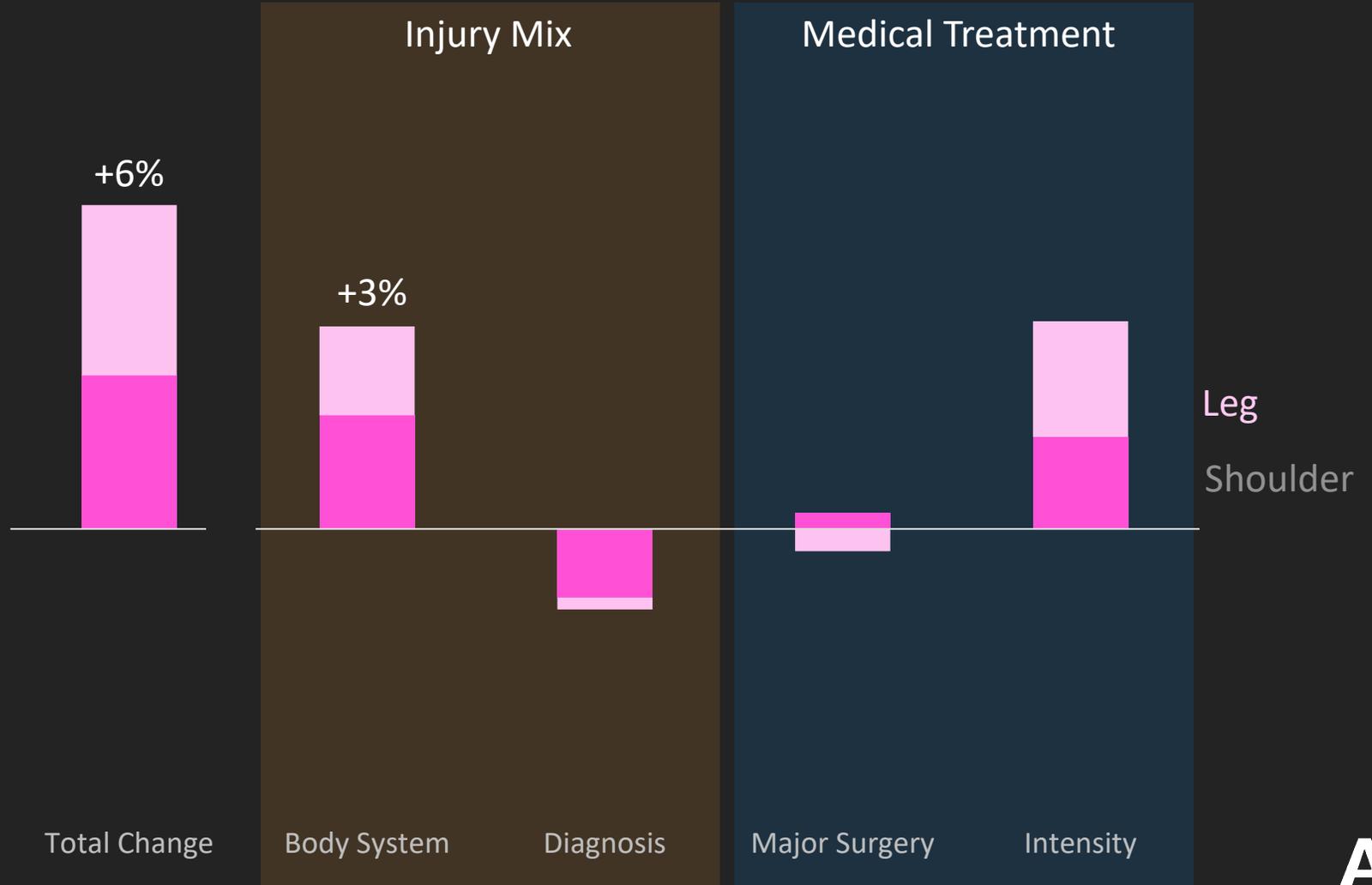
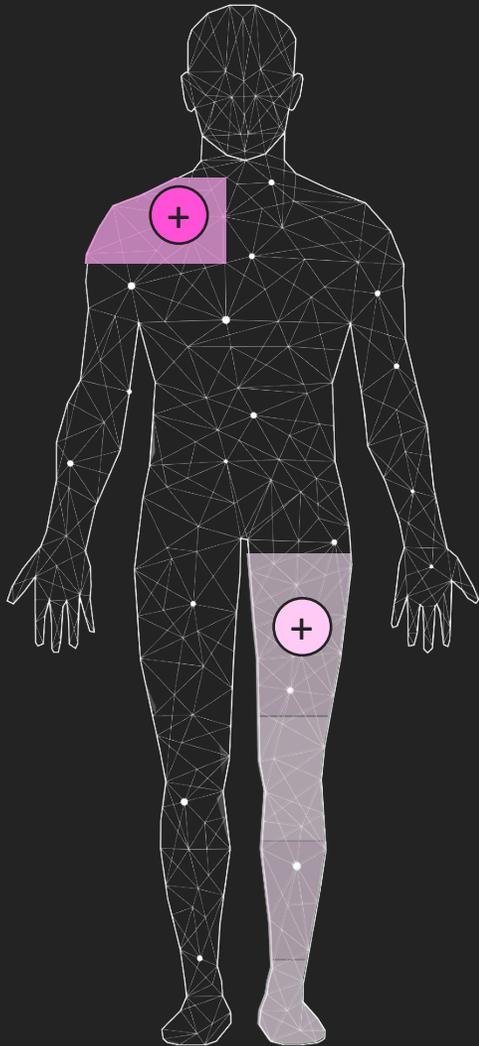
Leg  
Claim Share

Physician Utilization via  
Leg Claim Share

Source: NCCI's Medical Data Call

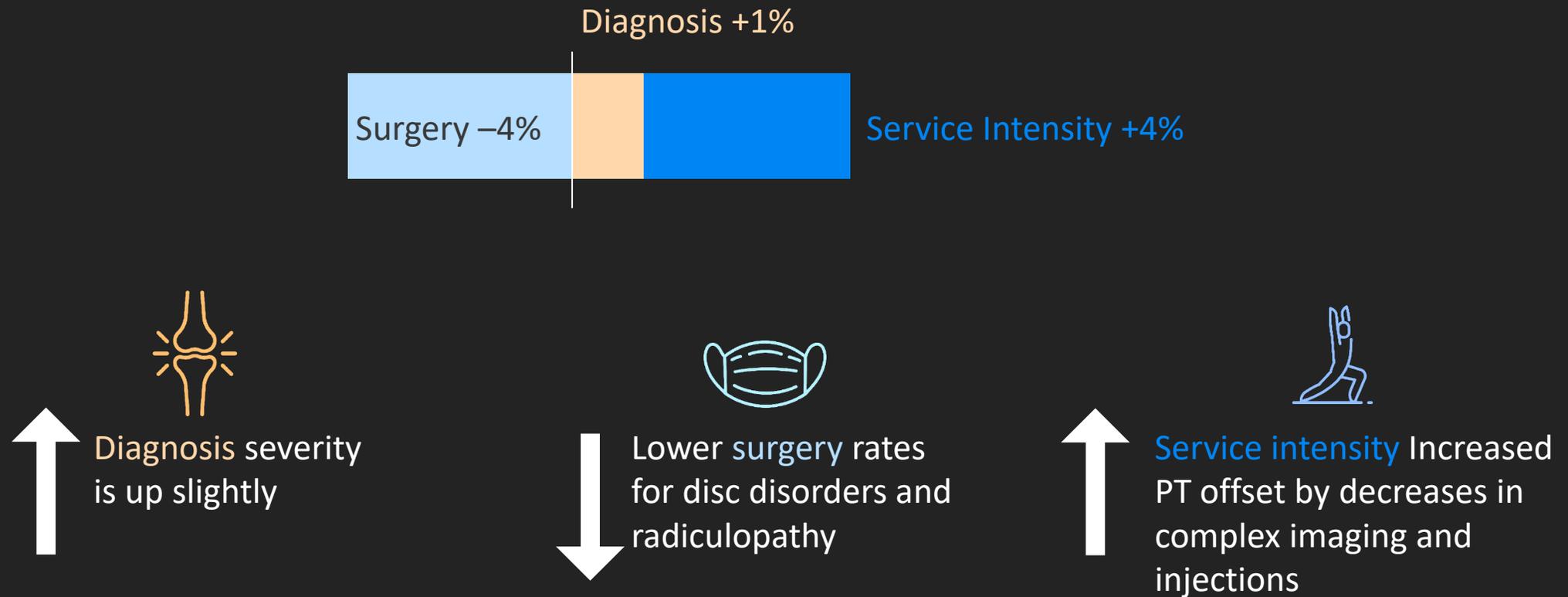
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# Leg Injuries Contribute +6% to Utilization Change



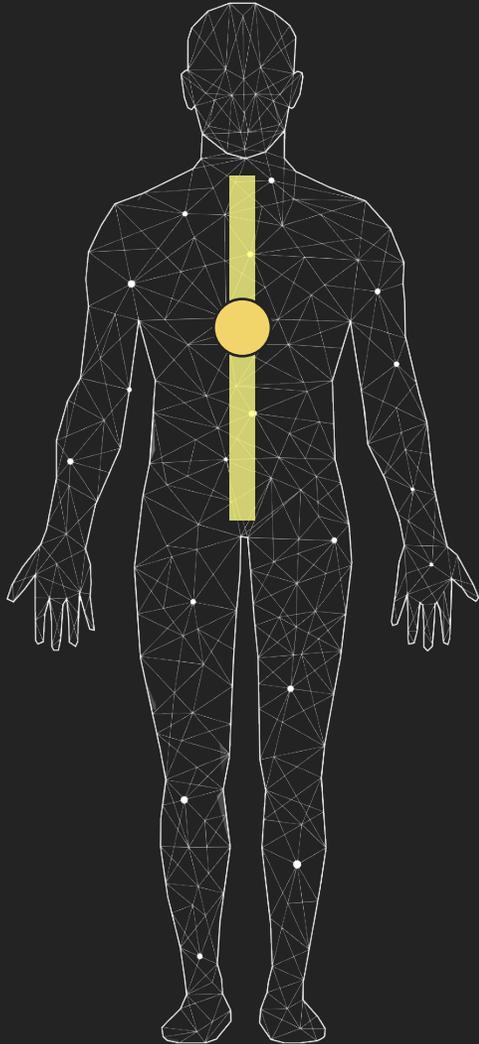
Source: NCCI's Medical Data Call

# Utilization of Physician Services per Back/Neck Claim is Up +1%



Source: NCCI's Medical Data Call

# And Fewer Back/Neck Injuries Push Down Utilization per WC Claim



24% ↓ 19%

-6%

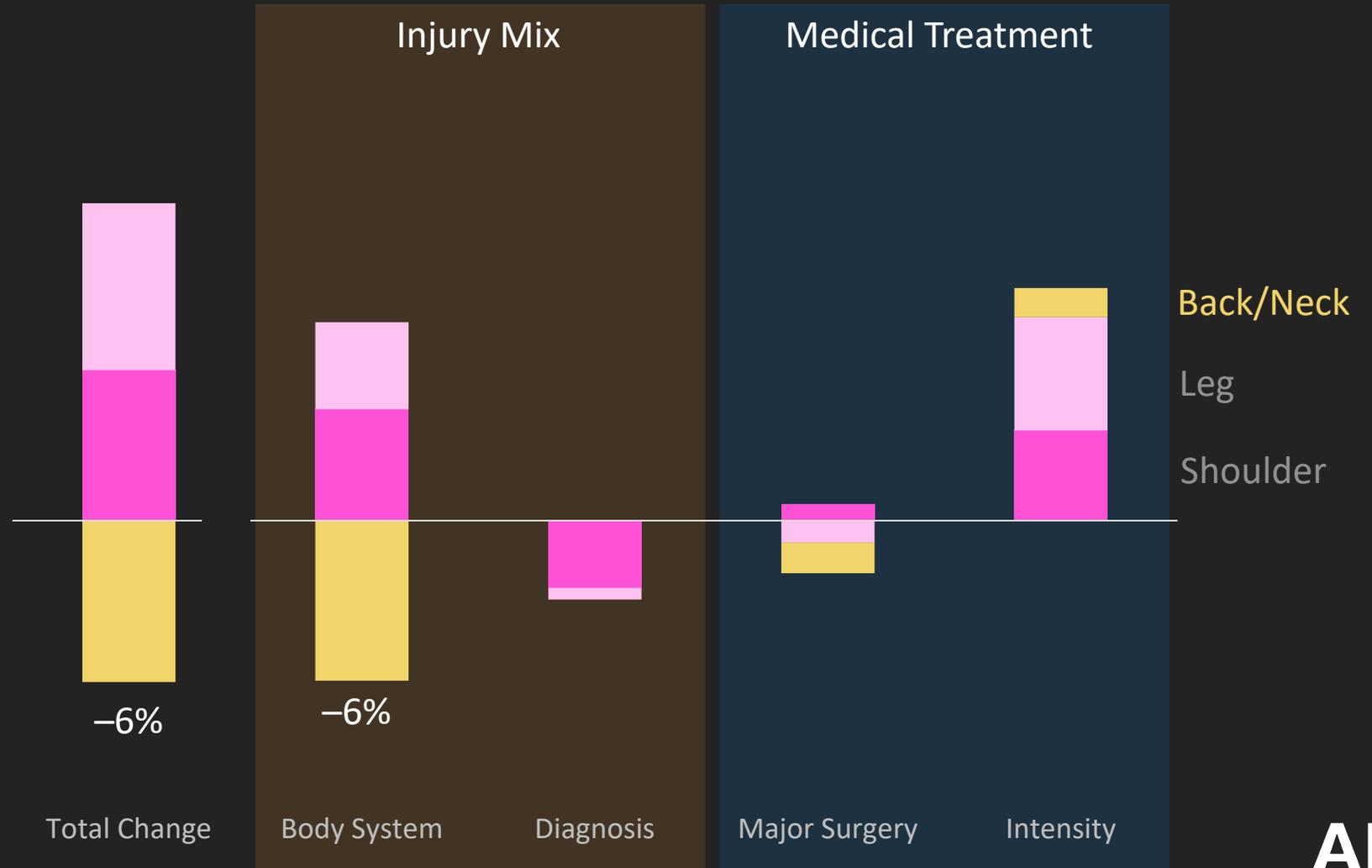
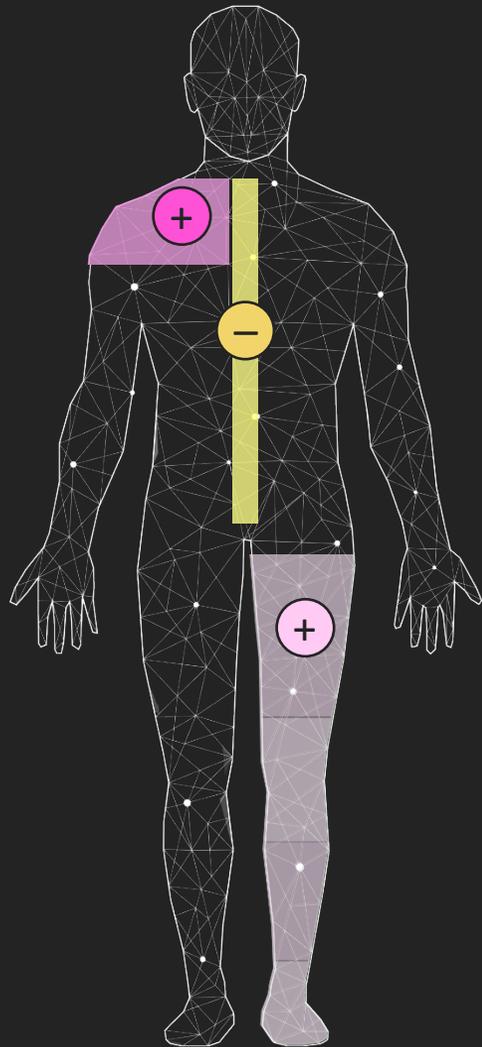
Back/Neck  
Claim Share

Physician Utilization via  
Back/Neck Claim Share

Source: NCCI's Medical Data Call

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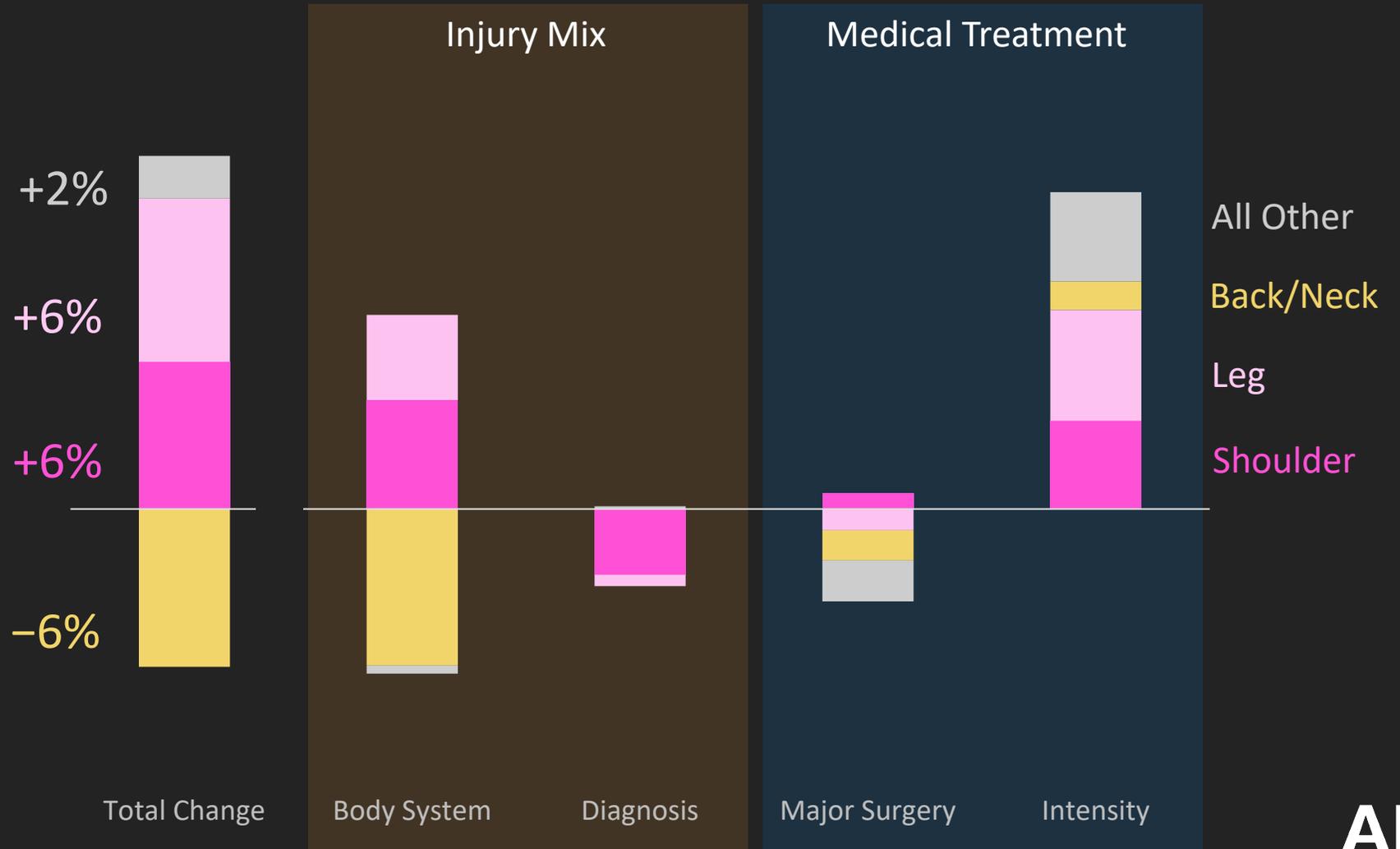
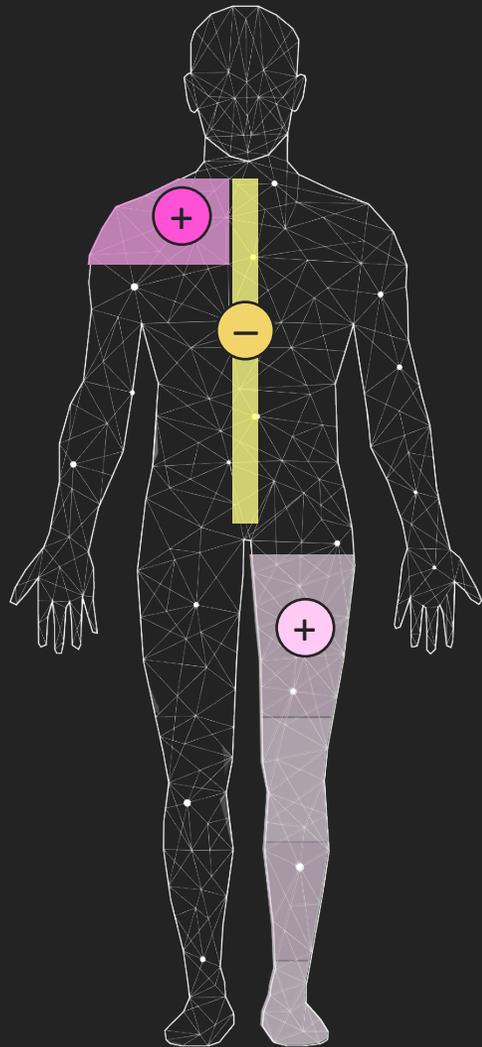
# Back/Neck Injuries Contribute -6% to Utilization Change



Source: NCCI's Medical Data Call

# Adding Up the Utilization Changes Across Body Systems

Calendar Year 2012 to 2022

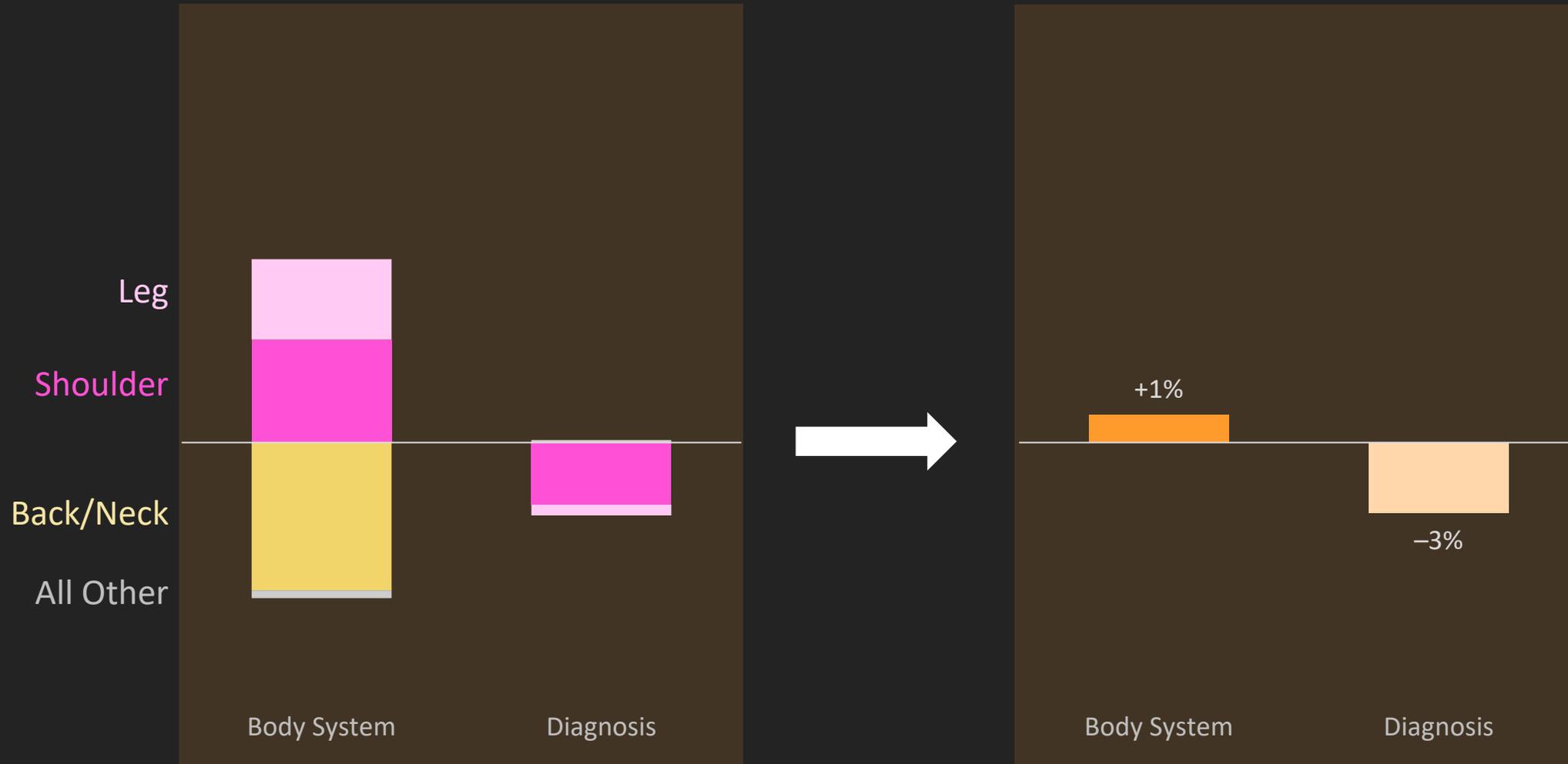


Source: NCCI's Medical Data Call

# Key Insights

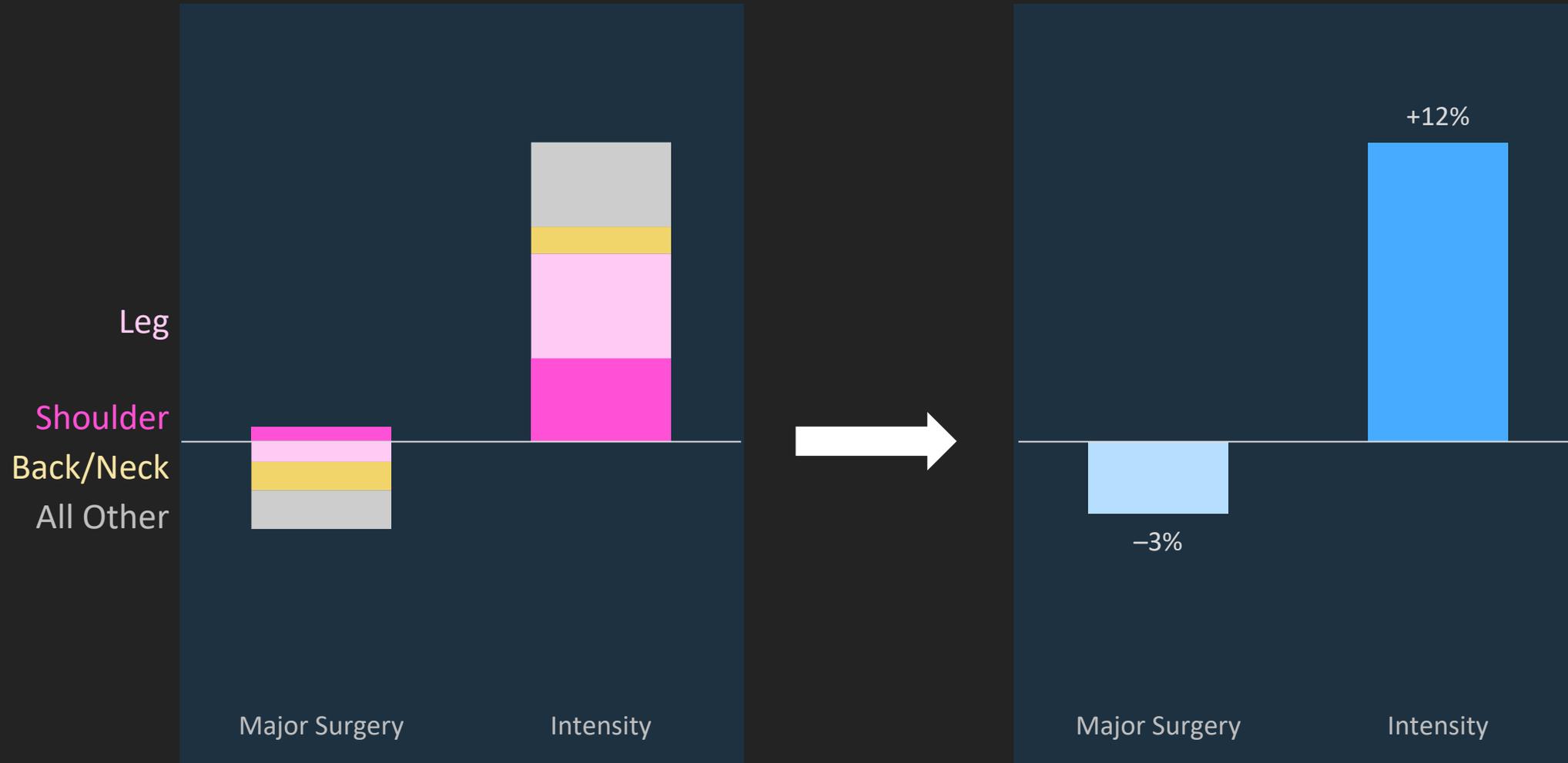


# Injury Mix Contributes -2% to Utilization Change per Claim



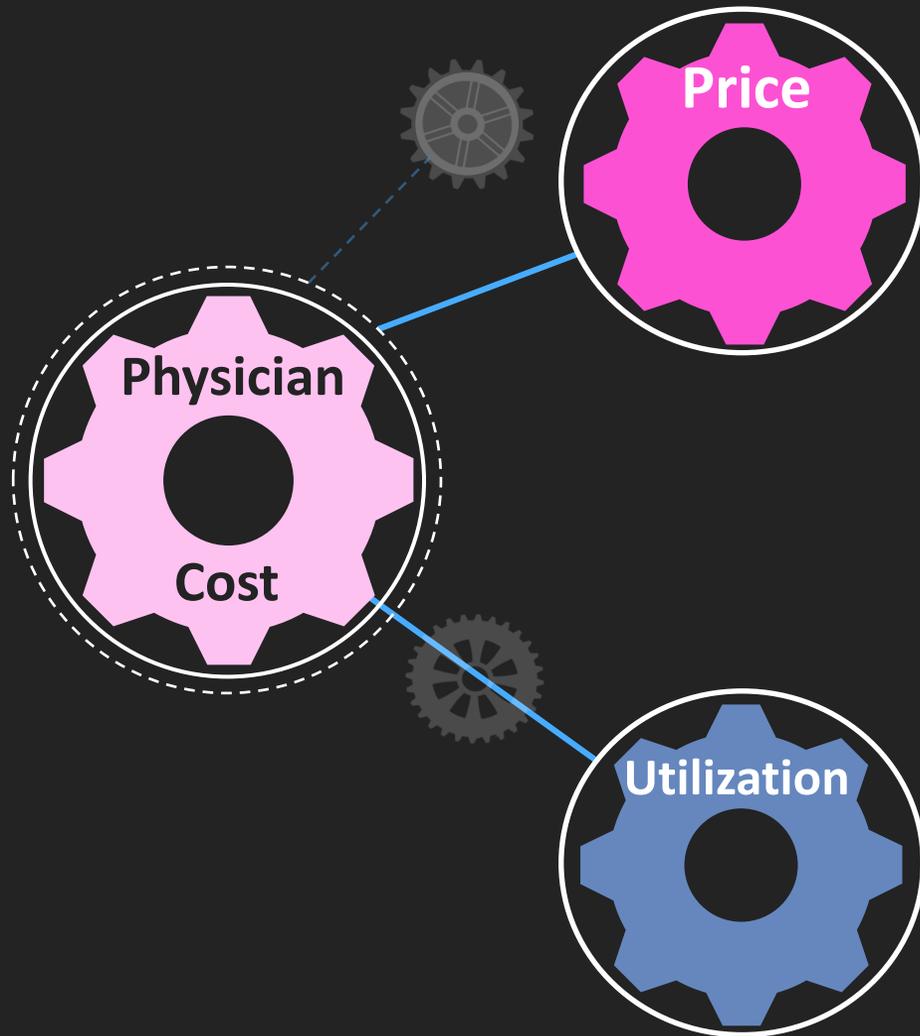
Source: NCCI's Medical Data Call

# Medical Treatment Contributes +9% to Utilization Change per Claim



Source: NCCI's Medical Data Call

# Utilization is a Key Driver of Physician Cost per Claim



**Physician Service  
Utilization**

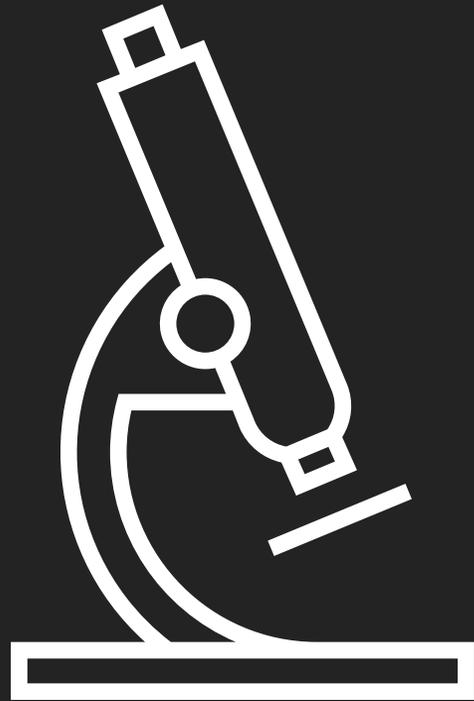
**+8%**

**from 2012 to 2022**

Source: NCCI's Medical Data Call

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# Deconstructing Medical Cost Drivers Provides Insight



## Injury Mix



Body System  
Diagnosis

## Medical Treatment



Service Intensity  
Surgery Rate