

INSURANCE PAYMENTS AND HOSPITAL COSTS AMONG PATIENTS
WITH ST-SEGMENT-ELEVATION MYOCARDIAL INFARCTION UNDERGOING
PERCUTANEOUS CORONARY INTERVENTION IN U.S. HOSPITALS

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INTRODUCTION

- Percutaneous coronary intervention (PCI) is the chosen procedure for treating ST-segment-elevation myocardial infarction (STEMI).¹
- The cost associated with PCIs is estimated at around \$10 billion annually.²
- U.S. healthcare market is complicated by multiple payors, various plan types and complex reimbursement formulas. Literature on the economic impact of PCI on hospitals is limited.

OBJECTIVE

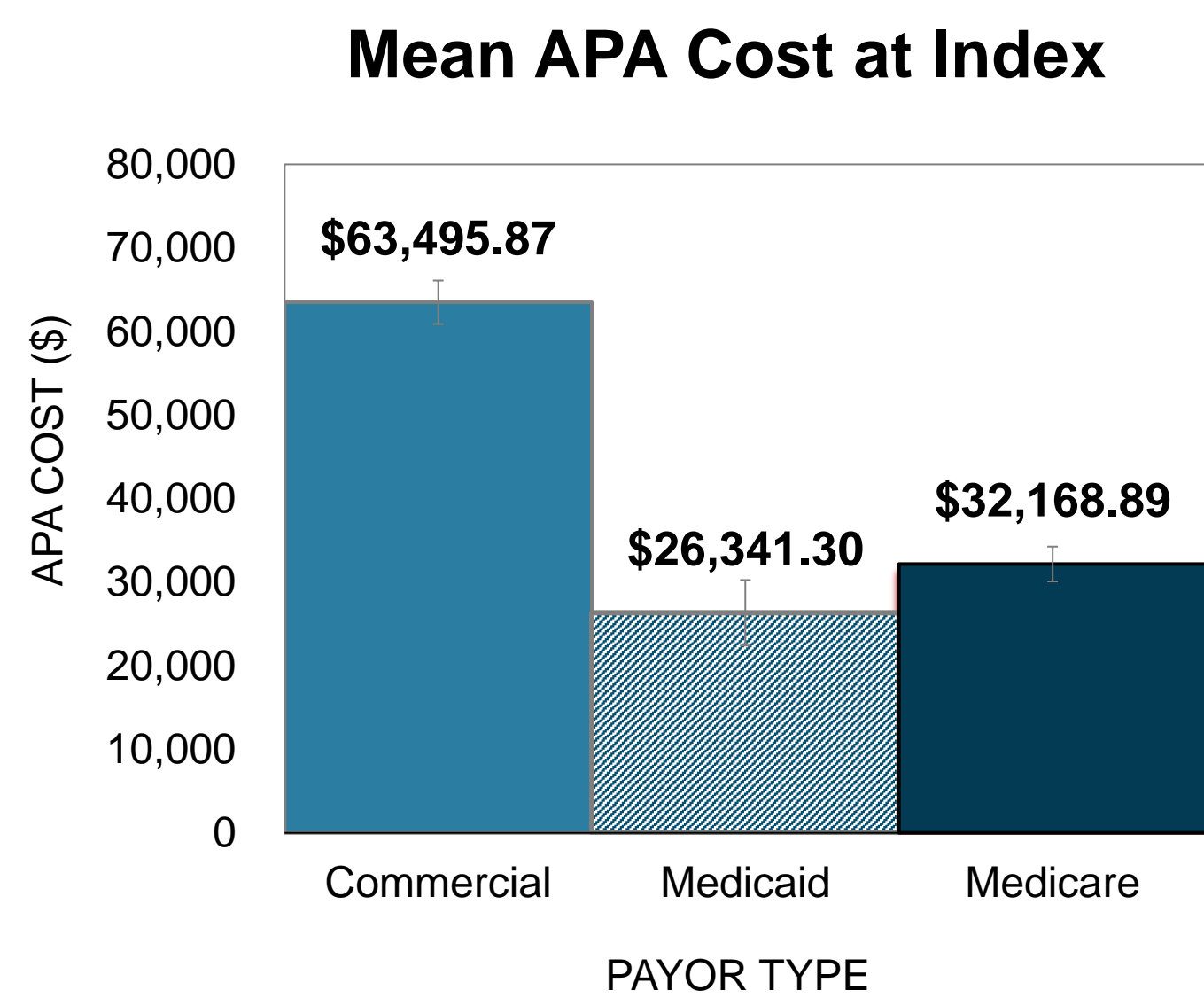
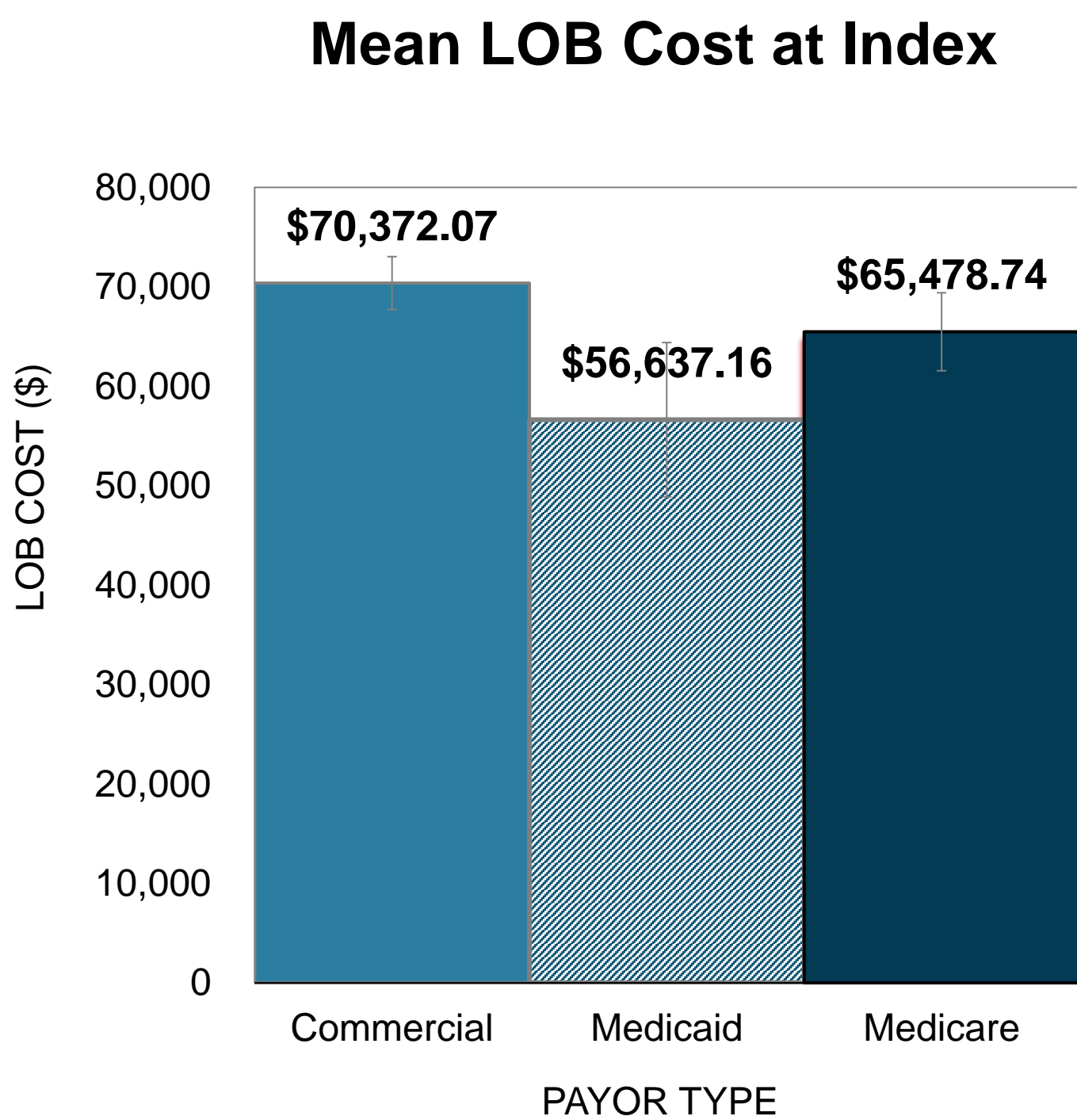
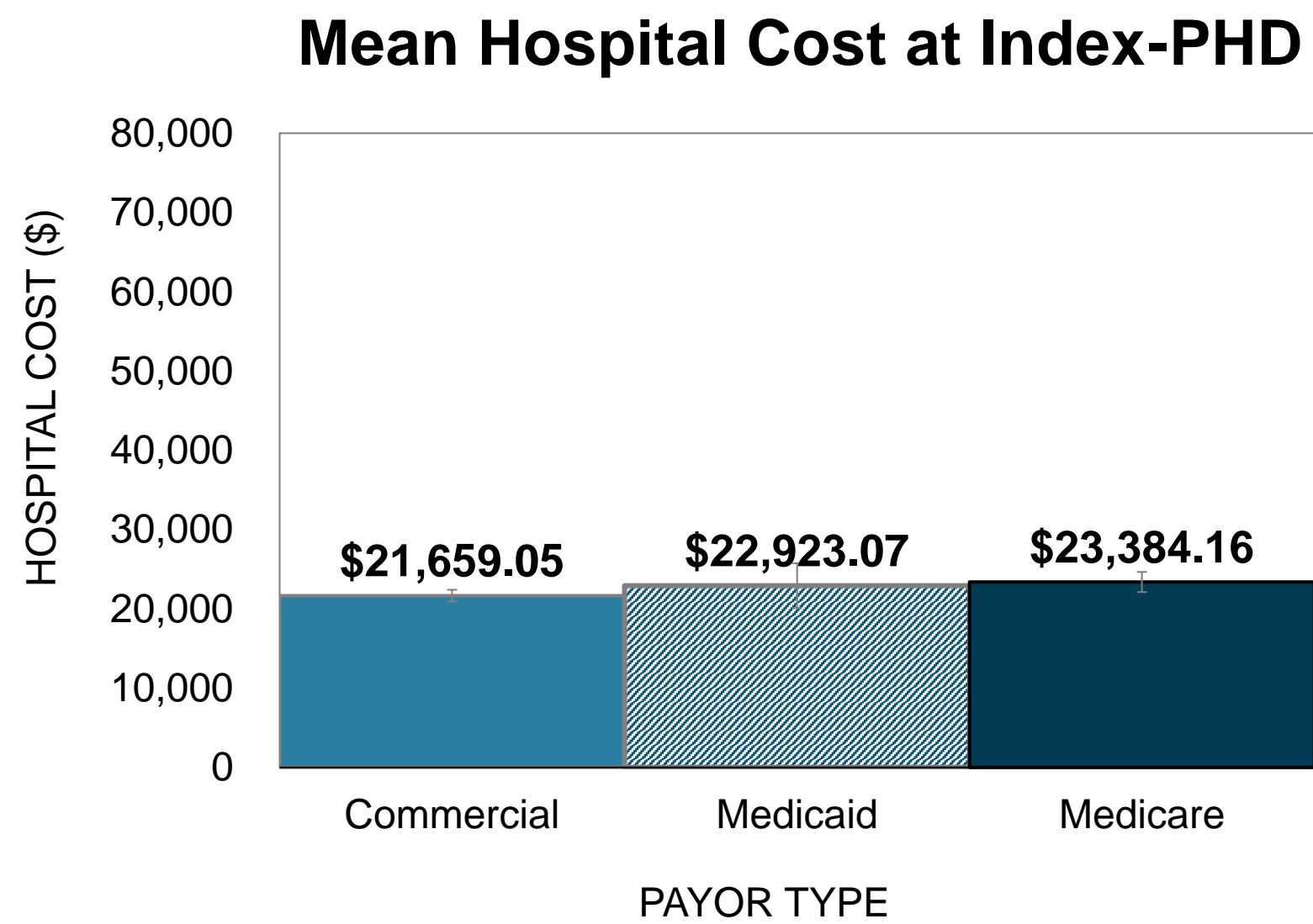
To assess hospital costs and insurance payments in patients with STEMI receiving PCI in inpatient setting.

METHODS

- **Study Design:** Retrospective study using real-world data
- **Data Sources:**
 - PINC AI™ Healthcare Database (PHD)
 - Linked closed claims database
- **Study Population:** Adult patients (≥18 years)
- **Setting:** Hospitalized patients undergoing PCI for STEMI during 1/1/2016-12/31/2021
- **Outcomes:** Insurance payments, hospital-reported service costs (inflation adjusted to 2022 \$) during index visit
- **Descriptive Analysis** examining allowed payment amount (APA) and line-of-business (LOB) adjusted amount from claims database and hospital service costs from PHD.

RESULTS

- A total of 2,941 adult inpatients in 352 hospitals undergoing PCI for STEMI met the selection criteria
- Mean Age: 60.0 years (SD:10.6), Male: 73.4%, Black race: 6.5%
- Primary Insurance: Commercial: 67.1%, Medicare: 27.3%, Medicaid: 5.6%
- Index Hospital Length of Stay: 23.7% stayed for >3 days, 6% had ≥4 comorbidities.



Variability in Median Cost and Payment
Among Patients Undergoing PCI for STEMI at Index
Visit, Total and by Primary Payor Type
(N = 2,941 patients)

MEDIAN (Q1, Q3)	CLAIMS-LOB ADJUSTED COST (\$)	CLAIMS-ALLOWED PAYMENT AMOUNT (\$)	PHD-INPATIENT HOSPITAL COST (\$)
Total	\$49,028 (31,860, 80,213)	\$38,229 (22,577, 66,551)	\$17,212 (12,838, 24,652)
Commercial	50,965 (34,160, 83,090)	49,428 (31,552, 78,030)	17,070 (12,962, 24,287)
Medicaid	35,820 (24,993, 56,695)	17,947 (10,239, 29,126)	16,954 (12,915, 23,113)
Medicare	41,986 (27,767, 78,261)	22,447 (16,632, 32,790)	17,700 (12,632, 26,008)

The median APA and LOB-adjusted amount varied across primary payors, while there was no significant difference in hospital cost by payor type.

CONCLUSIONS AND FUTURE RESEARCH

- This study linked payments and costs from different data sources.
- Assessed the financial impact of treating patients with STEMI on the hospitals.
- Hospital costs remain consistent across insurance payors.
- Hospitals received higher reimbursement from commercial insurance than Medicare/Medicaid.
- Further research on the potential impact on the quality of care for patients with public insurance is warranted.

REFERENCES

1. Go AS, Mozaffarian D, Roger VL, et al., <https://pubmed.ncbi.nlm.nih.gov/24352519/>
2. Amin AP, Patterson M, et al., <https://pubmed.ncbi.nlm.nih.gov/28231901/>

ACKNOWLEDGEMENT

All authors contributed to and approved the presentation.

Disclosures: All authors are employees of Premier Inc. This is an internally funded study.