

Trends of LOS, Mortality and Healthcare Costs in comparison with Colorectal cancer, Breast cancer and Lung cancer

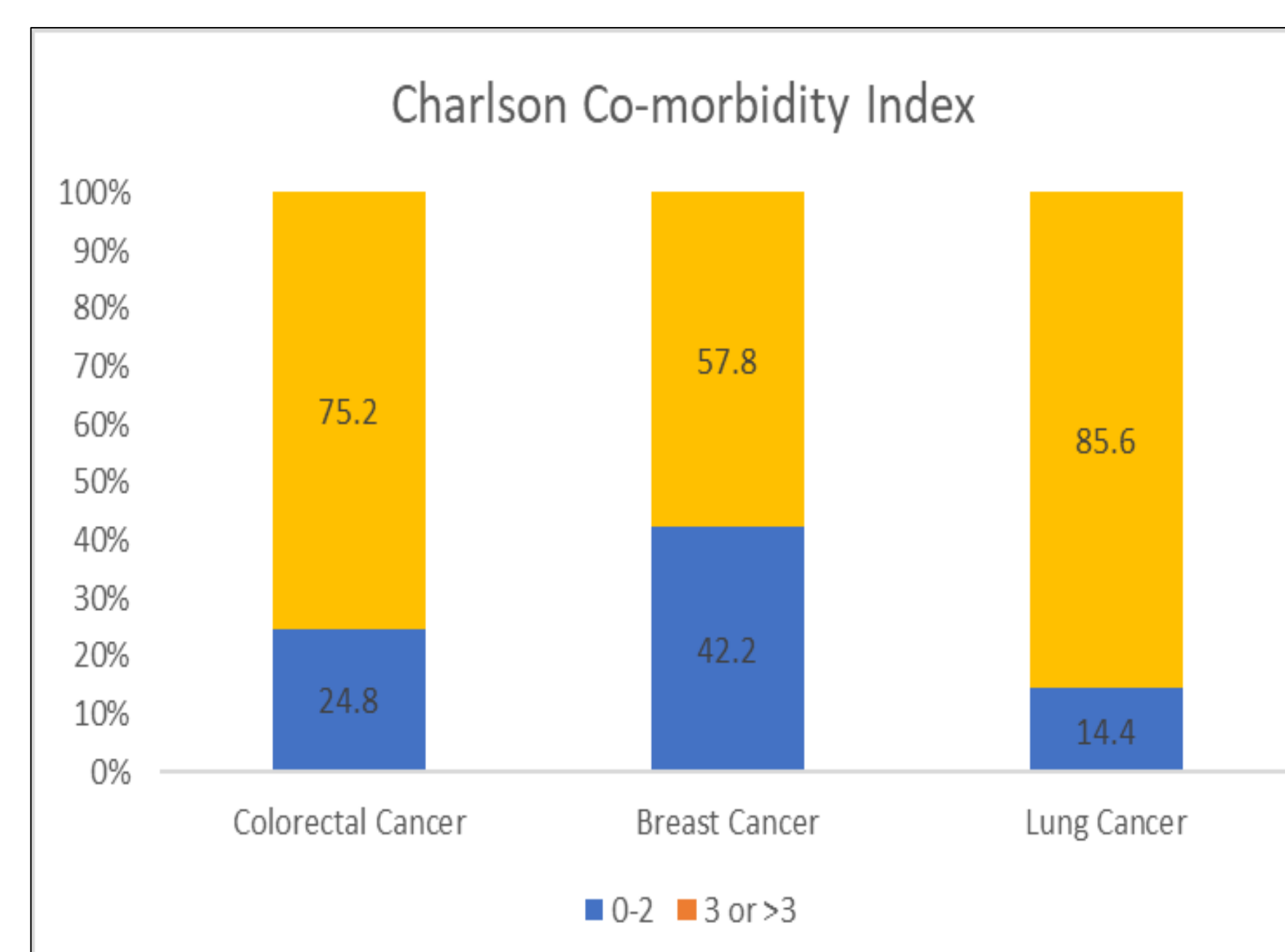
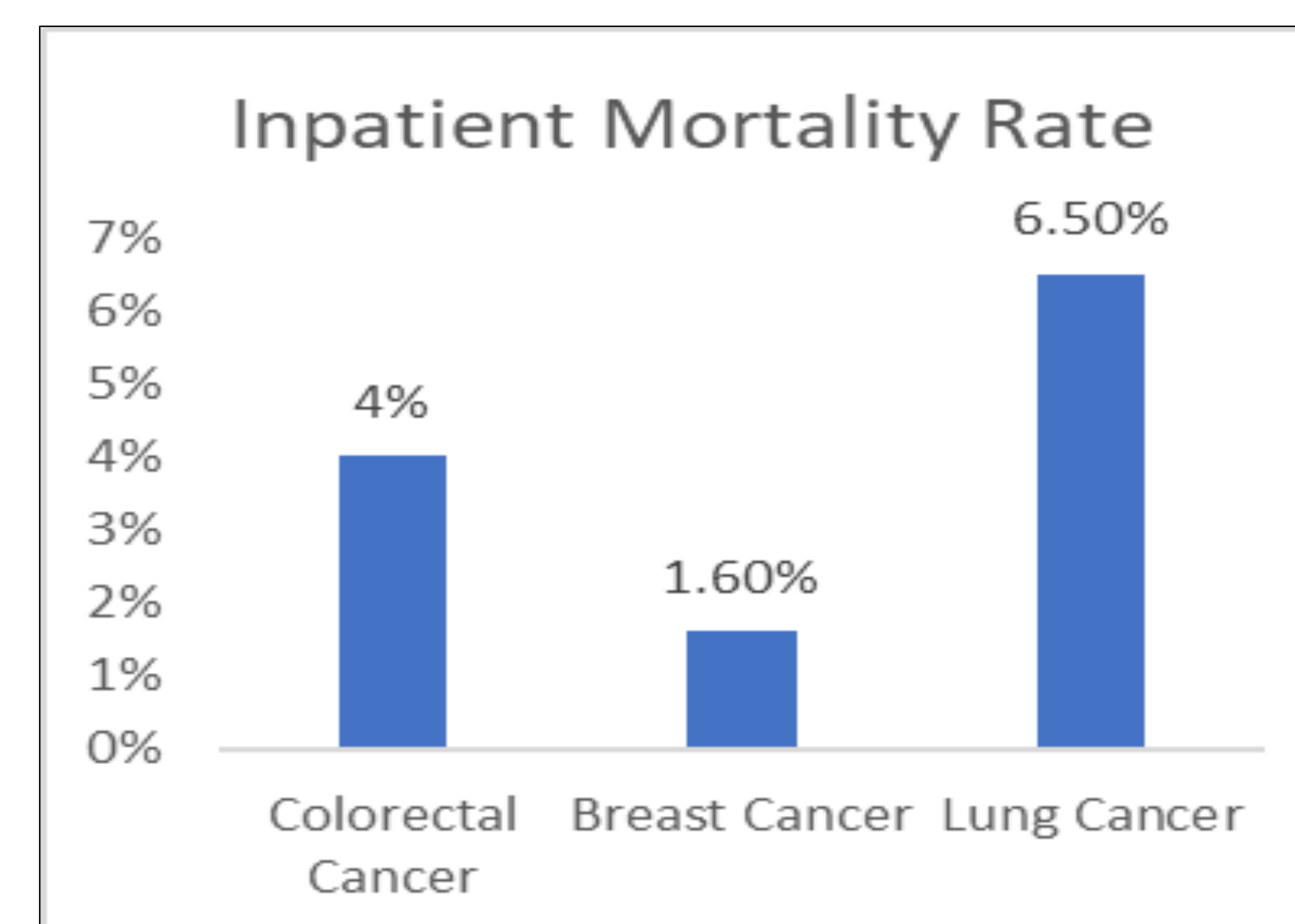
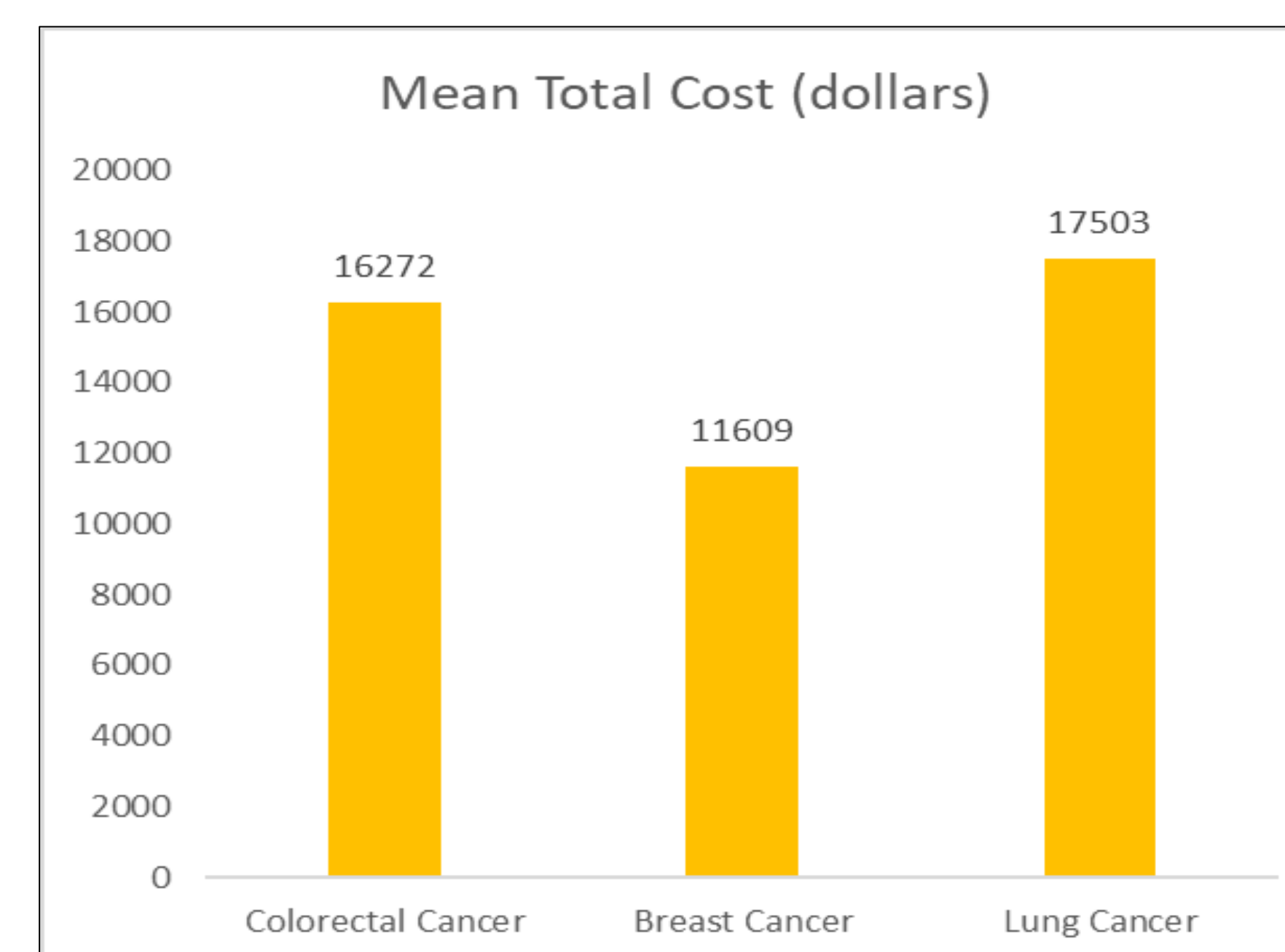
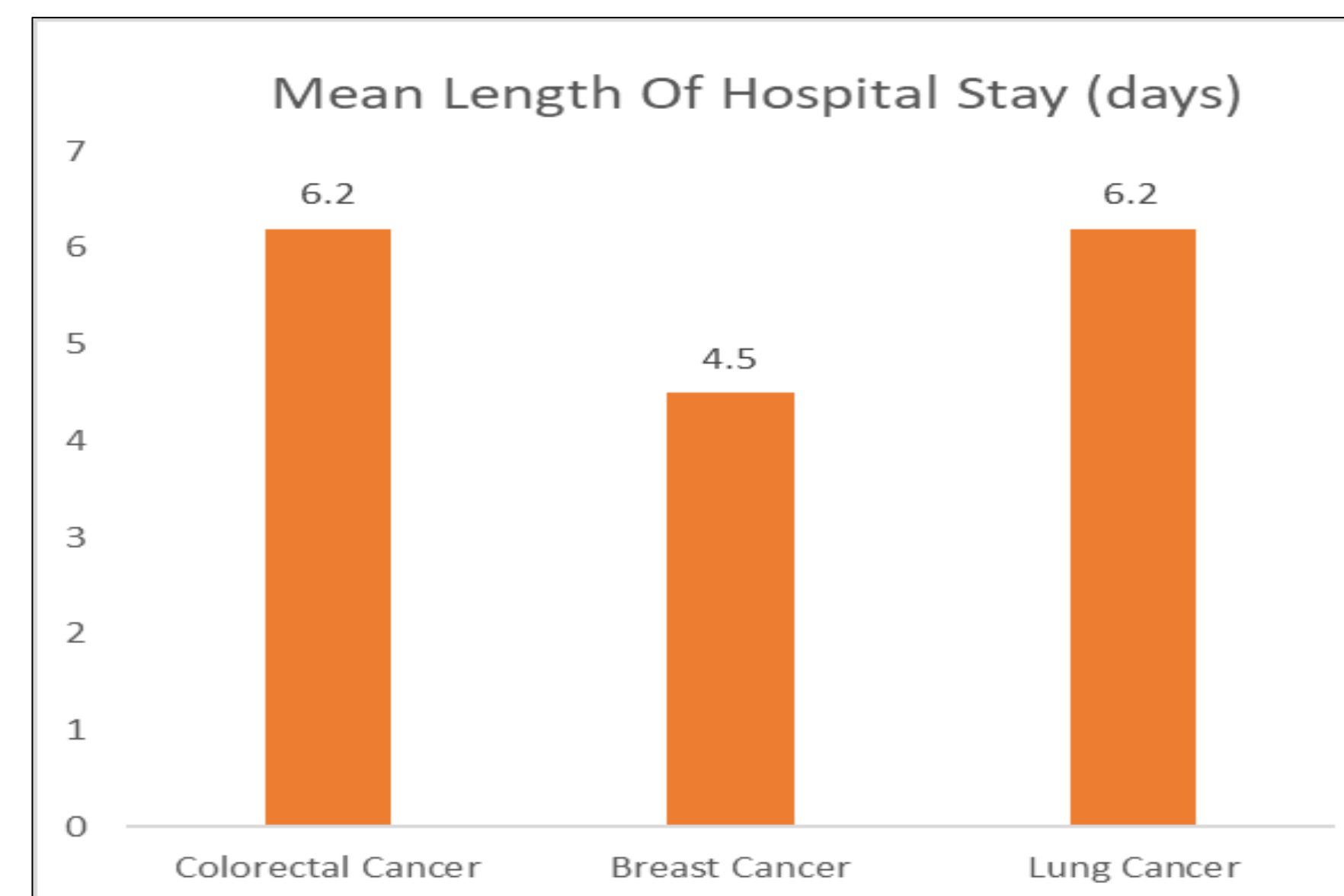
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Introduction

- Febrile neutropenia is a life-threatening side effect with the mortality of 5 to 11% and can exceed up to 50% in high-risk patients.
- It often requires inpatient hospitalization, change in chemotherapy which in turn leads to increased use of expensive health care, increasing the economic burden of the disease on the health care system.
- The objective is to evaluate its effect on length of stay, mortality, health care costs involved with colon cancer in comparison with lung and breast cancer due to its increasing clinical and economic burden. It also involves modifications in the chemotherapy regimen.

Methods

- Retrospective study was conducted in adults >18 years using the Nationwide Inpatient Sample database from 2016 to 2019 with the admitting diagnosis of Febrile Neutropenia in hospitalized patients with colorectal, breast and lung cancer using the ICD 9 and ICD 10 codes.
- Study was focused on its effect on mortality, length of stay, co-morbidities, insurance status and health care costs involved based on the cancer type.
- The outcome was analyzed using multivariate logistic regression analysis and statistical analysis was done using STATA



Results and Conclusion

- Increase in mean length of stay was observed in colorectal cancer compared to breast cancer and increased health care costs for colorectal cancer was also observed despite its lower incidence than breast and lung cancer.
- Odds ratio of in-patient mortality for lung cancer compared to colorectal cancer is 1.10 (with the p-value of 0.020 and confidence interval of 1.01 to 1.20), breast cancer in comparison to colorectal cancer is 0.67 (with p-value of <0.001 and confidence interval of 0.59 to 0.75) and lung cancer in comparison to breast cancer is 0.99 (with p-value 0.84 and confidence interval of 0.90 to 1.08).
- Charlson Co-morbidity index was >3 in 75% in colorectal cancer whereas it is >3 in 58% and 85% in breast and lung cancer population respectively.

In-patient mortality	Odds ratio	P value	95% CI
Breast Ca. comparison to Colorectal Ca	0.67	<0.001	0.59-0.75
Lung Ca comparison to Colorectal Ca	1.10	0.020	1.01-1.20
Lung Ca Comparison to Breast Ca	0.99	0.84	0.90-1.08

References

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