

Analyzing MHS's Acquisition of Omega Hospital: Impact on Cardiac and Orthopedic Services in Healthcare.

Preksha Shah (prekshah)
Dewaki Dhimal (ddhimal)
Antonio Parks (antonipa)
Danting Gan (dtgan)
Annie Kwon (aakwon)

Executive Summary

MHS's acquisition of Omega Hospital and the subsequent analysis of historical utilization and intensity patterns have revealed the advantages and disadvantages of signing risk contracts with two physician groups for a joint venture. The analysis focused on patient population and facility services, particularly Cardiac and Orthopedic services, which were found to be crucial in reducing the burden on the healthcare system, improving patient outcomes, and promoting overall community health and well-being.

The demographic analysis showed that most cardiac and orthopedic patients were White, and male patients were more commonly admitted. Cardiac patients had an average length of stay (LOS) of 4.90 days, while orthopedic patients had an average LOS of 6.46 days. The intensity of care was also considered, with patients traveling long distances to receive cardiac and orthopedic services, indicating that they believe these services provide the best care. Furthermore, both services have moderately low average death rates, with shorter ICU stays, and lower charge rates, making them more appealing to patients.

Financial statistics were also assessed, with Cardiology generating higher earnings than Orthopedics. The hospital should optimize care, place the patient at the center of their experience, and raise patient satisfaction by reducing their length of stay. Private insurance generates more revenue than Medicare, and Cardiology and Orthopedics have a higher Medicare payer mix. Cardiology services are projected to create greater profits than Orthopedic services due to higher service consumption and admission rates.

The data analysis had several nuances that can impact the conclusions drawn, including utilizing the DRG table to determine the affiliated service for records with missing information and the omission of records with an input value of 65535 for distance traveled. The accuracy of the analysis could be improved by addressing these nuances.

Based on the data analysis, it is recommended that Omega Hospital continue investing in cardiac and orthopedic services. Cardiac services are crucial due to the high prevalence of cardiovascular diseases, which are among the leading causes of death and disability globally. Orthopedic services address various musculoskeletal disorders, injuries, and degenerative diseases that can significantly impact an individual's quality of life and mobility. With an aging population and an increase in sports-related injuries, the demand for orthopedic services is on the rise.

In conclusion, MHS's acquisition of Omega Hospital and subsequent analysis using database and visualization tools has provided valuable insights into the advantages and disadvantages of signing risk contracts with two physician groups for a joint venture. The analysis highlighted the importance of cardiac and orthopedic services in reducing the burden on the healthcare system, improving patient outcomes, and promoting overall community health and well-being.

Assessment of the Overall Patient Population and Current Facility Services

The assessment of the patient population and current facility services analyzed both cardiac and orthopedic services. Cardiac services accounted for 17.52% of patient admissions, with the top conditions being Intermediate Coronary Syndrome, Congestive Heart Failure, and Coronary Atherosclerosis. Orthopedic services constituted 7.15% of patient admissions, with the most common conditions being Lumbar Disc Displacement,

Intertrochanteric Fracture-Closed, and Secondary Malignant Neoplasm of Bone. Cardiology admitted the highest percentage of patients by service, while orthopedics ranked fourth among all services. The average age of patients for cardiology was 64.24 years, and 49.72 years for orthopedic patients (see Figure 1.6). Cardiology ranked fourth among all services regarding average patient age, while orthopedic ranked twelfth.

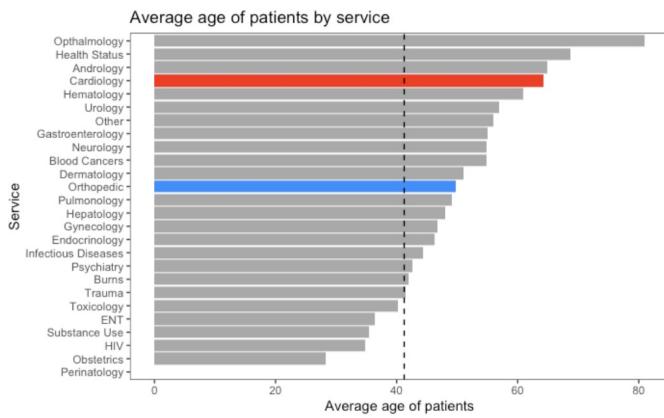


Figure 1.6

On average, cardiology patients traveled slightly farther, 28.30 miles, than orthopedic patients, 26.11 miles, to reach the Omega facility. Further analysis of admission and discharge data revealed that most cardiac and orthopedic patients were admitted and discharged under Internal Medicine and General Surgery, respectively. The disposition of patients showed that the majority were discharged to home/routine, with a small percentage requiring home health care or hospice care and an even smaller percentage passing away (see Figure 1.23).

The length of stay (LOS) data showed that cardiac patients had a slightly shorter average LOS than orthopedic patients, indicating the facility's efficiency in treating and discharging patients within a reasonable time frame (see Figure 1.25).

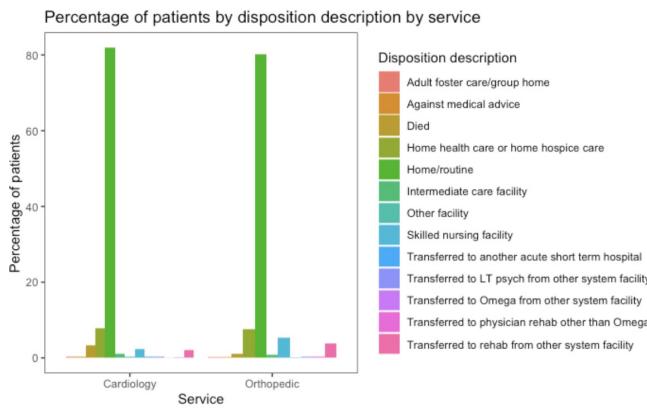


Figure 1.23

Cardiac and orthopedic services are essential components of a comprehensive healthcare system. Cardiac services are vital due to the high prevalence of cardiovascular diseases, which are among the leading causes of death and disability globally. These services play a significant role in diagnosing, managing, and treating various cardiac conditions. Timely access to quality cardiac care can help prevent complications, improve patient outcomes, and reduce healthcare costs.

Orthopedic services address various musculoskeletal disorders, injuries, and degenerative diseases that can significantly impact an individual's quality of life and mobility. With an aging population and an increase in sports-related injuries, the demand for orthopedic services is on the rise. These services encompass the diagnosis, treatment, and rehabilitation of conditions affecting bones, joints, muscles, tendons, and ligaments, ensuring patients can regain function and maintain an active lifestyle.

Investing in these services helps reduce the burden on the healthcare system, enhances patient outcomes, and promotes overall community health and well-being. Thus,

it is crucial to continue to assess the importance of cardiac and orthopedic services to ensure that patients receive the best possible care.

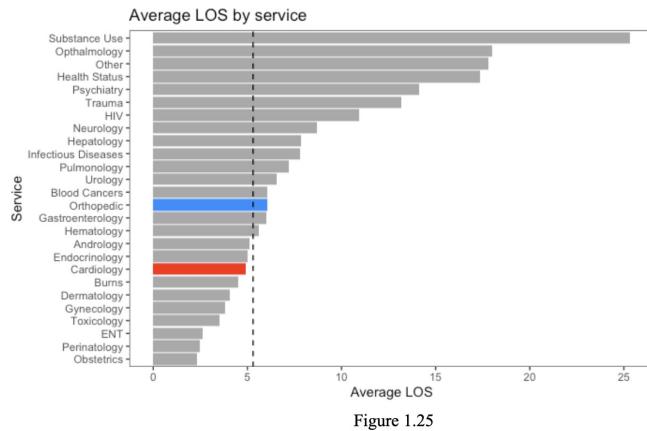
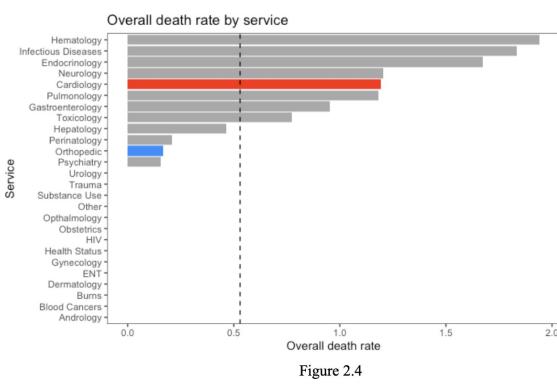
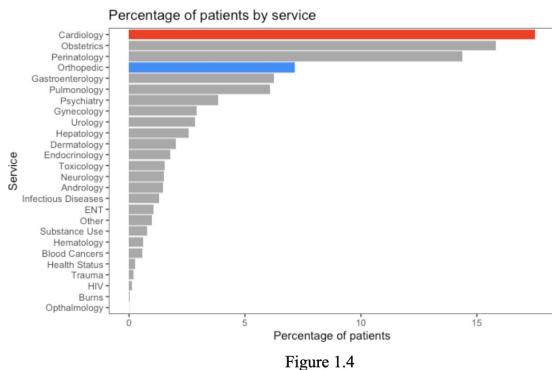
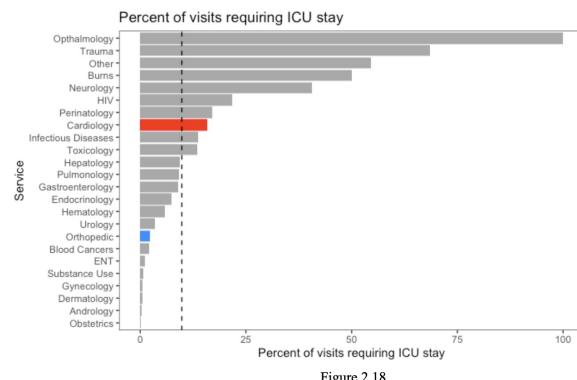


Figure 1.25

Intensity/Utilization Indicators



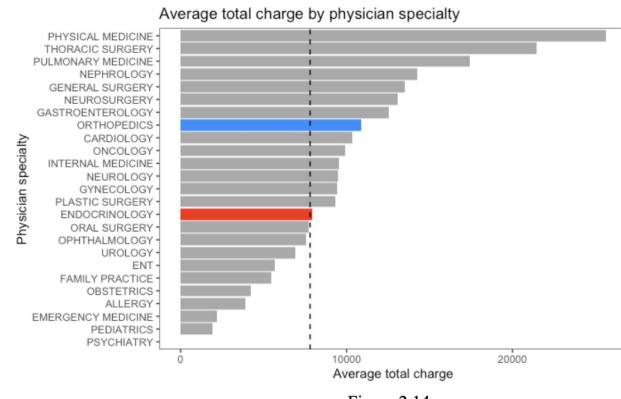
Furthermore, both cardiac and orthopedic services rank outside the top five services in terms of charging their patients, which is surprising given the precision and detail required for cardiac services (see Figure 2.14). In particular, the figure reveals that cardiac services are not the most expensive despite being considered a dangerous service, indicating that the cost is not a prohibitive factor for patients seeking this service.



Overall, based on the intensity of care and the statistics, it is reasonable to argue for continuing both orthopedic and cardiac services. The statistics reveal that patients perceive these services to offer the best care, and their death rates and charges are relatively low compared to other services.

The intensity of care is a crucial factor in determining whether a hospital should maintain or adjust a particular service. Upon analyzing the data frame, it is evident that cardiac and orthopedic services rank among the top ten services in terms of distance traveled for care (see Figure 1.4). This statistic highlights the importance of these services and suggests that patients perceive them to offer the best care, making them willing to travel long distances to receive treatment.

Additionally, when looking at the overall death rate as presented in the figure, orthopedic services rank near the bottom, while cardiac services rank in the middle of the pack (see Figure 2.4). Although these statistics only favor orthopedic services, they also demonstrate the strength of cardiac services. Given that any treatment related to the heart can be precarious, the fact that cardiac services lie towards the middle of the death rate ranking implies that the average death rate of an individual seeking this service is moderately low.



Lastly, concerning hospital stays that require ICU care, cardiac services rank at number 8, while orthopedic services rank at number 17 (see Figure 2.18). This statistic suggests that patients are likely to receive care in the ICU but that their stay will not be long. This finding corresponds with the lower charge rates for both services, indicating that patients are willing to travel long distances to receive intensive care at a lower cost.

Financial Viability

Financial statistics play a crucial role in acquisition decisions as they help assess the resources needed to increase profitability. Comparing the profitability of different services, we find that Cardiology generates higher earnings than Orthopedics (see Figure 3.1 & 3.2). However, the latter has a large patient population and longer length of stay (LOS) outlier rates, leading to increased resource utilization and decreased revenue. To optimize patient care and satisfaction, we need to realign our objectives and focus on reducing LOS, which can attract value-based payments and enhance the patient experience.

Service	Profitability (\$)
Cardiology	377.63
Orthopedic	-235.56

Figure 3.1

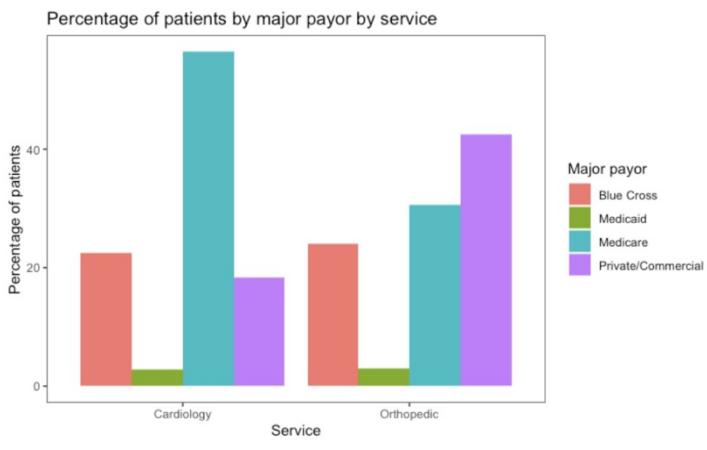


Figure 3.8

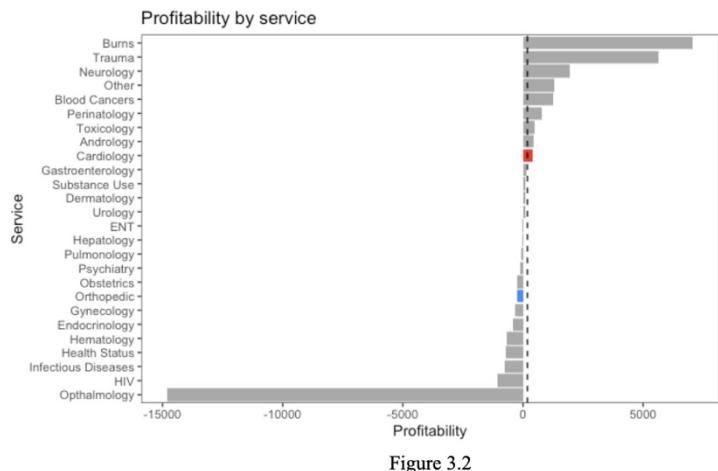


Figure 3.2

Another important factor to consider is the payer mix. Commercial/ private insurance payers pay more and generate more revenue when compared to payments from Medicare (Lopez et al., 2020). Cardiology and orthopedics have a higher Medicare payer mix than other services, which are more dependent on private insurance, according to data visualization (see Figure 3.8). By working with private insurers or specializing in services that private insurers more heavily cover,

we can attract more patients with private insurance in this area.

Cardiology offers additional emergency care, which enhances its capacity and professionalism, while Orthopedics is more focused on elective care and cheaper therapy. Based on our research on service distribution and future utilization projections, Cardiology services could potentially create greater profits than Orthopedic services due to higher service consumption and admission rates.

Validity and Scope of Analysis

It is essential to acknowledge that our analysis has some nuances that affect the validity and scope of our conclusions. One of the nuances in our database is that some patients have multiple records, which correspond to unique admission and discharge dates. To account for this, we considered a unique set of patient numbers, admission dates, and discharge dates as one patient. Thus, a patient with X unique admissions/discharge dates is counted X times in our analysis.

Another aspect to consider is the missing service information in 1070 records. While this missing information could limit the accuracy of our analysis, it can also provide more insight into the characteristics of Cardiology

and Orthopedic services relative to others. To determine the service affiliation of a record, we utilized the DRG table. However, some drugs were associated with two services, including Neurology and another service. In such cases, we considered the other service as the one affiliated with the record.

When analyzing the diagnoses and operations of patients, we took the principal diagnosis and operation for patients with multiple encounters. This method may not reflect the complete diagnosis and operation history of such patients. Similarly, we omitted records with 65535 as the input value when analyzing the distance traveled to Omega. This decision assumed that the input value was either invalid or missing data. If the omitted information is missing data, it may improve the accuracy of our analysis if added.

Overall, it is crucial to consider these nuances in our analysis when interpreting our conclusions. While they may limit the scope and validity of our findings to some extent, they provide a more accurate assessment of the characteristics of Cardiology and Orthopedic services relative to other services.

Conclusion

Based on the given information, Omega Hospital should continue investing in cardiac and orthopedic services. Cardiac services are vital due to the high prevalence of cardiovascular diseases, which are among the leading causes of death and disability globally. Timely access to quality cardiac care can help prevent complications, improve patient outcomes, and reduce healthcare costs. Orthopedic services address various musculoskeletal disorders, injuries, and degenerative diseases that can significantly impact an individual's quality of life and mobility. With an aging population and an increase in sports-related injuries, the demand for orthopedic services is on the rise. These services encompass the diagnosis, treatment, and rehabilitation of conditions affecting bones, joints, muscles, tendons, and ligaments, ensuring patients can regain function and maintain an active lifestyle.

The intensity of care statistics reveals that patients perceive both cardiac and orthopedic services to offer the best care, making them willing to travel long distances to receive treatment. Both services also have relatively low death rates and charges compared to other services. Financial statistics show that Cardiology generates higher earnings than Orthopedics, but the latter has a large patient population and longer length of stay outlier rates, leading to increased resource utilization and decreased revenue. To optimize patient care and satisfaction, Omega should focus on reducing LOS, which can attract value-based payments and enhance the patient experience. Omega should also consider working with private insurers or specializing in services that private insurers more heavily cover to attract more patients with private insurance.

References

Eric Lopez, G. C. (2020, July 7). *Comparing private payer and Medicare payment rates for select inpatient hospital services*. KFF. Retrieved April 17, 2023, from
<https://www.kff.org/medicare/issue-brief/comparing-private-payer-and-medicare-payment-rates-for-select-inpatient-hospital-services/>

Appendix

I: Assessment of overall patient population and current facility services

Cardiac condition	Number of patients	Percentage of patients
INTERMED CORONARY SYND	452	15.41
CONGESTIVE HEART FAILURE	268	9.14
CORONARY ATHEROSCLEROSIS	243	8.29
CHEST PAIN NOS	232	7.91
CEREBR ART OCC NO INFARC	119	4.06
CHEST PAIN NEC	110	3.75
SUBENDO INFRC-INIT EPISD	107	3.65
ATRIAL FIBRILLATION	102	3.48
INFER AMI NEC-INIT EPISD	81	2.76
SYNCOPE AND COLLAPSE	80	2.73

Figure 1.1: Top 10 disease entities, Cardiac

Orthopedic condition	Number of patients	Percentage of patients
LUMBAR DISC DISPLACEMENT	134	11.19
INTERTROCHANTERIC FX-CL	42	3.51
SECONDARY MALIG NEO BONE	40	3.34
LUMBOSACRAL Spondylosis	37	3.09
OLD DISRUPT ANT CRUCIATE	37	3.09
CERVICAL DISC DISPLACMNT	28	2.34
DIFFICULT WALK-PELVIS	26	2.17
SPINAL STENOSIS-LUMBAR	26	2.17
SPRAIN ROTATOR CUFF	26	2.17
OSTEOARTHROS NOS-L/LEG	22	1.84

Figure 1.2: Top 10 disease entities, Orthopedic

Service	Number of patients	Percentage of patients
Cardiology	2933	17.52
Orthopedic	1198	7.15

Figure 1.3: Number and percentage of patients admitted for Cardiac and Orthopedic

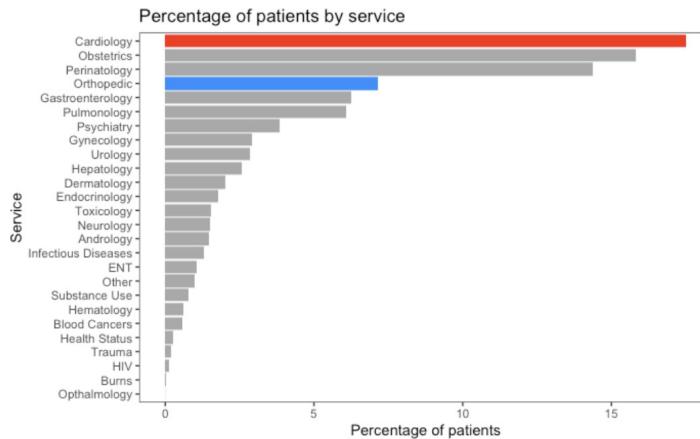


Figure 1.4: Percentage of patients admitted by service

Service	Average age of patients
Cardiology	64.24
Orthopedic	49.72

Figure 1.5: Average age of patients, Cardiac and Orthopedic

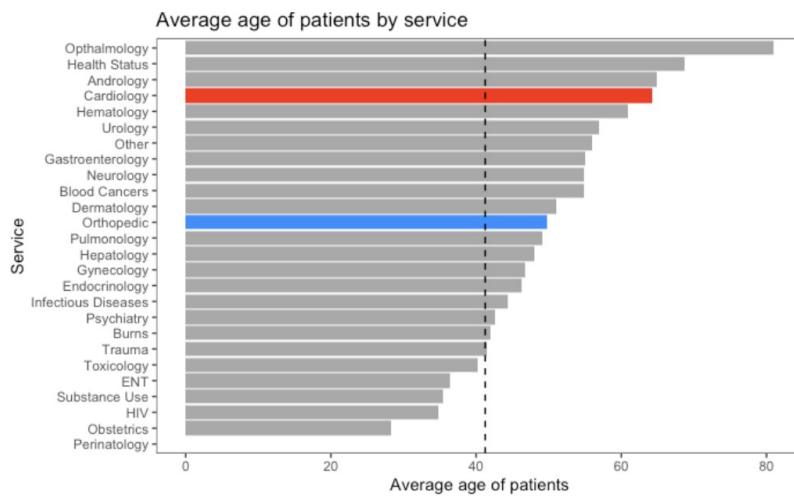


Figure 1.6: Average age of patient by service

Race	Number of patients	Percentage of patients
ASIATIC	5	0.17
BLACK	199	6.78
OTHER	2	0.07
UNKNOWN	294	10.02
WHITE	2433	82.95

Figure 1.7: Number and percentage of patients by race, Cardiac

Race	Number of patients	Percentage of patients
ASIATIC	1	0.08
BLACK	83	6.93
UNKNOWN	110	9.18
WHITE	1004	83.81

Figure 1.8: Number and percentage of patients by race, Orthopedic

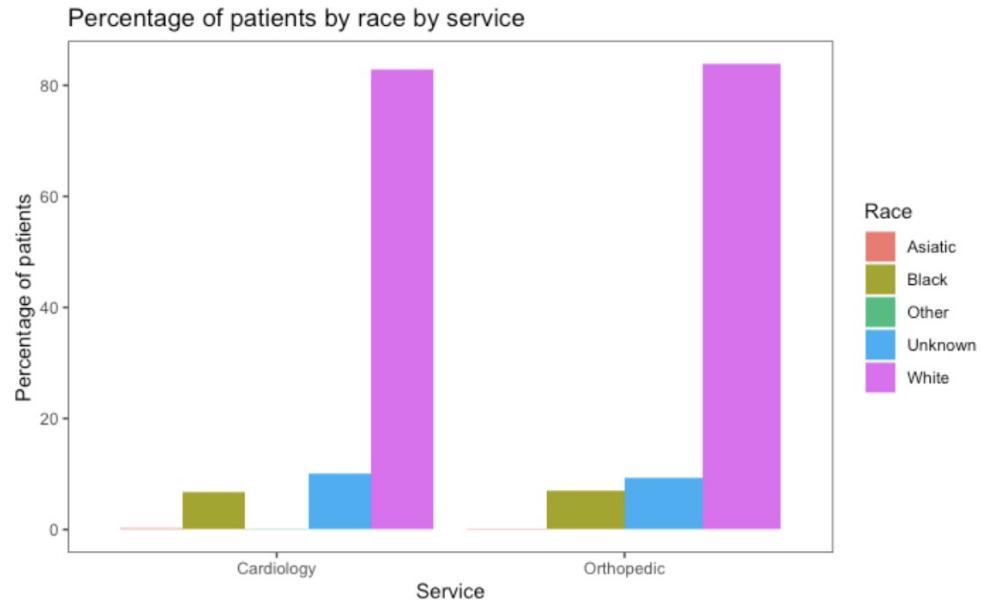


Figure 1.9: Percentage of patients by race by service, Cardiac and Orthopedic

Gender	Number of patients	Percentage of patients
FEMALE	1307	44.56
MALE	1626	55.44

Figure 1.10: Number and percentage of patients by gender, Cardiac

Gender	Number of patients	Percentage of patients
FEMALE	565	47.16
MALE	633	52.84

Figure 1.11: Number and percentage of patients by gender, Orthopedic

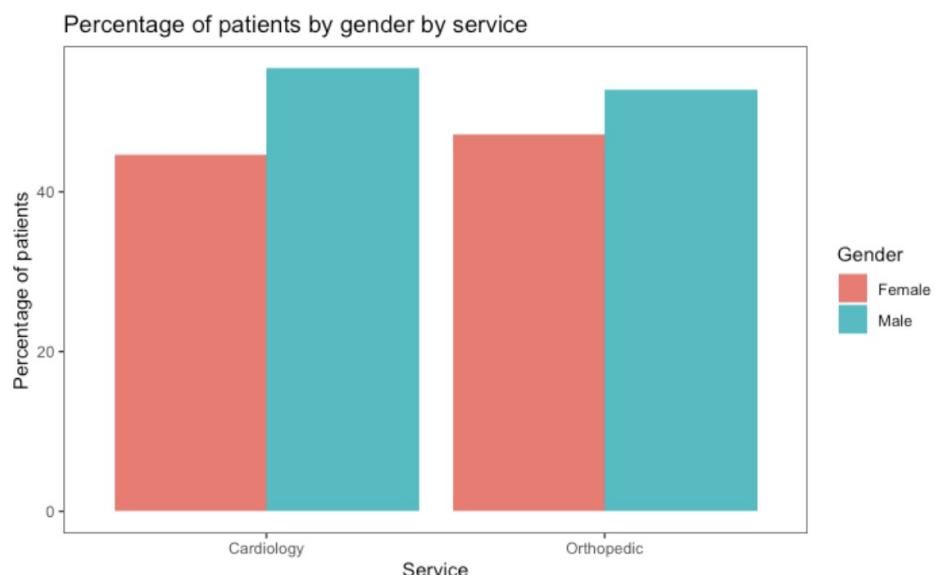


Figure 1.12: Percentage of patients by gender by service, Cardiac and Orthopedic

Service	Average distance traveled to Omega
Cardiology	28.30
Orthopedic	26.11

Figure 1.13: Average distance traveled to Omega by service, Cardiac and Orthopedic

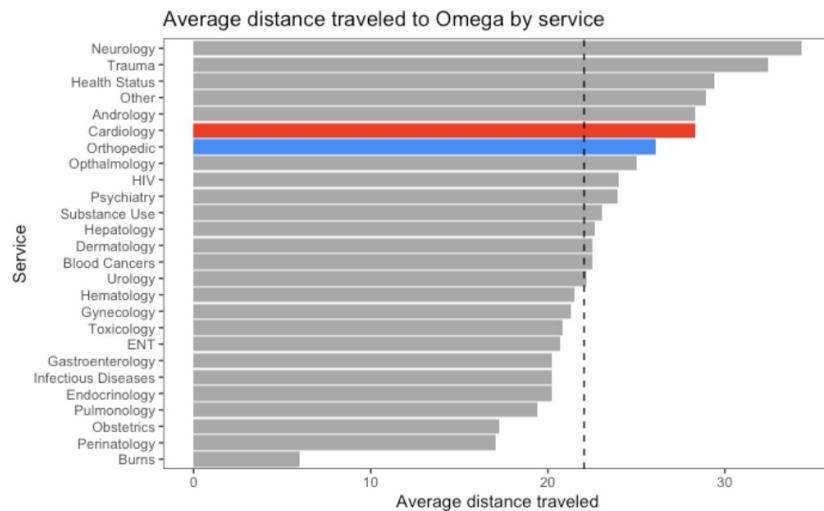


Figure 1.14: Average distance traveled to Omega by service

Admission description	Number of patients	Percentage of patients
GENERAL SURGERY	314	10.71
GYNECOLOGY	1	0.03
INTERNAL MEDICINE	2602	88.71
PEDIATRICS	1	0.03
REHABILITATION	15	0.51

Figure 1.15: Number and percentage of patients by admission description, Cardiac

Admission description	Number of patients	Percentage of patients
GENERAL SURGERY	1018	84.97
INTERNAL MEDICINE	125	10.43
PEDIATRICS	2	0.17
REHABILITATION	53	4.42

Figure 1.16: Number and percentage of patients by admission description, Orthopedic

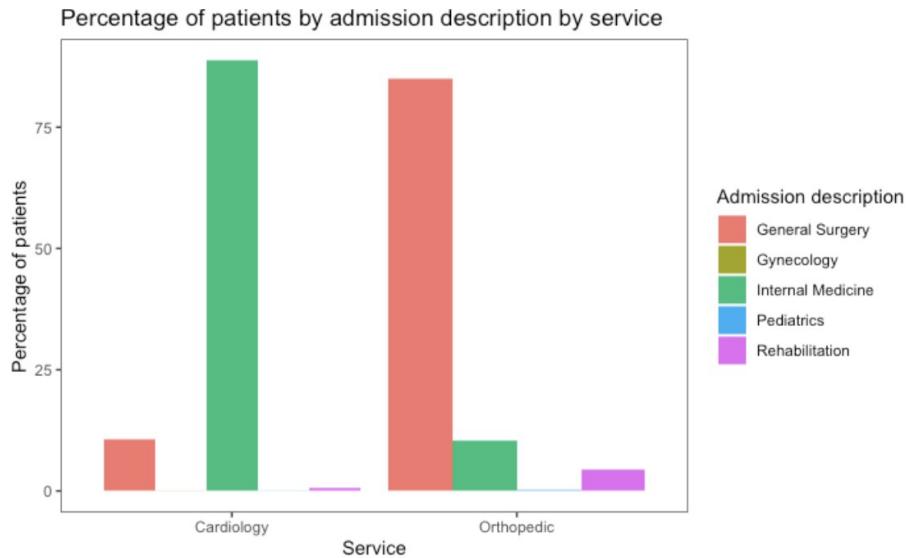


Figure 1.17: Percentage of patients by admission description by service, Cardiac and Orthopedic

Discharge description	Number of patients	Percentage of patients
GENERAL SURGERY	313	10.67
GYNECOLOGY	1	0.03
INTERNAL MEDICINE	2603	88.75
PEDIATRICS	1	0.03
REHABILITATION	15	0.51

Figure 1.18: Number and percentage of patients by discharge description, Cardiac

Discharge description	Number of patients	Percentage of patients
GENERAL SURGERY	1003	83.72
INTERNAL MEDICINE	140	11.69
PEDIATRICS	2	0.17
REHABILITATION	53	4.42

Figure 1.19: Number and percentage of patients by discharge description, Orthopedic

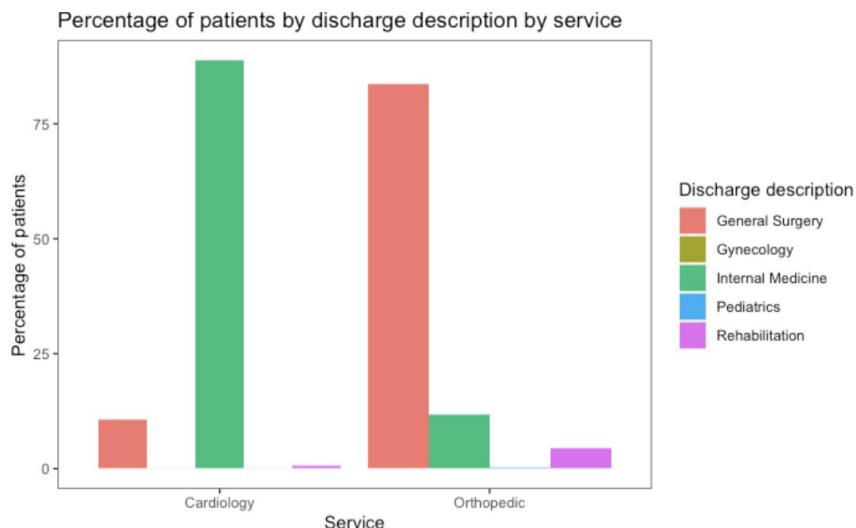


Figure 1.20: Percentage of patients by discharge description by service, Cardiac and Orthopedic

Disposition description	Number of patients	Percentage of patients
ADULT FOSTER CARE/GROUP HOME	9	0.31
AGAINST MEDICAL ADVICE	10	0.34
DIED	99	3.38
HOME HEALTH CARE OR HOME HOSPICE CARE	228	7.77
HOME/ROUTINE	2401	81.86
INTERMEDIATE CARE FACILITY	29	0.99
OTHER FACILITY (EG PRISON)	7	0.24
SKILLED NURSING FACILITY	67	2.28
TRANSFERRED TO ANOTHER ACUTE SHORT TERM HOSPITAL	9	0.31
TRANSFERRED TO LT PSYCH FROM OTHER SYSTEM FACILITY	10	0.34
TRANSFERRED TO OMEGA FROM OTHER SYSTEM FACILITY	1	0.03
TRANSFERRED TO PHYSICIAN REHAB OTHER THAN OMEGA	3	0.10
TRANSFERRED TO REHAB FROM OTHER SYSTEM FACILITY	60	2.05

Figure 1.21: Number and percentage of patients by disposition description, Cardiac

Disposition description	Number of patients	Percentage of patients
ADULT FOSTER CARE/GROUP HOME	2	0.17
AGAINST MEDICAL ADVICE	2	0.17
DIED	12	1.00
HOME HEALTH CARE OR HOME HOSPICE CARE	92	7.68
HOME/ROUTINE	960	80.13
INTERMEDIATE CARE FACILITY	10	0.83
SKILLED NURSING FACILITY	65	5.43
TRANSFERRED TO ANOTHER ACUTE SHORT TERM HOSPITAL	1	0.08
TRANSFERRED TO LT PSYCH FROM OTHER SYSTEM FACILITY	4	0.33
TRANSFERRED TO PHYSICIAN REHAB OTHER THAN OMEGA	3	0.25
TRANSFERRED TO REHAB FROM OTHER SYSTEM FACILITY	47	3.92

Figure 1.22: Number and percentage of patients by disposition description, Orthopedic

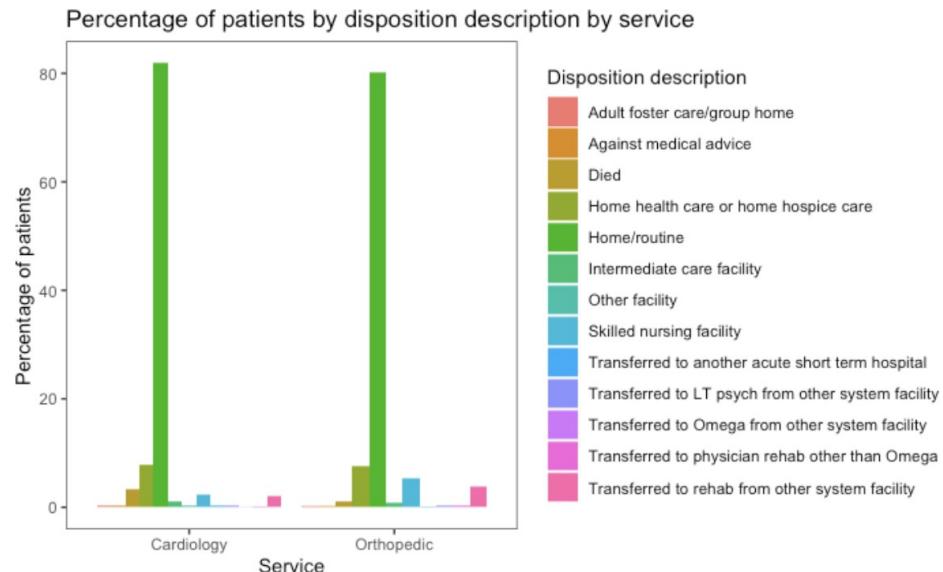


Figure 1.23: Percentage of patients by disposition description, Cardiac and Orthopedic

Service	Average LOS
Cardiology	4.90
Orthopedic	6.04

Figure 1.24: Average LOS by service, Cardiac and Orthopedic

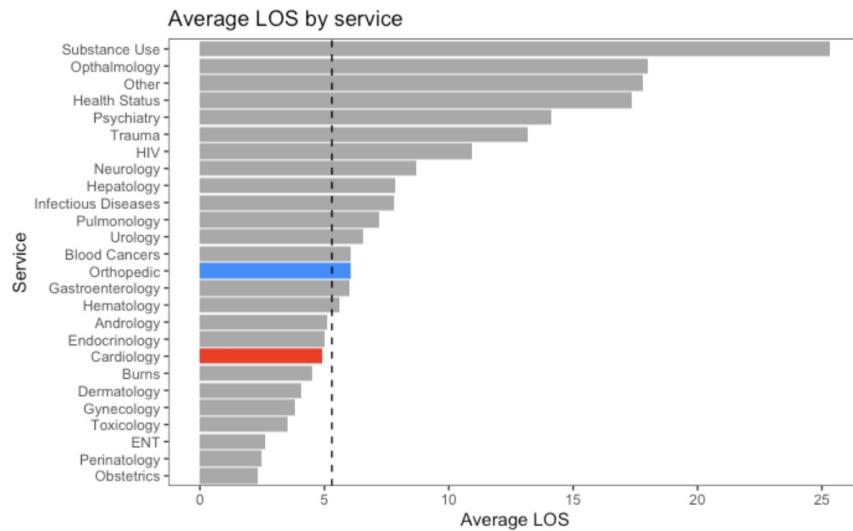


Figure 1.25: Average LOS by service

II: Intensity/Utilization Indicators

Service	Average distance traveled to Omega
Cardiology	28.30
Orthopedic	26.11

Figure 2.1: Average distance traveled to Omega by service, Cardiac and Orthopedic

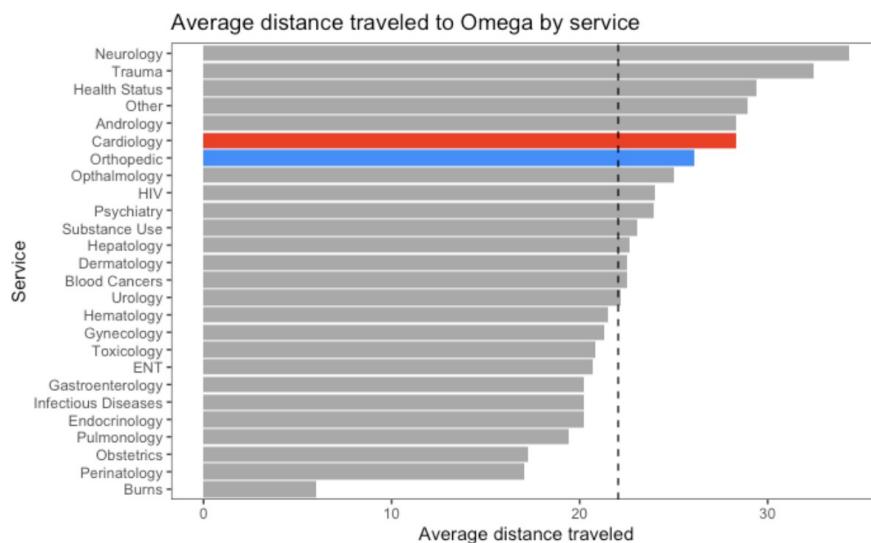


Figure 2.2: Average distance traveled to Omega by service

Service	Overall death rate
Cardiology	1.19
Orthopedic	0.17

Figure 2.3: Overall death rate, Cardiac and Orthopedic

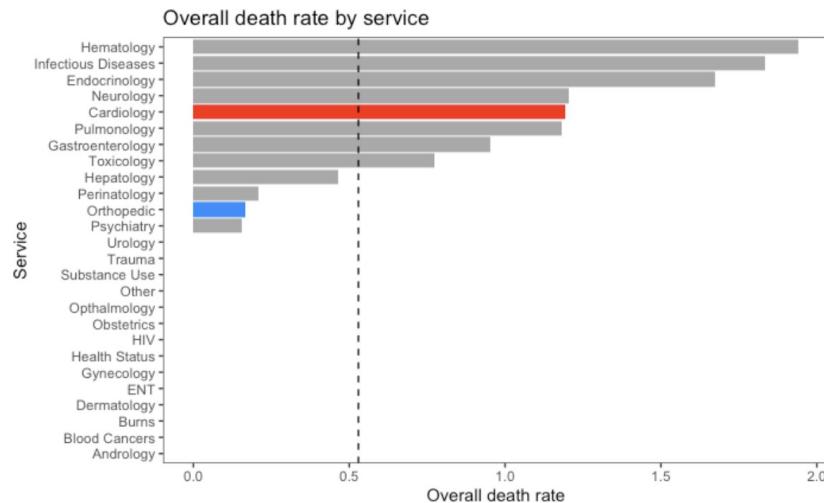


Figure 2.4: Overall death rate by service

Service	Death rate within 48 hours
Cardiology	1.13
Orthopedic	0.08

Figure 2.5: Within-48 hours death rate, Cardiac and Orthopedic

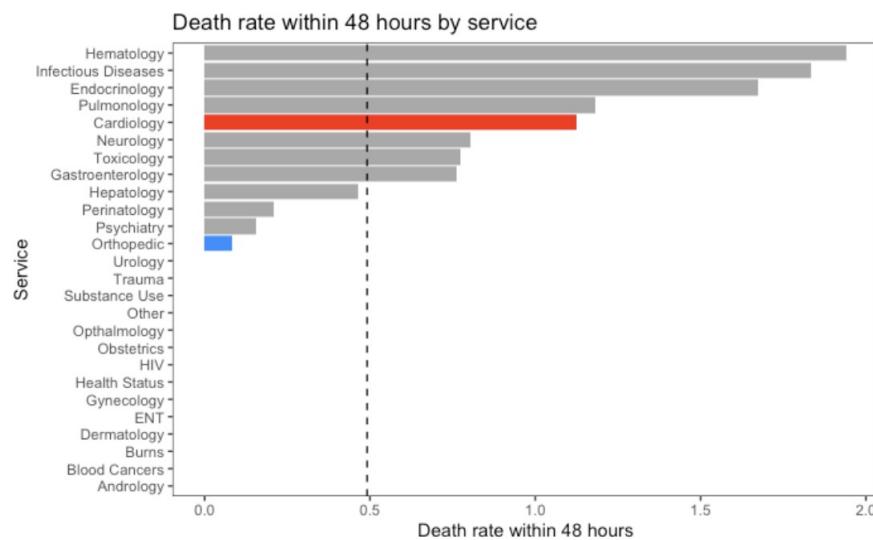


Figure 2.6: Within-48 hours death rate by service

Service	Death rate in OR (%)
Cardiology	0
Orthopedic	0

Figure 2.7: OR death rate, Cardiac and Orthopedic

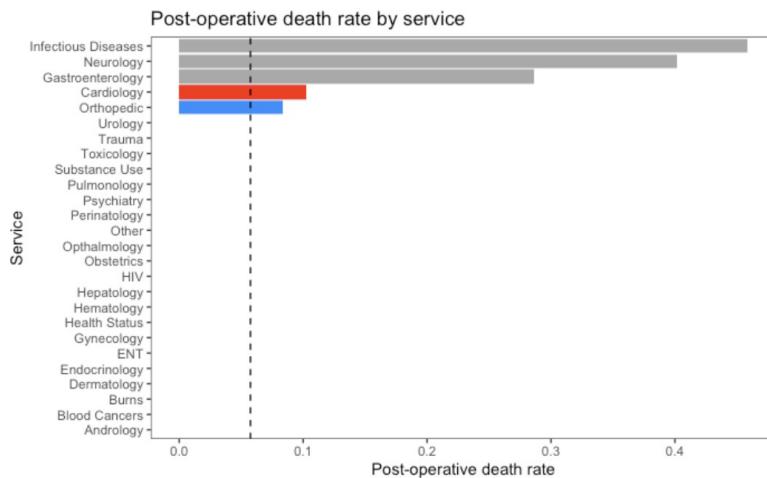


Figure 2.8: Post-operative death rate by service

Service	Post-operative death rate (%)
Cardiology	0.10
Orthopedic	0.08

Figure 2.9: Post-operative death rate, Cardiac and Orthopedic

Service	On-arrival death rate (%)
Cardiology	0
Orthopedic	0

Figure 2.10: On-arrival death rate, Cardiac and Orthopedic

Service	ER death rate (%)
Cardiology	0
Orthopedic	0

Figure 2.11: ER death rate, Cardiac and Orthopedic

Service	Percent of teaching-related encounters
Cardiology	11.97
Orthopedic	5.43

Figure 2.12: Percentage of teaching-related encounters, Cardiac and Orthopedic

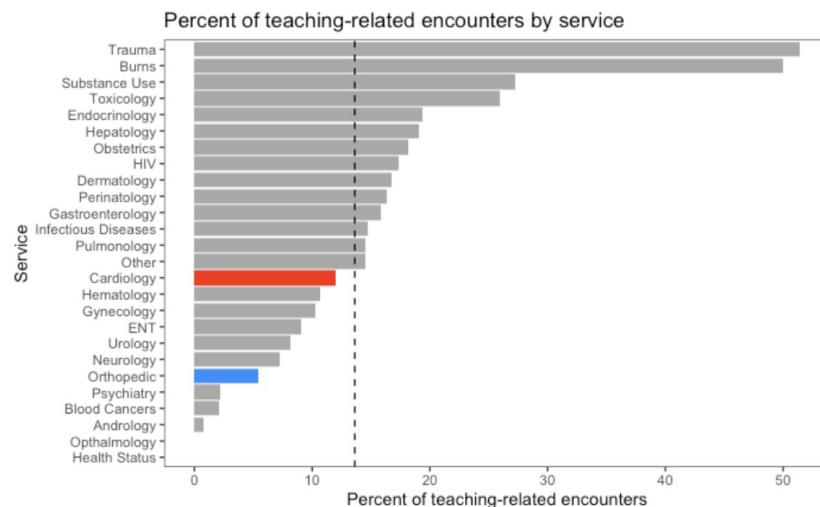


Figure 2.13: Percentage of teaching-related encounters by service

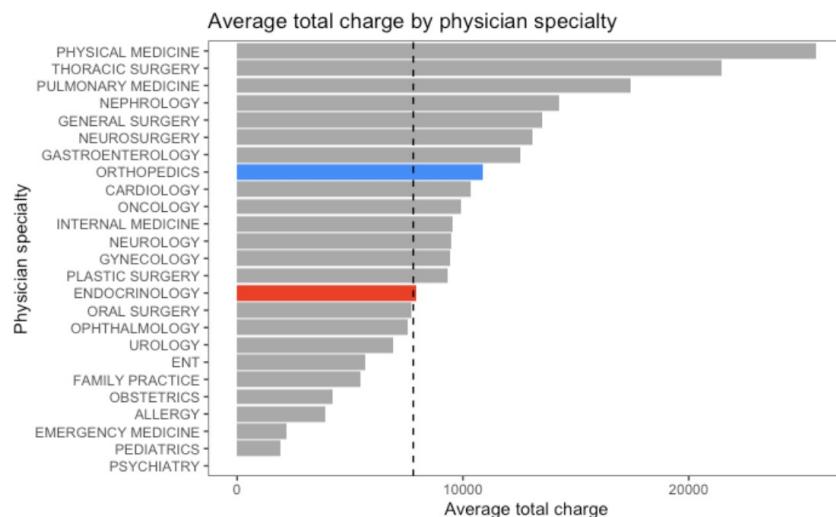


Figure 2.14: Average total charge by physician specialty

Service	Percent of visits requiring external review
Cardiology	0.65
Orthopedic	0.58

Figure 2.15: Percentage of visits requiring external review, Cardiac and Orthopedic

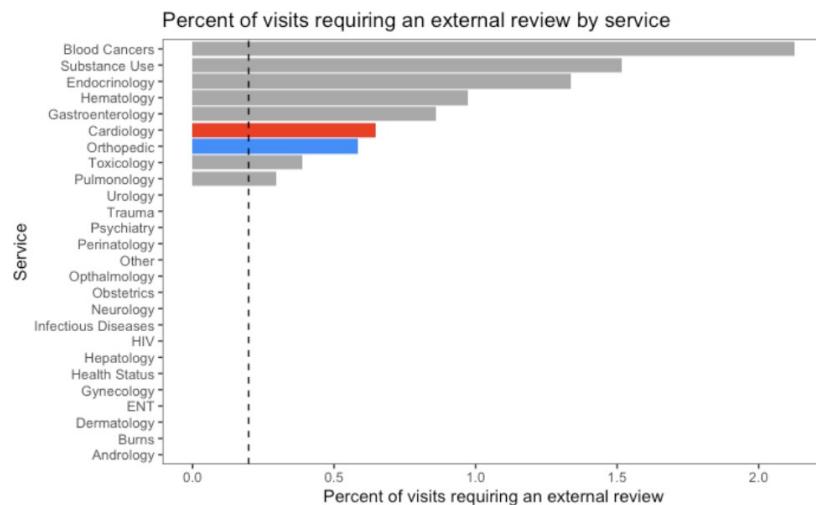


Figure 2.16: Percentage of visits requiring external review by service

Service	Percent of visits with ICU stay
Cardiology	15.79
Orthopedic	2.34

Figure 2.17: Percentage of visits with ICU stay, Cardiac and Orthopedic

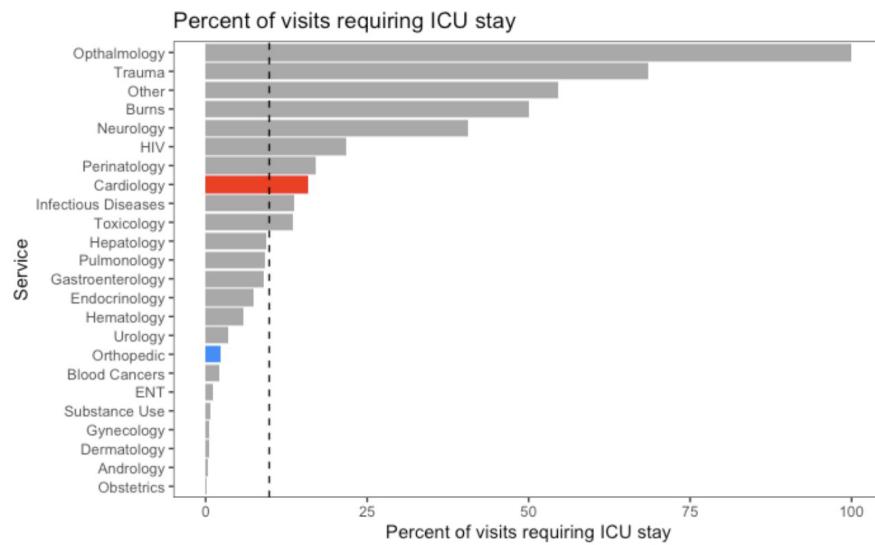


Figure 2.18: Percentage of visits with ICU stay by service

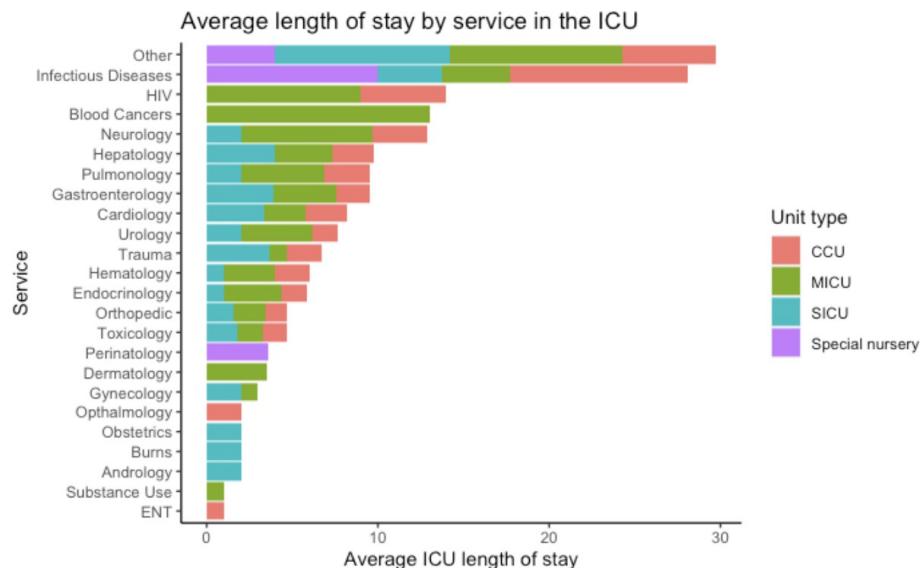


Figure 2.19: Average ICU LOS by service

Cardiac operation	Number of patients	Percentage of patients
PTCA-1 VESSEL NO LYSIS	455	15.51
LEFT HEART CARDIAC CATH	309	10.54
DX ULTRASOUND-HEART	246	8.39
C.A.T. SCAN OF HEAD	190	6.48
PTCA-MULTIPLE VESSELS	81	2.76
CARDIAC ELECTRPHYS STUDY	74	2.52
INSERT IV LEAD-ATR&VENT	55	1.88
DX ULTRASOUND-VASCULAR	54	1.84
RT/LEFT HEART CARD CATH	52	1.77
CONTR CEREBR ARTERIOGRAM	51	1.74

Figure 2.20: Top 10 types of operations, Cardiac

Orthopedic operation	Number of patients	Percentage of patients
IV DISC EXCISION	192	16.03
SPINAL CANAL EXPLOR NEC	76	6.34
OPEN REDUC-INT FIX FEMUR	70	5.84
OP RED-INT FIX TIB/FIBUL	61	5.09
CRUCIATE LIG REPAIR NEC	58	4.84
EXCIS DEBRIDEMENT WOUND	32	2.67
SHOULDER ARTHROPLAST NEC	27	2.25
BONE SCAN	19	1.59
OP RED-INT FIX RAD/ULNA	17	1.42
C.A.T. SCAN OF HEAD	16	1.34

Figure 2.21: Top 10 types of operations, Orthopedic

Service	Number of patients having operations	Percentage of patients having operations
Cardiology	2315	78.93
Orthopedic	1092	91.15

Figure 2.22: Number and percentage of patients having operations, Cardiac and Orthopedic

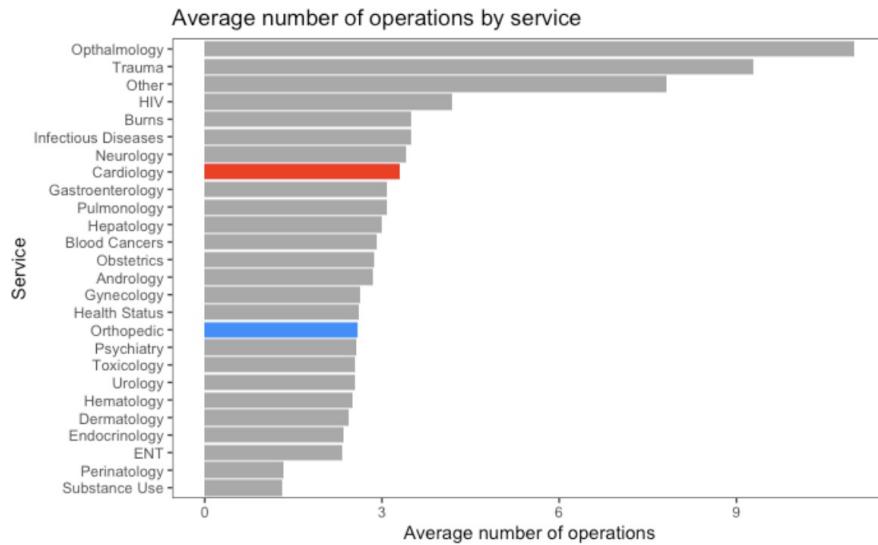


Figure 2.23: Average number of operations by service

III: Financial Viability

Service	Profitability (\$)
Cardiology	377.63
Orthopedic	-235.56

Figure 3.1: Profitability of patients, Cardiac and Orthopedic

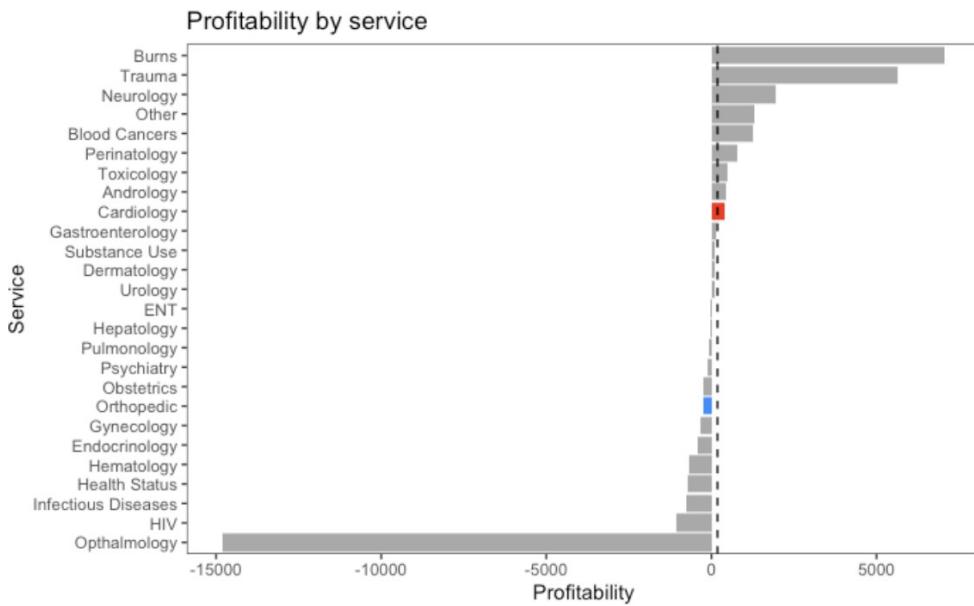


Figure 3.2: Profitability of patients by service

Service	LOS outlier rate
Cardiology	6.17
Orthopedic	10.10

Figure 3.3: LOS outlier rate, Cardiac and Orthopedic

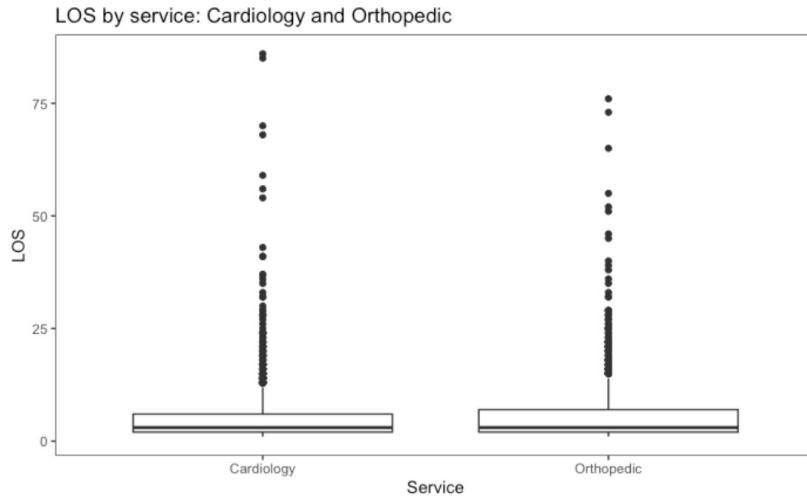


Figure 3.4: LOS, Cardiac and Orthopedic

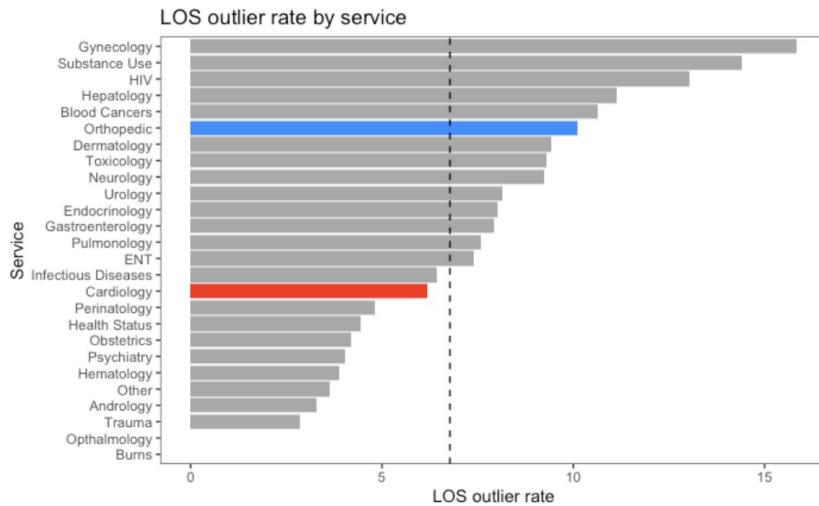


Figure 3.5: LOS outlier rate by service

Major payor	Number of patients	Percentage of patients
BLUE_CROSS	658	22.43
MEDICAID	84	2.86
MEDICARE	1655	56.43
PRIV/COMM	536	18.27

Figure 3.6: Number and percentage of patients by major payor, Cardiac

Major payor	Number of patients	Percentage of patients
BLUE_CROSS	287	23.96
MEDICAID	35	2.92
MEDICARE	366	30.55
PRIV/COMM	510	42.57

Figure 3.7: Number and percentage of patients by major payor, Orthopedic

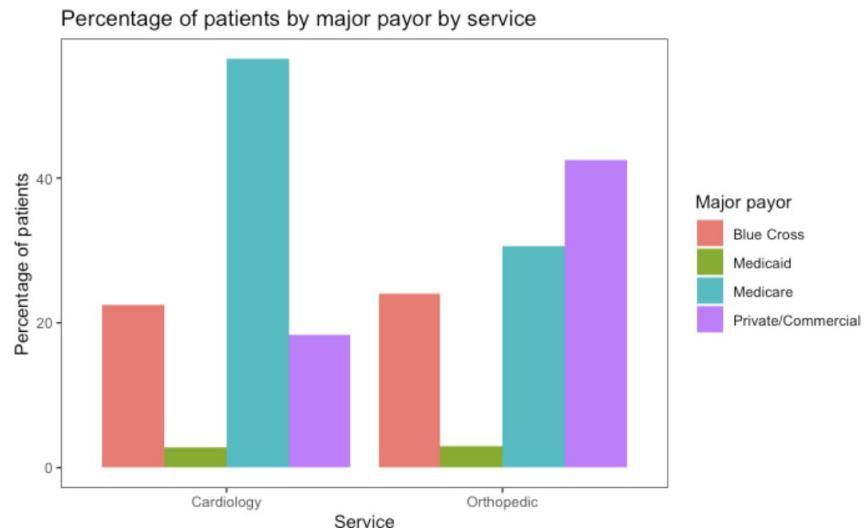


Figure 3.8: Percentage of patients by major payor, Cardiac and Orthopedic

Primary payor	Number of patients	Percentage of patients
BLUE_CROSS	658	22.43
COMMERCIAL	508	17.32
MEDICAID	84	2.86
MEDICARE	1655	56.43
PRIVATE	22	0.75
WORK_COMP	6	0.20

Figure 3.9: Number and percentage of patients by primary payor, Cardiac

Primary payor	Number of patients	Percentage of patients
BLUE_CROSS	287	23.96
COMMERCIAL	354	29.55
MEDICAID	35	2.92
MEDICARE	366	30.55
PRIVATE	25	2.09
WORK_COMP	131	10.93

Figure 3.10: Number and percentage of patients by primary payor, Orthopedic

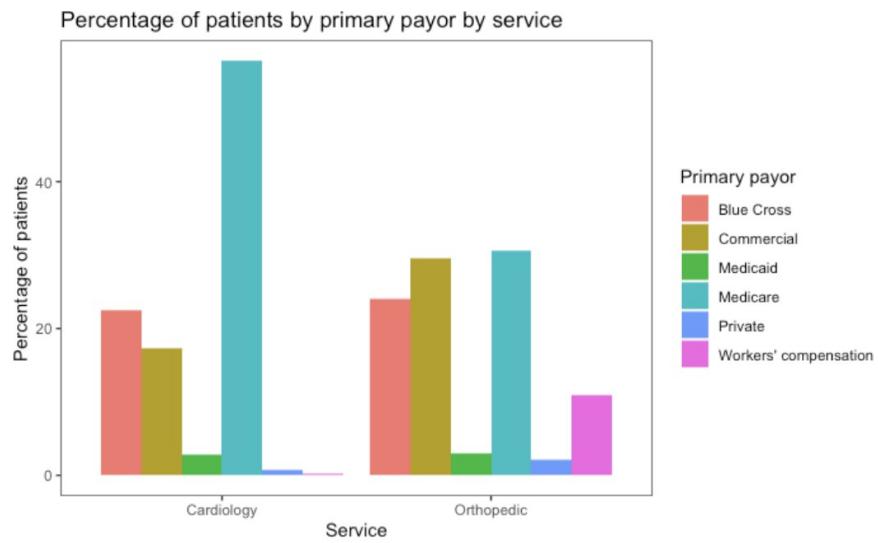


Figure 3.11: Percentage of patients by primary payor, Cardiac and Orthopedic

Secondary payor	Number of patients	Percentage of patients
BLUE_CROSS	1063	36.24
COMMERCIAL	435	14.83
MEDICAID	88	3.00
MEDICARE	81	2.76
NOT_RECORD	21	0.72
PRIVATE	1245	42.45

Figure 3.12: Number and percentage of patients by secondary payor, Cardiac

Secondary payor	Number of patients	Percentage of patients
BLUE_CROSS	268	22.37
COMMERCIAL	101	8.43
MEDICAID	27	2.25
MEDICARE	26	2.17
NOT_RECORD	25	2.09
PRIVATE	751	62.69

Figure 3.13: Number and percentage of patients by secondary payor, Orthopedic

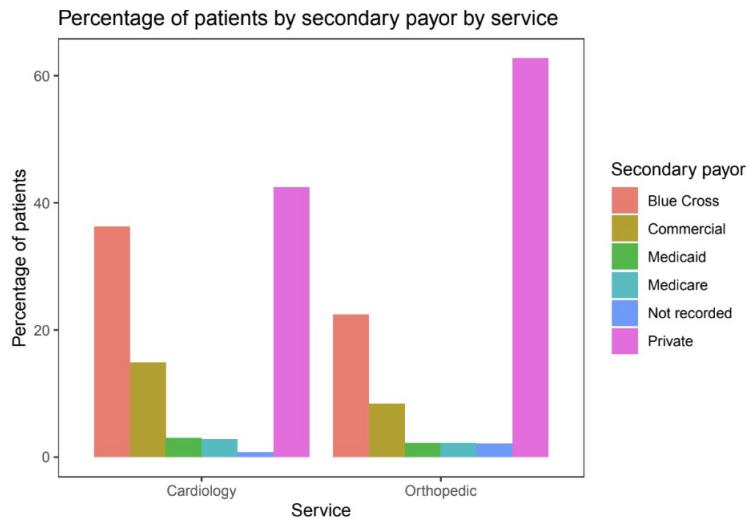


Figure 3.14: Percentage of patients by secondary payor, Cardiac and Orthopedic

Admission type	Number of patients	Percentage of patients
ELECTIVE	288	9.82
EMERGENT	2644	90.15

Figure 3.15: Number and percentage of patients by admission type, Cardiac

Admission type	Number of patients	Percentage of patients
ELECTIVE	661	55.18
EMERGENT	537	44.82

Figure 3.16: Number and percentage of patients by admission type, Orthopedic

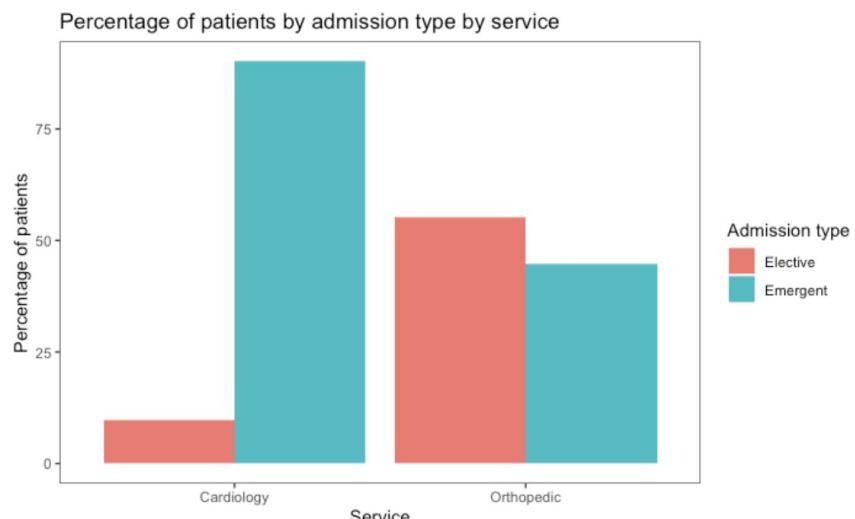


Figure 3.17: Percentage of patients by admission type, Cardiac and Orthopedic