

Introduction

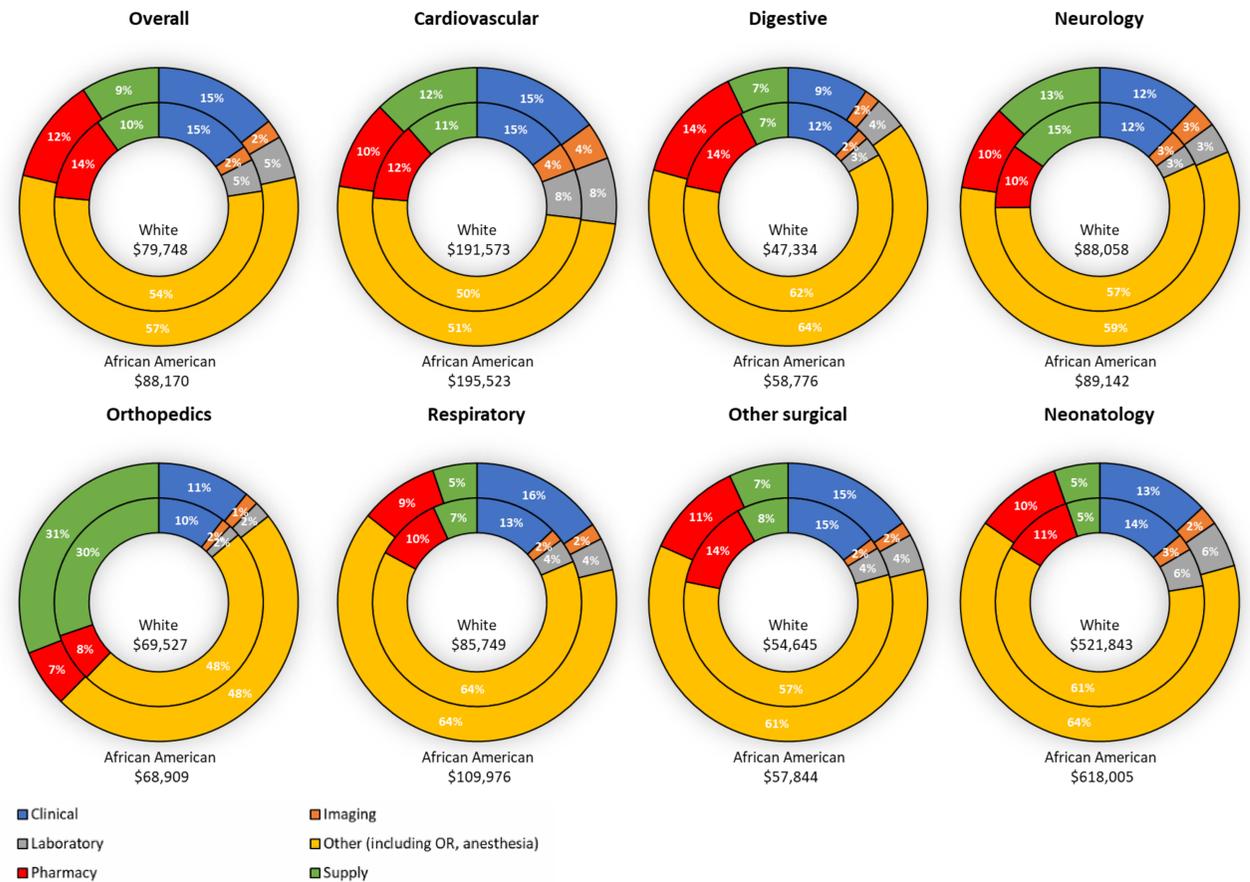
- That black children have poorer post-surgical outcomes compared to their white counterparts has been previously demonstrated.
- What is not known is if there are financial implications of these disparities, and what their impact is on our healthcare system.
- The objective of this study was to evaluate the economic burden of the racial disparities in pediatric surgical outcomes in the United States (U.S.).

Methods

- We performed a ratio-of-cost-to-charges (RCC) based analysis of inpatient pediatric surgical care over a period of 12 years (2007-2019), using the Pediatric Health Information System.
- Costs were calculated from Consumer Price Index adjusted charges based on annual hospital specific RCCs.
- We estimated the cost ratios (CRs) and their 95% confidence intervals (CIs), comparing black to white patients, using general estimating equations with log link and gamma distribution, while accounting for within-hospital clustering.
- We also estimated the costs attributable to the excess risk of resource utilization in black children, relative to their white peers

Results

- We identified 756,737 children who underwent inpatient surgery between 2007 and 2019, of whom 19.4% were black and 80.6% were white.
- Black children were at higher risk of surgical complications (23.3% vs 19.6%, P<0.001) and ICU admissions (34.8% vs 32.9%, P<0.001).



Results

- In non-neonates, surgical care on the respiratory system incurred the greatest difference in costs (CR: 1.74; 95%CI: 1.57, 1.94, P-value <0.001) – Table 1.
- Overall, other services (including operating room and anesthesia services) were the driver of costs; followed by clinical services- Fig. 1.
- We estimated that the costs associated with the higher rates of surgical complication among black children undergoing appendectomy over the study period was about \$9,704,217

Discussion

- Racial disparities in pediatric surgical outcomes imposes serious financial burden on the healthcare system.
- Implementing effective interventions that improve the racial disparities in pediatric postoperative complications has the potential to reduce this massive economic burden.

Procedural group	No. of children(%)	Cost, \$ (geometric mean)		Cost difference, \$ AA vs White	Cost Ratio (95% confidence interval)	P-value
		White	AA			
Overall	517093(100)	79,748	88,170	8,422	1.28(1.25,1.30)	<0.001
Orthopedics	95460(18)	69,527	68,909	(618)	1.00(0.98,1.02)	0.834
Cardiovascular	46397(9)	191,573	195,523	3,950	1.08(1.04,1.13)	<0.001
Neurology	61303(12)	88,058	89,142	1,083	1.15(1.10,1.19)	<0.001
Neonatology	28863(6)	521,843	618,005	96,162	1.23(1.19,1.28)	<0.001
Other surgical	146349(28)	54,645	57,844	3,198	1.38(1.32,1.44)	<0.001
Digestive	98224(19)	47,334	58,776	11,442	1.47(1.41,1.53)	<0.001
Respiratory	13952(3)	85,749	109,976	24,227	1.74(1.57,1.94)	<0.001