Impact of Medicaid Expansion on Bariatric Surgery Access

Tyler P. Robinson, MD MS[1,2]; Austin E. Airhart, MD[1,2]; Don J. Selzer, MD[2]; Dimitrios Stefanidis, MD PhD[2]; Jennifer N. Choi, MD[2]; Tarik K. Yuce, MD MS[1,2]

Affiliations: Surgical Outcomes & Quality Improvement Center[1], Indiana University Department of Surgery[2]

Surgical Outcomes & Quality Improvement Center

Background

Patient insurance plays an important role in receipt of bariatric surgery. Following the Affordable Care Act (ACA), Indiana enacted Medicaid expansion through Healthy Indiana Plan (HIP) 2.0. While previous work has described patient preoperative insurance after the ACA, less is known about patient insurance changes following bariatric surgery. Our objectives were to describe distributions of insurance coverage for bariatric surgery in a Medicaid expansion state and to identify rates of insurance change following bariatric surgery.

Methods

- Data were collected for all patients who underwent bariatric surgery at a high-volume center within a Medicaid expansion state (i.e., Indiana) from 2012-2022.
- Patient insurance at time of procedure and insurance changes up to two years after were identified.
- Trends in insurance were observed before and after ACA Medicaid expansion.

Results

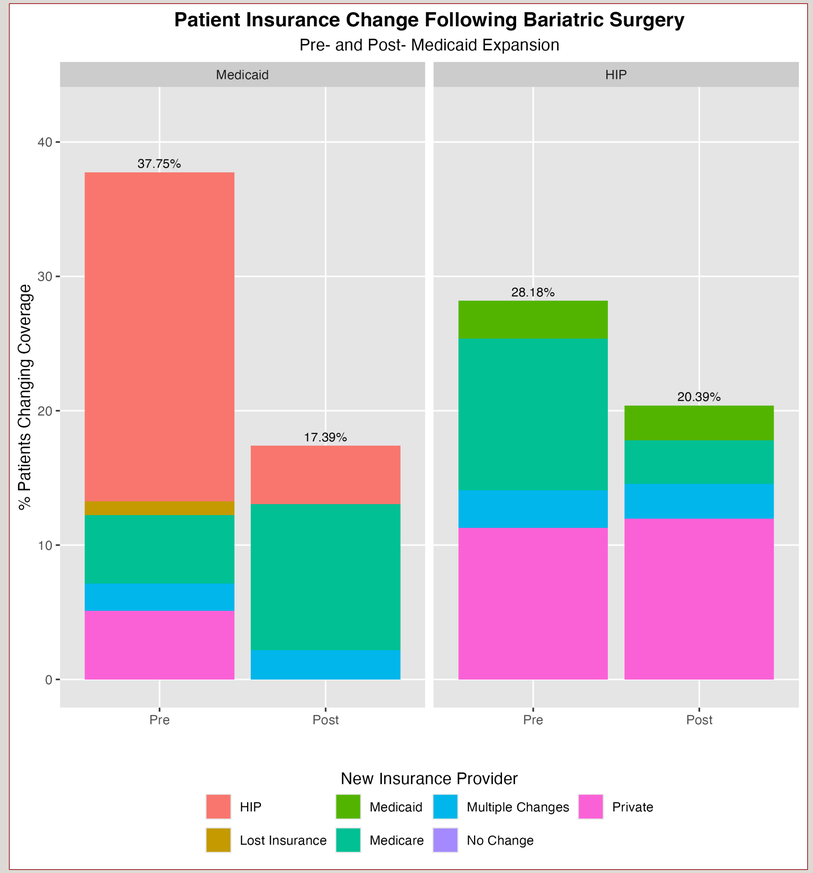
A total of 2,491 patients underwent bariatric surgery from 2012-2022, with 1,516 (60.9%) carrying private insurance, 383 (15.4%) with Medicare, 144 (5.8%) with Medicaid, 380 (15.3%) with HIP, and 68 (2.7%) with other payment methods. Prior to Medicaid expansion, 14.9% of patients were covered by Medicaid and 37.8% changed insurance postoperatively, most often to HIP (25.5%). Additionally, 7.5% of patients were covered by HIP pre-expansion, with 28.2% changing insurance postoperatively, most often to private coverage (12.7%). Following Medicaid expansion, a greater proportion of patients were covered by HIP (21.5%) rather than Medicaid (2.9%). Postoperatively, 20.4% of HIP patients changed insurance and were again most likely to switch to private insurance (12.9%). Of those with Medicaid post-expansion, 17.4% switched insurance, most often to Medicare (10.9%). Patients lost insurance at low rates among all insurance groups (HIP 0.3%, Medicaid 1.4%, Medicare 0%, private 1.7%).

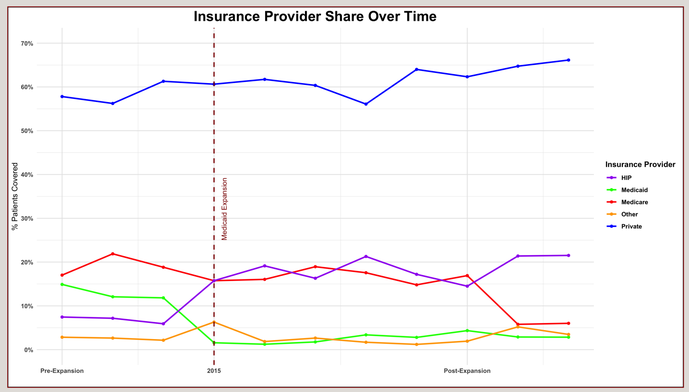
Table 1: Patient Demographics by Insurance Provider Pre- and Post-HIP Expansion

	Medicaid			HIP		
Expansion Status	**Pre**	**Post**	**p-value**	**Pre**	**Post**	**p-value**
Total Number of Patients	98 (68)	46 (32)		71 (19)	309 (81)	
Age	47 (41,55)	51 (40,58)	0.3	51 (44,55)	41 (36,48)	**<0.001**
BMI	50 (45,54)	48 (42,55)	0.2	46 (42,51)	46 (42,52)	0.5
Gender			>0.9			0.018
Female	83 (85)	39 (85)		57 (80)	281 (91)	
Male	15 (15)	7 (15)		14 (20)	28 (9.1)	
Race			**0.005**			**<0.001**
Non-Hispanic White	73 (74)	23 (50)		64 (90)	118 (38)	
Non-white	25 (26)	23 (50)		7 (9.9)	191 (62)	
Location of Residence			0.9			**<0.001**
Urban	57 (84)	39 (87)		38 (66)	262 (86)	
Rural	11 (16)	6 (13)		20 (34)	41 (14)	
ASA Class			0.5			0.7
ASA I/II	16 (16)	5 (11)		13 (18)	50 (16)	
ASA III/IV	81 (84)	41 (89)		58 (82)	259 (84)	
Insurance Status			**0.021**			0.2
Insurance Change	36 (37)	8 (17)		20 (28)	63 (20)	
Insurance Loss	1 (1.0)	0 (0)		0 (0)	0 (0)	
No Change	61 (62)	38 (83)		51 (72)	246 (80)	
Insurance Change						
Switch to Private	5 (5.1)	0 (0)	0.2	8 (11)	37 (12)	>0.9
Switch to Medicare	5 (5.1)	5 (11)	0.3	8 (11)	10 (3.2)	**0.009**
Switch to Medicaid	-	-	-	2 (2.8)	8 (2.6)	>0.9
Switch to HIP	24 (24)	2 (4.3)	**0.002**	-	-	-
Switch to Other Provider	0 (0)	0 (0)		0 (0)	0 (0)	
Multiple Changes	2 (2.0)	1 (2.2)	>0.9	2 (2.8)	8 (2.6)	>0.9

Median (Q1,Q3); n (%)

Kruskal-Wallis rank sum test; Fisher's Exact Test; Pearson's Chi-squared test





Conclusions

- Medicaid expansion within Indiana led to an increase in patients insured with HIP and a decrease in those insured with Medicaid who underwent bariatric surgery at a single high-volume center.
- Rates of postoperative insurance change for those with HIP remained similar pre- and post-expansion, with the largest proportion switching to private insurance.
- Patients covered by Medicaid changed insurance at lower rates following Medicaid expansion.
- Further work is necessary to better understand factors responsible for patients gaining private insurance following bariatric surgery (e.g., employment status, marital status).