

ABSTRACT

Background: Medicare reimbursement rates are essential knowledge for gender-affirming plastic surgeons. The goal of this project was to examine trends in Medicare reimbursement rates for gender-affirming plastic surgery procedures from 2007 – 2020.

Methods: Changes in reimbursement rates were measured for 35 commonly used gender-affirming procedure CPT codes from 2007 – 2020 adjusted for inflation to the 2020 U.S. dollar value. The Unadjusted Percent Change in Consumer Price Index (CPI) was calculated using data from the U.S. Bureau of Labor Statistics. Reimbursement rates were adjusted for inflation using the CPI for each year. Student t-test was utilized for mean comparisons.

Results: Mean percent change in reimbursement rates was +16.01% while the percent change in CPI was +27.45%. Comparison between rate change of inflation vs. rate change in adjusted medical reimbursement was significantly higher in the inflation group (p<0.0001). Inflation adjustments for the Compound Annual Growth Rate was negative (-0.76%). The adjusted total percent change was also calculated at an average of -8.97%. **Conclusion:** This is the first study evaluating trends in Medicare reimbursement rates for commonly selected gender-affirming procedures in the United States. After adjusting for inflation, Medicare reimbursement rates for all gender-affirming surgeries analyzed declined from the years 2007 to 2020 compared to expected inflation base. Increased consideration of these trends will be important for U.S. policymakers, hospitals, and surgeons to ensure ease of access to gender-affirming care for transgender individuals.

INTRODUCTION 1-2

In recent years, the field of transgender healthcare has witnessed significant advancements in the provision of gender-affirming procedures, underscoring the importance of ensuring access to comprehensive healthcare services for transgender and gender diverse individuals. A crucial aspect of this access is the financial coverage and reimbursement rates for these procedures, which often play a pivotal role in determining the availability of gender-affirming care and long-term stability of surgical practices specializing in treatment of the transgender and gender-diverse community. Medicare, as a major healthcare payor in the United States, holds substantial influence in this regard, making an examination of trends in Medicare reimbursement rates a matter relevant to gender-affirming surgeons and having significant influence on delivery of surgical care in a sustainable manner.

Gender-affirming surgery is being increasingly performed, due to several factors including increased societal acceptance of transgender and gender-diverse individuals, as well as increased third-party payor coverage.

INTRODUCTION 2-2

Transgender individuals frequently seek gender-affirming procedures as part of their journey to align their physical characteristics with their gender identity, thus improving their overall well-being and mental health. These procedures encompass a range of surgical interventions designed to affirm gender, such as chest and breast, facial feminization or masculinization, and genital reconstruction surgeries.

No study to date has examined Medicare reimbursement rates as they pertain specifically to transgender surgeries. Historically, gender-affirming procedures have been performed by surgeons in commercially insured or cash pay patients, with Medicare denying coverage of transgender surgical procedures until 2014. Although Medicare will currently reimburse for a gender-affirming surgery if deemed medically necessary, there has been a relative lack of appropriately qualified surgeons willing to participate with insurance companies to deliver this care, in part secondary to lower reimbursement rates. Self-pay payment structures can pose a major financial hurdle to those seeking gender-affirming surgery without appropriate reimbursement from Medicare and other health insurance plans. Physicians may also be disincentivized to specialize in care for this at-risk patient population.

Medicare reimbursement rates are understood to influence private insurer rates, and thus observed trends in Medicare reimbursement rates are an important indicator of overall trends by third-party payors. The goal of this project was to examine Medicare reimbursement rates for 35 CPT codes specific to transgender surgery procedures using the Centers for Medicare & Medicaid Service Physician Fee Schedule Look-Up Tool and evaluate the overall trend, with a hypothesized declining relative rate of reimbursement for gender-affirming surgery.

METHODS 1-2

Year to year changes in reimbursement rates from 2007 to 2020 were examined for 35 selected current procedural terminology (CPT; **Table 1**) codes for common transgender surgery procedures using the Centers for Medicare & Medicaid Services Physician Fee Schedule Look-Up Tool. Reimbursement rates for each CPT code were collected using all Medicare Administrative Contractor (MAC) options and modifiers, and the national payment amount was used to reflect the average reimbursement rate across various geographic regions within the United States (U.S.). Reimbursement rates were adjusted for inflation to 2020 U.S. dollars using data from the Consumer Price Index (CPI). Consumer Price Index data from 2007 to 2020 were collected from the U.S. Bureau of Labor Statistics using the CPI inflation calculator.

METHODS 2-2

The raw year-to-year percentage change in reimbursement was calculated for each CPT code and averaged, as well as the year-to-year percentage change in reimbursement after adjusting for inflation. A two-tailed t test was used to compare the change in CPI from 2007 to 2020 to the raw reimbursement rate of each CPT code from 2007 to 2020. The compound annual growth rate (CAGR), a measure of annual rate of change over a given period, was calculated for each CPT code to adjust for short term variation that can be seen in year-to-year price changes. The CAGR was calculated with the following formula:

$$CAGR = \left[\left(\frac{Year_{2020}}{Year_{2007}} \right)^{\frac{1}{13}} \right] - 1$$

The CPI adjusted data was used to perform a regression analysis in 2020 U.S. dollar values for each CPT code. All data analysis was performed using STATA v18.

CPT	Procedure Description
21137	Brow Contouring
21209	Mandible Reduction
21122	Genioplasty
15770	Fat Transfer to Face
15776	Hair Graft
19325	Breast Augmentation
19318	Breast Reduction
53430	Urethroplasty (Male)
54125	Penectomy
57335	Vaginoplasty
57291	Colovaginoplasty
56805	Clitoroplasty
58150	Hysterectomy
54401	Penile Prosthesis (Inflatable)
53410	Urethroplasty (Female)
57110	Vaginectomy
56625	Vulvectomy
19325	Augmentation with Implants
19301	Female-to-Male Top
19303	Simple Mastectomy
15757	Free Skin Flap
15758	Free Fascial Flap
31750	Tracheoplasty
30400	Rhinoplasty
30410	Rhinoplasty (Complete)
30420	Septorhinoplasty
21208	Facial Bones Osteoplasty Augmentation
21206	Segmental Maxilla Osteotomy
21198	Mandible Osteotomy
58552	TAH-BSO
54520	Orchiectomy
54660	Insertion of Testicular Prosthesis
55175	Scrotoplasty
21139	Forehead Contouring
58262	Vaginal Hysterectomy

Table 1: CPT codes and their procedure descriptions

RESULTS

CPT	Average Unadjusted Reimbursement Rate in 2007 (\$)	Unadjusted Change in Reimbursement 2007 - 2020 (%)	Average Unadjusted Reimbursement Rate in 2020 (\$)	Average Adjusted Reimbursement Rate in 2007 (\$)	Adjusted Change in Reimbursement 2007 - 2020 (%)
21137	675.79	16.15	784.95	861.27	-8.86
21209	593	6.14	629.4	755.78	-16.72
21122	651.68	22.61	799.02	830.57	-3.8
15770	590.51	16.43	687.51	752.6	-8.65
15776	310.52	18.78	368.84	395.76	-6.8
19325	589.04	14.51	674.52	750.73	-10.15
19318	1067.93	7.19	1144.76	1361.08	-15.89
53430	915.59	10.64	1013.04	1166.92	-13.19
54125	772.29	9.96	849.19	984.28	-13.73
57335	1092.25	12.21	1225.6	1392.07	-11.96
57291	507.48	11.51	565.89	646.78	-12.51
56805	1110.52	9.29	1213.69	1415.36	-14.25
58150	931.47	13.33	1055.62	1187.16	-11.08
54401	618.41	10.76	684.98	788.16	-13.09
53410	936.31	8.93	1019.89	1193.33	-14.53
57110	855.83	10.23	943.38	1090.76	-13.51
56625	560.48	19.83	671.63	714.33	-5.98
19325	589.04	14.51	674.52	750.73	-10.15
19301	366.98	87.44	687.87	467.72	47.07
19303	788.03	27.5	1004.73	1004.34	0.04
15757	2182.62	8.5	2368.2	2781.75	-14.87
15758	2185.09	9.07	2383.36	2784.9	-14.42
31750	1210.14	16.7	1412.19	1542.32	-8.44
30400	971.15	27.61	1239.32	1237.73	0.13
30410	1180.5	21.86	1438.53	1504.55	-4.39
30420	1272.14	14.41	1455.49	1621.34	-10.23
21208	767.74	2.15	784.23	978.48	-19.85
21206	1039.71	14.27	1188.07	1325.11	-10.34
21198	1049.48	9.56	1149.82	1337.56	-14.04
58552	927.8	24.78	1157.75	1182.48	-2.09
54520	312.72	8.48	339.24	398.56	-14.88
54660	336.25	10.44	371.36	428.55	-13.35
55175	337.65	11.8	377.5	430.33	-12.28
21139	947.48	22.19	1157.75	1207.56	-4.13
58262	876.17	10.68	969.73	1116.68	-13.16
Average	NA	16.01	985.47	1096.79	-8.97

Table 2: Unadjusted CPT reimbursement trends compared to change in CPI for the years 2007 – 2020.

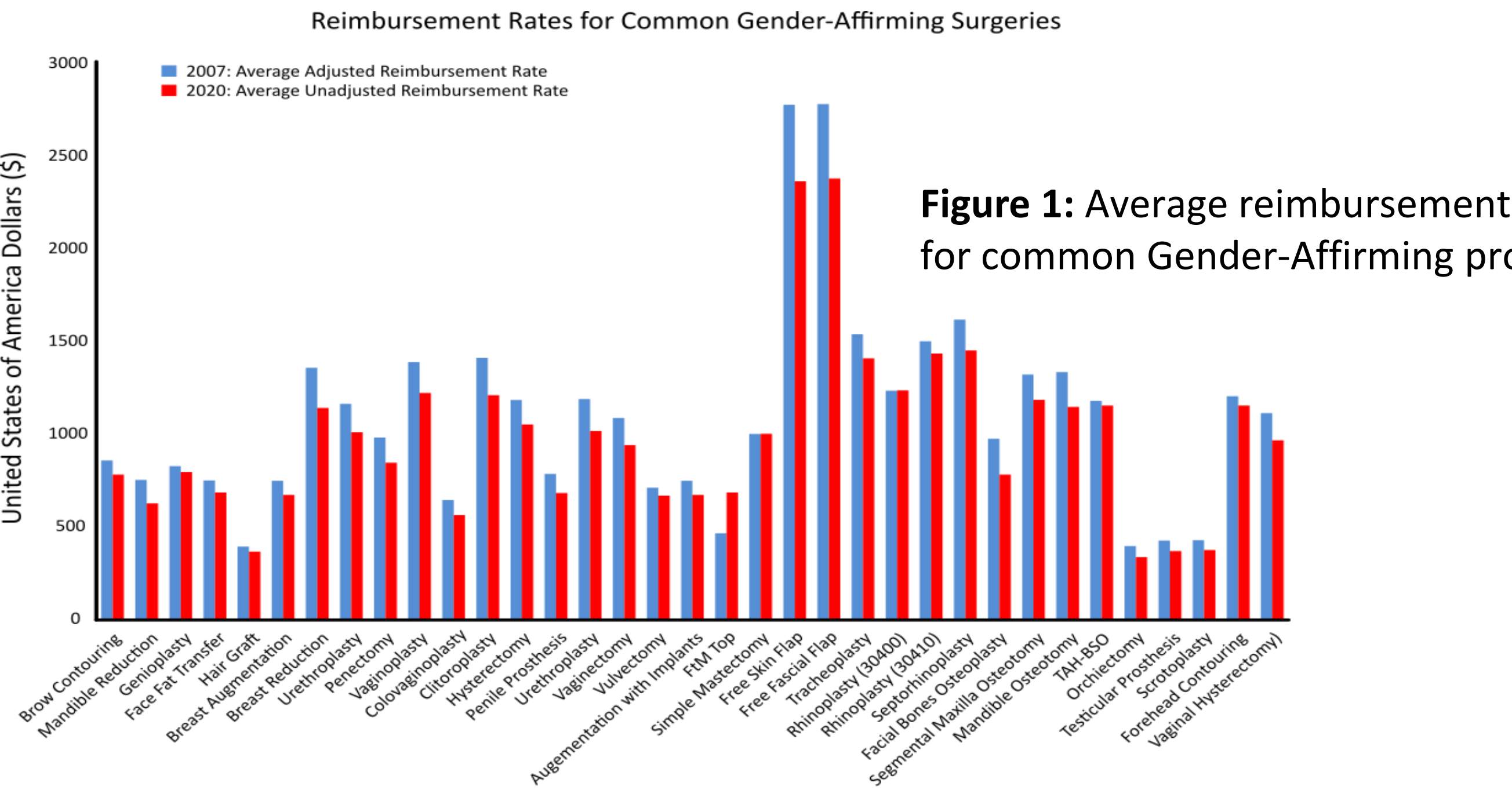


Figure 1: Average reimbursement rates for common Gender-Affirming procedures.

Table 3: Adjusted CPT reimbursement trends for the years 2007 – 2020.

CONCLUSIONS

- Medicare reimbursement rates for nearly all gender-affirming surgeries analyzed declined from the years 2007 to 2020.
- Rate of change in medical reimbursement coverage from 2007 to 2020 was significantly more (p < 0.0001) than the change in inflation during this time period.
- Increased consideration of these trends will be important for U.S. policymakers, hospitals, and surgeons to ensure ease of access to gender-affirming care for transgender individuals.