



Insurance Coverage Disparities in Ancillary Gender-Affirming Procedures: Analysis of Eye Augmentation, Voice Modification, and Body Contouring in Massachusetts

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BACKGROUND

GENDER AFFIRMING SURGERY (GAS)

- "Top" surgery (mastectomy, breast augmentation)
- "Bottom" surgery (phalloplasty, vaginoplasty, and metoidioplasty)
- Facial surgery (most commonly includes frontal bone reduction, rhinoplasty, tracheal shave, and genioplasty)^{1,2}

SIGNIFICANCE

- GAS affirms gender identify, mitigating mental distress and improving quality of life^{1,2,3}
- Gender dysphoria - a **highly individualized** experience
- **Certain physical features may contribute to greater dysphoria than others**, varying from patient-to-patient⁴

OBJECTIVE

To **analyze insurance coverage, costs, and claim denials** for **three less common GAS**— eye shape augmentation (upper blepharoplasty), body contouring (liposuction), and voice modification (surgical/behavioral)— in Massachusetts, **comparing MassHealth and private insurers**

CURRENT INSURANCE LANDSCAPE

Progress since 2010:

- Affordable Care Act (ACA) prohibited discrimination based on gender identity⁵
- 30 states + D.C.: *Cover top and bottom surgeries*
- 10 states: *Deny* Medicaid coverage for gender affirming care (GAC)
- 20 states: *Have no specific plans* for coverage⁶

Leaders in GAS Coverage:

Connecticut, Massachusetts, Washington⁷

METHODS

Patients with gender dysphoria who underwent the three procedures of interest (2016-2021) were identified using the **Massachusetts Center for Health Information and Analysis (CHIA) database**

Average costs, copays, and claim denial rates were **compared** between **MassHealth** and **private insurance**

ANATOMICAL DIFFERENCES

EYE SHAPE

Feminine: Almond-shaped, wider palpebral fissure, positive canthal tilt, upper eyelid crease 6-9 mm.

•**Masculine:** Angular rim, narrower fissure, crease 8-11 mm (Fig 1.)

Feminization GAS: Upper blepharoplasty, lateral canthopexy.⁵

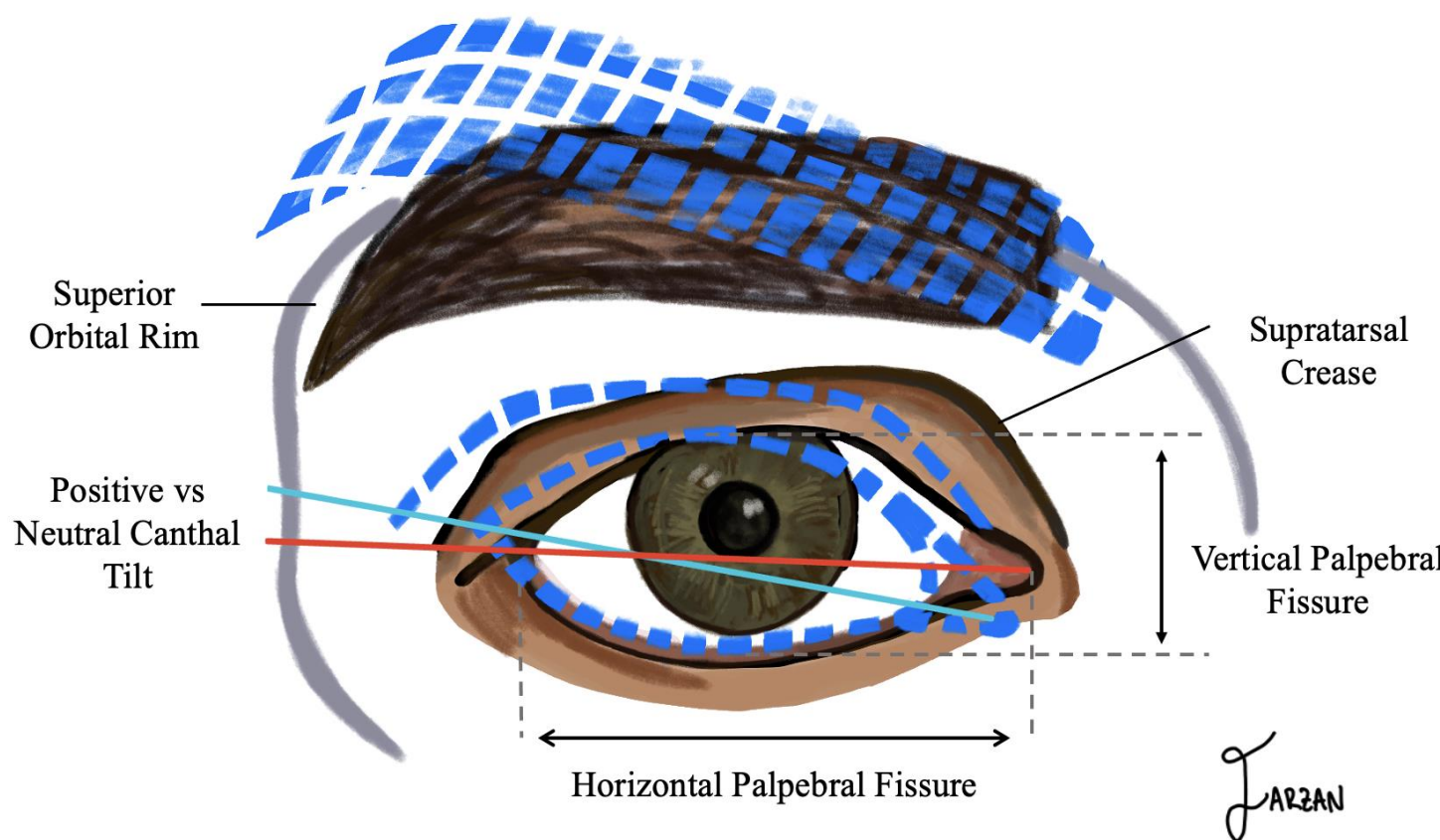


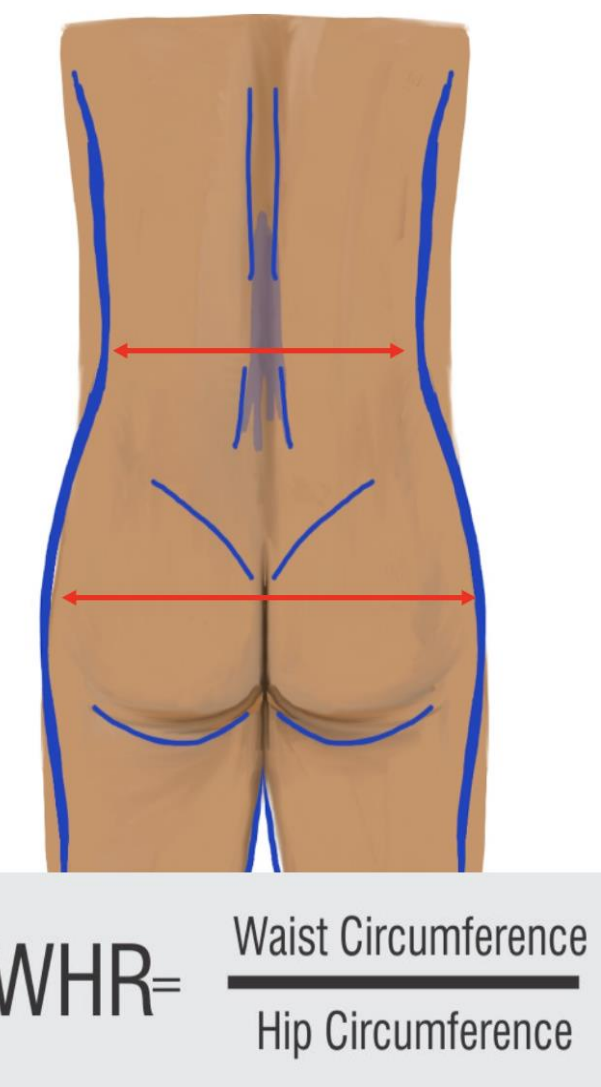
Figure 1. Illustration of a masculine eye with a feminine overlay (dark blue). Red and cyan lines show the greater canthal tilt of the feminine eye. The masculine brow is flatter and aligns with the superior orbital rim, while the feminine brow is more arched and sits above it.

BODY CONTOURING - Modification of Waist-to-Hip ratio (WHR)

•**Feminine:** WHR 0.65–0.80, round convex glutes

•**Masculine:** WHR 0.85–0.95, flat concave glutes^{5,8}

•**GAS:** Liposuction & fat grafting⁵

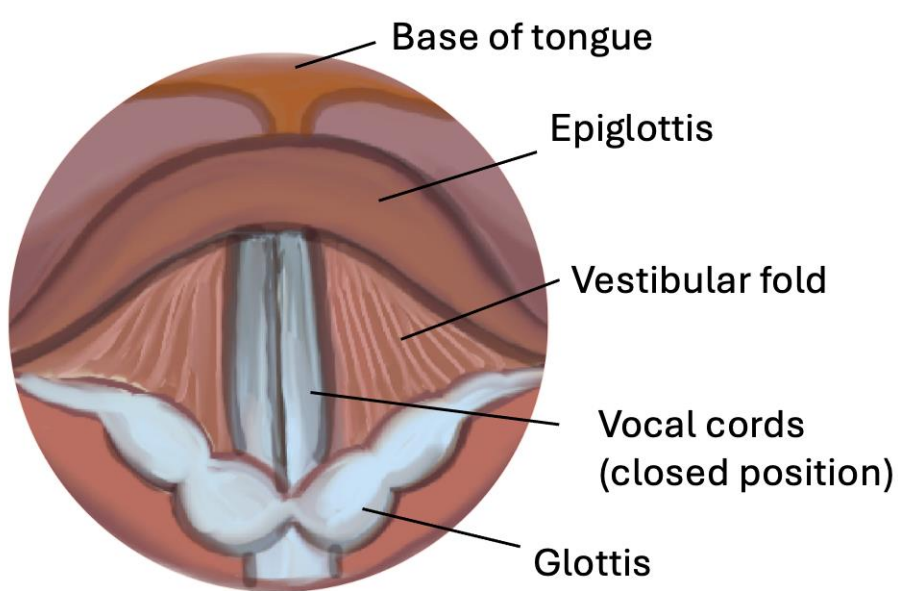


VOICE AUGMENTATION

•**Feminine:** Shorter, thinner vocal cords, higher pitch

•**Masculine:** Longer, thicker cords, deeper pitch

Feminization GAS: Glottoplasty, Laser-assisted voice augmentation, speech therapy⁹



RESULTS

	Upper Blepharoplasty (CPT: 15822, 15823)	Vocal cord surgery (CPT: 31599)	Voice Therapy (CPT: 92507, 92508)	Body contouring (liposuction) (CPT: 15877)
No. Claims				
MassHealth	2	10	2,667	12
Private	58	39	6,504	108
Charges (USD)				
MassHealth	518	1,419	116	930
Private	1,923	2,830	78	2,158
Denials (%)				
MassHealth	0	0%	0.2%	1.4%
Private	22.7%	8%	5.8%	14.4%

Table 1. Comparison of Claims, Average Costs, and Denial Rates for GAS: MassHealth vs. Private Insurance

- Significant **demand for voice therapy**
- **Greater denial rate for blepharoplasty** under private insurance
- **Less MassHealth coverage for body contouring** compared to other procedures

OVERALL

Lower out-of-pocket costs for MassHealth patients, with average copays of \$0 compared to varying copays for privately insured patients.

Lower mean amount paid for MassHealth claims than for private insurance claims.

Higher claim denial rates for private insurance, MassHealth had few to no denials

CONCLUSION

• **Massachusetts offers extensive GAC**, while private insurers show significant disparities

Gender dysphoria varies among individuals, and transgender patients have diverse anatomical needs

More work is needed to create **cost-effective coverage** by

- prioritizing procedures that most reduce gender dysphoria
- limiting spending on less impactful procedures

Future studies – Quantification of the mental health benefits of specific procedures (e.g., tracheal shave vs. blepharoplasty) could:

- refine the definition of ‘medical necessity’
- guide patient-centered insurance policies
- optimize patient outcomes while ensuring efficient use of healthcare resources.

LIMITATIONS

- Findings are specific to Massachusetts
- CHIA database does not include private practice data

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