Economic Analyses of Gender-affirming Care: A Literature Review

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Background

- Despite a growing body of literature supporting the value of gender-affirming care in promoting health and preventing adverse outcomes, in the past several years, severe restrictions have been placed on gender clinics, particularly in the US. Moreover, there is a push to loosen restrictions on sexual orientation/gender identify change efforts ("conversion therapy"), which has well-established adverse consequences.[1]
- Seeking to demonstrate that gender-affirming care improves clinical, humanistic, and economic outcomes, some researchers have undertaken economic studies. For example, a 2022 US cost-effectiveness analysis (CEA)[2] found that sexual orientation/gender identify change efforts cause annual harms of >$9 billion, while affirmative care yields cost savings and quality-adjusted life year (QALY) gains.

Objectives

This literature review sought to identify evidence on the economic impact and value of gender-affirming care, to inform discussions on its overall costs and benefits.

Methods

- We conducted a PubMed search on January 9, 2026 (keywords: gender-affirming care, transgender care, economic; no restrictions on publication date or language), followed by citation mining/pearl-growing.
- Inclusion criteria were broad (**Figure 1**).

Figure 1. Inclusion Criteria

Population
Individuals seeking gender-affirming care; transgender individuals

Intervention
Gender-affirming care, defined as such by the authors

Comparators
Any or none

Outcomes
Cost of care, cost-effectiveness, budget impact, cost-utility; studies only reporting out-of-pocket costs were excluded

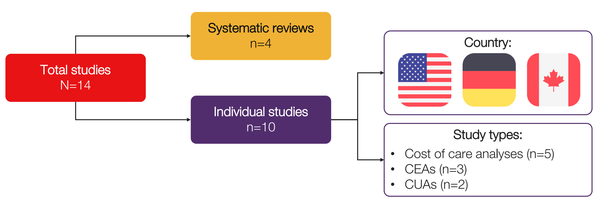
Study types
Any

Results

Study selection and characteristics

- Fourteen studies met our selection criteria (**Figure 2**):
  - Four systematic literature reviews (SLRs)[3–6]
  - Ten individual studies, based in the US,[7–12] Germany,[13,14] and Canada.[15,16] These studies included:
    - Cost of care analyses (n=5)[8,10–13]
    - CEAs (n=3)[7,9,14]
    - Cost-utility analyses (CUAs; n=2)[15,16]

Figure 2. Overview of Included Studies



Abbreviations: CEA = cost-effectiveness analysis; CUA = cost utility analysis

SLR Findings

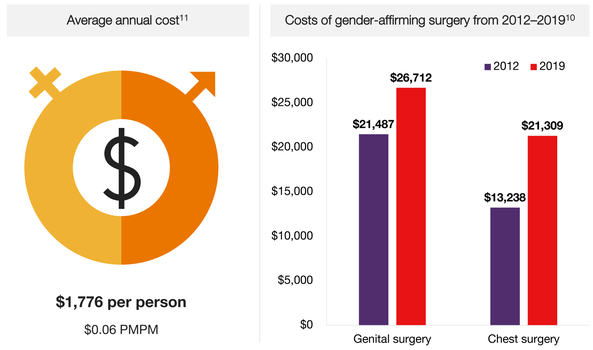
- Of the four SLRs:
  - One SLR of self-administered gender-affirming hormones sought, but did not identify, cost studies for inclusion.[3]
  - Two SLRs (one on gender-affirming surgery in transgender men,[4] one on gender-affirming hormones in gender-diverse adults[5]) each identified a single cost study, both of which were captured in our search.
  - The fourth SLR, which evaluated gender-affirming care in transgender and gender-diverse adults, identified six cost studies: three reported only out-of-pocket patient costs; the remaining are included in this review.[6]

Cost of Care Findings

US:

- Three US cost of care studies reported broad geographic variability in utilization and cost of gender-affirming care, which is associated with a low budget impact despite increased uptake:
  - One study used commercial claims data (OptumLabs Data Warehouse; 1993–2019) to evaluate long-term utilization and cost trends, noting an exponential rise in transgender enrollees beginning around 2011 and plateauing between 2018 and 2019. The annual cost of providing gender-affirming care in 2019 was $1,776 per patient, corresponding to a budget impact of $0.06 per member per month (PMPM) across the commercially insured population (**Figure 3**).[11]

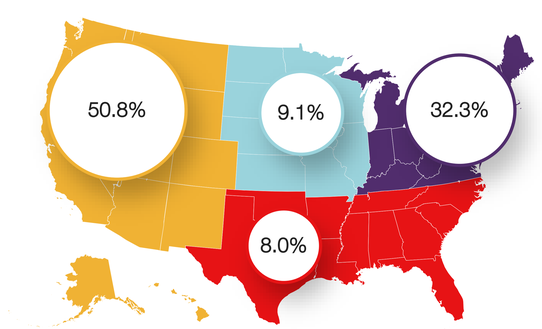
Figure 3. US Costs Associated with Gender-affirming Care across Studies



Abbreviation: PMPM = per member per month

  - A study assessing the costs of inpatient genital gender-affirming surgery, based on the National Inpatient Sample (NIS) database (2016–2019), identified significant regional variability in hospital costs (P<0.0001), with the lowest median costs observed in the Northeast ($11,421, IQR: $9155–$13,165] for vaginoplasty; $10,055, IQR: $9,013–$10,377 for phalloplasty).[8]
    - Utilization of gender-affirming surgery was highest in the West, which accounted for 50.8% of total encounters, followed by the Northeast (32.3%), Midwest (9.1%), and South (8.0%) (P<0.0001) (**Figure 4**).

Figure 4. Regional Distribution of Gender-affirming Surgeries in the US[8]



  - Another study used the NIS database (2012–2019) to assess utilization and costs of gender-affirming surgery in gender-diverse individuals aged ≥18 years and found a five-fold increase in utilization from 2012 to 2019, accompanied by a 36% inflation-adjusted cost increase across genital ($21,487 to $26,712) and chest surgery ($13,238 to $21,309) (**Figure 3**). Significantly lower costs were observed in the Northeast, Midwest, and South vs. the West (P<0.001 for all comparisons).[10]
  - A third study used NIS data (2008–2017) to study utilization and cost trends in gender-affirming surgery, focusing on facial feminization surgery (FFS); the cost of gender-affirming surgery increased from $13,657 in 2008 to $50,789 in 2017, with FFS included in 9.1% of cases from 2015–2017 (the years for which FFS data was available). Utilization of FFS was more common in the West (50%) and Northeast (31.8%) compared with the South (13.6%) and Midwest (4.8%).[12]
- Broadly, utilization of gender-affirming surgery in the US was more likely in patients with commercial insurance vs. Medicare or Medicaid[8,10] and more likely in patients in the highest vs. lowest income quartile.[10]

Germany:

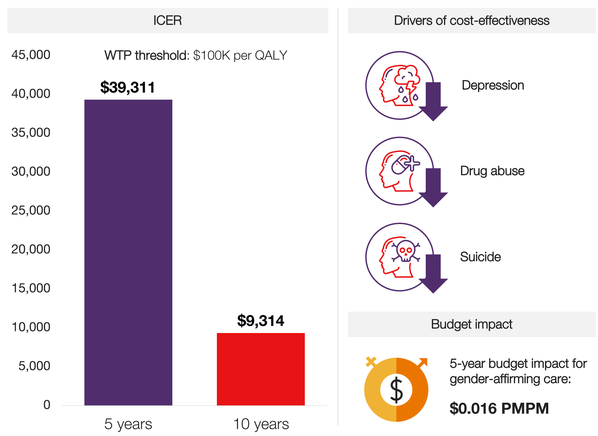
- A German study noted no significant difference in overall healthcare costs for care-seeking transgender individuals and the general population:
  - Over 6 months, total excess costs associated with care-seeking transgender and gender-diverse adults were estimated at €672 per person (95% CI: €–3,315 to €4,657; P=0.741), including €2 in excess direct costs (€–1,115 to €1,119; P=0.977) and €669 (€–3,031 to €4,370; P=0.723) in excess indirect costs, primarily due to absenteeism and unemployment.[13]

Cost-effectiveness Findings

US:

- Both US CEAs found gender-affirming care to be cost-effective, and increasingly so over time, with one analysis reporting cost savings over a longer time horizon:
  - One study reported that insurance coverage of medically necessary transgender procedures (potentially including hormone replacement therapy, gender-affirming surgery, or both) were cost-effective over a 5-year time horizon (incremental cost-effectiveness ratio [ICER]: $39,311/QALY) and a 10-year time horizon (ICER: $9,314/QALY), based on a willingness-to-pay (WTP) threshold of $100,000 (**Figure 5**). Results were driven by reduced adverse outcomes including depression, drug abuse, and suicide.[7]
  - The other study found that gender-affirming mastectomy reached cost-effectiveness in the second year post-surgery (ICER: $24,979/QALY) and was cost-saving by 7 years post-surgery (–$85/QALY) compared with no surgery, based on a WTP threshold of $50,000/QALY.[9]
- From a US commercial insurance perspective, the 5-year budget impact of providing gender-affirming care was estimated at $0.016 PMPM,[7] consistent with the minimal budget impact ($0.06 PMPM) reported in a US claims database study.[11]

Figure 5. Transgender Care ICERs and Budget Impact[7]



Abbreviations: ICER = incremental cost-effectiveness ratio; PMPM = per member per month; QALY = quality-adjusted life year; WTP = willingness to pay

Germany:

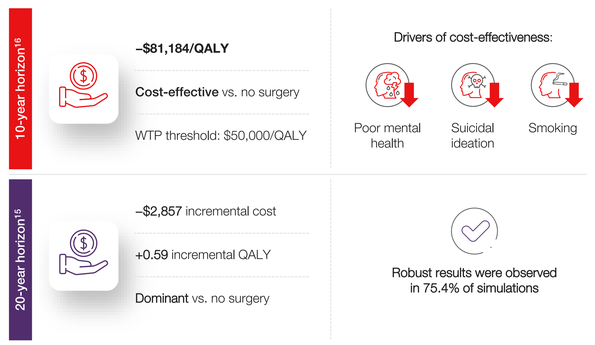
- A German CEA concluded that a gender-affirming telehealth program, designed to provide multidisciplinary care to people in remote areas with no or insufficient access to gender-affirming medical care, was not cost-effective vs. a waiting list over a 4-month time horizon (€254,021/QALY) based on a WTP of €150,000/QALY.[14]

Cost-utility Findings

Canada:

- Per the results of two Canadian CUAs, top surgery was cost-effective vs. no surgery and was dominant over longer time horizons (**Figure 6**):
  - Over a 10-year time horizon, top surgery was cost-effective vs. no surgery (–$81,183.56/QALY) for transgender and gender-diverse adults, based on a WTP threshold of $50,000/QALY; results were driven by impacts on mental health, suicidal ideation, and smoking.[16]
  - Over a 20-year time horizon, top surgery was dominant vs. no surgery (incremental cost: –$2,857; incremental effectiveness: 0.59 QALYs), with robust results observed in probabilistic sensitivity analyses (dominant in 75.4% of simulations).[15]

Figure 6. Cost-effectiveness of Top Surgery vs. No Surgery



Abbreviations: QALY = quality-adjusted life year; WTP = willingness to pay

Conclusions

Gender-affirming care has modest costs and has been shown to be cost-effective from US and Canadian perspectives, due in part to offsetting severe psychiatric consequences of forgoing care. Several analyses found increased cost-effectiveness over longer time horizons, with upfront costs outweighed by continued accrual of clinical benefits.

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Disclosures

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