

# Examining Health Outcomes for People Who Are Transgender

## Principal investigator

Michael Goodman, MD, MPH

## Organization

Emory University

## What was the research about?

People who are transgender have a gender identity that differs from the male or female sex assigned to them at birth. Some transgender people get gender-affirming therapies to change their bodies to match their gender identity. Examples of gender-affirming therapies include surgery or taking hormones such as estrogen or testosterone.

The research team wanted to learn about health outcomes for transgender people. To do this, the team compared certain health measures among people who are transgender with the same measures among people who aren't transgender. The study also looked at health outcomes for transgender people who did and didn't receive gender-affirming therapies.

## What were the results?

- **Mental health.** Nearly all mental health conditions the research team looked at, such as depression, were more common among transgender people than people who aren't transgender. Self-harm and thoughts about suicide were more common among transgender youth ages 10 to 17 years than nontransgender youth of the same age.
- **Cancers.** Compared with men who aren't transgender, transgender women had a lower risk of prostate cancer and a higher risk of cancers that arise from endocrine glands, such as thyroid cancer.
- **Blood clots and strokes.** Transgender women who received estrogen had a higher risk of blood

clots and strokes compared with men and women who aren't transgender. Their risk for blood clots and strokes increased over time.

- **Body image.** Transgender people who received more gender-affirming therapies reported that they felt better about how their bodies looked and how other people saw them compared with transgender people who received fewer or no therapies.

## Who was in the study?

The research team looked at health records for 6,459 transgender people and 127,668 nontransgender people. All were members of three Kaiser Permanente health systems in Georgia and California. In addition, 697 transgender members took a survey.

## What did the research team do?

Using health records for transgender and nontransgender people from three health systems over 10 years, the team compared the risk of blood clots or strokes. The team also looked at other health outcomes, such as cancer and mental health conditions.

The team sent a survey to transgender people whose health records showed that they had received gender-affirming therapies. The survey asked transgender people about the therapies they received. It also asked how they felt about the way their bodies looked after receiving any therapies.

---

A group of transgender people, advocates, doctors, and health system staff worked with the research team during the study.

### **What were the limits of the study?**

This study looked at records from patients in three health systems in two states. Results may be different for patients in other health systems or for people without health insurance. The research team can't say for sure that the risks for blood clots and strokes found among transgender patients in the study are a result of hormone therapy. Other health problems may have led to the blood clots and strokes.

Future research could look at other health benefits and risks of gender-affirming therapies for transgender patients.

### **How can people use the results?**

These results can help transgender people who get gender-affirming therapies and their doctors be more aware of possible health problems, such as blood clots or strokes. Doctors may also want to ask transgender patients about possible mental health needs. Transgender women and their doctors may also want to be on the lookout for thyroid and some other cancers.

*To learn more about this project, visit [pcori.org/Goodman076](https://pcori.org/Goodman076).*