



OVERVIEW

This episode explores how government policy shapes the demand for mental health care services. Using real-world studies, it shows that when Medicaid coverage was reduced in Tennessee, higher out-of-pocket costs led to a reduction in the quantity demanded for hospitalizations related to mental health and substance use. In contrast, when states implemented mental health parity laws requiring insurance to cover mental health care equally, access improved, students' mental health and academic performance rose, and suicide rates fell. The episode illustrates key microeconomic concepts including the law of demand, movement along the demand curve, a shift of the demand curve, price sensitivity, and the role of government in correcting market failures.

Key Microeconomics Links

- **Law of Demand:** Higher prices reduce quantity demanded; lower prices increase it.
- **Movement Along the Demand Curve:** Changes in prices, not preferences, explain changes in quantity demanded.
- **Elasticity:** Demand for mental health care is price-sensitive (i.e. elastic), especially without insurance.
- **Government Role:** Policies like Medicaid and parity laws affect access by altering effective prices.
- **Consumer Welfare:** Price changes impact consumer surplus, affecting real outcomes like health and education.
- **Market Failures:** Insurance helps address access problems and improves market efficiency and equity.

Preview Question

What happens to mental health when we take health insurance away?

Discussion Questions

1. How does the concept of "movement along the demand curve" apply to what happened when Tennesseans lost Medicaid coverage?

EPISODE OVERVIEW, QUESTIONS, & EXTENSIONS

Season 1 Episode 1 | Supply and Demand

2. Why might the *quantity demanded* of mental health services fall even if people's *need* for those services remains unchanged?
3. In standard markets, when prices go up, quantity demanded goes down. Why might this effect be even stronger in the mental health care market?
4. What role does government policy play in shaping the effective "price" that consumers face for mental health care?
5. What does Sebastian Tello Trillo's study suggest about the elasticity of demand for mental health and substance use services?
6. How is "mental health parity" an example of changing incentives in a market? How did it affect student outcomes?
7. What might explain why parity laws improved GPA but didn't significantly affect dropout rates?
8. Could the improvements in mental health (and GPA) be thought of as positive externalities of mental health parity laws? Why or why not?
9. What would happen to the supply and demand for mental health services if insurance coverage became even more generous?
10. Based on what you learned, do you think mental health care is a "normal good"? Why or why not?

Multiple Choice Questions

1. When Tennessee cut Medicaid coverage in 2005, what economic effect occurred for many residents seeking mental health services?
A) A movement along the demand curve due to higher out-of-pocket prices
B) A shift of the demand curve outward because of increased need
C) A surplus of mental health services
D) No change, because mental health needs stayed the same

Answer: A

2. Why might demand for mental health services decrease after losing insurance, even if the need for care stays constant?
A) People's preferences for care change
B) Higher prices make services unaffordable, reducing quantity demanded
C) The supply of services shrinks dramatically
D) Mental health issues became less common

EPISODE OVERVIEW, QUESTIONS, & EXTENSIONS

Season 1 Episode 1 | Supply and Demand

Answer: B

3. In standard markets, when prices rise, quantity demanded falls. Why could this effect be especially strong in mental health care?
- A) Mental health care is a perfectly elastic good
 - B) Patients tend to overconsume at low prices
 - C) Mental health care has no substitutes and is often expensive
 - D) Insurance companies regulate demand directly

Answer: C

4. According to Dr. Sebastian Tello Trillo's study, what happened to substance use hospitalizations after Tennesseans lost Medicaid?
- A) They increased slightly due to higher stress levels
 - B) They decreased by about 15%
 - C) They remained unchanged
 - D) They decreased by 4%, but not significantly

Answer: B

5. What does "mental health parity" refer to?
- A) Equal numbers of mental health and physical health providers
 - B) Making mental health care free for all students
 - C) Government funding for mental health facilities
 - D) Laws requiring mental health to be covered like physical health in insurance

Answer: D

6. Dr. Keisha Solomon's study found that parity laws improved which of the following among college students?
- A) Dropout rates decreased significantly
 - B) Mental health days worsened slightly
 - C) Suicide rates decreased by 3.5%
 - D) Substance use increased slightly

Answer: C

7. Why might parity laws have improved GPA but not significantly affected dropout rates?
- A) GPA is more sensitive to short-term health changes than dropout decisions
 - B) Dropout rates are only affected by financial aid, not health
 - C) Students had fewer mental health days overall
 - D) GPA measures are more accurate than dropout statistics

EPISODE OVERVIEW, QUESTIONS, & EXTENSIONS

Season 1 Episode 1 | Supply and Demand

Answer: A

8. Based on the video, mental health care is likely a:
- A) Inferior good
 - B) Giffen good
 - C) Normal good
 - D) Luxury good only

Answer: C

9. When Tennesseans lost Medicaid, why didn't all affected people buy private insurance?
- A) Private insurance was unavailable in Tennessee
 - B) Only 30–40% could afford private coverage
 - C) They no longer needed health insurance
 - D) Private insurance companies denied most applicants

Answer: B

10. Which of the following best describes how parity laws changed incentives in the mental health care market?
- A) They increased provider wages
 - B) They lowered the price at every quantity
 - C) They reduced the need for mental health care
 - D) They forced hospitals to accept only insured patients

Answer: B

11. What lesson does Sebastian Tello Trillo's study provide about access to care?
- A) Price changes alone have little impact on demand
 - B) Demand for mental health care is perfectly inelastic
 - C) Higher prices can reduce access even when need remains high
 - D) Reducing insurance coverage lowers provider supply

Answer: C

True / False Questions

1. Tennessee's Medicaid cuts caused a drop in the quantity of mental health services demanded.
Answer: True
2. The need for mental health care decreased in Tennessee after Medicaid cuts.
Answer: False

EPISODE OVERVIEW, QUESTIONS, & EXTENSIONS

Season 1 Episode 1 | Supply and Demand

3. The effect of price increases on demand is weaker in the mental health care market compared to standard markets.
Answer: False
4. Government policy influences the effective “price” consumers face for mental health services.
Answer: True
5. Mental health parity laws require insurance companies to cover mental health services at the same level as physical health services.
Answer: True
6. Parity laws improved GPA and significantly reduced dropout rates among students.
Answer: False
7. If insurance coverage for mental health became more generous, demand for these services would likely increase.
Answer: True
8. Mental health care is a normal good because demand increases as income rises.
Answer: True
9. Reducing out-of-pocket costs shifts the demand curve for mental health services to the left.
Answer: False
10. Mental health parity laws can change incentives in the market for mental health services.
Answer: True

EPISODE OVERVIEW, QUESTIONS, & EXTENSIONS

Season 1 Episode 1 | Supply and Demand

Application Questions

Table 1: Market for Mental Health Services

Price (\$/visit)	Quantity Demanded (Number of yearly visits) Carlos	Quantity Demanded (Number of yearly visits) Natalia
0	12	7
50	10	6
100	8	5
150	6	4
200	4	3
250	2	2
300	0	1

Questions

1. From Table 1, consider Carlos's demand for health services. Assume that the price of producing health care services is \$250 per visit without health insurance. How many visits will Carlos make in an average year? How will this quantity change if Carlos's health care covers \$200 of this amount?
2. Now, assume that Carlos has PPO (Preferred Provider Organization) insurance, which pays for 80% of Carlos's costs of care (where the price is \$250 without insurance). This means that Carlos now pays only 20% of the price of the health care services. What is Carlos's new out-of-pocket price and quantity demanded? Discuss how his quantity demanded changes with and without insurance. Why is this a change in quantity demanded and not a shift in demand?
3. Now suppose that Carlos and Natalia are the two buyers in the mental health care market. Derive the market demand for mental health services and add these values to the table below.
4. How would you expect the market demand to change when mental health parity laws allow more people to use insurance for mental health services? Graph this shift.

EPISODE OVERVIEW, QUESTIONS, & EXTENSIONS

Season 1 Episode 1 | Supply and Demand

Answers

1. Since the price per visit is \$250 without insurance, Carlos will make on average 2 visits per year. If the coverage is \$200 the price he pays will be \$50. At \$50 he will make 10 visits per year.
2. The PPO will not impact the price as it still will be \$250 per visit without insurance. However, since Carlos has a PPO, he will not pay the full price. His portion of the price is 20% of \$250 = $.2 \times 250 = \$50$ out of pocket. This is essentially a shift down the demand curve, with price decreasing. At a price of \$50, his quantity demanded is 10 visits per year. This is a shift along the curve because it is a change in price. The determinants of demand are the factors that shift the demand curve, not price.
3. Market demand is derived by adding up the quantity demanded at each price. The market demand is found in the table below.
4. As health parity laws are passed, more people can use insurance to buy mental health services. As the number of people in the market increases, the demand curve shifts to the right (increases). At every price level, more people are willing to pay for mental health services. See Panel B in S1Ep1 Graph for an example of this demand shift.

Table 2: Answers: Market for Health Care Visits

Price (\$/visit)	Quantity Demanded (Number of yearly visits) Carlos	Quantity Demanded (Number of yearly visits) Natalia	Quantity Demanded (Number of yearly visits) Market
0	12	7	19
50	10	6	16
100	8	5	13
150	6	4	10
200	4	3	7
250	2	2	4
300	0	1	1

EPISODE OVERVIEW, QUESTIONS, & EXTENSIONS

Season 1 Episode 1 | Supply and Demand

Innovative Ways to Extend the Lessons

1. Listen to our podcast!

- **Student Assignment:** Listen to the generated podcast summary and reflect: *What is lost or gained when research is translated into casual language? What do you note here that you did not when watching the video? What does the video do a better job of explaining? What do you understand better from both listening to the podcast and watching the video?*

2. "Role Play the Market" Simulation

- Split students into three groups: consumers needing mental health services, insurers, and government policymakers.
- After a "Medicaid cut" is announced, let consumers re-evaluate their behavior, insurers adjust coverage offers, and policymakers respond with new laws.
- **Goal:** Visually and interactively show movements along the demand curve and policy responses.

3. Create Visual "Elasticity Profiles" for Mental Health Services

- Ask students to build simple graphs estimating demand elasticity for different types of mental health services (e.g., emergency hospitalization vs. counseling).
- Encourage them to back up their guesses using evidence from the studies.
- **Extension:** Compare with price elasticity estimates from health economics literature.