EPISODE OVERVIEW, QUESTIONS, & EXTENSIONS
Season 1 Episode 1
Supply and Demand

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?

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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

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

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

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

Application Questions

1. A therapy session's out-of-pocket price increases from $40 to $60. As a result, the number of sessions demanded per month drops from 15 to 10. What is the percent decrease in quantity demanded? Does this represent a movement along the demand curve or a shift of the demand curve?

   Answer: Percent decrease = 33.3%; Movement along the demand curve

2. A new parity law lowers patients' cost per therapy session from $50 to $20 because insurance now covers more. Demand for therapy increases from 12 sessions per month to 20 sessions per month—even though prices didn't change for uninsured patients. Does this represent a movement along or a shift of the demand curve?

   Answer: Shift of the demand curve

3. A household's income increases by 20%, and they increase their monthly therapy sessions from 5 to 8. Is this an example of a movement along the demand curve or a shift of the demand curve? What is the percent increase in therapy use?

   Answer: Shift of the demand curve; Percent increase = 60%

4. Before Medicaid cuts, Tennesseans demanded 100,000 mental health visits annually. After losing Medicaid coverage, demand fell to 60,000 visits. The price of services remained the same for uninsured individuals. Was this caused by a movement along the demand curve or a shift of the demand curve?

   Answer: Shift of the demand curve

5. Price of therapy drops from $120 to $80 per session and demand rises from 50,000 to 70,000 sessions. Later, a new policy also gives a $500/month income boost to households, leading demand to rise further to 90,000 sessions. Which change (price or income) causes a movement along the demand curve? Which causes a shift?

   Answer: Price → movement along; Income → shift

6. When price rises from $100 to $150, demand drops from 1,000 to 800 visits. When insurance coverage improves (holding price constant), demand rises from 800 to 1,200 visits. Which change reflects a movement along the demand curve? Which reflects a shift?

   Answer: Price change → movement along; Insurance → shift

7. A demand curve shifts right after a new mental health parity law. At the original price of $50/session, demand increases from 100 to 150 sessions. By how many sessions did demand increase at the original price? Does this reflect a movement or shift?

   Answer: 50 session increase; Shift of the demand curve

8. A government subsidy lowers out-of-pocket costs from $80 to $40 per session, and patients increase therapy visits from 3 to 5 per month. Is this a movement along or a shift of demand?

   Answer: Shift of the demand curve

9. Rank the following events from most likely to cause the largest increase in demand for mental health services to least likely:

   a) A new parity law that reduces out-of-pocket costs by 50%
   b) A general 10% increase in household income
   c) A government campaign that increases awareness about mental health

   Answer:
   a) Parity law → largest (reduces direct costs)
   c) Awareness campaign → medium (changes preferences)
   b) Income increase → smallest (mental health is a normal good but less income-elastic)

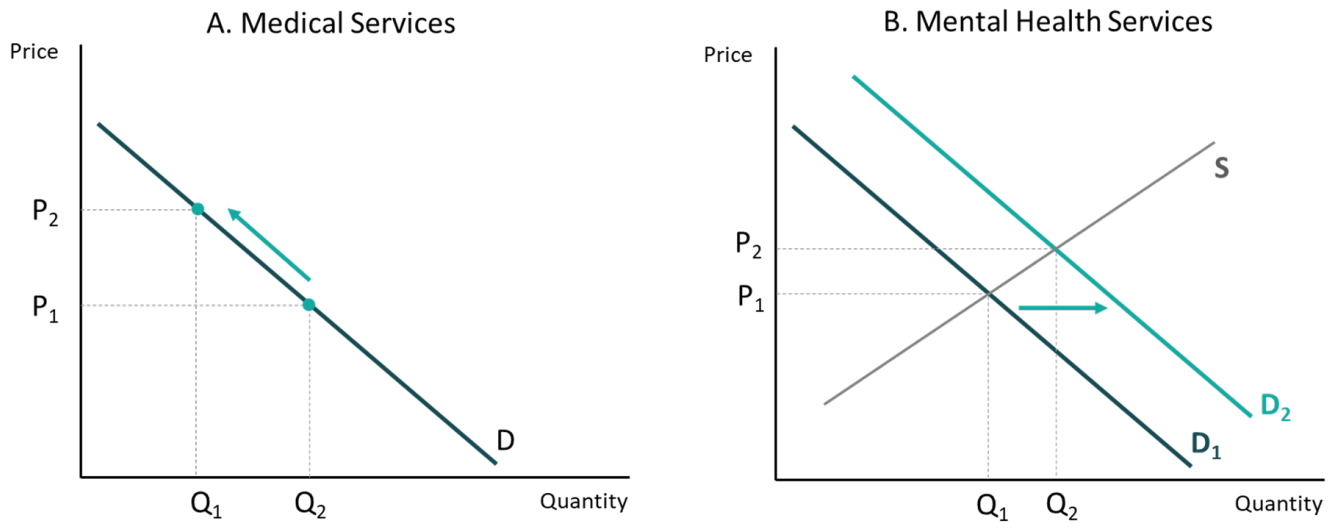
10. Two states want to increase use of mental health services:

    State A lowers therapy session prices by 30%.
    State B introduces a parity law that makes insurance cover therapy fully.

    Both states see demand rise, but State B sees a larger increase. Why?

    Answer:
    State B's parity law reduced effective prices for all insured patients, not just uninsured ones. It also reduces uncertainty about future costs, shifting demand more.

Episode in a Graph



UE Figure S1 Ep1: Movement along Demand and Shift in Demand.

Description: The graph in panel A shows how losing health insurance raises the out-of-pocket price for care, resulting in a movement up along the demand curve for medical services or a reduction in quantity demanded. This movement along demand can be represented by the movement from P_1 to P_2, which reduces the quantity demanded from Q_1 to Q_2. This increase in the price of medical care reduces the amount of mental health services (and all other medical care) demanded. The need for care may remain, but higher costs reduce access and use. The graph in panel B shows how the introduction of mental health parity laws, which reduce out-of-pocket costs, shifts the demand curve for mental health care to the right. At every price level, more people are willing and able to seek care, leading to greater use of services even without a change in price. This reflects an increase in demand (not a movement along the curve) and increases the equilibrium price and quantity for mental health services from P_1 Q_1 to P_2 Q_2..

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.