Geographic Markets and Hospital Competition

Theory and Empirical Evidence

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Overview

- What Is The Theory of Competition?
  - Market definition depends on the theory of competition
- What Is The Empirical Evidence On Markets And Competition?
  - Academic studies
  - Merger retrospectives

The Theory

Hospitals Compete In Two Stages

- Hospitals First Compete For Inclusion In *Managed Care Plans'* Networks
- Hospitals Next Compete For *Patients*
- The Two Stages of Competition Differ:
  - Different "customers"
  - Different means by which hospitals compete
  - Different antitrust markets
  - Different effects from a merger
  - Different evidence regarding market definition
- Reconciles Conflicting "Evidence" In Mergers

First Stage Market Definition

- *Health Plans* Are The "Customer"
- Prices Constrained By Plans' Ability To Divert Patients To Alternative Hospitals
- Geographic Market Definition:
  - Would a Plan divert enough patients to a hospital in a particular location to prevent a price increase?
    - Focuses on *hospital* locations, *not* patient locations
    - Considers price increases by "any or all" of hypothetical monopolist's hospitals

What Do Plans Want?

- Plans Want A Marketable Health Plan
- Hospital Networks Are A Critical Part Of What Plans Sell
- Marketable Hospital Networks:
  - Are not too expensive
  - Include hospitals that enrollees want
    - Specialty hospitals (tertiary, childrens, etc.)
    - “Local” hospitals
    - Hospitals (and physicians) with good reputations
  - Include the hospitals used by the Plan’s physicians
  - Don’t have complex or confusing access rules

Price Increases Create A Trade-Off

- Plans Must Choose Between Higher Premiums Or A Less Attractive Product
  - How will choice affect enrollment?
  - How will choice affect profits?
- Hospital Price Increases May Have A Limited Impact On Premiums
  - A 10% hospital price increase may increase premiums by less than 0.5%
- Changes In Plan Design May Leave The Plan Less Attractive

Patient Diversion Strategies

- Possible Diversion Strategies:
  - Dropping a hospital from the network
  - Adding hospitals to network to “dilute” patient base
  - Creating incentives for patients to switch hospitals
  - Creating incentives for physicians to admit elsewhere
  - Changing the physician panel
- Diversion Can Be Absolute or Partial
- Strategies Differ In Effectiveness, Financial Cost and Enrollee Acceptance

Diversion Strategies Can Be Costly

- Financial "Carrots" May Be Counter-Productive
  - Incentive payments offset benefits of avoiding higher priced hospitals
  - Can incentives be targeted to "marginal patients"?
  - Discriminating between enrollees may be unpopular
- Financial "Sticks" May Reduce Enrollment
  - Penalties for using particular hospitals may create enrollee resentment
- Are Alternative Hospitals Any Cheaper?
  - Diversion to high quality, prestige hospitals may be achievable, but result in even higher costs

Diversion Can Be Unpopular

- Diversion Strategies Can Alienate Enrollees
  - Impact on patient/physician relationship?
  - Impact on physicians' willingness to remain in network?
- Diversion Strategies Can Be Confusing
  - Complicated benefit design causes enrollee confusion and unhappiness
- Discriminatory Diversion Strategies May Be Unacceptable

Second Stage Patient Competition

- Extent of Competition Depends On Hospitals' Network Status
- No Price Compete For Patients
- Non-Price Competition Includes:
  - Physician and hospital staff
  - Services
  - Perceived Quality & Community Image
    - Physical appearance
    - Marketing and advertising
  - Outreach clinics
- Non-Price Competition May Be Of Limited Importance To First-Stage Competition

Second Stage Competition

- Targeted Geographic Competition Is Possible:
  - Physician recruiting and clinic openings
  - Advertising
- Discharge Data May Be Relevant To Competition By Identifying:
  - Historical Patient Bases
  - Opportunities For Attracting New Patients
  - Principal Rivals
  - Impact of Past Marketing Strategies

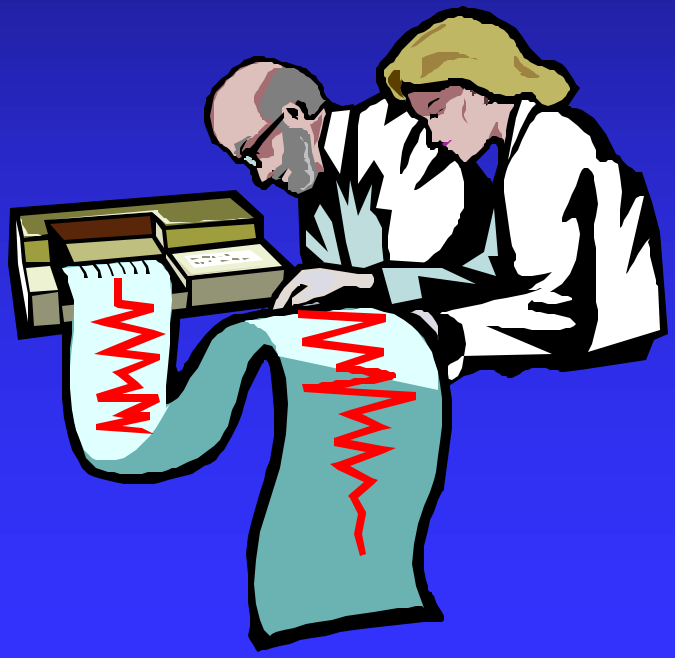
Comparing The Two Stages

- Different Customers With Different Objectives
- Competition Differs Between The Two Stages
  - Prices generally irrelevant for patient competition
  - Patients and Plans view non-price factors differently
- The Relevant Evidence May Differ
  - Evidence of competition at one stage may not imply competition at the other stage
  - Discharge data may be relevant mainly for patient-level competition

Implications of Two Stage Analysis

- Geographic Markets May Differ
  - First-stage markets may be much smaller that second-stage markets
- Merger Effects May Differ
  - Harm at either stage is harm to competition
- Helps Reconcile Contrasting Arguments & Evidence In Merger Cases?
  - Agencies focusing on first-stage competition and arguing narrow markets?
  - Hospitals focusing on second-stage competition where markets may be broader?

The Empirical Evidence



Empirical Research

- Recent Empirical Work Includes:
  - Town and Vistnes (*Journal of Health Economics, 2001*)
  - Capps, et al. (*working papers*)
  - Gaynor and Vogt (*working paper*)
- Studies Suggest Limited Competition
  - Focus on evaluating first-stage competition
  - Studies include data from urban areas
  - Suggest merger effects despite seemingly unconcentrated markets
- Studies Suggests Narrow Geographic Markets
  - Suggests caution using discharge data to define markets

Town & Vistnes: The Approach

- Examined Actual Contract Data
  - 1990 - 1993
  - Two of the Largest Plans in the Los Angeles Area
- Estimated Relationship Between Prices And Hospitals' Bargaining Strength
  - Estimated patients' valuation of individual hospitals
  - Used patients' estimated valuation to calculate Plans' value of alternative hospital networks
  - Used this information to estimate each hospital's bargaining strength

Town & Vistnes: Empirical Results

- Price Depends On A Hospital's Incremental Value To The Plan's Network
- Hospitals Often Face Limited Competition Despite Many "Nearby" Hospitals
  - Mergers of "next best alternatives" frequently leads to a predicted price exceeding 5%
- Limited Competition Inconsistent With Traditional Market Definition Boundaries
  - Next best substitutes: typically 10 - 20 km away
  - Markets based on discharge data would be unconcentrated and substantially larger

FTC's Merger Retrospective

- Well Worth The FTC's Time And Resources
- Offers Significant Opportunities To Learn
  - Are the Agencies' concerns legitimate?
  - Which "patient diversion strategies" are used and how effective are they?
- Anecdotal Evidence: Several Mergers *Have* Led to Higher Prices
- If Post-Merger Price Effects Are Found:
  - Geographic markets are likely smaller than found by the courts
  - Offers the opportunity to dispel the assumptions underlying courts' past findings of broad markets