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Defining the Relevant Market in Hospital Mergers: A High-Level Overview

Between 1998 and 2015, the number of hospital mergers announced each year ranged from 38 to 139.[1] Despite this activity, relatively few hospital mergers were challenged by antitrust authorities, with mixed outcomes.[2] In the 1990s, the Federal Trade Commission (FTC) lost six consecutive hospital merger cases.[3] Afterwards, neither the Department of Justice (DOJ) nor the FTC challenged a single hospital merger until 2008, when the FTC secured its first win in over a decade, setting the stage for a series of victories in the 2010s.[4]

When assessing hospital mergers, a crucial first step is defining the relevant antitrust market, which includes both the product and geographic markets. This definition forms the foundation for evaluating the potential anticompetitive effects of the merger, such as whether it could lead to higher prices or reduced quality of care. Antitrust authorities and parties may employ several analytical tools, including the **Hypothetical Monopolist Test (HMT)**, **Critical Loss Analysis**, **Diversion Ratio**, and the **Elzinga-Hogarty Test**.

Hypothetical Monopolist Test (HMT) is "a method by which [antitrust] Agencies often define relevant antitrust markets."[5] It imagines a scenario where a single firm controls all the products within a candidate market. If this hypothetical, profit-maximizing monopolist could profit from a small but significant and non-transitory increase in price ("SSNIP"), typically five percent, the candidate market is deemed the relevant antitrust market.[6] In hospital merger cases, the HMT often asks whether the joinders could effectuate a profitable SSNIP against insurers, not patients. This is because prices are typically negotiated between hospitals and insurers,[7] and insured patients' hospital choice is largely unaffected by prices.

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[1] "TrendWatch Chartbook 2016." *American Hospital Association*. <https://www.aha.org/system/files/2018-01/2016-chartbook.pdf> (accessed Aug. 16, 2024).
[2] Capps, Cory, Laura Kmitch, Zenon Zabinski and Slava Zayats. "The Continuing Saga of Hospital Merger Enforcement." *Antitrust LJ* 82 (2018): 441-496.
[3] *Id.* at 442.
[4] *Id.*
[5] "Merger Guidelines." *U.S. Department of Justice* and *Federal Trade Commission* (Dec. 18, 2023) at 41. <https://www.ftc.gov/system/files/ftc_gov/pdf/P234000-NEW-MERGER-GUIDELINES.pdf> (accessed Aug. 13, 2024) ("Merger Guidelines") at 41.
[6] *Id.*
[7] Vistnes, Gregory. "Hospitals, Mergers, and Two-Stage Competition." *Antitrust LJ* 67 (1999): 671-692; Town, Robert and Gregory Vistnes. "Hospital Competition in HMO Networks." *Journal of Health Economics* 20.5

Critical Loss Analysis is another widely used technique in antitrust practices.[8] It analyzes how many customers a hypothetical monopolist would need to lose before breaking even on a price increase. This loss threshold is termed the "critical loss."[9] If merging hospitals are predicted to lose more patients as a result of a price increase than the critical loss, the analysis then suggests that there are hospitals outside the candidate market which patients consider viable substitutes. In this case, the relevant antitrust market should be broadened.

Diversion Ratio measures how many patients would switch from hospital A to hospital B when hospital A is no longer available as a choice to patients, for example, when it is excluded from the insurance network. A high diversion ratio indicates that patients view the analyzed hospitals as close substitutes, and correspondingly, it is appropriate to include them in the relevant antitrust market. Diversion ratio between hospitals is typically calculated based on econometric models (e.g., discrete choice models) that predict how individual patients choose hospitals based on patient demographics as well as hospital characteristics.[10]

Elzinga-Hogarty Test focuses on patient flows when defining the relevant geographic market.[11] If a significant majority of patients who live within a hospital's service area also seek care from providers within that area (i.e., both inflow and outflow are minimal), then the service area represents the relevant geographic market. The test can be applied with different thresholds depending on whether a strong or weak version of the test is used.[12]

Together, these tools provide a comprehensive approach to defining the relevant market in hospital merger cases. Which tool is the most appropriate likely depends on facts specific to each case, as well as the relevant case laws in each jurisdiction.

For additional inquiries, please contact info@vegaeconomics.com.

(2001): 733-753; Capps, Cory, David Dranove and Mark Satterthwaite. "Competition and Market Power in Option Demand Markets." *RAND Journal of Economics* (2003): 737-763.

[8] Katz, Michael L. and Carl Shapiro. "Critical Loss: Let's Tell the Whole Story." *Antitrust* 17 (2002): 49-56 at 50. Though closely related, the inquiry in Critical Loss Analysis is distinct from that under the HMT. Critical Loss analyzes whether a hypothetical monopolist would break even from a SSNIP while the HMT analyzes whether the profit-maximizing price increases are beyond the SSNIP.

[9] Katz, Michael L. and Carl Shapiro. "Critical Loss: Let's Tell the Whole Story." *Antitrust* 17 (2002): 49-56 at 49-50.

[10] These models can be estimated using inpatient discharge data, which is publicly available. *See*, for example, "Overview of the State Inpatient Databases (SID)." *Agency for Healthcare Research and Quality*. <https://hcup-us.ahrq.gov/sidoverview.jsp> (accessed Aug. 20, 2024).

[11] Elzinga, Kenneth G. and Thomas F. Hogarty. "The Problem of Geographic Market Delineation in Antimerger Suits." *The Antitrust Bulletin* 18.1 (1973): 45-81.

[12] An inflow/outflow threshold of 10 percent is associated with a "strong" E-H market, and a threshold of 25 percent a "weak" E-H Market. Garmon, Christopher. "The Accuracy of Hospital Merger Screening Methods." *The RAND Journal of Economics* 48.4 (2017): 1068-1102.