The Antitrust Implications of Entry by Small-scale Hospitals·

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Introduction
Analyses of general acute care hospital mergers have traditionally defined the relevant product market as inpatient medical and surgical acute carel and have generally assumed that economies of

1. Data and Sample
Entry into the California hospital marketplace is a good subject for study for two reasons.
First, because California eliminated its certificate of need (CON) program in 1987, CON considerations have not affected recent entry. Second, since 1982, California has allowed selective contracting, which has promoted price competition among health care providers. Price competition may lead to a different set of hospitals than does quality competition. If we believe that future competiton will primarily occur along price dimensions, then entry behavior in states that currently promote price competition should offer insight into future entry patterns in other states.
Table 1 lists all of the new general acute-care hospitals that have opened in California
between January 1, 1989 and December 31, 1992. California's Office of Statewide Health Planning and Development (OSHPAD) groups hospitals into 24 peer groups based on bed size, service complexity, location, teaching

so that we would not think that their entry size was dictated by the size of the market. The remaining eleven entrants, which are entering urban areas, comprise the third category. These hospitals presumably were not constrained in their choice of entry size by the size of the market. In summary,
approximately two-thirds of the sub-100 bed entrants fall into the second and third categories. Since
these categories describe hospitals whose service areas presumably overlap with the service areas of a
number of nearby hospitals, the entry size of these hospitals probably was not dictated by the size of
the market.
We might also see entry at a small scale by niche hospitals (e.g. women's hospitals). At least
some of the smaller general acute care hospitals (6-30 beds) are an outgrowth of free-standing surgery t13 oi9b -0.0017ib60 size

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service, general acute care hospitals that have entered urban and suburban areas

Antitrust authorities and the courts have not used the Horizontal Merger Guidelines approach in defining hospital product markets for hospital mergers.
To define hospital product markets, antitrust authorities and the courts have instead used a
cluster market approach, which argues that inpatient acute care services can be grouped together for
the purpose of analyzing hospital mergers because these services are often consumed together. For
example, in U.S. v. Rockford Memorial Corp., the district court judge noted" ... [T]he therapy of
patients who require inpatient care may require several types of diagnostic tests, twenty-four hour
nursing, extensive pre or post operative observation or any combination of other services offered by
an acute care hospital." The judge earlier had noted that" ... [T]he core of these peculiar
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the product market as an inpatient acute care cluster market that includes small surgery hospitals as market participants. In this case, antitrust regulators and the courts would then need to acknowledge in their analysis that the presence of small surgery hospitals, which perform uncomplicated deliveries and simple types of surgery (low-level inpatient acute care), could not prevent a price increase in more complex types of inpatient care (high-level inpatient acute care). Alternatively, antitrust authorities and the courts could define narrower product markets. These narrower product markets could be low-level inpatient acute care, in which small surgery hospitals compete, and high-level inpatient acute care, in which only larger hospitals (full-scale hospitals) compete.
Defining narrower product markets appears to be the better method of accomodating the
emergence of small surgery hospitals because it forces antitrust authorities to more explicitly identify their areas of concern. To see this, let us consider a hypothetical example with the following conditions. Two full-scale hospitals and one small surgery hospital serve a small city. Some of the patients in this city go to large, full-scale hospitals in a nearby city for high level inpatient acute care. 8 Small surgery hospitals can enter without driving price below profitable levels, however full-scale hospitals cannot. The two full-scale hospitals seek to merge. Thus, the most important question in this example is whether competition from small surgery hospitals would prevent a price increase in low-level inpatient acute care while the presence of nearby full-scale hospitals would prevent a price increase in high-level inpatient acute care.
In this example, suppose that antitrust authorities consider two product markets: low-level
acute care and high-level acute care. The low-level acute care product market probably would not be a concern because entry by small surgery hospitals would prevent any long-term anticompetitive harm. In contrast, the high-level acute care product market might be a concern. Because small

Because high-level inpatient acute care is a more expensive product than low-level inpatient
acute care, we

surgery hospitals do not offer high-level acute care, their entry could not prevent anti-competitive

antitrust authorities to decide to what extent nearby full-scale hospitals can prevent anticompetitive harm in all inpatient acute care and to what extent small surgery hospitals can prevent anticompetitive harm in all inpatient acute care. Since, in the example, the nearby full-scale hospitals cannot prevent anticompetitive harm in low-level inpatient acute care and the small surgery hospitals cannot prevent anticompetitive harm in high-level inpatient acute care, defining an all inpatient acure care product market would have been more likely to incorrectly identify an anticompetitive problem. In our example, defining an all inpatient acute care product market could have led antitrust authorities to underestimate the competitive impact of the nearby full-scale hospitals on high-level acute care.

III. Efficiencies
Several previous studies of the minimum efficient scale (MES) for general acute care hospitals suggest that sub-loo bed general acute care hospitals are inefficient. Based on these studies, a number of health care analysts have argued that small hospitals could deliver health care more efficiently if they were allowed to attain a larger scale through merger. 9 They argue that any deleterious effects on consumer welfare from such a merger would be offset, at least partially, by the efficiency gains resUlting from the merger. They further argue that, in many cases, allowing two small hospitals to merge would not adversely affect competition because one of the small hospitals is so inefficient that it would likely exit the market anyway. These arguments appear to have influenced antitrust policy. For instance, since the end of 1988, only three hospital mergers have been challenged in court by the Federal Trade Commission or the Department of Justice.1O In one of

9 For example, see Hospital Collaboration: The Need for an Appropriate Antitrust Policy; American Hospital Association; 1992.
10 FTC v. University Health Systems, 938 F.2d. 1206, 1210-11 (lIth Cir. 1991); FTC v. Columbia Hospital Corp., No. 93-30-FTM-CIV-23D. (M.D. Fla., injunction granted May 21, 1993), Adventist Health System/West, FTC Docket 9234 (AU Initial Decision, Dec. 9, 1992), appeal to full Commission pending.

these, Adventist Health Systems/West, the administrative law judge concluded that one larger hospital would provide better health care to Ukiah, California residents than would two hospitals with 43 beds
and 51 beds respectively. In addition, a bill has been introduced in Congress that would immunize hospital mergers for hospitals that are located in cities with fewer than 125,000 people and that
receive 40 percent of their gross revenue from Medicare and Medicaid.ll
The belief that smaller general acute care hospitals are inefficient is based largely on mortality
studies and survivorship studiesP The mortality studies (Lillie-Blanton et al. (1992), Williams et al. (1992» fmd that sub-l00 bed hospitals have hospitals (199Tj 0.0053 Tc62.318 0Td (al.)vorship of than that studies a than hospitals

days produced by the 200-299 bed size fell slightly, and the percentage of inpatient days produced by the over-400 bed size fell substantially. These results suggest that the 0-49 and 50-99 bed general acute care hospitals are relatively more efficient than the 200-299 and over-400 bed general acute care hospitals but relatively less efficient than the 100-199 and 300-399 bed general acute care hospitals. In summary, it is difficult to infer much from the survivor analysis. First, theoretical and
data problems limit its applicability for this particular use. Second, some of the results appear peculiar. For instance, Table 4 shows that the percentage of general acute care hospitals in the 50-99 bed category fell substantially while the percentage of general acute care hospitals in the 0-49 bed category increased slightly and the percentage of general acute care hospitals in the 100-199 bed category increased substantially. If we use changes in the percentage of hospitals in a particular bed size to measure efficiency, then these results suggest that the 0-49 bed size and the 100-199 bed sizes are efficient while the 50-99 bed size is not. Consequently, although the survivor analysis provides some additional information about economies of scale, it is difficult to place much weight on this additional information.

IV. Conclusion

Of the thirty-five general acute care hospitals that have recently opened or soon will open in California, twenty-one have fewer than 100 beds. Several of these sub-l00 bed hospitals are entering areas that are somewhat isolated. The scale of entry of these hospitals may have been dictated by the size of the market. Several of the other sub-l00 bed hospitals are niche hospitals. Most of these are an outgrowth of free-standing surgery centers and do not provide a full range of acute care services. The remaining hospitals are full-service general acute care hospitals located in urban and suburban

areas.

13

The entry into inpatient acute care by the small surgery hospitals complicates the definition of hospital product markets. Previously, hospital

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15

Table 1

List of Acute Care Hospitals that Opened between 1/86 and 12/92*

hospital 1 / 8 6

Table 2

Acute Care Hospitals that Filed Construction Plans with OSHPAD

hospital name date filed bed size location

17) Kaiser Foundation Hospital 7/89 240 beds Baldwin Park
18) Sutter HealthCare 2/93 30 beds Santa Cruz
19) Kaiser Roseville Medical Center 2/92 116 beds Roseville
20) James P. Tate Surgical Hospital 8/90 10 beds Redding
21) Family Doctor Medical Group 3/91 12 beds Vallejo
22) General Acute Care Facility 11188 50 beds Corcoran
23) N.T. Enloe Hospital Satellite Facility 4/87 16 beds Chico
24) San Bernadino County Medical Center 6/91 373 beds San Bernadino replacement
25) Rancho Cucamonga Medical Center 12/Tj 0.014 -0.023 Tddd (Chico)Tj -0.0126 Tc -33.3 Tcn 0 Td (beds)Tj 0.06098 Tc 4.839 0 Td-23 Td (6/9)Tj -0.0

Table 3

Location of Sub-1 00 Bed Entrants

distance to number of hospitals number of hospitals
hospital name bed size location nearest hospital within 10 miles within 15 miles

1) Sutter Coast Hospital (new location) 47 beds Crescent City 50 mi. 0 0
2) Coalinga District Hospital 18 beds Coalinga 16 mi. 0 0
3) General Acute Care Facility 50 beds Corcoran 13 mi. 0 1
4) Menifee Valley Medical Center 84 beds Sun City 12 mi. 0 3
5) Moreno Valley Medical Center 95 beds Moreno Valley 11 mi. 0 7
6) Sutter Davis Hospital 50 beds Davis 10 mi. 1 1

7) South Valley Hospital 93 beds Gilroy 9 mi. 1 3
8) St. Louise Health Center 60 beds Morgan Hill 9 mi. 1 2
9) Mercy Hospital of Folsom (new location) 95 beds Folsom 1 mi. 3 6
10) Vencor Hospital - Sacramento 39 beds Folsom 1 mi. 3 6

11) Rancho Cucamonga Medical Center 49 beds Rancho Cucamonga 4 mi. 5 7
12) James P. Tate Surgical Hospital 10 beds Redding 3 mi. 2 2
13) Family Doctor Medical Group 12

0-50 beds
2nd qtr 1989 0.175 (74)
4th qtr 1992 0, 177 (71)

0-50 beds
2nd qtr 1989 0.023
4th qtr 1992 0.026

Table 4

Percentage and Number of Hospitals in Various Bed Size Categories 51-100 beds
0.209 (88)
0.185 (74)

101-200 beds 201-300 beds 301-400 beds over 400 beds 0.277 (117) 0.178 (75)
0.299 (120) 0.175 (70)

Table 5

0.085 (36)
0.095 (38)

0.076 (32)
0.070 (28)

Percentage of Inpatient Days Produced by Various Hospital Sizes 51-100 beds
0.073
0.075

101-200 beds 201-300 beds 301-400 beds over 400 beds 0.208
0.229

19

0.254
0.248

0.182
0.198

0.260
0.225