Issues in Defining the Product Market for Hospital Services

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My talk will focus on three issues.

- **What has been the Standard Product Market Definition?**
- **Is the Standard Product Market Definition Too Narrow?**
- **Is the Standard Product Market Definition Too Broad?**

There are numerous complexities in applying the Guidelines to hospital services.

- **Complexity stems from:**
  - **Multiplicity of Services Provided by Hospitals**
  - **Consumer Heterogeneity**
    - **Difference in medical treatment needs**
    - **Third party payor coverage**

Hospitals provide numerous services.

- **Schedule of charges typically very detailed.**
  - **Diagnostic tests, drugs, medical devices, ancillaries, room and board**
- **Many types of treatments**
  - **Heart disease, cancer, obstetrics**

'Cluster markets' have been proposed as a solution to dealing with the multiplicity of hospital services.

- **Rationales**
  - **Complementarities in demand and supply**
  - **Analytical Convenience**

Product market definition in hospital merger decisions has subtly evolved.

Case	Year	Accepted Product Market	Important Issues
American Medical International	1984	General acute care hospital services	Included hospital outpatient services, excluded non-hospital outpatient services, excluded psychiatric beds due to CON considerations
Hospital Corp. of America	1985	General acute care hospital services	Excluded psychiatric hospitals, included psychatric beds in acute care hospitals, included pediatric hospital beds. Commission accepted product market definition but noted that "perhaps outpatient care should be separate market or markets".
Carlilion Health System	1989	District Court held product market included "certain clinics and other providers of outpatient services."	Appeals court noted that "in a merger of two large entitites, there is no single product market" with each product market having a different "degree of substitutability between inpatient and outpatient services"
Rockford Memorial Corp.	1990	Acute care inpatient services	Hospital outpatient services excluded
Unversity Health	1991	Acute care inpatient services	District court held merging parties "not truly in competition in a meaningful and substantial way at this time". Distrct court decision reversed on appeal. Appeals court noted the maerging hospitals "compete effectively for several services"
Adventist Health Systems/Ukiah (FTC)	1992	Acute care inpatient services	Significant outmitgration which complant counsel alleged was attributable to patients seeking tertiary care

Product market definition in hospital merger decisions has subtly evolved.

Case	Year	Accepted Product Market	Important Issues
U.S. v. Mercy Health Services	1995	Acute care inpatient services offered by both the merging parties	Excluded inpatient psychiatric care, substance abuse treatment, rehabilitation services and open heart surgery
FTC v. Freeman Hospital	1995	Acute care inpatient services	Merger of osteopathic and allopathic hospitals
FTC v. Butterworth Health Corp.	1996	(1) Acute care inpatient services (2) Primary care inpatient services	Different geographic markets relevant to each product market "cluster"
U.S. v. Long Island Jewish and North Shore Health System	1997	Acute care inpatient services. The district court also recognized separate primary/secondary care and tertiary care product markets based on the conclusion that the geographic market for these services differed	Plaintiff argued that the relevant product market was "the bundle of acute care inpatient services provided by anchor hospitals to managed care plans"
FTC v. Tenet Healthcare Corporation and Poplar Bluff Physicians Group	1998	Primary and secondary acute care inpatient services, but not tertiary or quaternary services	Whether patients leaving the area for DRGs provided in Poplar Bluff could be treated at local hospitals.

Is the standard hospital product market definition too narrow?

- **Outpatient Services**
- **Other Exclusions**
  - **Non-acute inpatient providers**
  - **Veterans, active military hospitals**

Is the standard hospital product market definition too broad?

- **Specialty Acute Care Hospitals**
  - **Women's hospitals, Children's Hospitals**
- **Service Level Disaggregation**
  - **Sacher and Silvia (1998)**

Our analysis focused on two regions in California.

- **San Luis Obispo**
  - **Area with small hospitals providing a limited range of services**
- **Sacramento**
  - **Area with larger hospitals offering a broader range of services**
- **1993 OSHPD Data**

The hospital cluster was disaggregated using "Zwanziger Service Categories" (ZSCs)

- **Based on paper by Zwanziger, Melnick and Eyre (1994)**
- **Groups "diagnostic related groups" (DRGs) into 48 service categories**
- **Emphasizes the physician as the key input into hospital treatments**

In both areas the disaggregated approach involved limited categories.

- **In San Luis Obispo, 17 (out of 48) ZSCs accounted for 91% of area hospital admissions**
- **In Sacramento, 18 ZSCs accounted for over 90% of admissions**

The analysis compared patient flows and concentration for the entire cluster and top ZSCs.

- **Numerous types of evidence used to assess geographic markets.**
- **Patient flow data one input**
  - **Outflow Ratio**
  - **Inflow Ratio**

Patient flow statistics for San Luis Obispo

Category	San Luis Obispo					
	City		County		County and Santa Maria	
	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow
Cluster	88	45	84	87	88	88
Surge, OB/gynecology	94	36	86	94	97	90
Surg, orthopedics	85	33	83	74	81	84
Surg, general	87	54	86	87	87	88
GM, miscellaneous	86	53	84	87	85	88
GM, gastroenterology	91	56	89	87	92	87
GM, cardiology	92	64	89	88	93	87
Surg, vascular	81	33	81	83	75	88
GM, Pulmonology	94	60	92	90	94	90
General Medicine (GM)	89	48	90	86	94	87
Surg, cardiology [a]	81	28	71	82	59	88
Surg, urology	82	51	80	87	81	87
Surg, orthotics	82	64	73	93	77	90
Spec, oncology	84	55	83	90	78	90
Sp Svc, Sp neurology	91	59	88	89	82	87
Sp, Svc, Inv cardiology	85	42	82	82	83	86
GM, neurology	97	47	86	83	86	86
Surg, neurology w cran [b]	67	21	73	85	75	87

Patient flow statistics for Sacramento.

Sacramento						
Category	City		County		MSA	
	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow
Cluster	83	56	81	79	86	85
Surg, OB/gynecology	88	62	86	86	90	91
Surg, general	84	53	80	77	85	84
Surg orthopedics	80	46	80	68	84	78
GM, miscellaneous	73	60	72	82	77	87
GM, cardiology	84	60	84	84	88	87
GM, gastroenterology	85	61	81	84	86	87
GM, pulmonology	81	64	83	88	87	90
GM, general medicine	87	62	85	84	89	88
Surg, urology	87	51	85	75	89	82
Surg, vascular	84	37	73	56	78	68
Spec, oncology	77	54	76	76	82	82
Surg, cardiology	86	30	80	48	84	61
Sp, Svc, Inv cardiology	83	42	83	66	87	77
GM, endocrinology	84	62	80	84	85	88
Surg, orthotics	87	45	86	69	89	79
Sp, Svc, Sp neurology	68	65	68	86	72	88
GM, neurology	86	59	81	78	85	83
Sp, Svc, chemotherapy	81	31	73	52	82	65

[a] No admissions at Sierra Vista Hospital
[b] No admissions at French Hospital

Herfindahl statistics for San Luis Obispo.

San Luis Obispo						
Category	City		County		County and Santa Maria	
	Change	Post-merger	Change	Post-merger	Change	Post-merger
Cluster	2763	6663	1817	5685	1509	4061
Surge, OB/gynecology	461	5012	440	5178	996	3684
Surg, orthopedics	1961	9453	1396	8586	1879	6578
Surg, general	2761	6969	1578	5675	1646	4315
GM, miscellaneous	3148	7292	1830	5816	1410	4034
GM, gastroenterology	2933	6800	1444	5013	1306	3713
GM, cardiology	3609	7485	1372	4866	1116	3524
Surg, vascular	2054	9942	2930	9005	2099	6907
GM, Pulmonology	3007	6704	1466	5300	1257	3781
General Medicine (GM)	3904	8030	2040	5516	1634	4112
Surg, cardiology [a]	0	10000	0	10000	0	7948
Surg, urology	2629	7012	1557	6024	1555	4382
Surg, orthotics	4291	9905	3171	5893	2792	6188
Spec, urology	3695	8782	2064	6876	1669	4648
Sp Svc, Sp neurology	3754	8692	1841	6122	1517	4260
Sp, Svc, Inv cardiology	1042	9755	4548	9677	2802	6649
GM, neurology	3600	7551	2581	6462	1813	4549
Surg, neurology w cran [b]	0	10000	0	9836	0	6508

Herfindahl statistics for Sacramento.

Sacramento			
Category	City HHI	County HHI	MSA HHI
Cluster	2834	2311	1728
Surg, OB/gynecology	2778	2683	2045
Surg, general	2554	2400	1795
Surg orthopedics	2427	2283	1794
GM, miscellaneous	2449	2283	1699
GM, cardiology	2663	2459	1652
GM, gastroenterology	2449	2269	1592
GM, pulmonology	2262	2228	1549
GM, general medicine	2436	2236	1618
Surg, urology	2766	2584	1875
Surg, vascular	3598	3668	2964
Spec, oncology	2544	2367	1755
Surg, cardiology	4552	4552	4277
Sp, Svc, Inv cardiology	2780	2782	2237
GM, endocrinology	2367	2237	1623
Surg, orthotics	2840	2715	2011
Sp, Svc, Sp neurology	2316	2322	1624
GM, neurology	2638	2388	1822
Sp, Svc, chemotherapy	3348	3136	2516

[a] No admissions at Sierra Vista Hospital

[b] No admissions at French Hospital

The following observations emerged:

1. **A disaggregated approach may involve relatively few inpatient service categories.**
2. **Sacramento had more variability in patient flow statistics, less in concentration statistics**
3. **In San Luis Obispo the opposite appeared to be the case**

Cluster markets can mask details in the underlying demand-side markets.

- **This has no predictable effect on whether a not a particular practice or transaction will be viewed as anticompetitive.**
  - **Statistics at the cluster level that do not appear problematic may mask issues in underlying categories**
  - **Issues in underlying categories can complicate a case that looks problematic at the cluster level**

Concluding Thoughts.

- **Would a disaggregated approach always involve a limited range of services?**
- **What should be done when information to apply a less aggregated approach is not available?**
- **Can rules of thumb be developed for when concentration and patient flows at the cluster level accurately represent concentration and patient flows for services within the cluster?**