

Katherine Ho, “The Welfare Effects of Restricted Hospital Choice in the US Medical Care Market”, *Journal of Applied Econometrics*, forthcoming.

The data used in this paper come from a number of proprietary sources. Details are listed below. Any researcher wishing to access the data for the purpose of replicating the analysis should contact the author at:

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The data sources are listed below.

1. The hospital demand model was estimated using patient-level data for 1997 and 1998 from the MarketScan Database, Thomson Medstat®, Ann Arbor, MI. I used the Inpatient Admissions and Inpatient Services files from the Commercial Claims and Encounters Database.
2. Data on hospital characteristics for 1997, 1998 and 2001 come from the AHA Annual Survey Database. The data are held by the American Hospital Association, Health Forum LLC, Chicago, IL.
3. The population of consumers in each market by age, gender and zip code and median income by zip code were extracted from the “CensusCD” provided by GeoLytics, Inc., East Brunswick, NJ, 2003.
4. Health insurer market shares and characteristics (premiums earned, number of enrollees, HMO/POS indicators and tax status) were taken from two datasets from Atlantic Information Services: “The HMO Enrollment Report, January 2003” and “HMO Directory 2003”. Data can be purchased from [www.aishealth.com](http://www.aishealth.com).
5. In cases where Atlantic Information Services data were not available data on premiums were taken from the Weiss Ratings’ Guide to HMOs and Health Insurers, Fall 2002. I also used the plan age and number of physicians reported by this source. Information on purchasing these data is available at [http://www.weissratings.com/products\\_hmo.asp](http://www.weissratings.com/products_hmo.asp).
6. Health plan quality measures were taken from the Health Employer Data and Information Set (HEDIS) and the Consumer Assessment of Health Plans (CAHPS) 2000 data, both of which are published by the National Committee for Quality Assurance. Information is at the following website: <http://www.ncqa.org/Communications/Publications/index.htm>.

I list below the variables utilized for each dataset.

1. Medstat MarketScan Database, 1997 and 1998  
(a) Inpatient Admissions Table

EMPZIP	Postal ZIP code of the primary beneficiary's residence
HOSPZIP	Postal ZIP code of the hospital where the patient was admitted
MSA	Metropolitan Statistical Area of primary beneficiary
PDX	Principal diagnosis explaining the main reason for an admission
PLANTYP	Type of benefit plan. Sample restricted to 1 (Basic/major medical), 2 (Comprehensive) and 6 (PPO)
UNIHOOSP	Unique hospital identifier
YEAR	Year during which service was rendered

(b) Inpatient Services Table

STDPLAC	Place of service
STDSVC	Type of inpatient service

Following advice from Medstat, encounters were defined as emergencies if STDPLAC = 23 or if STDPLAC=25 and STDSVC=77.

2. American Hospital Association Annual Survey Database, 1997, 1998 and 2001

ID	AHA Identification Number
REG	AHA Region Code
STCD	AHA State Code
HOSPNO	AHA Hospital Number
CNTRL	Control Code (sample was restricted to hospitals with CNTRL<40)
SERV	Service Code (sample restricted to hospitals with SERV=10)
OBHOS	Obstetric care - hospital
NICHOS	Neonatal intensive care - hospital
BRNHOS	Burn care - hospital
ALCHHOS	Alcohol/drug abuse inpatient care - hospital
ANGIOHOS	Angioplasty - hospital
BROOMHOS	Birthing room - hospital
MAMMSHOS	Breast cancer screening/mammograms - hospital
CCLABHOS	Cardiac catheterization laboratory - hospital
EMDEPHOS	Emergency department - hospital
ONCOLHOS	Oncology services - hospital
OHSRGHOS	Open-heart surgery - hospital
RADTHHOS	Radiation therapy - hospital
CTSCNHOS	Computed-tomography (CT) scanner - hospital
MRIHOS	Magnetic resonance imaging (MRI) - hospital
PETHOS	Positron emission tomography (PET) - hospital
SPECTHOS	Single photon emission computerized tomography (SPECT) - hospital
BDTOT	Total facility beds set up and staffed
MNAME	Hospital name
MLOCZIP	Hospital ZIP code
FTEMD	Full time equivalent physicians and dentists
FTERN	Full time equivalent registered nurses
MSACD	Metropolitan statistical area code (MSA)

MAPP1	Accreditation by Joint Commission on Accreditation of Health Care Organizations (JCAHO)
MAPP2	Cancer program approved by American College of Surgeons
MAPP3	Residency training approval by Accreditation Council for Graduate Medical Education
MAPP5	Medical school affiliation reported to American Medical Association
MAPP8	Member of Council of Teaching Hospitals of the Association of American Medical Colleges (COTH)
MSANAME	Hospital, MSA name

### 3. GeoLytics Census CD

AreaKey	Geography Key Code
AreaName	Area Name
P077001	Median family income
P008001	Total population
P008002-P008040	Male population by age group
P008041-P008079	Female population by age group

### 4. Atlantic Information Services Data, 2003

(a) The HMO Enrollment Report, January 2003

MSA-Specific enrollment for each HMO and POS product listed in the data excluding Medicaid-only and Medicare-only products. Where MSA-specific enrollment was not available, State or National enrollment was allocated to the MSA level using the methodology described in Appendix A.

(b) The HMO Directory 2003

HMO Name	Name of the plan
Private/Public	Private or public organization
Tax Status	For-profit or not-for-profit organization
Premiums Earned	Total premiums earned during the year
Enrollment	Number of enrollees (used to create premiums per member month)

### 5. Weiss Ratings Guide to HMOs and Health Insurers, January 2002

WEISSID	Weiss insurer identification number
COMMENCED	Year commenced business
PREMTOT01	Total premiums earned during the year
PHYSEYOY01	Total number of physicians at end of year 2001
ENROL01	Total number of enrollees at end of year 2001

### 7. National Committee for Quality Assurance Data, 2000

(a) Health Employer Data and Information Set (HEDIS)

ORG_ID	Organization ID
SUB_ID	Submission ID
PLANNAME	NCQA plan name
BRCANSC	Breast cancer screening

CERCANSC	Cervical cancer screening
CH_DEL	Check-ups after delivery
EYEEX	Diabetic eye exams
AD_IMM1	Adolescent immunization 1
AD_IMM2	Adolescent immunization 2
ADSMOKE	Advice on smoking
MI_30	Mental illness check-ups

(b) Consumer Assessment of Health Plans (CAHPS)

ORG_ID	Organization ID
SUB_ID	Submission ID
PLANNAME	NCQA plan name
CARE_QUICKLY	Getting care quickly
CARE_NEEDED	Getting needed care

The CAHPS and HEDIS variables are defined in Table 5 of the paper.