

BENCHMARK STUDY

*of the delegated/capitated health care
delivery model in California*

Appendix

*to the California Healthcare Foundation
November 15, 2002*

Research conducted by

Intelligent Healthcare LLC

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Principal researcher: **Paul Katz**, MBA, Chief Executive Officer, Intelligent Healthcare, LLC, has 22 years experience in managed care finance, operations, and data management consulting. Paul was appointed Board Alternate to the California Financial Solvency Standards Board by Director Daniel Zingale of the Department of Managed Health Care.

Co-researcher: **Paul Torrens**, MD, MPH, Professor of Health Services, School of Public Health, University of California, Los Angeles. Director Daniel Zingale appointed Mr. Torrens to the State Financial Solvency Standards Board. Paul will serve as the lead for other researchers at UCLA, who will participate in the development of indicators and measuring provider performance.

Co-researcher: **Martin Lee, Phd, CStat**, President, International Quantitative Consultants / Director, Biostatistics, Harbor-UCLA Medical Center / Adjunct Professor, UCLA School of Public Health, School of Medicine, has 29 years experience in biostatistics and clinical research. Dr. Lee has written two textbooks, and published/co-written over 200 technical papers.

“Episode Risk Groups Software”: The “ERG” software is owned by **Symmetry-Health Data Systems, Inc.** At the request of Intelligent Healthcare, Symmetry consented use of its patented software for this Study.

PARTICIPATING ORGANIZATIONS

Medical Groups & IPAs

Alta Bates Medical Group
Beaver Medical Group
Bright Medical Associates
Brown & Toland Medical Group
Buenaventura Medical Group
Community Medical Group of the West Valley
Facey Medical Foundation
Golden Empire Managed Care
Greater Newport Physicians
Harriman Jones Medical Group
Marin IPA
Mills-Peninsula Medical Group
Monarch Healthcare
Physician Associates of the Greater San Gabriel Valley
Riverside Medical Clinic
Sansum-Santa Barbara Medical Foundation Clinic
Santa Clara County IPA
Sante Health System
Sharp Community Medical Group
Sharp Mission Park Medical Group
UCLA Medical Group
UC Irvine Medical Group

Health Plans

Aetna Health Plan of California
Blue Cross of California
Blue Shield of California
Cigna Healthcare of California
Health Net of California
PacifiCare of California

Laboratory

Unilab

MEDICAL GROUPS IN INDICATOR DATABASE

17 groups were loaded into the indicator database. 5 medical groups were excluded for the following reasons:

- (1) two groups - data did not cover the study period
- (2) one group - data did not have a field for linking to health plans
- (3) one group - data arrived after indicator study results were compiled
- (4) one group - eligibility data did not link to the claims data.

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<http://www.who.int/whr2001/2001/archives/2000/en/pdf/Annex1-en.pdf>

AVERAGE VISIT FEE BY SPECIALTY

Explanation to Footnotes 6, 7 and 8: “Per patient costs were calculated using the count of patient visits by provider type times an estimated visit fee per specialty.”

A visit is defined as “a patient seen by a particular provider on a given day, without regard to the CPT codes or number of services provided”. The count of visits by provider specialty for all patients with diabetes, asthma, or hypertension was multiplied times an estimated visit fee to determine a cost for all visits for these patients, which was divided, respectively, by the number of patients with diabetes, asthma, or hypertension. The calculation result is the average cost per patient per year reported for the medical group for patients with the identified condition.

The visit fees used in the Study were determined by Intelligent Healthcare LLC, using its database of cost and utilization by California medical groups. The visit fees are based on the 2001 Medicare RBRV’s fee schedule. Cost per visit was determined a more reliable bases for cost than reported procedure code utilization rates, because of the wide-variation in reported procedure code utilization rates. (See attached table “Average Visit Fee by Specialty”).



Commercial, Medi-Cal & Senior Enrollment
Benchmark Study
for the California Healthcare Foundation
by Intelligent Healthcare LLC
January 1, 2001 through December 31, 2001

Oct 2002

Average Visit Fee by Specialty

Specialty	Average Visit Fee	Specialty	Average Visit Fee
Allergy & Immunology	77	Ophthalmology/Optometry	121
Ambulance	913	Other	144
Anesthesiology	447	Otolaryngology	151
Cardiology	164	PCP: family/gen practice	52
Critical Care	271	PCP: internal medicine	54
Dermatology	107	PCP: pediatrics	59
DME	200	Pediatric Specialties	262
Emergency Med/Urgent Care	103	Pharmacy	938
Endocrinology	76	Phy Med, Rehab, Therapy	129
Gastroenterology	175	Podiatry	100
Hematology/Oncology	237	Pulmonary Medicine	157
Home Health	421	Radiology	87
Hospital	116	Radiology, Therapeutic	298
Hospital, emergency room	153	Rheumatology	108
Hospital, general	436	Surgery: cardiovascular	946
Hospital, outpatient	236	Surgery: endoscopic	255
Hospital, surgery center	321	Surgery: general	255
Hospitalist	155	Surgery: neuro	489
Infectious Diseases	117	Surgery: oral/maxillofacial	267
Internal Medicine	121	Surgery: ortho	178
Laboratory/Pathology	66	Surgery: pediatric	304
Mental Health	142	Surgery: plastic	353
Neonatal & Perinatal Medicine	1,052	Surgery: thoracic	560
Nephrology/Dialysis	184	Surgery: transplant	187
Neurology	153	Surgery: urology	147
Obstetrics/Gynecology	205	Surgery: vascular	167

ACRONYMS AND TERMS DEFINED

Acuity (risk) Analysis - An acuity analysis using Symmetry-Health Data System's Episode Risk Grouper software. This program uses an episode of care grouper to categorize healthcare services by patient into episodes of care. The episodes of care are then categorized into risk groups. These risk groups equate to cost factors, and are combined with demographic cost factors to produce an age, sex and acuity factor per enrollee. Taking all of the weights for all commercial patients, and dividing it by the number of patients, yields an average acuity factor by medical group.

Benchmark - Webster defines as “a point of reference from which measurements of any sort may be made.”

CALINX - California Information Exchange. A collaborative of association heads representing purchasers, providers, and plans and funded by CHCF. It promotes standardization and collaboration in the exchange of electronic healthcare information among California’s plans, providers, and purchasers.

CCHRI - California Cooperative Health Care Reporting Initiative. A statewide collaborative of employers, health plans, and providers dedicated to providing accurate, standardized comparable reports on health care performance.

CCHRI CAMAS - The CCHRI conducted a study that compared patient visits recorded in a sample of medical charts in a small number of medical groups to administrative data sets at the medical group and the health plan. The Completeness and Accuracy of Managed Care Administrative Data Sets ("CAMAS") conducted in 1999 found that for 786 encounters located through medical record abstraction, less than one percent of the data was missing from the medical group encounter data, while 69 percent was missing from the health plan encounter reporting system.

EMR - Electronic medical records are computer-based patient record systems, which focus on clinical medicine; aimed at enhancing delivery of quality healthcare while improving the physician's life.

HbA1c - Webster defines hemoglobin as “the red respiratory protein of erythrocytes, consisting of approximately 6 percent heme and 94 percent globin, that transports oxygen from the lungs to the tissues; glycosylated as “any of one four h. fractions (A1c) which together account for less than 4 percent of the total h. in blood.”

HEDIS - The Health Plan Employer Data and Information Set. A set of standardized performance measures designed to insure that purchasers and consumers have the information they need to reliably compare the performance of managed health care plans.

HEDIS Comprehensive Diabetes Care Methodology - From NCQA *Publications, HEDIS 2002 Technical Specifications, Volume 2, Comprehensive Diabetes Care* (pp 87-95).
http://www.ncqa.org/somc2001/DIABETES/SOMC_2001_CDIAB.html

HMO - healthcare maintenance organization.

HIPAA - Title I of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) protects health insurance coverage for workers and their families when they change or lose their jobs.

Information Technology Survey - “Physician Organization Information Technology Survey” designed by Intelligent Healthcare LLC to assess data components and capability of medical groups invited to participate in the Benchmark Study. Eight page document can be downloaded at www.intelHC.com under Benchmark Study.

Integrated Healthcare Association - IHA is a California leadership group of health plans, physician groups, and health care systems, plus academic, purchaser, consumer, and pharmaceutical industry representatives, committed to policy development, public dialogue, and special projects associated with the continuing evolution of managed health care. IHA's most recent undertaking is a collaborative Pay-for-Performance initiative involving six major California HMOs and their medical groups. www.ih.org

LDL - Low density lipoprotein. Webster defines as “a fraction of relatively small molecular weight, low density, rich in cholesterol, and found in the B-globulin fraction of human plasma ...(1.019-1.063).”

NCQA - National Committee for Quality Assurance. An independent, non-profit organization whose mission is to evaluate and report on the quality of the nation’s managed care organizations.

NDC - The National Drug Code “NDC” serves as a universal product identifier for human drugs.

Pay-for-Performance - A state-wide initiative for common quality measures to evaluate the performance of medical groups, and for deferring quality performance payments.

PPO - preferred provider organization.

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PMPM - Defined in this paper as “Per member per month net cost , usually based on the data reported net amount divided by member months.”

Utilization - Defined in this paper as “ representing the count of reported services provided (procedures), divided by the count of eligible members during a specified period (member months), times 1,000 enrollees times 12 months, which equals “annual utilization per 1,000 enrollees”. This utilization computation is used for comparative purposes across data sets to determine completeness of reported data, including unreported and unbundled services.”