REPORT FOR PRESENTATION AT DEPARTMENT OF HEALTH CARE SERVICES MEDI-CAL HOME-HEALTH RATE HEARING

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August 8, 2008

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This report provides an analysis of the "Medi-Cal Home Health Rate Review," prepared by the Department of Health Care Services (DHCS). This report addresses the discussion and conclusions in the DHCS "Rate Review" regarding the adequacy of Medi-Cal payments to home-health agencies in terms of efficiency, economy, quality of care and access. This report is divided into three sections – Access to Home-Health Services; Quality of Care; and Home-Health Agency Costs, Cost Increases and Medi-Cal Payment Rates. In each section, the DHCS "Rate Review" assertions are discussed, followed by my analysis. From this review and analysis, my conclusions are as follows:

(1) Access to home-health services has worsened since the last Medi-Cal payment increase in 2000, and does not match the levels available to the general population;

(2) In terms of quality of care, DHCS has not presented sufficient data to make any judgment;

(3) Since the last payment rate determination in 2000, on average, home-health agency costs have increased between 25 and 30 percent. For home-health visits, negligible percentages of agencies recover full costs, and payment rates are approximately half the median levels; and

(4) Notwithstanding DHCS' failure to conduct any (let alone annual) cost studies to support its rate-setting process, it has had Medicare Cost Report data available since at least 2000 upon which to base such studies.

I. ACCESS TO HOME-HEALTH SERVICES

The Department of Health Care Services (DHCS), in its June 2008 "Medi-Cal Home Health Rate Review," based on data showing increased Medi-Cal expenditures and numbers of users over the period 1992 to 1997, concludes that access to home-health services (HHA) is not rate driven.[1] This conclusion, based on 1992 to 1997 data, appears highly questionable; for example, the analysis fails to take into account that Medi-Cal rates for home-health services were increased in 1994, midway through the time period. In any event, using data from the current decade confirms an access problem. As shown in Table 1,

[1] "Medi-Cal Home Health Rate Review with Consideration of Efficiency, Economy, Quality of Care, and Access," Department of Health Care Services, June 2008, Table 4, page 11.

according to the Office of Statewide Health Planning and Development (OSHPD) Annual Utilization Report of Home Health Agencies, of 794 agencies reporting 60 or more total home-health visits in 2005, 276 (35 percent) had no Medi-Cal visits. Those with 60 or more visits totaled 360 – less than half the agencies. By contrast, 84 percent of agencies had 60 or more Medicare visits – nearly double the Medi-Cal participation rate. The limited Medi-Cal participation rate undoubtedly reflects low Medi-Cal payment rates.

TABLE 1
NUMBERS OF AGENCIES PARTICIPATING IN MEDI-CAL AND MEDICARE AT VARIOUS LEVELS
2005

Visit Categories	Number of Agencies	Percent of Agencies
With ≥ 60 Total Visits*	794	100%
With > 0 Medi-Cal Visits	518	65%
With ≥ 60 Medi-Cal Visits	360	45%
With > 0 Medicare Visits	676	85%
With ≥ 60 Medicare Visits	664	84%

Source: Office of Statewide Health Planning and Development, Annual Utilization Report of Home Health Agencies, Calendar-Year 2005.

*A threshold of 60 total visits is used to prevent inclusion of agencies reporting for small portions of a year or other aberrant agencies.

In contrast to the previous decade, as shown in Table 2, Med-Cal expenditures on home-health services started to decline in 2005, and that decline continued in 2006. Indicative of the effect of payment rates on access is the particularly large percentage increase in expenditures from 2000 to 2001, immediately following the 2000 rate increase. Significant increases followed for another three years. This pattern suggests that after a point, access is reduced as the real value of Medi-Cal payment rates continues to decline, the further out in time from the last Medi-Cal payment increase in 2000.

TABLE 2
HOME-HEALTH MEDI-CAL FEE-FOR-SERVICE EXPENDITURES AND NUMBER OF CLAIMS
2000-2006

Year	Expenditures	% Change	Claims	% Change
2000	$187,815,720		719,984	
2001	$199,499,332	6.2%	748,178	3.9%
2002	$205,722,309	3.1%	783,411	4.7%
2003	$216,024,710	5.0%	832,212	6.2%
2004	$228,405,911	5.7%	903,821	8.6%
2005	$217,126,681	-4.9%	835,317	-7.6%
2006	$205,827,197	-5.2%	808,889	-3.2%

Source: Medical Care Statistics Section, DHCS. Data are for dates of service during each calendar year. Home-health services are defined in terms of "provider type 14."

Expenditures declined 4.9 percent in 2005, and an additional 5.2 percent in 2006. Number of claims also declined – 7.6 percent in 2005 and 3.2 percent in 2006. As shown in Tables B1 and B2 in Exhibit B, there was a decline in expenditures for all major home health services commencing in 2005, following generally continuous growth between 2000 and 2004. Total expenditures in 2006 were 90 percent of those in 2004. At the same time, as shown in Table 3, the total number of Medi-Cal beneficiaries has remained roughly constant over this period. This pattern is clearly indicative of diminished access to home-health services for Medi-Cal beneficiaries.

TABLE 3
NUMBER OF MEDI-CAL BENEFICIARIES
2004-2006

Year	Monthly Average Enrollment
2004	6,530,060
2005	6,556,362
2006	6,520,310

Source: DHCS Medical Care Statistics Section Web site. Monthly averages are for calendar years.

It should be noted that the increases in expenditures and claims observed from 2000 to 2004 do not imply that Medi-Cal-beneficiary access to home-health services was, at that time, adequate or comparable to that available to the general public. On the contrary, as shown in Table 1, considerably fewer home-health agencies are available on a meaningful basis to Medi-Cal beneficiaries (i.e., agencies willing to accommodate more than token Medi-Cal volume of less than 60 visits annually) than to the Medicare population or the general public.

In its "Rate Review," DHCS also points to an increase in the number of Medi-Cal HHA providers from 2001 to 2005 to argue that access is sufficient.[2] These data, however, do not distinguish between levels of participation among agencies. As observed in Table 1 above, in 2005, 158 participating agencies had fewer than 60 Medi-Cal visits in that year, which could be considered only "token" participation.

DHCS also cites increasing numbers of Treatment Authorization Requests (TARs) and approvals as evidence that TAR processing is not inhibiting access.[3] I am not aware of allegations that the TAR process is inhibiting access.

SUMMARY OF ACCESS OBSERVATIONS

Contrary to the 1992-1997 data relied upon by DHCS to show there are no access problems, all the data presented here (for the current decade) point to access problems for Medi-Cal home-health patients. First, relatively few agencies have meaningful participation rates in Medi-Cal – only 45 percent of agencies have 60 or more Medi-Cal visits annually (slightly more than one visit per week). And 35 percent of agencies provide no service to Medi-Cal beneficiaries. Second, Medi-Cal expenditures for

[2] Op. cit., Table 7, page 14.

[3] Op. cit., Table 8, page 15.

home-health services have declined between 2004 and 2005, and 2005 and 2006, while the number of Medi-Cal beneficiaries has remained essentially constant. This implies the Medi-Cal visit rate per beneficiary has declined between 2004 and 2005, and between 2005 and 2006.

II. QUALITY OF CARE

DHCS's examination of quality of care relies solely upon data on complaints.[4] This is a meaningless exercise. First, DHCS lists numbers of complaints tracked by the Licensing and Certification Division from 2003 to 2005, showing an overall increase from 202 to 251. These complaints are not necessarily related to agencies serving Medi-Cal, or to Medi-Cal patients, or to the relative Medi-Cal patient load in each agency. There is no indication of the severity of the complaints, or what, if any, action was taken. Also, given that total home-health visits number in the millions, if there are quality problems, Licensing and Certification tracking of less than 300 complaints, is unlikely to identify them. Moreover, there is no indication that complaints are a significant quality indicator.

Second, DHCS lists complaints to the Board of Registered Nursing, which also are not restricted to Medi-Cal. Over the period 2001 to 2005, these complaints ranged from 13 to 16. Clearly, measuring quality of care involves considerably more than simply counting complaints, especially when such complaints cannot be associated with Medi-Cal-participating agencies. It is apparent that the complaint-tracking system is not equipped to distinguish the validity or severity of the reported complaints.

The DHCS "Rate Review" does not discuss the quality-of-care implications of continuity of care. In the context of home-health services, continuity of care involves the availability of direct care personnel (e.g., nurses and therapists) that are familiar with individual patients and their unique needs and problems. When access is restricted, there is likely to be less continuity of care, as a patient may be shuttled among various home-health agencies, or there may be high staff turnover rates within individual agencies. In these cases, quality of care may be compromised. The relationship between continuity of care and quality in the context of health care in general is well documented in the literature.[5]

Rather than relying solely on complaints data, which are meaningless, DHCS should have performed an appropriate assessment of quality of care. One component of such a study would involve examining the frequency and extent of Medi-Cal versus non-Medi-Cal home-health patients being cared for by multiple staff members in the same occupational classification.

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[4] Op. cit., pp. 7-10.

[5] See for example, J.W. Saultz and J. Lochner, "Interpersonal Continuity of Care and Care Outcomes, A Critical Review," Annals of Family Medicine, 3(2), March-April 2005, 159-166; and M.D. Cabana and S.H. Jee, "Does Continuity of Care Improve Patient Outcomes?", Journal of Family Practice, 53(12), December 2004, 974-980. For home-health care specifically, see J.B. Smith, "Competition and Continuity of Care in Home Health Nursing," Home Healthcare Nurse, 9(1), January-February, 1991, 9-13.

III. HOME HEALTH AGENCY COSTS, COST INCREASES AND MEDI-CAL PAYMENT RATES

Based on cost report data provided by DHCS (which only include Medi-Cal participating agencies that submit Medicare Cost Reports), for all but home-health-aide services, in 2005 Medi-Cal payment rates covered the costs of less than 4 percent of agencies (see Table 4). DHCS' methodology and assumptions for defining an efficient home-health agency are not set forth in its "Rate Review." The Medi-Cal rate for skilled nursing services covered the costs of only those agencies whose costs were less than 53 percent of the median; or 46 percent of the median in the case of speech therapy – amounts that are clearly inadequate under any definition of efficiency. By contrast, in setting Medi-Cal payment rates for skilled nursing facilities, DHCS has traditionally used the median.

TABLE 4
HOME HEALTH AGENCY COSTS PER VISIT AND MEDI-CAL RATES
2005

	SN	HHA	OT	PT	MSS	ST
Mean Cost per Visit	$159.10	$84.73	$177.93	$171.10	$231.48	$190.76
Median Cost per Visit	$141.43	$67.03	$151.90	$156.13	$194.26	$171.00
Medi-Cal Rate	$74.86	$45.75	$71.36	$68.84	$96.22	$78.43
Number of Agencies with Cost ≤ Rate	7	30	3	1	3	6
% of Agencies with Cost ≤ Rate	3.6%	15.9%	1.7%	0.5%	1.6%	3.7%
Total Number of Agencies Reporting	192	189	181	192	190	163

Source: Medicare cost report data, DHCS Attachment 10.

In updating Medicare payment rates on an annual basis, The Centers for Medicare and Medicaid Services (CMS) relies upon its market basket index, which measures the annual increase in input costs facing home-health agencies. Since the last Medi-Cal payment rate update in 2000, home-health agency costs, on a national basis, have increased 26 percent, according to the market basket (see Table 5). Between 2005 and 2007, they increased 7 percent; thus it is likely the negligible percentages of agencies that were able to recover their costs in 2005 further declined as of 2007.

TABLE 5
CMS PROSPECTIVE PAYMENT SYSTEM MARKET BASKET
FOR HOME HEALTH AGENCIES
2000-2007

Year*	Market Basket
2000	0.905
2001	0.941
2002	0.973
2003	1.004
2004	1.035
2005	1.067
2006	1.102
2007	1.139
% Increase 2000-07	25.9%
% Increase 2005-07	6.7%

Source: CMS Web site.
*Third quarter.

The 26-percent increase in input costs between 2000 and 2007 likely understates the cost increases incurred by California agencies for two reasons: (1) California's cost of living in general increased at a greater rate than the U.S. as a whole over this time period; and (2) California's nursing shortage, exacerbated by the acute-hospital nurse staffing ratios, implemented in 2004, most likely caused an increase in nursing wages beyond that experienced nationally. The market basket may also understate California cost increases because between 2000 and 2007, California's minimum wage increased 30 percent, while the national minimum wage increased only 5.6 percent.[6] While most home-health agency employees are paid above minimum wage, the market for relatively low-wage agency employees may be affected by minimum wage increases.

The California All-Items Consumer Price Index increased 24.4 percent between 2000 and 2007, while the national index increased 20.4 percent, reflecting a higher inflation rate in California.[7] Thus, California's overall inflation rate was 20 percent higher than the national rate over this period. Applying this differential to the market basket increase suggests home health agency costs in California increased over 30 percent since 2000.

It is likely, however, that home-health agency costs in California increased at an even greater rate due to the nurse shortage exacerbated by the hospital nurse staffing ratios.[8] As hospitals are forced to bid up

[6] California Department of Industrial Relations Web site, and Economic Policy Institute Web site.

[7] California Department of Finance Web site.

[8] On the nurse shortage in California and the impact of the staffing ratios, see, for example: "Governor Announces $90 million California Nurse Education Initiative," Governor's Office, April 15, 2005; "California's Nursing Shortage Crisis will Vary by Region, UCSF Report Shows," UCSF News Office, August 22, 2006; "California Forecasts Nursing

wages to attract more nursing personnel (both RNs and LVNs) to comply with the new staffing ratios, home-health agencies have to compete for nurses in these same "sellers' markets."

Table 6 shows annual percentage increases in average hourly wages for registered nurses (RNs) and licensed vocational nurses (LVNs) in California from 2000 to 2007. Note the particularly large increases in 2004, 2005 and 2006 for both occupations, which most likely reflect the impact of the hospital nurse staffing ratios. The 11.5 percent increase and 9.1 percent increase for RNs and LVNs, respectively, from 2005 to 2007 is indicative of cost pressures subsequent to the nursing visits cost data presented in Table 4. Since the last Medi-Cal rate increase in 2000, by 2007 nursing wages alone increased from 29 percent (for LVNs), to 40 percent (for RNs). Nationally, over the same period, LVN wages increased 28 percent, and RN wages 35 percent, further suggesting that the Market Basket data presented in Table 5 understates the increases in input prices faced by California home-health agencies.[9]

TABLE 6
ANNUAL RATES OF INCREASE
HOURLY WAGES
REGISTERED NURSES AND LICENSED VOCATIONAL NURSES
CALIFORNIA
2000-2007

Year	RN	LVN
2000	3.8%	1.9%
2001	3.2%	1.5%
2002	4.2%	2.8%
2003	3.2%	2.5%
2004	7.4%	5.0%
2005	5.3%	5.2%
2006	6.7%	5.1%
2007	4.5%	3.8%
2007/2000	39.9%	29.0%
2005/2000	25.5%	18.3%
2007/2005	11.5%	9.1%

Source: "State Occupational Employment and Wage Estimates," Bureau of Labor Statistics Web site.

The major substitutes for home health services are: (1) added days in an acute hospital; and (2) skilled nursing facilities (both freestanding and hospital distinct-part). To the extent provision of home-health services is discouraged through inadequate payment rates, Medi-Cal patients are forced to use, and the

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Shortage of 12,000 by 2014," American Society of Registered Nurses, June 16, 2007; and "Hospitals Expect Hiring Spree to Meet Nurse Staffing Ratios," Silicon Valley/San Jose Business Journal, March 11, 2005.

[9] "State Occupational Employment and Wage Estimates," Bureau of Labor Statistics Web site.

program to pay for, these more expensive substitute services, or go without services altogether. Medi-Cal has established provisions to update rates for these substitute services.

Inpatient acute-care hospitals are paid by Medi-Cal according to either negotiated rates with the California Medical Assistance Commission (CMAC), or are reimbursed based on costs, with some limits. In both cases, there are provisions for periodic increases, either driven by CMAC negotiations or incurred costs.

Hospital distinct-part nursing facilities are provided an annual update based on cost data projected to the rate year, equal to the lesser of projected costs or median projected costs for facilities with Medi-Cal patient days accounting for more than 20 percent of total patient days.

Until 2005, freestanding skilled nursing facilities were provided periodic Medi-Cal rate updates based on median calculations of projected costs. They are currently paid based on facility-specific costs.

Among these post-acute services, only home-health is not provided a process for periodically updating Medi-Cal payment rates. And ironically, home-health services are in general the least costly of these post-acute services.

In authorizing home-health services under the Home and Community Based Services (HCBS) Waiver or services related to Early Periodic Screening Diagnosis and Treatment (EPSDT), which combined account for approximately 85 percent of all Medi-Cal home-health expenditures, a demonstration must be made on a case-by-case basis that the services to be authorized are not more costly than skilled nursing facility services ("cost neutrality"). If these less costly services are not available due to agencies restricting their Medi-Cal participation, the alternative is more costly inpatient services.

The non-waiver, non-EPSDT services are primarily home visits by nurses; home-health aides; physical, occupational and speech therapists; and medical social workers. They are of short duration, and don't approach the costs involved in inpatient care.

Thus, the Medi-Cal program is protected by authorization criteria based on cost neutrality. In addition, at least one recent study provides empirical evidence that state HCBS programs may prevent or delay nursing home admission for those with limited family care-giving resources.[10] Also, The National Association for Home Care & Hospice tabulates comparisons between monthly costs in hospitals and home-health agencies for seven conditions that can be treated in both settings, showing home-care

[10] N. Muramatsu, H. Yin, R.T. Campbell, R.L. Hoyem, M.A. Jacob, and C.O. Ross, "Risk of Nursing Home Admission Among Older Americans: Does States' Spending on Home-and Community-Based Services Matter?", The Journals of Gerontology, 62B(3), May 2007, pp. 169-178.

savings for each.[11] Thus, restricting access to home health services does not appear to be a cost-effective strategy.

SUMMARY OF COST AND RATE FINDINGS

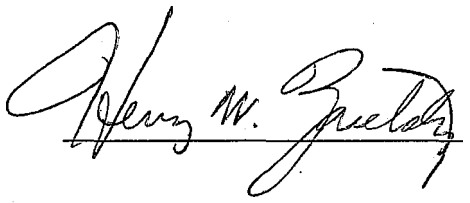
Home-health-agency costs have increased substantially since the last Medi-Cal rate increase in 2000. This increase reflects general inflation, as well as added inflation in wages for nurses reflecting the nurse shortage exacerbated by hospital nurse staffing ratios implemented in 2004. In 2005 Medi-Cal rates for home visit services allowed a negligible number of agencies to recover their costs, and were set at approximately one-half median costs.

The DHCS strategy of freezing home-health agency rates at their 2000 levels flies in the face of its service authorization criteria under the HCBS Waiver and for ESDT services, which require cost neutrality between home health services and alternative post-acute services; generally more-costly inpatient skilled nursing facilities. Through effectively cutting real (i.e., inflation-adjusted) rates by 3 percent to 4 percent annually since 2000, DHCS has caused access to these less costly home health services to decline. At the same time, the providers of the more costly substitute post-acute services (primarily freestanding and hospital distinct-part skilled nursing facilities) are afforded periodic rate updates.

By producing Attachment 10 to its "Medi-Cal Home Health Rate Review," DHCS has shown that it has had available cost data on home health agencies since at least 2000 that could have formed the basis for annual rate studies. Yet it has failed to conduct any such studies.

August 8, 2008

Sacramento, California



[11] "Basic Statistics About Home Care, Updated 2008," The National Association for Home Care and Hospice, 2008, page 19.

EXHIBIT A

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Academic Degrees:

San Francisco State University	A.B.	1965 Economics
San Francisco State University	M.A.	1966 Economics
University of California, Davis	Ph.D.	1974 Economics

Major Fields of Study:

Health Economics
Econometrics
Applied Statistics
Labor Economics

Major Interests:

Strategic Planning
Economic Studies
Market Analysis
Litigation Support
Health Care Antitrust Analysis
Health Services Research
Public Policy

Professional Societies:

American Economic Association
American Statistical Association
American Law and Economics Association
Econometric Society
National Association for Business Economics

Committees:

Economic Literacy Council of California
Board of Governors, August, 1981 to September, 1986
American Health Planning Association
Board of Directors, June, 1979 to August, 1981
Planning Studies Advisory Committee, June 1979 to August, 1981
Advisory Committee for the "Integrated Data Demonstrations and the Health Planning Agencies," November, 1980 to August, 1981
Governor's Special Committee on Health Care Costs, September, 1978 to January, 1979 - Staff Coordinator
California Health Facilities Commission
Reports Committee, December, 1974 to June, 1977
Provider Liaison to Research Committee, September, 1977 to April, 1978
American Hospital Association
Special Committee on Medicare Payment Shortfalls, July, 1977 to April, 1978

Experience:

President, Henry W. Zaretsky & Associates, Inc., August, 1981 to Present.
Health care consulting firm established in August, 1981. Firm provides consulting services in the areas of strategic planning, HMO development, reimbursement, economic analysis, market studies, payment negotiations, litigation support and policy analysis.

Experience - Cont'd.

Adjunct Professor, University of Southern California Graduate Program in Health Services Administration, 2003 to Present. Teach course in health economics.

Director, Office of Statewide Health Planning and Development, State of California, April, 1978 to August 1981. Appointed by Governor Edmund G. Brown, Jr., as the first director of this new State department which administers California's health planning and certificate of need program; develops the State Health Plan, as a basis for State health policy; administers a State guaranteed mortgage program for health facilities; approves architectural plans for health facilities; develops a biennial State health manpower plan; conducts pilot projects in the use of health personnel; administers programs to encourage availability of medical personnel in needed areas and specialties; and coordinates the health planning functions of all health-related departments in the Health and Welfare Agency. Fiscal 1980 budget of $13 million with 175 full-time equivalent personnel. Advises the Agency Secretary and the Governor on a wide variety of health policy issues.

Lecturer, School of Public Administration, University of Southern California, 1980 to 1981. Taught graduate course in operational planning for health.

Lecturer, School of Public Health, University of California at Los Angeles, 1979 to 1983. Participated in teaching a graduate course in regulation of health care.

Director of Research and Development, California Hospital Association, Sacramento, California, September, 1972 to April, 1978. Directed research program oriented toward development of approaches to economic regulation of health facilities and analysis of health policy, including development and implementation of a comprehensive health data system to meet the needs of regulatory programs and hospital management, development of alternative hospital reimbursement systems, refinement of health planning methods and analysis of legislative and policy proposals, using this data system and econometric and other statistical techniques. Provided staff support for the CHA Research and Development Committee, which in addition to advising on research issues, made policy recommendations to the Board of Trustees regarding economic regulation of health facilities. Provided liaison with the California Health Facilities Commission. Project Director on three federally funded projects dealing with economic regulation of health facilities and health data systems. Research division had four professional staff.

Lecturer, School of Public Health, University of California, Berkeley, 1978. Participated in teaching a graduate course in advanced financial management of health institutions.

Research Associate, American Medical Association, Chicago, Illinois, August, 1971 to August, 1972. Studied the economics of private medical practice through a federal contract. Using econometric methods, evaluated economies of scale in medical practice and the productivity of non-physician personnel.

Research Associate, Institute of Governmental Affairs, University of California, Davis, July, 1970 to August, 1971. Conducted dissertation research.

Experience - Cont'd.

Health Economist, Department of Community Health, School of Medicine, University of California, Davis, January, 1970 to August, 1971. Worked on a local survey to assess the health status of Yolo County residents and their health habits, utilization and expenditure patterns. Designed sample, developed survey forms, and developed methods for analysis of data. Used data base in my dissertation research.

Consultant, California Optometric Association, 1970-71.

Consultant, California Association of Nursing Homes, 1970-71.

Teaching Assistant, Department of Economics, University of California, Davis, September, 1968 to December, 1969.

Statistical Methods Analyst, California Division of Highways, Sacramento, California, June, 1968 to September, 1968.

Research Assistant, Department of Economics, University of California, Davis, September, 1967 to June, 1968.

Regional Economist, Bay Area Transportation Study Commission, Berkeley, California, July, 1966 to August, 1967.

Teaching Assistant, Department of Economics, San Francisco State College, September, 1965 to June, 1966.

Research Assistant, Department of Economics, San Francisco State College, June, 1965 to September, 1965.

Federal Research Grants and Contracts:

Principal Investigator, "Development of California Excess Hospital Capacity Reduction Program," Health Care Financing Administration, Department of Health and Human Services, Grant Number 18-P-9752719-01, September, 1980 to August, 1981.

Project Director, "Prospective Incentive Payment Experiment," Social Security Administration, Department of Health, Education and Welfare, Contract Number 600-75-0165, April, 1975 to June, 1976.

Federal Research Grants and Contracts - Cont'd.

Project Director, "Hospital Regulatory Reporting System: A Demonstration," National Center for Health Services Research, Department of Health, Education and Welfare, Grant Number HS 01518-01, July, 1974 to September, 1975.

Project Director, "Hospital Effectiveness Demonstration Project," National Center for Health Services Research, Department of Health, Education and Welfare, Grant Number HS 01104-02, July, 1972 to November, 1974.

Publications and Papers:

"Comment on F.M. Scherer, 'How U.S. Antitrust Can Go Astray: The Brand Name Prescription Litigation,'" International Journal of the Economics of Business (November 1997), pp. 271-276.

"The Impact of Market Competition on Hospital Outpatient Payment Rates," California Healthcare Association, December, 1993. (H.W. Zaretsky and M.L. Vaida).

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"Review of The Social Transformation of American Medicine, by Paul Starr," Hospital Forum (September/October, 1983), pp. 44-45.

"Historical Analysis & Statewide Impact," Proceedings of the Seminar on Case Mix Method in Analysis of Teaching Hospital Costs, University of California Los Angeles Medical Center and School of Public Health (May 22, 1982), pp. 15-23.

"The Effects of Patient Mix and Service Mix on Hospital Costs and Productivity," in Issues in Health Economics, R.D. Luke and J.C. Bauer, ed. (Rockville: Aspen, 1982), pp. 245-264.

"Evolution and Prospects for State-HSA Health Expenditures Estimation in California," Journal of Health and Human Resources Administration (Summer, 1981), pp. 46-54. (H.W. Zaretsky and G.R. Cumming).

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Publications and Papers - Cont'd.

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"Regulation vs. Competition," Hospital Forum (November/December, 1980), pp. 7-9.

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"Health Planning: California's Director Views the Public Perspective," Hospital Forum (July/August, 1979), pp. 9-12.

"The Economics of Excess Hospital Capacity," presented at the Annual Conference of the Western Economic Association, Honolulu, Hawaii, June 20-26, 1978.

Hospital Fact Book, Sacramento: California Hospital Association, First Edition, 1976 and Second Edition, 1977 (H.W. Zaretsky and A.H. Morris).

"Prospective Reimbursement to Hospitals: A Proposal for a Statewide Regulatory Program," presented at the Annual Conference of the Western Economic Association, Anaheim, California, June 20-24, 1977.

"The Effects of Patient Mix and Service Mix on Hospital Costs and Productivity," Topics in Health Care Financing, 4, Aspen, 1977, pp. 63-82.

Final Report: Prospective Incentive Payment Experiment, Sacramento: California Hospital Association, 1976. (G.R. Cumming and H.W. Zaretsky). Contract Number 600-75-0165, Social Security Administration, Department of Health, Education, and Welfare. Published through NTIS.

"Estimation of Hospital Cost Functions, Controlling for Case Mix and Service Mix," presented at the annual Meeting of the Econometric Society, Dallas, Texas, December 28-30, 1975.

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Development of a Financial Reporting System for Hospitals as a Basis for Regulation, Sacramento: California Hospital Association, 1974. Published through NTIS.

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"The Production of Health by a Rural Population," paper presented at the American Statistical Association Meetings, August 23-26, 1971, Fort Collins, Colorado. Published in Proceedings of the Social Statistics Section, American Statistical Association, 1971.

A Preliminary Report on the Yolo County Health Survey, Department of Community Health, School of Medicine, University of California, Davis, 1971. (N.O. Borhani, J.F. Kraus and H.W. Zaretsky).

"Simultaneous Estimation of an Industry Supply-Demand Relationship for Labor," paper presented at the Western Economic Association Meetings, August 21-22, Long Beach, California. Abstract in the Western Economic Journal, September, 1969.

Adjunct Professor Distinctive Service Award, University of Southern California State Capital Center, School of Policy, Planning and Development, 2007.

Discussant and chairman of various meetings of the Western Economic Association.

Made presentations before a wide variety of health professional groups.

Testified in front of a variety of legislative committees, regulatory bodies and federal and state courts.

EXHIBIT B

TABLE B1
MEDI-CAL EXPENDITURES ON MAJOR HOME HEALTH SERVICES
2000-2006

Procedure Code	Procedure Name	2000	2001	2002	2003	2004	2005	2006
Z5832	EPSDT REGISTERED NURSE	$ 4,260,568	$ 5,069,721	$ 5,956,640	$ 6,190,921	$ 6,148,629	$ 5,444,238	$ 5,641,905
Z5834	EPSDT LVN	$ 105,476,081	$ 116,045,575	$ 120,734,751	$ 127,906,765	$ 137,299,865	$ 133,304,088	$ 127,430,775
Z5836	EPSDT RN SUPERVISION	$ 2,157,151	$ 2,203,739	$ 2,146,470	$ 2,376,758	$ 2,451,172	$ 2,063,591	$ 2,000,287
Z5838	EPSDT HOME HEALTH AIDE	$ 1,447,673	$ 1,558,600	$ 1,938,580	$ 2,881,241	$ 3,682,035	$ 3,511,138	$ 3,441,029
Z6704	LVN 1 HR	$ 898,046	$ 1,393,953	$ 2,308,440	$ 8,749,825	$ 9,639,838	$ 9,235,509	$ 7,826,438
Z6718	LVN HOURLY	$ 43,142,104	$ 41,969,287	$ 40,177,589	$ 35,012,367	$ 35,256,266	$ 33,739,852	$ 29,180,038
Z6720	HOME HEALTH AIDE HOURLY	$ 5,445,317	$ 5,299,567	$ 5,201,449	$ 5,066,895	$ 5,193,624	$ 4,984,519	$ 3,796,640
Z6900	SKILLED NURSING VISIT	$ 14,941,973	$ 15,048,004	$ 15,035,490	$ 15,556,922	$ 15,622,079	$ 12,174,481	$ 11,403,732
Z6904	PHYSICIAL THERAPY VISIT	$ 1,504,158	$ 1,589,747	$ 1,688,860	$ 1,680,211	$ 1,923,715	$ 1,642,058	$ 1,594,702
Z6914	CASE EVALUATION & INITIAL PLAN	$ 858,455	$ 863,298	$ 837,320	$ 849,690	$ 881,287	$ 756,915	$ 676,513
	SUBTOTAL	$ 180,131,525	$ 191,041,492	$ 196,025,589	$ 206,271,596	$ 218,098,510	$ 206,856,389	$ 192,992,059
	ALL SERVICES	$ 187,815,720	$ 199,499,332	$ 205,722,309	$ 216,024,710	$ 228,405,911	$ 217,126,681	$ 205,827,197

Source: Medical Care Statistics Section, DHCS. Data are for dates of service during each calendar year. Home-health services are defined in terms of "provider type 14."

TABLE B2
MEDI-CAL EXPENDITURES ON MAJOR HOME HEALTH SERVICES
ANNUAL RATES OF CHANGE
2000-2006

Procedure Code	Procedure Name	2001	2002	2003	2004	2005	2006
Z5832	EPSDT REGISTERED NURSE	19.0%	17.5%	3.9%	-0.7%	-11.5%	3.6%
Z5834	EPSDT LVN	10.0%	4.0%	5.9%	7.3%	-2.9%	-4.4%
Z5836	EPSDT RN SUPERVISION	2.2%	-2.6%	10.7%	3.1%	-15.8%	-3.1%
Z5838	EPSDT HOME HEALTH AIDE	7.7%	24.4%	48.6%	27.8%	-4.6%	-2.0%
Z6704	LVN 1 HR	55.2%	65.6%	279.0%	10.2%	-4.2%	-15.3%
Z6718	LVN HOURLY	-2.7%	-4.3%	-12.9%	0.7%	-4.3%	-13.5%
Z6720	HOME HEALTH AIDE HOURLY	-2.7%	-1.9%	-2.6%	2.5%	-4.0%	-23.8%
Z6900	SKILLED NURSING VISIT	0.7%	-0.1%	3.5%	0.4%	-22.1%	-6.3%
Z6904	PHYSICIAL THERAPY VISIT	5.7%	6.2%	-0.5%	14.5%	-14.6%	-2.9%
Z6914	CASE EVALUATION & INITIAL PLAN	0.6%	-3.0%	1.5%	3.7%	-14.1%	-10.6%
	SUBTOTAL	6.1%	2.6%	5.2%	5.7%	-5.2%	-6.7%
	ALL SERVICES	6.2%	3.1%	5.0%	5.7%	-4.9%	-5.2%

Source: Medical Care Statistics Section, DHCS. Data are for dates of service during each calendar year. Home-health services are defined in terms of "provider type 14."