

THE SAN DIEGO SUPERCOMPUTER  
CENTER

**HON. RANDY "DUKE" CUNNINGHAM**

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

*Tuesday, March 7, 1995*

Mr. CUNNINGHAM. Mr. Speaker, I would like to enter into the permanent RECORD of the Congress of the United States the following brief outlining the work of the San Diego Supercomputer Center. This summary, based largely on a "Site Report" article by Mr. Peter Taylor, printed in the fall 1994 issue of the periodical "Computational Science and Engineering," is intended to inform my colleagues and other interested citizens of the work of this center in my community.

The San Diego Supercomputer Center (SDSC), one of four supercomputer centers sponsored by the National Science Foundation (NSF), is both a national resource and a tribute to the scientific ingenuity of the people of San Diego County.

SDSC's mission is to advance scientific research through computation, serve as a national focal point of development in key enabling high-performance computational technologies, and enhance American economic competitiveness. With a staff of 100 scientists, software developers, and researcher support personnel, the center serves more than 4,850 researchers from 355 institutions and 52 industrial partners.

In operation since 1986, SDSC is administered by General Atomics and is closely affiliated with the University of California, San Diego. It receives policy guidance from a consortium of 27 leading universities and institutions. Major funding for the SDSC includes grants from the NSC, the State of California, and the University of California.

The center is involved in advanced scientific research, including the fields of macromolecular structure and biomedical computation. It participates in the development of new technologies, such as the simulation of global environmental change, applied computer network research, and operating systems development. Furthermore, it's close ties with the university and the community foster educational and outreach programs, including undergraduate and postgraduate research, curriculum development, and demonstrations for students in grades K-12.

The SDSC's new MetaCenter collaboration with other NSF centers also gives scientific researchers access, through a single portal, to the country's best available technologies and intellectual resources.

IN MEMORY OF REPRESENTATIVE  
ROY TAYLOR

**HON. CHARLES H. TAYLOR**

OF NORTH CAROLINA

IN THE HOUSE OF REPRESENTATIVES

*Tuesday, March 7, 1995*

Mr. TAYLOR of North Carolina. Mr. Speaker, last week, western North Carolina lost a great statesman and a friend. Former Congressman Roy Taylor who served the constituents of North Carolina's 11th District for 16 years died March 2, after years of declining health.

During his tenure on Capitol Hill, Congressman Taylor championed the conservation of natural resource and was known for his ex-

haustive work on behalf of the people of our district. Those who were here tell of his commitment to 12-hour days and 6-day work-weeks.

Roy Taylor was born, January 31, 1910, in Vader, WA, but his parents moved to western North Carolina not long after he was born. He attended the public schools in Buncombe County, spent 2 years at Asheville-Biltmore College, and then graduated from Maryville College in Tennessee in 1931.

Mr. Taylor began a career as a school-teacher in 1931 at Black Mountain High School and the next year married Evelyn Reeves of Leicester. While teaching, Taylor began studying law and in 1936 graduated from Asheville University Law School. Upon passing the bar that same year, he quit his teaching job and began to practice law in Asheville.

In 1943, Taylor left his law practice to serve in combat with the U.S. Navy. Upon fulfilling his duty to the Nation, he was discharged as a lieutenant in 1946.

After returning to western North Carolina, Taylor began his political career as a member of the North Carolina General Assembly from 1947 to 1949. He then served as Buncombe County attorney from 1949 to 1960. During this time, he also served as a member of the board of trustees of Asheville-Biltmore College.

In 1960, Taylor was elected as a Democrat to the 86th Congress, during a special election to fill the vacancy created by the death of Representative David Hall. Taylor was re-elected to the eight succeeding Congresses and retired in 1976. Taylor served 10 of those years as chairman of the House Interior Committee's Subcommittee on National Parks and Recreation.

After public service, Congressman Taylor dedicated his time to the church and his community. He was district governor of Lions Clubs in western North Carolina. He also served as a deacon and Sunday school superintendent of Black Mountain First Baptist Church.

Taylor is survived by his wife, Evelyn; daughter, Toni Robinson of Plymouth; son, Alan Taylor of Bent Creek; granddaughter, Stacy Taylor; grandsons, Marshall and Gregg Robinson; sister, Alberta Greene of Enka; great-grandchildren, Katherine Taylor Robinson and Charlotte Whitfield Robinson.

PATIENTS BEWARE: SELF-SERV-  
ING PHYSICIANS URGE REPEAL  
OF PHYSICIAN SELF-REFERRAL  
LAWS

**HON. FORTNEY PETE STARK**

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

*Tuesday, March 7, 1995*

Mr. STARK. Mr. Speaker, the following list of physician self-referral studies highlights the urgent need to uphold self-referral laws. Greedy physicians, interested more in personal gain than in their patient's welfare, have mounted an effort to repeal these laws.

Physician self-referral is one of the most significant cost drivers in American medicine. According to some experts, billions of dollars are wasted each year on referrals motivated by physicians' financial gains and not strictly

by their patients' medical needs. The following studies represent just some of the evidence that demonstrates when physicians are in a self-referring situation, they order more tests and charge more money for services than non-self-referring physicians. The evidence is convincing—patients need protection.

[From the Department of Health and Human Services]

SELF-REFERRAL STUDIES

A. Financial Arrangements Between Physicians and Health Care Businesses: Office of Inspector General—OAI-12-88-01410 (May 1989)

In 1989, the Office of Inspector General (OIG) issued a study on physician ownership and compensation from entities to which they make referrals. The study found that patients of referring physicians who own or invest in independent clinical laboratories received 45 percent more clinical laboratory services than all Medicare patients in general, regardless of place of service. OIG also concluded that patients of physicians known to be owners or investors in independent physiological laboratories use 13 percent more physiological testing services than all Medicare patients in general. Finally, while OIG found significant variation on a State by State basis, OIG concluded that patients of physicians known to be owners or investors in durable medical equipment (DME) suppliers use no more DME service than all Medicare patients in general.

B. Physicians Responses to Financial Incentives—Evidence from a For-Profit Ambulatory Care Center; Hemenway D, Killen A, Cashman SB, Parks CL, Bicknell WJ: New England Journal of Medicine, 1990;322:1059-1063

Health Stop, a chain of for-profit ambulatory care centers, changed its compensation system from a flat hourly wage to a system where doctors could earn bonuses that varied depending upon the gross income they generated individually. A comparison of the practice patterns of fifteen doctors before and after the change revealed that the physicians increased the number of laboratory tests performed per patient visit by 23 percent and the number of x-ray films per visit by 16 percent. The total charges per month, adjusted for inflation, grew 20 percent, largely due to an increase in the number of patient visits per month. The authors concluded that substantial monetary incentives based on individual performance may induce a group of physicians to increase the intensity of their practice, even though not all of them benefit from the incentives.

C. Frequency and Costs of Diagnostic Imaging in Office Practice—A Comparison of Self-Referring and Radiologist-Referring Physicians; Hillman BJ, Joseph CA, Mabry MR, Sunshine JH, Kennedy SD, Nochter M. New England Journal of Medicine, 1990;322:1604-1608

This study compared the frequency and costs of the use diagnostic imaging for four clinical presentations (acute upper respiratory symptoms, pregnancy, low back pain, or (in men) difficulty in urinating) as performed by physicians who used imaging equipment in their offices (self-referring) and as ordered by physicians who always referred patients to radiologists (radiologist-referring). The authors concluded that self-referring physicians use imaging examinations at least four times more often than radiologist-referring physicians and that charges are usually higher when the imaging is done by the self-referring physicians. Those differences could not be attributed to differences in the mix of patients, the specialties of the physicians or the complexity of

the complexity of the imaging examinations performed.

D. Joint Ventures Among Health Care Providers in Florida: State of Florida Cost Containment Board (September 1991)

This study analyzed the effect of joint venture arrangements (defined as any ownership, investment interest or compensation arrangement between persons providing health care) on access, costs, charges, utilization, and quality. The results indicated that problems in one or more of these areas existed in the following types of services: (1) clinical laboratory services; (2) diagnostic imaging services; and (3) physical therapy services—rehabilitation centers. The study concluded that there could be problems or that the results did not allow clear—conclusions with respect to the following health care services: (1) ambulatory surgical centers; (2) durable medical equipment suppliers; (3) home health agencies; and (4) radiation therapy centers. The study revealed no effect on access, costs, charges, utilization, or quality of health care services for: (1) acute care hospitals; and (2) nursing homes.

E. New Evidence of the Prevalence and Scope of Physician Joint Ventures; Mitchell JM, Scott E: Journal of the American Medical Association, 1992;268:80-84

This report examines the prevalence and scope of physician joint ventures in Florida based on data collected under a legislative mandate. The results indicate that physician ownership of health career businesses providing diagnostic testing or other ancillary services is common in Florida. While the study is based on a survey of health care businesses in Florida, it is at least indicative that such arrangements are likely to occur elsewhere.

The study found that at least 40 percent of Florida physicians involved in direct patient care have an investment interest in a health care business to which they may refer their patients for services; over 91 percent of the physician owners are concentrated in specialties that may refer patients for services. About 40 percent of the physician investors have a financial interest in diagnostic imaging centers. These estimates indicate that the proportion of referring physicians involved in direct patient care who participate in joint ventures is much higher than previous estimates suggest.

F. Physicians' Utilization and Charges for Outpatient Diagnostic Imaging in a Medicare Population; Hillman BJ, Olson GT, Griffith PE, Sunshine JH, Joseph CA, Kennedy SD, Nelson WR, Bernhardt LB: Journal of the American Medical Association, 1992;268:2050-2054

This study extends and confirms the previous research discussed in section C, above, by focusing on a broader range of clinical presentations (ten common clinical presentations were included in this study); a mostly elderly, retired population (a patient population that is of particular interest with respect to Medicare reimbursement); and the inclusion of higher-technology imaging examinations. The study concluded that physicians who own imaging technology employ diagnostic imaging in the evaluation of their patients significantly more often and as a result, generate 1.6 to 6.2 times higher average imaging charges per episode of medical care than do physicians who refer imaging examination to radiologists.

G. Physician Ownership of Physical Therapy Services; Effects on Charges, Utilization, Profits, and Service Characteristics; Mitchell JM, Scott E: Journal of the American Medical Association, 1992;268:2055-2059

Using information obtained under a legislative mandate in Florida, the authors evaluated the effects of physician ownership of freestanding physical therapy and rehabilitation facilities (joint venture facilities) on

utilization, charges, profits, and service characteristics. The Study found that visits per patient were 39 to 45 percent higher in facilities owned by referring physicians and that both gross and net revenue per patient were 30 to 40 percent higher in such facilities. Percent operating income and percent markup were significantly higher in joint venture physical therapy and rehabilitation facilities. The study concluded that licensed physical therapists and licensed therapist assistants employed in a non-joint venture facilities spend about 60 percent more time per visit treating patients than those licensed workers in joint venture facilities. Finally, the study found that joint ventures also generate more of their revenues from patients with well-paying insurance.

H. Consequences of Physicians' Ownership of Health Care Facilities—Joint Ventures in Radiation Therapy; Mitchell JM, Sunshine, JH; New England Journal of Medicine 1992; 327; 1497-1501

This study examined the effects of the ownership of freestanding radiation therapy centers by referring physicians who do not directly provide services ("joint ventures") by comparing data from Florida (where 44 percent of such centers were joint ventures during the period of the study) to data from elsewhere (where only 7 percent of such centers were joint ventures). The analysis shows that the joint ventures in Florida provide less access to poorly served populations (rural counties and inner-cities) than non-joint venture facilities. The frequency and costs of radiation therapy treatments at free-standing centers in Florida were 40 to 60 percent higher than in non-joint venture facilities; there was no below-average use of radiation therapy at hospitals or higher cancer rates to explain the higher use or higher costs. Some indicators (amount of time spent by radiation physicians with patients and mortality among patients with cancer) show that joint ventures cause either no improvement in quality or a decline.

I. Increased Costs and Rates of Use in the California Workers' Compensation System as a Result of Self-Referral by Physicians; Swedlow A, Johnson G, Smithline N, Milstein A; New England Journal of Medicine, 1992;327;1502-1506

The authors analyzed the effects of physician self-referral on three high-cost medical services covered under California's workers compensation physical therapy, psychiatric evaluation and magnetic resonance imaging (MRI). They compared the patterns of physicians who referred patients to facilities of which they were owners (self-referral group) to patterns of physicians who referred patients to independent facilities (independent-referral group). The study found that physical therapy was initiated 2.3 times more often by the self-referral group than those in the independent-referral group (which more than offset the slight decrease in cost per case). The mean cost of psychiatric evaluation services was significantly higher in the self-referral group (psychometric testing, 34 percent higher, psychiatric evaluation reports, 22 percent higher) and the total cost per case of psychiatric evaluation services was 26 percent higher in the self-referral group than in the independent-referral group. Finally, the study concluded that of all the MRI scans requested by the self-referring physicians, 38 percent were found to be medically inappropriate, as compared to 28 percent of those requested by physicians in the independent-referral group. There were no significant difference in the cost per case between the two groups.

J. Medicare: Referrals to Physician-Owned Imaging Facilities Warrant HCFA's Scrutiny (GAO Report No. B-253835; October 1994)

The U.S. General Accounting Office (GAO) issued a report regarding: (1) referrals by

physicians with a financial interest in joint-venture imaging centers; and (2) referrals for imaging provided within the referring physicians' practice settings. The analyses are based on information collected by researchers in Florida for the Florida Health Care Cost Containment Board and include information on 1990 Medicare claims for imaging services ordered by Florida physicians. GAO analyzed approximately 1.3 million imaging services performed at facilities outside the ordering physicians' practice settings and approximately 1.2 million imaging services provided within the ordering physicians' practice settings. These results are significant because they are based on a large-scale analysis of physician referral practices.

GAO found that physician owners of Florida diagnostic imaging facilities had higher referral rates than nonowners for almost all types of imaging services. The differences in referral rates were greatest for costly, high technology imaging services; physician owners ordered 54 percent more MRI scans, 27 percent more computed tomography (CT) scans, 37 percent more nuclear medicine scans, 27 percent more echocardiograms, 22 percent more ultrasound services, and 22 percent more complex X rays. Referral rates for simple X rays were comparable for owners and nonowners. In addition, while referral practices among specialties differed, physician owners in most specialties had higher referral rates than nonowners in the same specialty.

GAO also compared the imaging rates of physicians who have in-practice imaging patterns (i.e., more than 50 percent of the imaging services they ordered were provided within their practice affiliations) with physicians with referral imaging patterns (i.e., more than 50 percent of the imaging services they ordered were provided at facilities outside their practice affiliations). GAO found that physician with in-practice imaging patterns had significantly higher imaging rates than those with referral imaging patterns—the imaging rates were about 3 times higher for MRI scans; about 2 times higher for CT scans; 4.5 to 5.1 times higher for ultrasound, echocardiography, and diagnostic nuclear medicine imaging, and about 2 times higher for complex and simple X rays.

## TRIBUTE TO ROSALIE AND GEORGE EIKENBERG

### HON. BENJAMIN L. CARDIN

OF MARYLAND

IN THE HOUSE OF REPRESENTATIVES

*Tuesday, March 7, 1995*

Mr. CARDIN. Mr. Speaker, I rise today to pay tribute to Rosalie and George Eikenberg, who were just named first runner-up of the Knights of Columbus' International Family of the Year Program. The Eikenbergs live in Elkridge, MD and their dedication and commitment to their community and their family are truly inspiring.

George Eikenberg worked for American Can Co. for 30 years and the Oles Envelope Co. for 10 years. Rosalie is the cafeteria manager at Thunder Hill Elementary School. They had two natural children and adopted four others. From 1962 to 1985, they opened up their family to care for 42 foster care children, some of whom stayed for long periods of time.

In addition to their commitment to their children and foster children, the Eikenbergs have both volunteered their time to make their community a better place to live. In addition to