

University of California Davis  
Center for Health Services Research in Primary Care

**SEVENTH ANNUAL REPORT**  
2000-2001

The UCD Center for Health Services Research in Primary Care has now completed six years of continuing growth and development. This report marks the completion of the first phase of Center development and transition into a new phase. During this initial phase, Center efforts have focused on careful building of expertise, experience and relationships within the University and with outside partners. The Center has developed a solid organizational and research base in this time. This ongoing development of research and educational activities has been recognized and acknowledged within the University of California research community and externally. While the Center has been successful, its growth has resulted in the need for careful self-analysis and development of a new organizational structure. This structure will be described in this report because it was developed in the 2000-2001 academic year, even as it is being implemented in the 2001-2002 academic year. This annual report will provide an overview of the activities and accomplishments of the past year.

**I. Activities and Accomplishments of Current Year**

**A. Administrative and Organizational Development**

Center Leadership

During this reporting period, Richard L. Kravitz, MD, MSPH, served as Center Director, while Edward J. Callahan, PhD, continued in his role as Associate Director of the Center.

Reporting Relationships

Dr. Kravitz continues to report to Allan Siefkin, MD (Associate Director for Clinical Affairs for UCD Health System), concerning day-to-day administrative affairs, and to the Vice Chancellor for Research for long-term programmatic affairs.

Center Space

During academic year 2000-2001, the Center occupied approximately 1,400 square feet in Suite 2500 of the Patient Support Services Building. This space consists of four faculty offices and 13 cubicle workstations. With utilization at maximum and a new full-time faculty member (Peter Franks, MD) joining the Center in February 1, 2001, space became an urgent issue this year. Allan Siefkin, MD, Associate Director for Clinical Affairs, facilitated appropriate additional space in the Grange Building to accommodate growth at the Center. As of this writing, the move to that space has been accomplished. Quantitative services and many of the program management functions of the Center have moved to the Grange Building. While separating staff into two locations is not an optimal solution to the space problem and may hamper communication, it does allow staff to accomplish their work more effectively.

## Computing Resources

The Center continues to use Core funds to provide necessary computer upgrades and maintenance for computers used by administrative and research staff. These computers are used both to support proposal development and the implementation of funded research projects. The Center's computing resources are now located both in the Patient Support Services Building and in the Grange Building. The original NT server will continue to act as a file and print server within the Patient Support Services Building. The server that was originally purchased to be a terminal server has been moved to the Grange Building to provide file and print services for faculty and staff at that location. All data stored on the servers is protected by security measures and backed up at regular intervals assuring that confidential data remains secure and intact at all times. Work-stations, including those with the greatest computing capabilities, have been moved into the Grange Building for use by research staff including statisticians.

Users at both sites will have access to data on the PSSB server and the Grange server. Both servers remain independent, however users in each building have access to data stores on both servers. The Center's two Teleforms workstations have been relocated to the Grange Building and assigned dedicated use space limited to projects requiring its use. Each Teleforms station is equipped with a scanner and software allowing users to scan survey data directly into a database. This technology also allows web-based data gathering. The software continues to serve as a resource for faculty in facilitating data acquisition and input.

## Center Core Faculty and Staff

During the academic year, Center professional staff consisted of a Director (Richard Kravitz, MD), an Associate Director (Edward Callahan, PhD), a Clinical Scientist (Peter Franks, MD), an Econometrician (Paul Leigh, PhD), a Sociologist (Debora Paterniti, PhD) and a Research Scientist (Fred Molitor, PhD). Unfortunately, Dr. Molitor resigned during the year to assume a position with higher reimbursement at a private research agency, although he continues to collaborate with the Center on funded projects. The Center's administrative team consists of the Program Manager, Christine Harlan, and two Administrative Assistants, Penny Barath and Kristen Enders. Ty Tong provided computer support initially, but has since moved full time into the computer support system of the Department of Internal Medicine. Additional staff hired during the year include Valerie Olson, a Project Manager, and Christina Kuenneth, a Research Scientist, each adding substantially to the methodologic and writing depth of the core Center team. Sara Lu Vorhes completed her employment with the Center, with its community outreach and project management tasks.

The Center research staff continues to grow along with the Center's expanding research portfolio. The research staff currently includes two statistical programmers, one nurse abstractor, two research coordinators, four post-graduate researchers and five student interns. To cover projects slated to begin this fall, the Center is now in the process of hiring an additional programmer, two project managers, another abstractor, and two research assistants.

Dr. Rahman Azari has continued as a part-time faculty member with the Center, filling the role of core Center statistician. A faculty member in the Division of Statistics, Dr. Azari assists Center faculty in the development of new research proposals. He maintains regular office

hours at the Center to provide limited consultation to faculty members. Depending on funding availability, Dr. Azari also provides assistance on ongoing research projects. Dr. Laurel Beckett has joined the University as Director of the Biostatistics Program within the Department of Epidemiology and Preventive Medicine. She will be recruiting an additional statistician who will spend time in the Center. Because the statistical needs of Center projects are substantial, it is difficult to provide adequate funding to fulfill those needs. Steven Samuels, PhD, Adjunct Professor in the Department of Epidemiology and Preventive Medicine, has been available to provide additional statistical support for Center projects. His special expertise is in research design and sampling. His time was funded by a combination of core Center funds, research grant cost recovery, and a contribution from the Department of EPM. However, Dr. Samuels has now moved to New York and will be available only on a limited basis.

Executive Committee

The Executive Committee continues to provide guidance to the Director on the long-term development of the Center as well as providing operational guidance, determining the allocation of Center resources, and reviewing and approving faculty membership applications. Executive Committee membership for the year 2000-2001 included:

Faculty

Richard L. Kravitz, M.D, M.S.P.H.  
Klea D. Bertakis, M.D., M.P.H.

Rahman Azari, Ph.D.  
Edward Callahan, Ph.D.

Christiana Drake, Ph.D.  
Peter Franks, Ph.D.

Nathan Kuppermann, M.D., M.P.H.  
Paul Leigh, Ph.D.

Joy Melnikow, M.D., M.P.H.  
Debora A. Paterniti, Ph. D.  
John Robbins, M.D., M.S.P.H.  
Patrick Romano, M.D., M.P.H.  
Marc Schenker, M.D., M.P.H.

Department

Center Director, General Medicine  
Founding Director, Family and Community  
Medicine  
Statistics  
Associate Director, Family and Community  
Medicine  
Statistics  
Core Center faculty and Family and Community  
Medicine  
Pediatric Emergency Medicine  
Core Center faculty and Epidemiology and  
Preventive Medicine  
Family and Community Medicine  
Core Center faculty and General Medicine  
General Medicine  
Core Center faculty and General Medicine  
Epidemiology and Preventive Medicine

Faculty Membership in the Center

Membership has reached 73 and stabilized over the past two years. Members include School of Medicine faculty, faculty from other UCD campus school and several from organizations outside the University of California, Davis. The current mix of Center faculty is 51 (70%) from the School of Medicine and 22 (30%) from non-School of Medicine appointments. A list of faculty members is appended in Appendix #1.

## Outreach Activities

*Intramural outreach.* In ongoing efforts to channel the expertise and enthusiasm of UCD faculty into projects related to its mission, the Center has continued a multi-pronged outreach campaign. The Core Center faculty and staff have played key mentorship roles with junior faculty and post-doctoral fellows, including Anthony Jerant (Family and Community Medicine); James Marcin (Pediatrics); Donald Hilty (Psychiatry); Ladson Hinton (Psychiatry); Victoria Handa (OB/Gynecology); Jorge Garcia (Medicine); Shagufta Yasmeen (Medicine/Gynecology); Jeanny Park (Pediatrics); Jonathan Neufeld (Behavioral Health Center/ Psychiatry), Kimberly Hardin (Internal Medicine); and Caroline Chantry (Pediatrics). In addition, the Center has continued its efforts to introduce faculty in the statistical and social sciences to the excitement of multidisciplinary applied health care research. In 2000-2001, several non-SOM faculty assisted with Center proposals or projects: Robert Bell (Communication); Donald Palmer (GSM); Hans Mueller (Statistics); Wolfgang Polonik (Statistics); Mary Jane Sauve (Center for Nursing Research); Peggy Hodge (Center for Nursing Research); Colin Cameron (Economics); Jay Helms (Economics); and Christiana Drake (Statistics). Bonnie Raingruber and Marlene von-Friederichs-Fitzwater collaborated from faculty appointments at California State University, Sacramento.

In recognition of the importance of fostering collaborations between UCD clinicians (who mainly work in Sacramento) and UCD social and statistical scientists (based mainly in Davis), Dr. Edward Callahan has continued his efforts to reach social science faculty from the Davis campus for collaborative research. While the Yolo Causeway remains a barrier to collaboration between the campuses, these efforts will continue. As one means to foster increased interaction, arrangements are underway to broadcast Center conferences to convenient campus locations.

*Extramural outreach.* The Center continues to grow as a resource for the Medical Center, the University, and the Sacramento region. Drs. Kravitz and Romano have continued to consult periodically with Dr. Allan Siefkin and Mr. Brett Hobde in an effort to assist with Medical Center quality assurance. Dr. Rahman Azari serves as chief statistical triage officer, frequently directing medical school faculty and staff to appropriate statistical colleagues. Several Center members remain actively involved in a variety of graduate groups, and graduate students are encouraged to participate in Center research activities. Finally, the Center is involved in a number of community activities. For example, Dr. Kravitz serves as a consultant to the Visible Fairness Project, a community based consortium whose goal is to make discussions of cost effectiveness explicit within the greater community. Dr. Patrick Romano is a deputy editor of *Medical Care*, a leading health services research journal. Dr. Kravitz is an associate editor at the recently revived WJM (Western Journal of Medicine).

As alluded to earlier, the Center also seeks to expand its relationships with potential funders including state government agencies and private sector interests. Currently the Center has contracts with the Office of Statewide Health Planning and Development as well as several sections within the Department of Health Services. In addition, we have undertaken a recent contract with the Department of Managed Care. Working with the Medical Center Development Officer, the Center has participated in proposal development to key foundations in California.

*Meetings of external advisory board.* The purpose of the Board is to provide Center leadership with advice on the direction of its programs. The Board met once during the 2000-2001 academic year. The next meeting is planned for November 2001. The past year has seen the addition of several key appointments. The addition of Gary Fields, MD, Medical Director of Sutter Medical Group; Carol Lee, Esq, President of the California Medical Association Foundation; Jack Rozance, MD, Physician-in-Chief of Kaiser Permanente; and Estelle Saltzman of Runyon, Saltzman & Einhorn adds four and brings the total membership to 13. A list of current Board members is provided as Appendix 2.

## **B. Research Proposal Development**

Providing assistance in the development and submission of new research proposals remains a major objective of the Center. In particular, the Center seeks to help junior faculty members develop their own areas of research. Particular emphasis is placed on helping in the development of proposals to initiate pilot projects as well as full research programs. On the intramural side, the Center this year assisted faculty with proposals to the Health System Research Fund (three of the preproposals were selected for further development and ultimately one was funded). The Center also submitted a total of 18 proposals to extramural funding agencies including the U.S. Agency for Healthcare Research and Quality, the National Institute on Aging, the National Institute on Mental Health, the Office of Statewide Health Planning and Development, the Robert Wood Johnson Foundation, and the American Heart Association. Appendix 3 summarizes these proposals and indicates their funding status.

## **C. Active Research Projects During 2000-2001**

### **1. Patient-Physician Communication Project (PPCP) (PI: Richard Kravitz, MD)**

Funded by the Robert Wood Johnson Foundation Grant, PPCP is a study to investigate patient requests and physician responses in a changing healthcare environment. The objectives are: 1) to describe how patients use requests to influence physician behavior under managed care; and 2) to compare patients' uses of requests and physicians' responses to them in different interpersonal and organizational contexts. Although work is still in progress, these objectives have been substantially met.

Data collection for this project finished in late 1999. We enrolled 909 patients visiting 45 physicians practicing in three specialties (family medicine, general internal medicine, and cardiology). The contact rate was 57%, the response rate was 32%, and the cooperation rate 68%. Of the 909 visits, 884 were audiotaped. Key findings including the following:

\* Patients desire services but do not explicitly request them in about 10% of encounters. Unvoiced desires are more common among patients who are young and less educated.

\* Patients reporting greater pre-existing trust in the treating physician were more likely to request and receive prescription medications but not referrals or diagnostic studies.

\* Using audiotape analysis, the likelihood of requesting a test, referral, or prescription was higher among patients of female physicians, those with greater health concerns, patients attending a new comprehensive visit, and patients in primary care (versus cardiology).

## 2. Conditions of Practice and Quality of Care: Physicians' Perspective (PI: Richard Kravitz, MD)

Funded by the Robert Wood Johnson Foundation (Alpha Center), this project aims to generate nationally representative estimates of physicians' self reported career satisfaction, ability to provide care and ability to obtain needed services for patients; to estimate the community level effects of managed care, physician supply and other community characteristics on community-wide levels of physician career satisfaction and perceived quality; and to estimate the individual level effects of physician specialty, practice arrangements, scope of practice, gate-keeping responsibilities, revenue sources, compensation arrangements and income on physicians career satisfaction and perceptions of quality. The underlying theme of the project is that certain conditions of practice facilitate the delivery of high quality care whereas others impede it, and that physicians are in the unique position to assess some of these effects.

Major findings of the research included the following: 1) overall career satisfaction was relatively high, with 42% of respondents very satisfied, 38% somewhat satisfied, 13% somewhat dissatisfied, and 4% very dissatisfied; and 2) physician career satisfaction differed by specialty.

## 3. Improving End-of-Life Care for Selected Populations Project (PI: Frederick J. Meyers, MD)

Under a grant from the Robert Wood Johnson Foundation, the aim of the Improving End-of-Life Care for Selected Populations project is to enhance knowledge and improve clinical practice of palliative care, resulting in expanded access for underserved populations--residents of rural areas and women in correctional facilities. One component of this project includes recruiting patients with life-threatening malignancies from a clinical trial program at the UCD Cancer Center. One group of patients receives palliative care from a nurse and social worker simultaneously with investigational therapy; the other group receives traditional investigational therapy only. Repeated measurements of quality of life between the two groups of study participants will evaluate the efficacy of the intervention. Over the three-year project period, the investigators have enrolled more than 50 patients. The study is closed but data analysis is continuing, and a multi site study based on this project has been submitted to NIH.

## 4. Hospital Nursing Staff Ratios and Quality of Care (PIs: Richard Kravitz, MD, MSPH, and Mary Jane Sauvé, DNSc, RN)

California Assembly Bill 394 requires the State Department of Health Services (DHS) to adopt regulations that establish minimum nurse-to-patient ratios within acute care general, special, and psychiatric hospitals. CHSR/PC contracted with DHS to provide analytic and technical support as they consider various policy options.

On June 30, 2001, in collaboration with the Center for Nursing Research, we completed Phase I of the project: a review of available empirical literature on the relationship between nurse staffing and quality of care, the results of an analysis of hospital financial and discharge

data obtained from the California Office of Statewide Health Planning and Development (OSHPD), and a summary of the deliberations of an expert clinical panel concerning the best nurse-sensitive indicators for tracking the effects of AB 394 on patient, provider, and institutional outcomes. Phase Two will be conducted with a core team from the Phase I project and is due to DHS on September 30, 2001. This phase will analyze the results of a May 2001 survey designed to collect information on current staffing patterns in California acute care hospitals.

5. Patient Preferences for Physician Characteristics and the Quality of Patient Care (PI: Jorge Garcia, MD)

This project, funded by Hibbard E. Williams Research Funds, examines whether ethnic or cultural differences between patients and their physicians have a negative impact on patient satisfaction and on the perceived quality of care. The project involves two phases: (1) the development of a reliable and valid telephone survey from findings obtained in eight patient focus groups, and (2) the administration of this survey to 524 primary care patients (Caucasians, African-American, and Latinos) to identify variations of preferences among ethnic groups.

We are completing formal qualitative analyses of focus group data and will use the results to finalize our quantitative telephone survey. We will then enroll established primary care patients from each of four patient groups: (1) African-Americans, (2) Caucasians, (3) English-proficient Latinos, and (4) non-English-speaking Latinos. Data from the surveys will provide insight into whether ethnic or cultural differences between patients and their physicians affect patient satisfaction and the perceived quality of care.

6. HEALTH Project (PI: Richard Kravitz, MD; Co-PI: Fred Molitor, PhD)

The mission of the Healthcare Empowerment Alliance for people Living in Transitional Housing (HEALTH) project is to meet the healthcare needs of formerly homeless persons living in transitional housing facilities (THF). To this end, an Integrated Service Team (IST), consisting of a medical director, nurse practitioner, and medical clerk, will provide direct medical and healthcare services and referrals to residents of four THF in the Sacramento area. In evaluation of the HEALTH Project, the CHSR/PC is collecting interview data before and during implementation of IST services. To monitor the perceptions of those involved in the project, as well as those expected to benefit from it, the CHSR/PC conducted semi-structured interviews with HEALTH Board members, and staff and residents of the THF. Baseline and six-month follow-up survey data have been collected from the residents of the four intervention THF. The 18-month follow-up survey, as well as the qualitative interview data, will be used to determine changes in health care access, knowledge, behavior, and status among the study population.

7. Improving Palliative Care in Assisted Living (PI: Anthony Jerant, MD; Co-Investigators: Thomas S. Nesbitt, MD, MPH, and Frederick J. Meyers, MD)

This study examines palliative care needs of elders in assisted living, which have not been well characterized in previous studies. Preliminary data suggests their needs are substantial and not well managed under the current assisted living care paradigm. The study will compare a

one-time intervention to a longitudinal, facility-based approach to assessing and addressing elders' palliative care needs. The study hypothesized that elders in assisted living will have improved self-perceived health status, reduced severity of symptoms, improved mood, slower decline in cognitive and physical function, greater "aging in place," greater concordance between stated values and end of life care.

The methodology involves residents of two closely matched assisted living facilities for elders who are being offered enrollment in a comparative trial. A two-part, on-site baseline physician assessment is conducted for each subject. From findings at the baseline assessment, recommendations for palliative care improvement is provided to the resident, family members and legal proxies, facility staff, and the primary care provider. Following the baseline assessment, residents at Facility 1 receive identical two-part assessments every three months, with additional recommendations for palliative care improvement provided to all the above individuals. Nurse aides at this facility also receive periodic educational presentations on basic palliative care topics. By contrast, residents at Facility 2 receive only abbreviated evaluations every three months, intended only to track outcomes. End-of-life care issues are not discussed at these reassessment appointments, and no further care recommendations are made to these subjects or their caregivers. Finally, no educational presentations are provided to nurse aides at this facility. To date approximately 40 subjects have been enrolled and received at least their baseline evaluations. The first interim data analysis will be conducted in the fall of 2001.

#### 8. Impact of Socioeconomic Status on Injury Severity and Mortality (PI: James Marcin, MD)

Funded by the Children's Miracle Network, the primary aims of this study are to investigate the relationship of pediatric trauma patients' socioeconomic status (SES) to their severity of injury on presentation to the emergency department and to their severity adjusted standardized hospital mortality rates. Many studies have documented an increased mortality rate from injury among children of lower SES compared to children of higher SES, however previous studies have failed to correct for severity of injury. This study will examine the severity of injury and severity adjusted mortality rates compared between pediatric patients from low socio-economic neighborhoods to patients from high socioeconomic neighborhoods (using socioeconomic indicators from 1990 US Census). Trauma data has been collected from the UCDCM trauma registry, and linked to address information from the Hospital Information Service, and then geocoded. The trauma data was then linked to 1990 US Census indicators of socioeconomic status. A mortality prediction model for the pediatric trauma patients was developed. I am currently compiling the data and am in the early phases of preparing two manuscripts.

#### 9. Tamoxifen Prevention: Is it Acceptable to Women at Risk? (PI: Joy Melnikow, MD, MPH)

Breast cancer is the second leading cause of death from cancer among women in the U.S. Interest in methods of preventing breast cancer is high. In 1998, the National Cancer Institute reported a 50% reduction in the incidence of breast cancer in women taking tamoxifen enrolled in the tamoxifen for breast cancer prevention trial. Numerous concerns remain regarding tamoxifen, including whether this preventive approach is acceptable to women at risk. In July



1999, the Breast Cancer Research Program (BCRP) funded “Tamoxifen Prevention: Is it acceptable to women at risk?:” to develop a deeper understanding of how a diverse group of high- risk women weigh risk versus benefits in considering tamoxifen prevention. The study explores how information such as self-perceived breast cancer risk, NCI screening tool determined breast cancer risk, and education affect and influence women’s decisions.

Focus groups were held in September and October of 1999 in which women were educated about the benefits and risks of tamoxifen prophylaxis and then participated in discussions about their feelings and considerations towards tamoxifen. From this, a multi-faceted interview was designed in English and Spanish. Components of the interview include self-administered questionnaires, a nurse facilitated educational intervention and computer based interview, a visual analogue rating scale, and a modified standard gamble. Over 30 pilot interviews were completed by mid-February 2000. Data collection began in mid-March and will continue until June 2001. The Women’s Health Initiative and the Health Education Council are recruiting participants. The Health Education Council makes particular efforts to recruit primarily African-American and Latina women. The study will interview between 300 and 400 women.

10. Tamoxifen Prevention of Breast Cancer: Acceptance/Cost Effectiveness (PI: Joy Melnikow, MD, MPH)

Funded in April of 2000 by the National Cancer Institute (NCI), this project will make use of data generated in the Tamoxifen Prevention Interview study to determine the marginal cost-effectiveness of tamoxifen prophylaxis for reduction of breast cancer mortality compared with annual screening by clinical breast exam and mammography. To increase generalizability, costs and utilities will be derived from clinical settings outside of randomized controlled trials.

Utilities and patient preferences will be based on original data presently being collected from women participating in the “Tamoxifen Prevention: Is it acceptable to women at risk?” interview. Costs will be derived from Medicare reimbursements, and probabilities will be derived from previously conducted trials and systematic reviews of the literature. All of this information will be incorporated into a computerized cost-effectiveness model. Sensitivity analyses will be used to identify important sources of variation in the projected outcomes. We anticipate that study findings will be useful for health policy makers in considering the impact of tamoxifen for breast cancer risk reduction on public health and medical care resources.

11. HIV Transmission Prevention Project (HTPP) (PI: Fred Molitor, PhD, and Debora Paterniti, PhD)

The goal of the HIV Transmission Prevention Project (HTPP) is to prevent the transmission of HIV by addressing the multiple factors that affect sexual and drug use behaviors among high-risk HIV-positive and HIV-negative individuals. Eleven sites affiliated with the California Department of Health Services, Office of AIDS, Early Intervention Program (EIP) are

participating in the HTPP. The intervention relies on the skills and activities of a Risk Reduction Specialist (RRS), who recruits high-risk persons for ongoing meetings to discuss issues related to specific risk behaviors. One objective of these meetings is to negotiate individualized risk-reduction plans (modeled after "harm reduction" theory), which should, over time, substantially reduce the risk of HIV infection or reinfection. The primary objectives of ETR's evaluation of the HTPP is to document the development and programmatic activities of the project and to systematically measure clients' sexual and drug use behaviors over the course of the intervention. The qualitative research arm of the project, which is being managed by UC Davis, will involve using data collected from focus groups with RRS to guide the development and implementation of detailed RRS interviews that will address the challenges and successes of designing and monitoring risk reduction plans for high-risk clients.

#### 12. Bridge Project (PI: Fred Molitor, PhD)

Persons living with HIV who do not receive appropriate care and treatment do not benefit from risk-reduction messages, access to services that improve quality of life, and medical therapies that prolong life. The purpose of the Bridge Project is to, among HIV-infected persons of color, decrease the amount of time from receiving an HIV-positive result to enrolling in comprehensive HIV care and treatment services. The project takes place in selected California Department of Health Services, Office of AIDS, Early Intervention Program (EIP) sites serving African-American and Latino communities that are disproportionately impacted by HIV. Bridge staff locate and link newly-infected individuals to HIV care and treatment service organizations in a timely fashion. Bridge staff also identify EIP clients lost to treatment or follow-up, and assess factors that may have contributed to clients' inability to remain in treatment. The evaluation protocol for the Bridge Project includes documenting clients' history of HIV testing, demographic characteristics, and "linkages" to community based organizations for medical and psychosocial services that have been identified for the client through the Bridge staff.

#### 13. PC-AWARE (PI: Richard Kravitz, MD; Executive Director: Richard Pan, MD)

Primary Care Area-Wide Affiliates for Research and Education (PC-AWARE) is a primary care practice-based research network developed to build links between the University and primary care physicians in the Sacramento region and to pursue the academic missions of research and education. PC-AWARE has had a very eventful year with two significant projects.

First, PC-AWARE is near completion on data collection for a study on the use of alternative therapies in children under 12 years. This study seeks to determine to what degree do families use alternative therapies for their children and to determine barriers to communication between families and their child's physician. This study has involved the participation of pediatricians and family practice physicians from both the UCD Primary Care Network and Sutter Health. Preliminary data on physicians participating in this study was presented as an abstract at the 2001 Ambulatory Pediatric Association meeting. The study P.I. is Dr. Kenneth Frank at UCDMG-Folsom and is funded by the AAP Pediatric Research in Pediatric Practice Fund.

Second, PC-AWARE conducted a collaborative research project with the University of British Columbia (UBC) on the influence of direct-to-consumer advertising on patient requests

for medication. This study involved the participation of internists and family practice physicians in the UCD Primary Care Network. PC-AWARE is currently working with UBC on data analysis. This study was funded by Health Canada.

In addition, PC-AWARE staff is also providing staff support on a study of informed consent for circumcisions of male newborn infants at the UCDCM Newborn Nursery. The study P.I. is Dr. Carolyn Chantry in the UCD Section of General Pediatrics.

14. Impact of Minority Racial/Ethnic Background on Morbidity/Mortality of Children with Congenital Heart Disease (PI: Jeanny Park, MD; Patrick Romano, MD)

For the year July 1, 2000, through June 30, 2001, we have completed the data linkage. This research project requires the linkage of several large datasets including the California Patient Discharge Dataset (CPDDS), California Birth Defects Monitoring Program (CBDMP), Vital Statistics Death Statmaster, and Multiple Cause of Death Files. This linkage must be performed probabilistically as these datasets do not contain unique personal identifiers. We have identified approximately 10,000 infants that were born between 1986 and 1993 and identified as having congenital heart disease, from the CBDMP. We have subsequently linked their hospitalizations using the CPDDS. Unfortunately, after completion of the final linkage to the Vital Statistics Death Files, further verification has led us to believe that linkages to death after the first year of life are suspect. We have decided to abandon this linkage. However, the linkage to the recurrent hospitalizations has an acceptable amount of accuracy. We are currently analyzing this data to determine whether differences exist in number of, duration of, interval between, and emergent nature of these recurrent hospitalizations by race and ethnicity. We expect to have this statistical analysis completed prior to June 30, 2001.

15. The Clinical Negotiation in Visits by Older Patients (PI: Debora Paterniti, PhD)

Funded by UC Davis Health Systems, the clinical negotiations study aims to understand how older patients use requests to influence physician behavior and how physicians can successfully negotiate with older patients in the context of the changing healthcare environment. The objectives of this project are to describe the clinical negotiation in medical visits by elders; identify the antecedents and consequences of older patients' requests in different clinical contexts; and contrast successful and unsuccessful patterns of clinical negotiation between older patients and their doctors.

The study relies on data collected for the Patient-Physician Communication Project (PPCP) with funding from the Robert Wood Johnson Foundation to Dr. Richard Kravitz. Dr. Kravitz collected data from 904 randomly sampled patient encounters with 45 physicians for the PPCP. The physicians practice internal medicine, family medicine, or cardiology within one of two managed care settings. Data collection took place over a nine-month period in 1999. The participation rate among eligible patients was 79%. Data collection included pre- and post-visit patient questionnaires, clinician questionnaires, patient two-week follow-up surveys, and visit audio-recordings.

16. A Qualitative Study of Informed Consent in Cancer Clinical Trials (PI: Debora Paterniti, PhD)

This intra-institutional grant comes from the UC Davis Cancer Center, with funds from the American Cancer Society. The goal of the project is to understand the consent process for cancer clinical trials from the perspective of cancer patients enrolling in the clinical trials by using qualitative methods of investigation. The project emphasizes the importance of patients' understandings and perspectives regarding the informed consent process, how they come to their decisions about cancer clinical trial participation, and the role of the consent process in their decision-making. The long-term goal of this project is to develop and test an intervention for enhancing patient voluntariness for various potentially vulnerable populations with cancer (e.g. geriatric populations, adolescent populations, non-English speaking populations) who are considering participation in cancer clinical trials.

#### 17. Miscellaneous Consultation

In addition to the formal projects listed above, Center staff provided both paid and unpaid research and statistical consultation to John Lee (Gastroenterology); Kimberly Hardin (Pulmonary); Donna McKenzie (Clinical Resource Management); Tom Nesbitt (Telemedicine); Carolyn Chantry (Pediatrics); and Victoria Handa (OB/GYN).

#### **D. Education Activities**

One of the fundamental aims of the Center is to enhance the intellectual environment for health services research at UC Davis and to help faculty and trainees develop the skills to conduct first-class health services research projects. To this end, the Center continued its successful weekly noontime seminar series. Convened under the leadership of John Robbins, M.D., M.P.H., seminars are open to all Center members and other interested individuals. Continuing Medical Education credit is available to practicing physicians, and graduate students in Epidemiology can earn 1 unit of course credit for each quarter of regular attendance. During the past year, 28 seminars were held, covering a broad range of topics. A list of these seminars can be found in Appendix 4.

During the past year the Center continued its effort to support the growth of junior faculty conducting health services research. This *Health Services Research Journal Club* is held Thursdays from 9-10 a.m. in Room G032 PSSB. This seminar uses guided discussion of recent articles in the health services research literature to illustrate important methodological or policy principles. Led by Richard Kravitz, MD, MSPH, Patrick Romano, MD, MPH, J. Paul Leigh, PhD, and Peter Franks, MD, MPH, the Journal Club has attracted the regular participation of Jorge Garcia, MD (Internal Medicine); Donald Hilty, MD (Psychiatry); James Marcin, MD (Pulmonary Medicine); Maria Enrione, MD (Pediatrics); Steve Samuels, PhD (Epidemiology and Preventive Medicine); Fred Molitor, PhD (CHSR/PC); Shagufta Yasmeen, MD (Medicine/Gynecology Fellow); Jonathan Neufeld, PhD (Psychology Fellow at the Behavioral Health Center); Victoria Handa, MD (OB/GYN); Rahman Azari, PhD (Statistics); and William Seavey, MD (Geriatrics Fellow). Following a summer break, the seminar will resume in September 2001. A list of Journal Club articles can be found in Appendix 5.

As part of the New Initiative Reserve-funded project to develop a practice-based research

network (PBRN), the Center is developing a framework for research training in primary care settings. This effort is expected to draw undergraduate and graduate students into multi-disciplinary projects conducted within the PBRN.

In addition to their involvement with health sciences students, Center faculty have been actively involved in several graduate programs, particularly the Graduate Group in Epidemiology. For example, under the guidance of Drs. Kravitz, Romano and Siefkin, GGE student Yali Bair recently published an important paper on access of Medi-Cal patients to asthma care within the UC Davis Health System (Bair Y et al. *J Gen Intern Med.* 2001 Jul;16(7):475-81).

One of the Center's strategies for accomplishing both its research and educational missions has been to encourage involvement of UC Davis students in all aspects of its research endeavors. Students work on Center projects as paid staff, unpaid volunteers, and academic interns who receive course credit. A list of students involved in Center projects this past year is provided in Appendix 6.

#### **E. Faculty Recruitment**

The establishment of the Center in 1995 was accompanied by a commitment of two University 19900 FTEs. Recruitment began in earnest that year and concluded in summer 2000. With J. Paul Leigh, PhD (0.50 Center FTE, with joint appointment in Epidemiology), and Patrick Romano, MD, MPH (0.50 Center FTE, with joint appointments in Internal Medicine and Pediatrics), filling one of the FTEs, the recruitment was completed over the past year. The Center was fortunate to recruit Peter Franks, MD, a physician and one of the leading primary care health services researchers in the country, into the remaining research slot. Dr. Franks joined the Center in February 2001. In addition, Debora Paterniti, PhD, has joined the Center faculty as an ongoing research faculty member.

#### **F. Publications**

Appendix 7 represents the scope of our faculty's publications in health services research. They demonstrate the multidisciplinary nature of our research with representative publications from all areas of expertise. Twenty-three of our 69 members have authored these 50 publications.

## **II. Long-Term Strategic Planning and Reorganization**

The Center continues to focus on three areas of perceived competitive advantage: proximity to state government, location in north central California, and access to a large network of primary care physicians. In follow-up to its 1998 State Health Symposium, the Center sponsored a second joint UC Davis State Research Conference which had a focus on California health care policy development. With a keynote address by Senator Jackie Speier, the conference highlighted six papers and a poster session during a half-day session. Attendance was drawn

from the State Department of Health, the legislature, and academicians from the University of California, Davis, as well as UCSF and Berkeley. Plans continue for the creation of a Primary Care Outcomes Research Fellowship (P-COR). This unique fellowship will prepare clinically trained physicians to assume faculty positions in divisions of academic primary care. The fellowship structure includes opportunities to earn an MPH degree, a series of core didactic lectures and courses, and a mentored research project. Both intramural and extramural sources of funding are being sought to support the fellowship.

### **III. Financial Reporting**

For 2000-01, project expenditures of \$1,600,000 in research funds and \$280,000 in core funds are anticipated. Eighteen new proposals were submitted seeking funding of \$7,300,00. As of this report, six have been approved for funding, totaling \$1,800,000.