HSR&D
Health Services Research & Development Service

Message from the Director

Health Services Research & Development Service (HSR&D) works to advance knowledge and promote cost-effective innovations that improve the health and care of veterans and the nation. HSR&D investigators strive to improve individual patient care and to promote continuous, systematized quality improvement. Thus HSR&D research focuses not only on an array of diseases and conditions affecting veterans' health, but also on cross-cutting health care issues, integrated models of care, and translating research results into better clinical practice.

The studies showcased here highlight HSR&D's contribution to VA's goal of improving the service, efficiency and access to high quality health care for every veteran. HSR&D Impacts are organized using health care categories vital to the veteran population, such as aging, special populations (e.g., women veterans, disabled veterans), health systems (e.g., health care delivery, organization, quality and outcomes), chronic diseases, mental illness, and addictive disorders. A few of the specific research ics include: telepsychiatry, pain management, post-stroke rehabilitation, patient utilization and survival rates, and Community-Based Outpatient Clinics.

HSR&D plays an essential role in assessing VA's changing needs and in developing strategies that improve the quality and cost-effectiveness of health care. We are pleased to share with you some of HSR&D's significant impacts for the past year. Building on VA's standards of excellence, HSR&D investigators, administrators, managers and staff continue to test and challenge the status quo.

John G. Demakis, M.D.
Director

Aging and Age-Related Changes

Scheduled pain management: Improving behavioral outcomes for dementia patients

This ongoing study examines whether nursing home patients, with dementia, who receive regularly scheduled pain medication would experience less discomfort than patients who receive pain medication "as needed." Another focus of this study is to learn whether patients with less discomfort would be less agitated and confused. Thus far, the pilot study has demonstrated a strong significant relationship between discomfort and agitation in this group of nursing home

patients with dementia, and has provided preliminary evidence for conducting the more systematic pain management study that is currently underway. It is hoped that systematic pain treatment will lead to improved care, lowered confusion and agitation, and better quality of life for long-term care residents. Scheduled pain management could result in better use of staff resources, reduction of costs, and additional care for patients needing staff attention. Findings from this study should have immediate and practical implications for the care and management of patients with dementia.

Buffum MD, Miaskowski C, Sand L, Brod, M. A pilot study of the relationship between discomfort and agitation in patients with dementia. Geriatric Nursing 2001; 22: 80-85.

NRI 95-192

Study shows that post-stroke rehabilitation guidelines improve patient outcomes

Stroke is one of the most costly, disabling, and deadly diseases. Stroke guidelines have been created to assist clinicians in providing standards for acute and post-acute care. These guidelines, however, have never been evaluated for their effect on patient outcomes. This observational study of nearly 300 patients for six months showed that complying with post-stroke guidelines has a positive effect on functional outcomes and patient satisfaction. Study results also show that guideline compliance was significantly higher for veteran patients who received inpatient post-acute rehabilitation in VA rehab units or non-VA acute rehabilitation settings as compared to patients who received post-acute care in nursing homes. These findings support the use of guidelines to assess quality of care and improve outcomes.

Hoenig H, Sloane R, Horner RD, Zolkewitz M, Duncan PW, Hamilton BB. A taxonomy for classification of stroke rehabilitation services. Archives of Physical Medicine and Rehabilitation 2000; 81:853-862.

Reker DM, Hoenig H, Zolkewitz MA, Sloane R, Homer RD, Hamilton BB, Duncan PW. The structure and structural effects of VA rehabilitation bedservice care for stroke. Journal of Rehabilitation Research and Development 2000; 37: 483-91.

ACC 97-114

VA assesses value of informal caregiving for veterans with dementia

It is estimated that the number of veterans with severe dementia served by VA increased from 200,000 in 1983 to 600,000 in 2000. Equal or higher numbers of veterans are estimated to have

mild to moderate dementia. Informal caregivers – mostly female, elderly spouses – fill a tremendous gap in the care of thousands of veterans with dementia who require substantial assistance in their everyday lives and who tend to have very poor physical health, according to a new HSR&D study. Most of the patients tracked in this study required assistance with six or more activities of daily living and half had at least two daily living impairments. On average, study patients had six co-morbid health conditions, including depression, circulation problems, arthritis, heart disease, prostate disease, and incontinence. VA benefits greatly from home-based, informal caregiving, and is exploring ways to more closely monitor and support this type of caregiving. In that way, veterans with dementia will be more able to remain at home in environments that promote independence for both caregivers and patients.

Clipp EC, George LK, Doyle ME, Stechuchak KM. Factors affecting emotional health of dementia caregivers: evidence from The National Longitudinal Caregiver Study. Gerontological Society of America: November, 2000.

Moore MJ, Zhu CW, Clipp, EC. Informal costs of dementia care: estimates from The National Longitudinal Caregiver Study. Journal of Gerontology: Social Sciences 2001. In Press.

George LK and Clipp EC. Much more than money: predicting dementia caregivers. Gerontological Society of America: November, 2000.

NRI 95-218

Clinical guideline use reduces pressure ulcer rates in nursing homes

Pressure ulcers are a common medical problem associated with considerable morbidity, particularly for patients with long-term care needs such as those in nursing homes. Practice guidelines on the prevention of pressure ulcers have been widely disseminated, and these guidelines have been successfully implemented in some VA nursing homes. Investigators studied 36 VA nursing homes to identify how these facilities accomplished successful implementation so that pressure ulcer care may be improved system-wide. Findings show that organizational features that promote the implementation of clinical guidelines include a culture that promotes innovation and teamwork. A trend toward lower rates of pressure ulcer development was associated with quality improvement implementation. Information from this report assists VA in taking the appropriate actions to increase the adoption of clinical guidelines that result in improved patient care.

Berlowitz DR, Bezerra HQ, Brandeis GH, Kader B, Anderson JJ. Are we improving the quality of nursing home care: the case of pressure ulcers. Journal of the American Geriatrics Society 2000; 48: 59-62.

Berlowitz DR, Hickey EC,Young G, et al. Improving nursing home care: importance of organizational culture and continuous quality improvement implementation. VA Health Services Research & Development Annual Meeting; Washington, DC. March, 2000.

CPG 97-012

New framework to evaluate and improve care in VA long-term care settings

VA cares for a large number of long-term care residents so assessment of the quality of their care is critical. VA researchers have developed a method for predicting functional decline in long-term care patients. The new risk-adjustment model uses both administrative and clinical data and will allow researchers to make facility-level comparisons of functional decline, thus providing an important tool for assessing the quality of care in long-term care facilities.

Rosen AK,Wu J, Chang BH, Berlowitz D, Ash A, Moskowitz M. Does diagnostic information contribute to predicting functional decline in long term care? Medical Care 2000; 38: 647-659.

IIR 96-065

Nurse counseling improves physical activity in primary care patients

Low levels of physical activity in elderly patients can put them at high risk for health complications and functional impairment. Home-based physical activity programs benefit from nurse counseling. Phone counseling by a primary care nurse can help elderly patients maintain a fitness walking program and improve their health, according to a VA study. Patients aged 60 to 80 were randomized into one of three intervention groups following referral to a walking program by primary care providers. Patients in the first group received 20 follow-up calls by a nurse, the second group received 10 calls from a nurse and 10 by an automated phone message delivery system, and the third group received no follow-up calls. Both phone contact groups walked more than the control group. At 12 months, all three groups showed significant improvements in fitness. Progress in walking performance was associated with improvements related to weight, girth, mobility and anxiety. Walking with a partner appeared to help patients start and maintain a regular walking program. Nurse counseling can increase walking and produce significant improvements in measures associated with disease and disability risk.

Newton Jr, RL, Dubbert P, Tkachuk G. Relationship between self-efficacy, benefits and barriers, and exercise stages of change in the elderly. Society of Behavioral Medicine: Seattle,WA. Annals of Behavioral Medicine 2001; 23 (Supplement): S102.

Tkachuk G, Dubbert P, Newton Jr, R. Perceived benefits and barriers to exercise and psychological health in urban and rural elderly men. Society of Behavioral Medicine: Seattle,WA. Annals of Behavioral Medicine 2001; 23 (Supplement): S103.

Dubbert PM, Meydrech EF, Kirchner KA, Cooper KM, Bilbrew, DE. Exercise counseling and walking for exercise among elderly VA primary care patients. Federal Practitioner 2001; In Press.

NRI 95-022

Chronic Diseases

Study highlights need for more aggressive hypertension management

Many physicians are not sufficiently aggressive in their approach to managing hypertension, according to an HSR&D study. Less than 25 percent of patients diagnosed with hypertension maintain a blood pressure that is within acceptable limits – increasing their risk for cardiovascular disease and stroke. In this two-year study, researchers tracked 800 patients who received care for hypertension at five VA outpatient centers. They examined how VA physicians manage patients with hypertension, determining ways to improve their care and reduce the number of patients with inadequate control of blood pressure. This included a focus on the levels of medication and intensity of treatment. The investigators found that physicians increased anti-hypertensive medications in only 25 percent of patients who showed an elevated blood pressure during an office visit. However, this rate is consistent with rates in the private sector. The researchers also observed that even those patients whose blood pressure was monitored several times during the two-year study period remained poorly controlled, despite an increase in the frequency of follow-up visits. These results suggest that more intensive management – such as increased anti-hypertensive therapy – is associated with better blood pressure control and better patient outcomes.

Berlowitz DR, Ash AS, Hickey EC, Friedman, RH, Glickman M. Kader B, Moskowitz MA. Inadequate management of blood pressure in a hyper-tensive population. New England Journal of Medicine 1998; 339: 1957-1963.

SDR 91-011

Automated calls and nurse follow-up improve diabetes outcomes

Regular outpatient follow-up is important for all diabetes patients, and some may need frequent attention due to unstable health, complex treatment regimens, or inadequate social supports. In these studies, the investigators developed and evaluated an Automated Telephone Diabetes Management (ATDM) program as a novel means of monitoring patients' health and self-care, expanding patients' access to recommended services, and improving treatment outcomes. Patients with diabetes were randomly assigned to a bi-weekly ATDM assessment, with self-care education calls and follow-up by a nurse educator. At their 12-month follow-up, ATDM patients reported better self-care and glycemic control, and fewer symptoms than patients receiving usual care. They also reported fewer access problems, more appropriate use of recommended preventive services such as foot exams, and greater satisfaction with care. Patients receiving the ATDM service reported that they would choose to use ATDM if it were offered as part of their usual care, and that such services would improve their satisfaction with the health care system overall. These studies show that ATDM programs can improve diabetes care by bringing health monitoring and patient education supports into patients' homes. ATDM follow-up improves the quality of patients' care and its outcomes, and may prevent costly episodes of acute care resulting from inadequate follow-up.

Piette JD,Weinberger M, Kraemer FB, McPhee SJ. The impact of automated calls with nurse follow-up on diabetes treatment outcomes in a Department of Veterans Affairs health care system. Diabetes Care 2001; 24: 202-8.

Piette JD, Glasgow R. Strategies for improving behavioral and health out-comes among patients with diabetes: self-management education. In: Gerstein HC, Haynes RB, Eds. Evidence-Based Diabetes Care. Ontario, Canada: BC

Decker Publishers, In Press.

Piette JD,Weinberger M, McPhee SJ, Mah CA, Kraemer FB, Crapo LM. Can automated calls with nurse follow-up improve self-care and glycemic control among vulnerable patients with diabetes? A randomized controlled trial. American Journal of Medicine 2000; 108: 20-7.

Piette JD. Interactive voice response systems in the diagnosis and management of chronic disease. American Journal of Managed Care 2000; 6: 817-827.

Piette JD. Satisfaction with automated telephone disease management calls and its relationship to their use. The Diabetes Educator 2000; 26: 1003-1010.

IIR 95-084

Tailored treatment recommendations increase clinician use of guidelines

VA researchers demonstrated that clinicians are more likely to follow practice guidelines if they receive patient-specific treatment recommendations at the time of patient contact. As part of a project aimed at improving clinician compliance with clinical practice guidelines for management of hypertension, researchers developed an automated decision support system designed to provide guideline-based recommendations to clinicians during patient visits. The system, known as ATHENA DSS contains a hypertension knowledge base that is easy to update as new clinical evidence emerges from clinical trials. It has many built-in features to enhance patient safety. The system can generate patient-specific recommendations that are presented to the clinician as a pop-up window when the clinician accesses the patient's medical record at the time of a primary care clinic visit.

Goldstein MK, Hoffman BB, Coleman RW, Tu SW, Shankar R, O'Connor M, Musen MA. Implementing clinical practice guidelines while taking account of changing evidence: ATHENA, an easily modifiable decision-support system for management of hypertension in primary care. American Informatics Association 2001; 20 (Supplement): 300-304.

Szeto HC, Coleman RK, Gholami P, Hoffman BB, Goldstein MK. The accuracy of computerized outpatient diagnosis in a VA general medicine clinic. The American Journal of Managed Care 2001; In Press.

CPG 97-006

Nurses to take more active role in pain management for cancer patients

Because pain is now considered a fifth vital sign for VHA, this study is of particular importance. Estimates of pain experienced by patients hospitalized with cancer are as high as 73 percent, yet research suggests that nurses may lack the knowledge to adequately manage pain and may harbor attitudes that interfere with successful pain management. An HSR&D study has educated 12 registered nurses in pain assessment and management. These specially trained Pain Resource Nurses have been working over the past year in VA facilities in Tampa, Florida to provide pain management education and consultation to the staff nurses, so that they can decrease patient pain and increase functional status among hospitalized veterans with cancer. This study has demonstrated a significant improvement in attitude among participating nurses in the first year of the study, and may provide an intervention to improve pain management for cancer patients and other veteran patients with painful diseases or conditions.

McMillan S, Hagan S, Tittle M, et al.. Knowledge and attitudes of nurses in veterans hospitals about pain management in patients with cancer. Oncology Nursing Forum 2000; 27: 1415.

McMillan S, Tittle M, Hagan S, Laughlin J. Management of pain and pain-related symptoms in hospitalized veterans with cancer. Cancer Nursing 2000; 3: 327-335.

Hagan S, Tittle M, McMillan S. Construct validity and reliability of the brief pain inventory with the visual analogue scale for poserative pain for patients with cancer. American Pain Society Scientific Meeting; Phoenix, AZ. April, 2001.

NRI 95-042

Exercise training provides boost for heart failure patients

Moderate exercise training for patients with chronic heart failure significantly improves patients' perceptions of their physical functioning, as well as their aerobic power, according to a study by VA researchers. Heart failure patients who were randomized into an exercise group received 36 weeks of exercise training, while patients in a control group received weekly visits with a nurse for 12 weeks to monitor vital signs. At 12 weeks, the exercise group showed a 9 percent increase in oxygen uptake, which continued to improve reaching 16% at 24 weeks. Exercise group patients experienced less difficulty in dealing with heart failure symptoms, while non-exercise group patients reported no change. The findings demonstrate that exercise training can help improve quality of life for patients with heart failure.

Collins E, Langbein WE, Dilan-Koetje J, Maloney C,Williams K, Edwards L. Exercise training improves QOL in older patients with heart failure. Journal of Cardiopulmonary Rehabilitation 2000; 20: 291.

Recipient of New Investigators Award at American Association of Cardiovascular and Pulmonary Rehabilitation Meeting; Tampa, FL. 2000.

NRI 95-213

Study reinforces effectiveness of team-managed home-based primary care

A team-managed model of home-based primary care improved health-related quality of life among terminally ill patients and satisfaction among non-terminally ill patients, according to a study by HSR&D. In addition, the new approach improved health-related quality of life for patients' caregivers as well as their satisfaction with care. The model also reduced caregiver burden and

hospital re-admissions at six months, but it did not substitute for other forms of care. This model featured a primary care manager, 24-hour contact for patients, prior approval of hospital readmissions, and the participation of a home-based primary care team in discharge planning. These results carry important implications for wider use of this model in VA. However, the researchers noted that the benefits of team-managed home-based primary care should be weighed against the modest increase in costs associated with home-based primary care compared with usual care.

Hughes SL,Weaver FM, Giobbie-Hurder A, Manheim L, Hendersen W, Kubal JD, Ulsavich A, Cummings J. Effectiveness of team-managed home-based primary care. A randomized multicenter trial. Journal of the American Medical Association 2000; 284: 2877-2885.

This study was funded by VA's Cooperative Studies Program (CSP #3) and HSR&D.

Health Services and Systems

VA utilization and survival rates

An observational study focusing on nine diseases/conditions examined patient utilization and survival rates during a three-year period that included a major VA organizational shift from inpatient care to ambulatory care. Results of the study indicate improved access to outpatient services. While inpatient care dramatically declined and utilization of outpatient care increased (except urgent care), survival rates improved or remained the same. Thus, the major reorganization of the VA health care system during the 1990s does not appear to be associated with any deterioration in patient survival rates. Study findings also showed an unexplained geographic variation in both utilization and outcome rates across all 22 VA health care networks that warrants further research to ensure equal care and accessibility for veteran patients across the country.

Ashton C, Petersen N, Souchek J, Menke T, Collins T, Wray N. Changes in mortality, utilization, and quality in the Veterans Health Administration 1995-97, HCQCUS Technical Report 00-01. January, 2000.

SDR 98-001

Community-Based Outpatient Clinics provide equal care

Between 1995 and 2000, VA opened 242 new Community-Based Outpatient Clinics (CBOCs) to allow more convenient access to care for veteran patients. A CBOC can be a VA operated clinic or VA-funded/reimbursed health care facility that is separate from the main VA medical facility. A study evaluated the performance of CBOCs including the provision of preventive and other health care, as well as patient access to care, utilization, cost and satisfaction. Findings showed that on most measures CBOCs' performance was equivalent to their affiliated VA medical center. Study results also indicate a few areas that warrant attention, such as CBOCs having fewer eye examinations for patients with diabetes and higher cost per primary visit, fewer specialty visits, and fewer hospitalizations on average for all patients. This study will help VA continue to develop more effective, inclusive and accessible health care at the many CBOCs located across the country.

Chapko MK, Hedeen A, Maciejewski M, Fortney J, Borowsky SJ (Management Decision and Research Center, HSR&D). CBOC Performance Evaluation: Program Implications and Future Performance Measures. Report Number 1. March 1, 2000.

Maciejewski M, Hedeen A, Chapko MK, Fortney J, Borowsky SJ. (Management Decision and Research Center, HSR&D). CBOC Performance Evaluation: Performance Report 2: Cost and Access Measures. Report Number 2. March 1, 2000.

MRR 98-015

VA and non-VA hospitals comparable for heart attack care

This study evaluated outcomes of care for acute myocardial infarction among patients in VA and non-VA institutions and found the care to be comparable. Despite the fact that VA patients were significantly more likely to have other chronic complications, such as hypertension, chronic obstructive pulmonary disease, asthma, diabetes, stroke, or dementia, there were no significant differences in 30-day or one-year mortality for those receiving VA compared to non-VA hospital care. These data suggest a similar quality of care for acute myocardial infarction for patients in VA and non-VA institutions.

Petersen LA, Normand, SLT, Daley J, McNeil, B. Outcomes of myocardial infarction in Veterans Health Administration patients compared with Medicare patients. New England Journal of Medicine 2000; 343: 1934-41.

RCD 95-306

HSR&D probes questions concerning effects of managed care on VA hospitals

The success of the VA as a viable alternative within the competitive US health care delivery system requires knowledge of the relationship between managed care and cost within the new VA organizational structure. Preliminary study results show a relationship between managed care penetration in the VA and patient costs, and suggest that facilities more heavily permeated by the primary care model may be more effective at controlling the costs of sicker patients. This information may shed light on areas where VA medical centers are more efficient than community hospitals. Knowledge of cost structures should also add value in VA budget decision-making, as it will be possible to forecast changes in cost due to anticipated inpatient and outpatient workloads.

Carey K. A multilevel modelling approach to analysis of patient costs under managed care. Health Economics 2000; 9: 435-446.

MPC 97-008

Existing data can identify and monitor preventable hospital complications

This study indicates that existing hospital laboratory computer data represents a vast untapped resource with which to identify hospital complications and improve patient safety. The goals of this project were to develop a system to efficiently identify and monitor preventable hospital complications, using hospital-acquired laboratory abnormalities as potential indicators of poor quality care. Five clinically important hospital-acquired abnormalities were evaluated. Out of a cohort of 126,000 admissions, serious hospital-acquired laboratory abnormalities occurred in 0.3 to 2.8 percent of hospitalized patients. From eight study sites, a total of 1,250 case and control charts were obtained. Explicit reviews found that, in up to eighty percent of cases with these abnormalities, important process of care activities related to management of fluids and electrolytes were not carried out. Further efforts will develop a quality assessment and monitoring system to identify cases with clinically important hospital complications that are likely to be preventable.

Hofer TP, Bernstein SJ, DeMonner S, Hayward RA. Discussion between reviewers does not improve reliability of peer review of hospital quality. Medical Care 2000; 38: 152-161.

IIR 94-131

Veterans Health Study monitors outcomes of care

Younger veterans have substantially worse mental health and higher resources needs than do older veterans, according to a major study of VA outpatients. The Veterans Health Study, a large-scale prospective study of veterans, followed almost 2,500 patients for more than four years and

incorporated the SF-36V, a 36 item short form health survey for veterans, to assess functional status. Results strongly suggest that changes in functional status using the physical and mental component summary scores from the SF-36V were clinically important and differ among facilities. Further, the changes were strongly associated with comorbidities and selected sociodemographics. For example, mental health differences between young and old veterans who use the VA health care system show that young veterans are sicker, suggesting substantially higher resource needs. The study also included an analysis of health status change scores over time as an indicator of patient outcomes. Results of the changes in health status demonstrate that outcomes of physical health status are better in VHA than civilian systems of care. The SF-36V is also being used in a national demonstration project to examine the use of this scale by clinicians in the routine care of patients.

Clark JA, Spiro III A, Miller DR, Fincke G, Skinner KM, Kazis LE. Patient-based measures of illness severity in the Veterans Health Study. Medical Care 2001. In Press.

SDR 91-006

Research targets mechanisms for improving primary care delivery

A study by VA researchers demonstrates the importance of well-planned and supported, comprehensive primary care delivery systems and focused quality improvement efforts in promoting better ambulatory care. Researchers also found that these innovations are more difficult to achieve in complex, inpatient-dominated environments. They recommended that clinical managers be provided with evidence concerning specific organizational features that support good primary care delivery, while policymakers work on strategies that could encourage their development. Facilities that invested in highly organized primary care (alerting primary care physicians of key patient health events, assigning mid-level managers to primary care teams and supporting primary care-based quality improvements, etc.) show higher facility-level performance in chronic disease quality, prevention and patient satisfaction than those facilities that adopted less organized care delivery models.

Yano EM. Managed Care Performance of VHA Primary Care Delivery Models: Final Report. Report number 00-MC820. Sepulveda: May, 2000.

MPC 97-012

National VA Surgical Quality Improvement Program blazes trails in surgical care

The National VA Surgical Quality Improvement Program (NSQIP) was implemented in 1994 to provide reliable, valid and comparative information about surgical outcomes (morbidity and mortality rates) among the 123 VA medical centers (VAMC) performing major surgery. It is the first national, validated, outcome-based, and risk-adjusted program for the measurement and enhancement of surgical care and has resulted in:

• better surgical and anesthesia techniques,

• improved supervision of residents in surgical training, and

• upgrades in technology and equipment that have resulted in measurable improvements.

For example, since 1994, the 30-day mortality and morbidity rates for major surgery have fallen 9% and 30% respectively. In addition, improvements in poserative complications have occurred at the same time that the median poserative length of stay in VAMCs has declined by 4 days between 1991 and 1997.

The NSQIP was designed to operationalize research results: in other words, to translate research results into better standards of care. The quality of surgical care at VA hospitals has improved significantly since the inception of NSQIP, a collaborative effort of HSR&D and VA's Office of Quality and Performance and Patient Care Services. An additional study looked at whether the way patient care is coordinated in surgical services is related to clinical outcomes. The high-quality information provided to managers about surgical care allows for consistent monitoring and improvement.

Charns MP;Young GJ; Daley J; Khuri SF; Henderson WG; (2000). Coordination and Patient Care Outcomes. Kimberly JR; Minvielle E. Eds. The Quality Imperative: Measurement and Management of Quality in Healthcare. 49-78. London: Imperial College Press.

Khuri SF, Daley J, Henderson W, et al. The National Veterans Surgical Risk Study: a risk adjustment for the comparative assessment of the quality of surgical care. Journal of the American College of Surgeons 1995; 180: 519-531.

Daley J, Forbes M,Young G, et al. Validating risk-adjusted surgical out-comes: site visit assessments of process and structure. Journal of the American College of Surgeons 1997; 185: 341-351.

SDR 91-007, SDR 94-006

Automated prompts increased physicians' use of care standards

Computerized reminders improved physicians' compliance with outpatient care standards, according to a large-scale study involving 275 resident doctors at 12 VA medical centers. VA researchers selected 13 widely accepted standards of care for a variety of patient conditions – including coronary artery disease, hypertension, diabetes, heart attack, and gastrointestinal bleeding – and developed computerized prompts to support their use. Overall, doctors who received the reminders showed higher compliance rates for all the standards than those who didn't. The researchers note, however, that enthusiasm for and use of the computerized prompts declined as the study progressed – suggesting that competing demands on residents' time led them to reduce their use of the prompts. These findings indicate that although computerized reminders can help physicians provide consistently better care, additional research is needed to determine methods for maintaining compliance.

Demakis JG, Beauchamp C, Cull WL, Denwood R, Eisen SA, Lofgren R, Nichols K,Woolliscroft J, Henderson WG. Improving residents' compliance with standards of ambulatory care. Journal of the American Medical Association 2000; 284: 1411-1416.

CSHS 91-009

QUERI promotes system-wide quality improvement

The Quality Enhancement Research Initiative (QUERI) is a multidisciplinary, data-driven national quality improvement program. This initiative is designed to translate research into optimal patient care and systems improvements by identifying best practices, systematizing their use, and providing the ongoing feedback necessary to sustain outcome improvements. QUERI not only improves individual patient care, but systematically promotes continuous quality improvement at the national level.

QUERI currently focuses on eight priority conditions: Chronic Heart Failure, Diabetes, HIV/AIDS, Ischemic Heart Disease (IHD), Mental Health, Spinal Cord Injury (SCI), Stroke, and Substance Abuse. Cancer is being added as a priority condition this year.

Each of the eight QUERI groups is working to promote translation of research findings into practice and to measure impact at the local, facility, regional and national levels. For example, QUERI IHD piloted an intervention that has improved lipid measurement and management for patients with ischemic heart disease at all of the facilities participating in the pilot study. SCI QUERI implemented an intervention to increase influenza vaccination among veterans with spinal cord injury. Because there is an increased risk of death in the spinal cord injured patient population due to influenza or pneumonia, this is potentially a life-saving intervention that will be pushed out to all of the 23 SCI Centers nationally. Effective teamwork and strong national leadership are essential to QUERI's success. QUERI provides a new synergy among offices in VHA and is a driving force toward systematic, evidence-based quality improvement. For more information about QUERI,

visit the Internet site at *http://www.hsrd.research.va.gov/queri.cfm*, or the Intranet at *http://vaww.hsrd.research.va.gov/queri.cfm.*

VA QUERI Supplement. Medical Care 2000; 38 (Supplement I).

Mental Health

Team management improves depression care

Depression is the second most prevalent medical condition in VA and has an impact on function and quality of life that is worse than many other chronic physical conditions. Most depression treatment takes place in primary care where it continues to be under-detected and under-treated. This study of depression treatment adapted the collaborative care model for managing chronic illness to the VA primary care setting and compared the team care approach with traditional consult-liaison treatment. In the team model, psychiatrists, psychologists, and social workers were assigned to a team that developed a treatment plan based on the initial assessment and provided the plan to the primary care provider. Primary care provider efforts were reinforced by patient education materials and brief social work phone calls to support patient adherence, address treatment barriers, and monitor symptomatology.

Team care resulted in significantly greater improvement in depressive symptomatology and psychosocial function than the more traditional consult-liaison treatment without increasing outpatient visits. As more chronic conditions are treated in the primary care setting, using this model may improve patient outcomes at a reasonable cost. Its potential impact on care and outcomes for depression and other chronic conditions could be great.

Fisher E, Marder S, Smith G, Owen R, Rubenstein LZ, Hedrick SC, Curran G. Mental Health QUERI (MHQ). Medical Care 2000; 38 (Supplement): I-70-I-81.

Hedrick SC, Chaney EF, Liu CF, Felker BL, Bagala R, Paden GR. Process of care in innovative and traditional treatments for depression in VA primary care: reallocating resources.VA Health Services Research & Development Annual Meeting; Washington, DC. February, 2001.

Chaney EF, Hedrick SC, Felker BL, Liu CF, Paden GR, Hasenberg NM. Improving treatment for depression in primary care: alternate strategies. Society of Behavioral Medicine Annual Scientific Sessions; Seattle,WA. March, 2001.

IIR 95-097

Study shows that telepsychiatry is equal to in-person treatment of depression

Telepsychiatry is as effective at treating patients with depression as conventional "in-person" treatment, a VA study suggests. Treatment outcomes among patients who received "remote" treatment and those who received in-person treatment were the same, the study found. Furthermore, the evidence indicates that even older veterans are comfortable using telecommunications technology for treatment. In light of these results, telepsychiatry appears to hold great potential for expanding access to psychiatric care – especially for veterans who live in geographically remote areas.

Ruskin PE: Efficacy of telepsychiatry in the treatment of depression. VA Health Services Research & Development Annual Meeting; Washington, DC. March, 2000.

Ruskin PE: Efficacy of telepsychiatry in the treatment of depression. VA Health Services Research & Development Annual Meeting; Washington, DC. February, 2001.

ACC 97-034

Special Populations

Ethnic/cultural variations in care of veterans with osteoarthritis

Preliminary results from a study by HSR&D researchers indicate significant differences with regard to specific health beliefs among African American and white patients suffering from chronic knee pain. The two groups also differed in their perceptions of the efficacy of arthritis treatments. In addition, African American patients were less aware of total joint replacement as a treatment for their condition, less likely to consider the procedure as an option, and less informed about the potential benefits of joint replacement. These findings offer some insights into why African American patients are much less likely than white patients to receive joint replacement for osteoarthritis. Further analysis will shed additional light on the clinical, system, and cultural factors that may account for this disparity. In addition, this information will help VA providers deliver care that is more culturally sensitive.

Ibrahim SA, Burant CJ, Siminoff LA, Kwoh CK. Do African American and white patients with chronic knee/hip pain differ with respect to their awareness of joint replacement and its benefits and risks? Journal of Clinical Epidemiology 2000; 240: 441.

Ibrahim SA, Burant CJ, Siminoff LA, Kwoh CK. Do African American and white patients with chronic knee/hip pain differ with respect to their attitudes toward joint replacement? Journal of General Internal Medicine 2000; 15(Suppl 1): 73.

Ibrahim SA, Burant CJ, Siminoff LA, Kwoh CK. Health-related attitudes/beliefs among elderly African American and white veterans with chronic knee and/or hip pain. VA Health Services Research & Development Annual Meeting; Washington, DC. March, 2000.

Kwoh CK, Ibrahim SA, Burant CJ, Siminoff LA. Ethnic differences in the management of osteoarthritis; Health Disparities in Arthritis, Musculoskeletal and Skin Diseases sponsored by the National Institute on Arthritis, Musculoskeletal and Skin Diseases; Washington, DC. December, 2000.

Ibrahim SA, Burant CJ, Siminoff LA, Kwoh CK.Variations in perceptions of treatment and self-care practices in the elderly with osteoarthritis: a comparison between African-American and white patients. Arthritis Care and Research 2001; In Press.

ECV 97-014

Researcher probes rehabilitation issues among women veterans with SCI

A study by a VA researcher is exploring the rehabilitation needs of women veterans with spinal cord injuries (SCI). Using focused interviews with participants, the study seeks to address concerns female SCI veterans experienced with rehabilitation. Common themes expressed were the need for information about what to expect after discharge, options for urinary management, strategies for managing everyday life, and strategies for self-protection. They also expressed a need to network with other women with similar injuries. Ultimately, the study researcher hopes to design a model of individualized care for newly injured female veterans with SCI.

Bach, CA. Interest in alternative strategies among women with spinal cord injuries; Association of Rehabilitation Nurses Research Symposium: Complementary and Alternative Therapies to Promote Wellness; Reno, NV. October, 2000. [Invited presentation, no abstract submitted].

Bach, CA. Health promotion and complementary strategies used by women veterans following spinal cord injury. Women with Disabilities: Quality of Care/Quality of Life. Philadelphia, PA. September, 2000.

Bach, CA. Rehabilitation issues of concern to women with spinal cord injuries. Sixth Annual International Qualitative Health Research Conference; Banff, Alberta, Canada. April, 2000.

NRR 95-145

Women veterans' surgery risks and outcomes similar to those of men treated in VA hospitals

More women veterans are seeking more care at VA medical centers, including care for female-specific conditions. This study looked at whether outcomes for women were comparable to those for their male counterparts treated at VA medical centers. Results of surgical procedures common to men and women (knee and hip replacements) were examined, as well as typical female-related surgeries (hysterectomies and breast surgeries). Adverse outcomes in terms of mortality or re-admission due to complications were extremely low. Morbidity within 30 days of the procedure occurred in 4 percent to 13 percent of patients, depending on the procedure examined. Average length of stay varied from two to four days in lumpectomy cases to nine to eleven days in knee replacements. Non-white patients tended to have longer hospitalizations than white patients, except for breast surgeries. Race was also related to 30-day morbidity for knee replacements, with non-whites more likely to experience a complication. Operation time and patient functional status were significant predictors of length of stay and morbidity for both hysterectomy and for total joint replacement procedures. The only gender difference noted was for 30-day morbidity in knee replacement patients, even after controlling for other factors. Women were more likely to experience a complication than men. Results of this study will inform the system about factors that may affect women's surgical outcomes and may point the way to further research.

Weaver F, Hynes D, Ippolito D, Thakkar B, Gibbs J, Budiman-Mak E, Wixson R, Hopkinson W, Khuri S, Daley J, Henderson W. Total joint replacement outcomes for men and women treated at VA hospitals: results from a national study. VA Health Services Research & Development Annual Meeting; Washington, DC. March, 2000.

Weaver F, Hynes D, Ippolito D, Thakkar B, Gibbs J, Budiman-Mak E, Wixson R, Hopkinson W, Khuri S, Daley J, Henderson W. Total joint replacement outcomes for men and women treated at VA hospitals: results from a national study. Health Services Research Seminar Series. Institute for Health Services Research and Policy Studies; Northwestern University, Chicago, IL. April, 2000.

Budiman-Mak E,Weaver F, Hynes D, Ippolito D, Thakkar B, Gibbs J, Wixson R, Hopkinson W, Khuri S, Daley J, Henderson W. Joint replacement in veterans: are risks and outcomes different by gender? American College of Rheumatology Annual Meeting. (Submitted) May, 2000.

Weaver F, Hynes D, Goldberg J, Khuri S, Daley J, Henderson W. Hysterectomy in Veterans Affairs Medical Centers. Obstetrics & Gynecology 2001; In Press.

GEN 97-016

Study links workplace stress with smoking in women veterans

A stressful work environment can trigger persistent smoking among women veterans, according to findings from a cross-sectional survey conducted by HSR&D researchers. Higher work strain – but not higher home strain – was associated with smoking after adjusting for age, education, income, weight, and marital status. The study researchers recommended that smoking cessation counseling address workplace stress.

Bastian LA, Owens SS, Kim H, Barnett LR, and Siegler IC. Cigarette smoking in veteran women: the impact of job strain. Women's Health Issues 2001; 11: 103-9.

RCD 99-024

Substance Abuse, Addictive Disorders

An assessment of alcohol screening questionnaires for women

An ongoing HSR&D study is for the first time evaluating the effectiveness of several standardized alcohol-screening questionnaires in women veterans. Results of this study will identify the most sensitive yet specific screening questionnaire for identifying at-risk drinking in women veterans. Future research will then be able to focus on evaluating interventions with female VA patients who report at-risk drinking, with the aim of preventing alcohol-related morbidity and mortality.

Bradley KA, Boyd-Wickizer J, Powell, SH and Burman ML. Alcohol screening questionnaires in women: a critical review. Journal of the American Medical Association 1998; 280:166–171.

GEN 97-022