



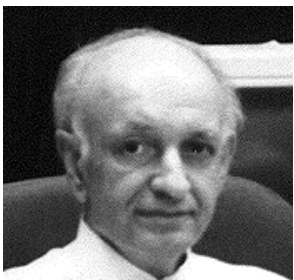
John R. Feussner, M.D.
*Chief Research and
Development Officer*

A Message from the Chief Research and Development Officer

The overarching objectives of the Office of Research and Development's Health Services Research and Development Service (HSR&D) are improved quality of patient care and increased efficiency in the delivery of care. The broad changes taking place in the Veterans Health Administration and in the health care community as a whole have created new opportunities to expand collaboration at the interface of health services research and health care delivery.

HSR&D utilizes a "systems perspective" when considering the many challenges facing VA's health care system. It is a very exciting and productive time for health services research and below we would like to share with you some of our most recent impacts that will lead to improved quality and efficiency of health care delivery. These important HSR&D impacts are organized by health care categories particularly prevalent in the veteran population that we serve such as aging and age-related changes, special populations (e.g., women veterans, permanently disabled veterans, Persian Gulf veterans, homeless veterans, etc.), health systems (e.g., health care delivery, organization, quality and outcomes), chronic diseases, mental illness, substance abuse and addictive disorders, sensory disorders and loss, acute and traumatic injury, and military and environmental exposures.

We are pleased to share some recent highlights of our work with you.



John G. Demakis, M.D.
*Director, Health Services Research &
Development Service*

A Message from the HSR&D Director

Within the rapidly changing health care environment, quality is imperative. VA must rigorously and vigilantly determine what does and does not work in health care delivery. The mission of the Health Services Research and Development Service (HSR&D) calls for identifying the highest quality, most cost-effective approaches for delivering superior health care to the nation's veterans. HSR&D activities examine how the organization, financing and management of health care affects health care delivery, cost, access and veteran health outcomes. For example, an HSR&D study showed that heart attack patients treated with thrombolytic drugs, known as clot busters, had excellent outcomes at less expense and with no additional invasive procedures like angioplasty. Clot busting drugs are available at all VA hospitals.

HSR&D plays a key role in the pursuit of health care quality, and in the acquisition of new health services knowledge. Equally critical to HSR&D's mission is disseminating that new knowledge for translation into quality health care for veterans. We are pleased to share with you these significant HSR&D impacts from the past year along with current work showing promise for increasing the VA health care knowledge base.

■ Aging and Age-Related Changes

Aging and oral health are focus of long-term HSR&D study

During the past 25 years, HSR&D's Dental Longitudinal Study has contributed greatly to the understanding of oral health among elderly people, debunking numerous myths in the process. For example, it is now recognized that declining oral health is not a natural consequence of aging. Instead, certain medical conditions, behavioral factors and patterns of care appear to be more important variables in determining oral health. Researchers are continuing their work in the hope of devising better prevention and treatment strategies for high-risk patients.

Kressin N, Spiro A 3rd, Bosse R, et al. Assessing oral health-related quality of life: findings from the normative aging study. Medical Care, 34:416-427, 1996. HFP 92-002

Pressure ulcer incidence monitored at long-term care facilities

A new case-mix adjustment model for predicting pressure ulcers has revolutionized quality improvement efforts at VA's long-term care facilities. Case-mix adjusted rates of pressure ulcer development are now reported to all facilities, and performance can be compared at both the facility and network levels. Findings from these quality improvement programs will spur further reductions in pressure ulcer incidence at VA facilities.

Berlowitz DR, Halpern J. Evaluating and improving pressure ulcer care: the VA experience using administrative data. Joint Commission Journal on Quality Improvement, 23:424-433, 1997. IIR 95-031

Anticoagulation therapy is safe for most veterans

More than 100,000 veterans take anticoagulation drugs which may produce serious bleeding complications. This HSR&D study provided important information about the risk factors for these complications and concluded that this treatment for stroke prevention is relatively safe for most elderly patients.

Fihn SD, Callahan CM, Henikoff JG, et al. [for the National Consortium of Anticoagulation Clinics.] The risk for and severity of bleeding complications in elderly patients treated with warfarin. Annals of Internal Medicine, 124:970-979, 1996. IIR 90-036

Use of physician assistants reduces hospitalization among urban elderly

Enhanced primary care among older patients who use urban neighborhood health clinics can reduce hospitalization, especially readmissions and emergency room use. The intervention in this HSR&D study used physician assistants in an effort to improve preventive care and continuity of care for people 70 or older using health clinics.

RCD 91-309

■ Chronic Diseases

Study shows cost-effectiveness of “clot-busting” drugs for heart attack patients

Several small randomized trials have reported that primary angioplasty results in better short-term outcomes than thrombolytic therapy for heart attack patients. But a study by VA involving 3,100 patients showed that use of thrombolytic drugs – also known as “clot-busters” — produces excellent outcomes at less expense, spares heart attack patients the risk of invasive procedures and is feasible at all VA hospitals, unlike angioplasty. Researchers found that heart attack patients treated with clot-busting drugs experienced rates of hospitalization and long-term mortality similar to those of angioplasty patients, at costs that were \$3,000 lower per patient. In fact, researchers reported that they found no benefit to angioplasty over thrombolytic therapy. These findings indicate that a policy to treat veterans who suffer heart attacks with clot-busting drugs would have clinical and financial benefits. This research also has significant treatment implications for the more than 150,000 Americans who are eligible for clot-busting treatments.

Every NR, Parsons LS, Hlatky M, et al. A comparison of thrombolytic therapy with primary coronary angioplasty for acute myocardial infarction. New England Journal of Medicine, 336:1253-1260, 1996. RCD 94-304

Computerized reminder reduces use of calcium channel blockers in hypertension

An inexpensive computerized reminder system improved physician compliance with practice guidelines for hypertension management and

produced significant cost savings by reducing the use of calcium channel blockers. Despite guidelines that recommend use of other blood pressure drugs, calcium channel blockers frequently are used to treat hypertension. The new reminder system could affect treatment for one-third of all hypertension patients who are now being treated with calcium channel blockers and could be treated with less expensive and equally effective drugs.

Rossi RA, Every NR. A computerized intervention to decrease the use of calcium channel blockers in hypertension. *Journal of General Internal Medicine*, 12:672-678, 1997.

HSR&D Fellow

VA compares favorably with private sector in coronary angioplasty study

This quality-of-care evaluation showed that VA's tiered health care system produces excellent outcomes from high-tech cardiac procedures, compared with the private sector. In this study of coronary angioplasty patients, VA patients experienced no difference in hospital- or 30-day mortality compared with private-sector patients, even though the VA patients had more complicated conditions. In addition, VA patients underwent less bypass surgery (sometimes a complication of angioplasty) within 30 days of the angioplasty procedure.

Ritchie JL, Maynard C, Chapko M, et al. Angioplasty (PTCA): outcomes in the Veterans Administration (VA) and the private sector (Washington State). *Journal of the American College of Cardiology*, 2:50A, 1997 (Abstract).

IIR 94-044

Research shows importance of periodontal disease in predicting cardiovascular risk

An HSR&D analysis of the link between periodontal disease and cardiovascular disease suggests that periodontal disease is a significant and independent predictor of risk for cardiovascular disease, and of mortality from all causes. This study, drawn from the Dental Longitudinal Study cohort, holds important implications for the treatment of patients with periodontal disease both within VA and the greater health care community.

Beck J, Garcia RI, Heiss G, et al. Periodontal disease and cardiovascular disease. *Journal of Periodontology*, 67:1123-1137, 1996.

HFP 92-002

Angina questionnaire assesses treatment impact on quality of life

The Seattle Angina Questionnaire, which was designed as part of an HSR&D project, uses patient-reported information to assess the impact of medical and surgical treatments on patients' health status and quality of life. This instrument, which has been shown to be reliable and valid, is now widely used in clinical trials. It has also been approved and is being distributed by the Medical Outcomes Trust.

Spertus JA, Winder JA, Dewhurst T, et al. Development and evaluation of the Seattle Angina Questionnaire: a new functional status measure for coronary artery disease. *Journal of the American College of Cardiology*, 25:333-341, 1995.

LIP and SDR 96-002

HSR&D researchers identify links between diabetes severity and quality of life

The ongoing Veterans Health Study (VHS) has scientifically demonstrated the link between diabetes severity and quality of life. HSR&D researchers identified two quantitative measures: increased blood sugar levels indicate illness severity in the short term; and the number, types and severity of diabetic complications indicate reduced quality of life in the long term. These measures can reliably paint the big picture for evaluating the severity of diabetes' effects in different patient groups over time, and for deciding how best to deliver diabetes care.

Linzer M, Pierce C, Lincoln E, et al. Preliminary validation of a patient-based self-assessment measure of severity of illness in diabetes: results from the Veterans Health Study. *Medical Care*, In Press, 1998.

SDR 91-006.s

Diabetic patients benefit from automated disease management

An automated telephone system can improve management of diabetic patients. Researchers observed that a number of serious health problems were identified through the automated system that otherwise might have gone undetected. They noted that the system has the potential to serve as a "clinician extender," bringing monitoring and behavior support services into the homes of VA patients with diabetes and other chronic medical problems. As a result, patients may avoid acute events and subsequent hospitalization.

Piette JD. Moving diabetes management from clinic to community: development of a prototype based on automated voice messaging. *The Diabetes Educator*, 23:672-680, 1997.

IIR 95-084.3

Targeting glycemic control achieves better outcomes for high-risk diabetics

It is well known that patients who develop type II diabetes at a relatively early age are at far greater risk for developing blindness and kidney failure than those whom the disease strikes later. This study showed that targeting these high-risk patients for intensive glycemic control is likely to maximize treatment benefits. Information generated by this study is improving the management of diabetes and has already been used to develop diabetes treatment guidelines published by the Society of General Internal Medicine. These findings will also help physicians and patients make more informed decisions about diabetes treatment.

Vijan S, Hofer TP, Hayward RA. Estimated benefits of glycemic control in microvascular complications in type 2 diabetes. Annals of Internal Medicine, 127:788-795, 1997. LIP 41-088

Tight glycemic control may not be necessary for all diabetics

A new HSR&D study calls into question the need to achieve tight glycemic control for all type II diabetics, after finding that patients already in moderate control of their blood sugars using pills receive only modest improvements from insulin. Treatments associated with tight blood sugar control frequently are unpleasant and costly, the researchers note, adding that they may not be necessary for all patients. The study suggests that resources and effort should be focused on patients with early-age onset and those with poor control. These results provide critical information that will help physicians and patients facing the important decision of whether to start insulin therapy.

Hayward RA, Manning WG, Kaplan SH, et al. Starting insulin therapy in type II diabetes: effectiveness, complications and resource utilization. JAMA, 278:1663-1669, 1997. Ann Arbor COE

New survey successfully tracks long-term outcomes in lung disease patients

A brief, computer-scannable, self-administered questionnaire proved useful in monitoring the health-related quality of life in patients with chronic lung disease. The Seattle Obstructive Lung Disease Questionnaire (SOLDQ) was found to be a reliable, valid

and responsive measure of physical and emotional function, coping skills and treatment satisfaction.

Tu SP, McDonnell MB, Spertus JA, et al. A new self-administered questionnaire to monitor health related quality of life in patients with COPD. Chest, 112:614-622, 1997. LIP and SDR 96-002

HSR&D study makes important contributions to treatment of COPD

Findings from the Normative Aging Study have helped focus needed attention on the host of environmental factors that contribute to the development of chronic obstructive pulmonary disease. This research has laid the foundation for recent changes in therapy for bronchial asthma and COPD emphasizing the use of anti-inflammatory drugs.

Selim Aj, Ren XHS, Fincke G, et al. A symptom-based measure of the severity of chronic lung disease: results from the Veterans Health Study. Chest, 111:1607-1614, 1997. SDR 91-006.S

HSR&D study recommends cost-effective follow-up strategy for home oxygen therapy

Certain patients with chronic obstructive pulmonary disease who suffer from hypoxemia receive continuous long-term home oxygen therapy (HOT), an expensive treatment. A study of follow-up strategies for home oxygen programs found that patients who receive continuous HOT need not be routinely re-evaluated more frequently than every six months, once they have attained stability with HOT.

Hagarty EM, Skorodin MS, Langbein WE, et al. Comparison of three oxygen delivery devices during exercise in hypoxemic COPD patients. American Journal of Respiratory and Critical Care Medicine, 155:893-898, 1997. IIR 90-091

Resource use study generates important data on HIV care

The VA is the single largest provider of care to HIV-infected patients, and VA policy makers face increasingly difficult resource allocation decisions about HIV. This study used 1993 and 1994 data from VA's national HIV Registry to conduct a comprehensive, longitudinal examination of resource use for HIV within the VA system. Among the findings: of the 15,966 HIV-infected patients who received care in VA facilities in 1994, approximately half had an AIDS-defining illness. These HIV-in-

ected patients accounted for 188,546 outpatient visits, 2,712 emergency room visits, and 15,753 hospitalizations, representing 242,368 inpatient days. This study may serve as a model for future VA cost-of-illness studies and for other disease-specific databases that could be developed to predict, monitor and evaluate resource use and outcomes of care.

Rabeneck L, Menke TJ, Hartigan PM, et al. Health care utilization in a national sample of HIV-infected patients: patient characteristics and resource utilization. Association for Health Services Research Annual Meeting, Chicago, IL, June 15-16, 1997.
SDR 92-003

New HIV clinical staging tool will assist physician and patient decision-making

A clinical staging system for HIV-infected patients will help guide physicians, patients and their families through the path of this disease. This system was developed using information from a multi-center trial that compared early versus deferred zidovudine therapy among HIV-infected patients who did not have AIDS at the time of enrollment. Researchers found that effective clinical staging for HIV can be developed based on relatively few variables, for which the data are readily available in clinical practice settings.

Rabeneck L, Hartigan PM, Huang IW, et al. Predicting outcomes in HIV-infected veterans: I. progression to AIDS. Journal of Clinical Epidemiology, 50:1231-1240, 1997.
Rabeneck L, Hartigan PM, Huang IW, et al. Predicting outcomes in HIV-infected veterans: II. survival after AIDS. Journal of Clinical Epidemiology, 50:1241-1248, 1997.
IIR 91-030

Prostate cancer education efforts target low-literacy men

Veterans with low literacy levels are at high risk for diagnosis of advanced-stage prostate cancer, this study by the VA Chicago Health Care System found. Researchers are developing educational materials about prostate cancer screening and treatment that are specifically geared for low-literacy white and African American men in the VA system. They hope that these efforts will increase the rate of early-stage diagnosis for these veterans and improve their overall care and outcomes.

Bennett CL, Chapman G, Elstein AS, et al. A comparison of perspectives on prostate cancer: analysis of utility assessments of patients and physicians. European Urology, 32(Suppl 3): 86-88, 1997.
IIR 95-120

Serenoa repens may provide relief for men with BPH symptoms, study finds

Benign prostate disease (BPH) – is common among men over age 60, whose therapeutic options include surgery, devices and medication. The annual cost of treating prostate disease is approximately \$12 billion. In this HSR&D study, a systematic review was conducted to examine the available evidence on the safety and efficacy of a plant extract called Serenoa repens in treating BPH. Investigators found that Serenoa repens may be a safe and effective treatment option for men with mild to moderate BPH symptoms, providing some relief from urinary problems. They also indicated that additional, well-designed randomized controlled trials are needed to confirm and amplify these findings.

Minneapolis COE

Health Services and Systems

ACQUIP study produces new system for monitoring ambulatory care

As primary care becomes increasingly important in the VA system, the need for innovative systems that can monitor and improve the quality of ambulatory care is more imperative than ever. Through the Ambulatory Care Quality Improvement Study (ACQUIP), VA researchers have designed a multi-site information system that collects patient reports on health status and satisfaction and links that information with clinical data. The computerized system packages all of this information into concise reports for primary care providers, along with evidence- and guideline-based practice information. The ACQUIP database has already proven to be a valuable resource for researchers and hospital administrators. A firm-based randomized trial of the system underway at seven VA facilities will assess its usefulness for physicians. More than 59,000 patients have been enrolled in the study to date. They will be surveyed for 2.5 years to determine whether use of the new system has an impact on patient outcomes including health status and satisfaction. If the results are positive, the system ultimately may be used throughout VA to improve the quality of ambulatory care.

McDonnell M, Anderson S, Fihn S. The Ambulatory Care Quality Improvement Project: a multi-site information system for monitoring health outcomes. VA HSR&D Service Annual Meeting, Washington, DC, February, 1998.
SDR 96-002

Service coordination improves outcomes for surgery patients

Coordination plays an important role in the outcomes of surgery patients, according to findings from the National VA Surgical Risk Study. Researchers observed that hospitals with low risk-adjusted mortality and morbidity ratios fostered high levels of interaction among different types of surgical staff at both the administrative and patient care levels. These results will be used to identify opportunities for improving surgical care through increased collaboration and communication. Participants in the National Surgical Risk Study have disseminated results to VA surgical staff through newsletters and meetings.

Young GJ, Charns MP, Daley J, et al. Best practices for managing surgical services: the role of coordination. Health Care Management Review, 22:72-81, 1997.

SDR 94-006

Surgical quality improvement program identifies best practices

Good risk adjustment is critical to efforts to accurately assess quality of care among hospitals. A collaborative effort of HSR&D and VA's Office of Quality Management, the National VA Surgical Quality Improvement Program is gathering data from 123 VA medical centers on patient-specific factors that affect post-surgical mortality and morbidity. In this way, VA is able to differentiate high-quality from low-quality providers and identify best practices to improve care. These data currently are being used by chiefs of surgery throughout the VA system and by VISN directors to monitor and enhance quality of care.

SDR 91-007

Surgery rates supported by experts' quality assessments

HSR&D researchers confirmed the accuracy of risk-adjusted rates of surgical mortality and morbidity from the National Veterans Affairs Surgical Risk Study with validation by independent experts. Quality assessments by those experts made during site visits to 20 VA surgical services correlated with rates from the surgical risk study. The experts' validation of these data holds important implications for their use in performance measurement and quality improvement efforts.

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

SDR 93-008

Results of surgical risk study support quality improvement activities

The National VA Surgical Risk Study, funded collaboratively by HSR&D and VA's Office of Quality Management, will play an important role in VA's efforts to improve the quality of surgical practice throughout its system. Researchers are working to design patient-related variables that significantly affect outcomes of surgical care by devising a sound risk-adjustment methodology to support quality improvement efforts.

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, 180:519-531, 1995.

SDR 94-006

Network performance comparisons help stimulate quality improvement

Findings of significant variations in utilization and patient survival rates across the VA system may spur network quality improvement programs. Researchers analyzed VA hospital and clinical utilization rates and one- and five-year survival rates for nine diseases and compared those risk-adjusted rates across the VA networks. One network already has used these results to design a quality improvement program that includes continuing medical education in the nine diseases studied and the development and implementation of clinical practice guidelines.

SDR 96-001 and NDM 96-001

Quality improvement study provides important information for VHA's transformation

The success of VHA's ongoing transformation will depend, in part, on employee commitment to the goals of the transformation. This study, funded jointly by the National Science Foundation and HSR&D, is examining processes for aligning employee behavior with VHA's goal of providing excellence through service as defined by customers. The study is providing VA managers with much needed information on the strategies that work best for securing employee commitment to the transformation effort. Findings from the study are being disseminated to VA senior managers through information databases available systemwide and through newsletters and other publications.

Young, GJ. Service excellence: quality improvement study findings. Transition Watch, 1(2):7-8, 1997.

IIR 94-085

Researchers design risk adjustment system for measuring hospital quality

Efforts to compare quality of care among hospitals are meaningless unless they take into consideration important differences in the types of patients who are treated at those facilities. VA researchers developed and tested a system that adjusts for those differences, allowing valid comparisons to be made. This risk adjustment model is in the public domain, so that the scientific community may use it and continue to assess its validity.

Wray NP, Hollingsworth JC, Petersen NJ, et al. *Case-mix adjustment using administrative databases: a paradigm to guide future research. Medical Care Review*, 54: 326-356, 1997.
Houston COE

Researchers identify link between hospital complications and processes of care

In-hospital complications may be used as indicators of quality for hospital care received by patients with diabetes and emphysema, this HSR&D study found. The researchers observed that patients in both disease groups were more likely to avoid hospital complications if their doctors performed more treatments deemed essential for these conditions. The “essential” treatments identified by HSR&D researchers are being used in a study by the Agency for Health Care Policy and Research and the Alabama Medicare Peer Review Organization called “Achievable Benchmarks of Care.”

Geraci JM, Ashton CM, Johnson ML, et al. *The association of process of care and occurrence of in-hospital complications. Journal of Investigative Medicine*, 44:316A, 1996.
IIR 93-169

Mortality is a poor indicator of hospital quality

Hospitals throughout the country are engaged in performance measurement and “report card” initiatives. This HSR&D study shows that such efforts must be approached carefully. It found that diagnosis-specific mortality rates do not accurately identify hospitals that provide poor-quality medical services. In fact, this rating method may unfairly target some providers

as low-quality and accurately identify only very few of the poor-quality hospitals. This study demonstrates the importance of using reliable indicators to measure health care quality.

Hofer TP, Hayward RA. *Identifying poor-quality hospitals: can hospital mortality rates detect quality problems for medical diagnoses? Medical Care*, 34:737-753, 1996.
RCD 91-303

Recommendations aim to improve chart review

Review of hospital charts is a method frequently used in the assessment of quality of care. HSR&D researchers in Houston produced a critical evaluation of chart review as a quality assessment tool, with recommendations for how to improve the quality of the data obtained.

Wu L, Ashton CM. *Chart review: a need for reappraisal. Evaluation & The Health Professions*, 20:146-163, 1997.
IIR 89-061.1

New survey tool shows important differences between VA and non-VA patients

The Veterans Health Study (VHS), a large-scale observational study, has developed a modified short-form health survey for veterans called the SF-36V. This questionnaire is being used to assess functional status among VA patients. The Office of Policy, Planning and Performance is now using the SF-36V for several national surveys and for assessing outcomes as part of the VA goals for the year 2000. Results so far show that VA patients have substantially lower health-related quality of life than non-VA patients, a finding that carries significant implications for resource consumption. In addition, new outcomes measurement tools developed as part of the VHS have passed critical tests of reliability and validity, moving VA closer to its goal of systematic, patient-centered outcomes assessment. These new assessment tools cover diabetes, osteoarthritis of the knee, chronic lung disease and low back pain.

Kazis LE, Miller DR, Clark J, et al. *Health related quality of life in VA patients: results from the Veterans Health Study. Archives of Internal Medicine*, In Press, March 1998.
SDR 91-006

Researchers identify information needs among non-users of VA services

With the aid of HSR&D staff, VISN 13 has produced important findings on the type of marketing information and services needed to increase the awareness and appeal of VA programs among high-priority veterans. Veterans with high eligibility for VA services but who do not use them were surveyed about their health care choices and preferences. Results indicate that Compensation and Pension veterans frequently are not well-informed about VA programs, services and eligibility requirements. Data from the study also highlight the importance of including information on primary care physician assignment, VA's technological capabilities and low out-of-pocket costs for VA services in materials disseminated to veterans. For Medicare recipients, information on VA's new outpatient-based system, lack of bureaucratic "red tape" and short waiting times is of particular interest.

Hines COE

Study on veterans' choices provides direction for service planning

Information from HSR&D is playing a key role in the development of service demand planning by VA policy makers. This study found that the most important determinant in a veteran's decision to use a VA hospital or another hospital was the distance between the veteran's home and the hospital. However, VA users, particularly those with service-connected disabilities, frequently bypass non-VA alternatives, even when they are closer to home. In addition, veterans have a strong preference for VA care when the distances between hospitals are equal. These findings support the provision of more convenient VA access, such as travel assistance, for veterans who require inpatient services.

IIR 92-042.B

Survey provides guidance for primary care development

A national survey by HSR&D that documents VA's progress in implementing primary care is having a dramatic impact on primary care policy and planning.

The survey identified a significant move within VA toward an interdisciplinary team model of primary care delivery, with numerous variations. Success of these primary care "firms" depends on strong primary care leadership, top management commitment of resources, an effective means for handling tensions between generalists and specialists and the development of policies and practices that support primary care providers as the principal coordinators of patient care. This study is helping VA facilities deploy primary care models and is influencing VISN planning, reorganization and oversight.

Yano EM, Lukas CVD, Katz L, et al. Delivery models for primary care: VHA firm systems. Management Decision and Research Center, Veterans Health Administration, 1996.
MRR 96-012

Collaborative care model promotes healthier patient behavior

A nursing-based collaborative care model aimed at increasing patient knowledge and self-care persuaded more patients to quit smoking, improve their eating habits and comply with their treatment, this HSR&D study showed. Mortality rates were also lower among these patients a year after discharge from the hospital. This model may also result in cost savings, the researchers suggested.

Pioro MH, Landefeld CS, Brennan PF, et al. Randomized controlled trial of an inpatient nurse practitioner service. Journal of Investigative Medicine, 44:229A, 1996.
RCD 91-309

Consolidation of heart surgery units had neutral impact on costs

Consolidating open heart surgery units in VISNs has only limited potential to reduce costs, this study of VISN 7 found. Cost savings from closing one of four open heart surgery units were offset by increased treatment costs for patients transferred to other VA facilities and for emergency cases in non-VA hospitals. All four open heart surgery units have remained open, but the VISN continues to monitor them. These results hold significant implications in-and outside VA for using consolidation as a cost-cutting tool.

Menke TJ, Wray NP. Cost implications of consolidating open heart surgery units. Inquiry, In Press, 1998.
Houston COE

Subacute care offers opportunities for savings

Greater use of subacute care services potentially could produce significant cost savings for VA, this study found. Certain medically stable patients who no longer require acute care, but need higher levels of services than those available in a skilled nursing facility, could benefit from subacute care services, researchers concluded. The Office of Geriatrics and Extended Care disseminated the report to all VA medical centers to stimulate use of subacute care in VA.

Conrad K, Guihan M, Hynes D, et al. *Subacute care in the VA: estimating need, availability, and cost. Management Decision and Research Center, Veterans Health Administration, 1996.*
MRR 95-002

VA takes steps to improve contracted nursing home placements

In many areas of the country, VA staff have had difficulty placing hospitalized veterans into contracted community nursing homes (CNHs). Two studies found that one reason for this problem is that VA does not pay sufficiently high rates for contracted placements in some areas. This information has been used to modify some of the CNH contracting requirements so that VA is a more competitive purchaser in local markets. These changes appear to have eased placement problems in some areas.

Bishop C, Skwara K. *Payment methods for the Veterans Health Administration community nursing home program. Management Decision and Research Center, Veterans Health Administration, 1995.*
MRR 94-003

Conrad K, Weaver F, Guihan M, et al. *Evaluation of the enhanced prospective payment system (EPPS) for VA contract nursing homes. Management Decision and Research Center, Veterans Health Administration, 1995.*
MRR 93-024

Costs and availability of long-term care units vary substantially

An HSR&D study of costs among VA nursing homes and contract nursing homes has supplied VA management with critical comparative information that will shape long-term care decisions, including possible closures or consolidations of nursing homes. Researchers found that costs among nursing homes varied widely across regions, as did provider availability, in accordance with local market conditions. Based on these results, researchers recommended that decisions

about long-term care resources be made at the network or facility level rather than at the national level. These and other findings have prompted the Office of Geriatrics and Extended Care to establish a high-level task force to examine policies among VA nursing home programs.

Prashker MJ, Anderson JJ, Cahill LA, et al. *Nursing home cost study: a comparison of VA nursing homes and contract nursing homes. Management Decision and Research Center, Veterans Health Administration, 1996.*

Cahill LA, Hendricks A, Anderson JJ, et al. *Are VA nursing home care units (NHCUs) really double the cost of community nursing homes (CNH). VA HSR&D Service Annual Meeting, Washington, DC, February, 1997.*
MRR 96-001

New resource guide provides information on VA's long-term care services

A new, three-volume guide to long-term care data in VA is helping clinicians, researchers and policy makers plan care and services for those veterans who need long-term care. Now available through the World Wide Web at the VA Home Page (<http://www.va.gov/resdev/ps/pshsrd/ltrcguid>), this guide was developed after researchers conducted a thorough review of VA databases for long-term care. It identifies sources of data for research as well as clinical use and documents the limitations of these data. Besides its availability on the web, other disseminations are underway including demonstrations at professional meetings and other presentations.

SDR 93-113

HSR&D researchers facilitate informed use of VA databases

HSR&D researchers created a comprehensive guide to assist users of VA's extensive database systems to answer important questions about VA healthcare management and delivery. A five volume set of resource guides has been widely disseminated and is available on the world wide web (<http://www.va.gov/station/583-indianapolis/resguide/index.htm>). The authors of the resource guide also maintain an email discussion list for addressing database-related questions and provide consultation to the developers of the VA National Patient Care databases.

Swindle RW, Beattie MC, Barnett PG. *The quality of cost data: a caution from the Department of Veterans Affairs experience. Medical Care 34(suppl): MS 83-90, 1996.*
SDR95-002

Hospital simulation model helps administrators predict service demands

A new admissions scheduling system that simulates patient flow patterns through multiple in-hospital services is a powerful planning tool for hospital managers and clinicians, this study found. Researchers found that the simulation model can be used to determine appropriate allocation of beds among different specialties and subspecialties. It also provides a mechanism for hospitals to anticipate and plan for changing demands for inpatient services. The system will help hospital administrators improve operations efficiency by allowing them to model and experiment with different policies.

Lowery JC. Design of hospital admissions scheduling system using simulation. In: Charnes J and Morrice D (Eds.) Proceedings of the 1996 Winter Simulation Conference. Baltimore: Association of Computing Machinery, 1996. IIR 93-038

HSR&D researchers support limiting investment in Positron Emission Tomography

Based on a technology assessment by HSR&D on positron emission tomography (PET), VA has decided not to invest in additional PET centers. Researchers found little evidence to support the use of PET as a diagnostic tool for specific clinical conditions. This report has been used to support policies regarding the use of PET within VA and at other organizations, including the Health Care Financing Administration, and governments represented by the International Network of Agencies for Health Technology Assessment.

Flynn K, Adams E, Anderson D. Positron emission tomography: a descriptive analysis of experience with PET in VA, systematic reviews - FDG PET as a diagnostic test for cancer and Alzheimer's disease. MDRC Technology Assessment Report. Available from NTIS, PB#97-143614, 1997. MTA 94-001

Cholesterol screening guidelines by HSR&D researchers have nationwide impact

HSR&D researchers wrote clinical practice guidelines on cholesterol screening for the American College of Physicians that were distributed to physicians nationwide. These guidelines consist of seven specific recommendations and supporting evidence for screening.

Garber AM, Browner WS, Mazzaferri EL, et al. Guidelines for using serum cholesterol, high density lipoprotein cholesterol, and triglyceride levels as screening tests for preventing coronary heart disease in adults. Annals of Internal Medicine, 124:515-517, 1996. RCD 90-001

HSR&D takes the lead in influenza immunization

Pioneering work by HSR&D has made VA a national leader in influenza immunization. One veterans ambulatory care center increased its immunization rate from 7 percent to 82 percent. In another initiative, a low-cost, patient-centered program increased vaccination rates among high-risk patients and produced significant cost savings. Organizations outside VA also are applying these important lessons in health promotion and disease prevention. Dissemination of a VA Practice Matters bulletin on influenza by HSR&D's Management Decision and Research Center is boosting vaccination among VA employees.

Nichol KL, Lind A, Margolis KL, et al. The effectiveness of vaccination against influenza in healthy, working adults. New England Journal of Medicine, 333:889-893, 1995.

Management Decision and Research Center, Veterans Health Administration. Influenza immunization. Practice Matters, 1:1-4, 1996. MDRC IDP

■ Mental Illness

VA's pioneering efforts advance outcomes measurement in mental health

Improving measures of behavioral treatment outcomes is a priority in both the public and private sectors. HSR&D is at the cutting edge in developing and testing disorder-specific mental health outcome measures or modules. Outcome modules are brief sets of questionnaires, designed for use in clinical settings to obtain comprehensive data on outcomes, utilization of care, and prognostic variables. The measurement and management of mental health outcomes presents many challenges. VA is a national leader in developing outcomes assessment tools for a variety of mental health disorders. For example, VA's outcome modules for depression, substance abuse and schizophrenia recently were approved by the Joint Commission on Accreditation of Healthcare Organizations for quality improvement purposes. The Foundation for Accountability has endorsed VA's depression outcomes module as its only mental health measure; the Medical Outcomes Trust is in the process of formally approving that same outcomes module. The concept behind these modules is the use of continuous quality

improvement techniques to improve the quality and efficiency of mental health care for veterans. These modules monitor clinical outcomes in everyday practice. In addition, they may be used to measure processes and outcomes of care in research projects and program evaluations.

SDR 91-005 and IIR 94-109

Two-step approach can improve mental health screening in clinics

Mental health disorders frequently go undiagnosed in primary care settings. HSR&D researchers, with funding from Pfizer, found that a two-step screening and diagnostic instrument called PRIME-MD significantly enhanced psychiatric screening and diagnosis in a busy VA general medicine clinic with only modest levels of additional staff support. By providing non-clinical staff support for administering the instrument to patients, the clinic saw a large increase in the number of new diagnoses for psychiatric disorders. Nursing support with chart notes for physicians resulted in significant increases of both new diagnoses and interventions. HSR&D researchers note that because these levels of support are achievable in most clinics, use of this instrument could significantly improve psychiatric screening and diagnosis in primary care settings.

Valenstein M, Dalack G, Blow F, et al. Screening for psychiatric illness with a combined screening and diagnostic instrument. Journal of General Internal Medicine, 12:679-686, 1997.

Ann Arbor COE

New screening tool helps to identify depression in primary care patients

Major depression can have serious consequences, yet it often goes undiagnosed and untreated. Thanks to HSR&D, VA physicians now have an effective two-question screening tool they can use in outpatient settings to identify veterans with major depression. They also have a new awareness of the scope of the problem. Recent research shows that depression is preva-

lent among 14 percent of VA outpatients (excluding those with substance abuse problems, mania and/or psychosis). These findings have been widely disseminated to increase screening.

Whooley MA, Avins AL, Miranda J, et al. Case-finding instruments for depression: two questions are as good as many. Journal of General Internal Medicine, 12:439-445, 1997.

LIP 62-084

Mental illness has adverse impact on medical and surgical patients

Psychiatric illness can have a substantial negative impact on the functioning and recovery of medically and surgically hospitalized veterans, this study found. These results demonstrate the importance of providing comprehensive mental health services for these patients, whose outcomes may be improved by broadening the array of mental health services available to them. Findings from this study provided further impetus for the development and implementation of VA's clinical practice guidelines for major depressive disorder.

IIR 91-077

Medication management of schizophrenia needs to be improved

Antipsychotic medication benefits nearly all patients with schizophrenia. However, this medication frequently is not prescribed according to experts' recommendations or clinical practice guidelines, this study by the Little Rock HSR&D Center of Excellence confirmed. The researchers also found that patients who received medication treatment according to practice guidelines fared better at six-month follow-up than those who did not. This work is contributing to the development of a computer program to screen VA databases for inappropriate medication management of schizophrenia. This program will be distributed throughout the VA system to improve schizophrenia management.

IIR 95-020

■ Special Populations

Services needed for women veterans differ from those of men

Findings from an HSR&D study on the health status of women veterans who use VA ambulatory care services is helping VA plan more comprehensive and appropriate services for this growing service population. Study results strongly suggested that resources needed to care for women veterans differ greatly from those needed to care for male veterans. For example, women veterans may benefit from more intensive mental health care services.

SDR 93-101

Case management expands homeless veterans' access to services

Case managed residential care for homeless veterans with substance abuse tended to shift service delivery from inpatient settings to less expensive outpatient settings, this HSR&D study found. This approach improved patients' access to care. It also improved short-term outcomes that were measured in terms of health care, employment, and housing, although these gains tended to diminish during the year following treatment. This information will inform VA administrators and clinicians about the need for ongoing community care to maintain gains achieved in the residential setting.

Conrad KJ, Hultman CI, Pope AR, et al. Case managed residential care for homeless addicted veterans: results of a true experiment. Medical Care, 36: 40-53, 1997.

IIR 92-065

■ Substance Abuse and Addictive Disorders

Outpatient substance abuse treatment supported for some patients

Findings from this project figured heavily in VA's decision to shift substance abuse treatment for certain

patients from inpatient to outpatient settings.

Researchers concluded that among patients who were eligible for either inpatient or outpatient treatment, outcomes were not affected by the setting in which care was provided. Instead, the evidence suggested that the amount of treatment was more important in determining patient outcome.

Finney JW, Hahn AC, Moos RH. The effectiveness of inpatient and outpatient treatment for alcohol abuse: the need to focus on mediators and moderators of setting effects. Addiction, 91:1773-1796, 1996.

RCS 90-001

Shorter substance abuse day treatment programs are effective and save money

An HSR&D investigation into resource use among VA's inpatient substance abuse programs is helping policy makers make important decisions about treatment planning. The study compared 28 day long programs with 21 day programs. Investigators found that the additional week yielded statistically significant but relatively small improvement in patient outcomes. Further, the findings indicate that shortening length of stay from 28 to 21 days would save \$18.9 million. Patients with a history of prior treatment or complicated conditions may benefit from longer stays.

Barnett PG, Swindle RW. Cost-effectiveness of inpatient substance abuse treatment. Health Services Research, 32:619-633, 1997.

IIR 94-033

Substance abuse patients should get self-help and outpatient treatment

Substance abuse patients should be encouraged to regularly attend self-help groups and get outpatient aftercare for optimal long-term outcomes, according to this HSR&D study, which provided important new evidence on the effectiveness of 12-step programs. Researchers found that patients who participated both in self-help groups and outpatient treatment fared the best at one year, compared with patients who were involved in only one form of aftercare. These findings have been disseminated to substance abuse program coordinators nationwide and have contributed to substance abuse treatment planning throughout VA.

Ouimette PC, Finney JW, Moos RH. Twelve-step and cognitive-behavioral treatment for substance abuse: a comparison of treatment effectiveness. Journal of Consulting and Clinical Psychology, 65:230-240, 1997.

RCS 90-001