VA RESEARCH & DEVELOPMENT
IMPACTS

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Message from the Director

The Health Services Research & Development Service (HSR&D) focuses on identifying effective and cost-effective strategies for organizing and delivering health care and for optimizing patient and system-level outcomes. HSR&D programs span the continuum of health care research and delivery, from basic research to the dissemination of research results, and ultimately to the application of these findings to clinical, managerial, and policy decisions.

Never have there been more opportunities for (nor need to utilize) the expertise of HSR&D's researchers. The changes in VHA and in the healthcare system as a whole have been breathtaking in recent years. This rapid alteration of services has given rise to many questions – questions HSR&D is uniquely positioned to answer. HSR&D is at the center of the search for solutions to today's health care challenges and is a vital part of VA's continuous mission to embrace new, more integrated models of care and increase its efforts to improve service, quality and efficiency. This document highlights some of HSR&D's important impacts. These impacts are organized by health care categories particularly prevalent in the veteran population that we serve.

Categories include: aging and age-related changes, chronic diseases, health services and systems (e.g., health care delivery, organization, quality and outcomes), mental illness, special populations (e.g., women veterans, permanently disabled veterans, Persian Gulf veterans, homeless veterans, etc.), substance abuse and addictive disorders, sensory disorders and loss, acute and traumatic injury, and military and environmental exposures.

We are pleased to share with you some of HSR&D's significant impacts for the past year, along with current work, showing promise for increasing the VA health care knowledge base.

John G. Demakis, M.D.
Director

Aging and Age-Related Changes

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

Researchers evaluate multi-state nursing home contract initiative.

Findings from an HSR&D evaluation of a new initiative to improve care purchased for veterans from private nursing homes have resulted in changes in local policies for operating under multi-state contracts. Under the Multi-state Initiative, VHA contracts with six national nursing home corporations and one statewide firm; traditionally, each VAMC contracts locally with nursing homes. The goal of the new contract strategy is to standardize quality, control costs, and increase administrative efficiency. Researchers evaluated the access, cost, and quality of nursing home care under the Multi-state Initiative. Based on their findings, Headquarters' managers have improved local policies for operating under Multi-state contracts, as well as the contract process and requirements for the national nursing home corporations.

O'Brian J, Hedrick S. An evaluation of the VA multi-state nursing home contract initiative. Final Report. August, 1998. Report Number MCP 96-024.
MCP96-024

Patients should express preferences for life-sustaining treatment in advance directives.

An HSR&D project demonstrated the critical need for more informed advance care directives that accurately reflect patient preferences regarding life-sustaining treatment and inform provider decisions. Studies show that physicians and patients may differ in their perceptions of patient quality of life. In addition, physicians, nurses and spouses generally were unable to judge accurately what, in the patient's opinion, would constitute "futile treatment." This HSR&D research resulted in the publication of an advance care planning workbook entitled *Your Life, Your Choices*. This comprehensive workbook can be used to educate patients about advance care planning outside of the clinical setting. Exercises and other aspects of the workbook can promote meaningful communication between patients and proxies, facilitate efficient discussions between clinicians and patients, and guide future medical care in the event of decisional incapacity. Recommendations from this research have been distributed throughout the VA by the National Center for Clinical Ethics and at national meetings and conferences. The workbook's use in the VA health care system should improve the advance care planning process and advance directive completion rate in the VA.

Pearlman RA, Starks HE, Cain KC, Rosengren D, Patrick DL. Your Life, Your Choices - Planning for Future Medical Decisions: How to Prepare a Personalized Living Will. In: Pearlman RA, Starks HE, Cain KC, Rosengren D, Patrick DL, editors. Department of Veterans Affairs: Washington, DC, 1997.
IIR 94-050c

Hospice study helps VHA improve end-of-life care.

Increasing access to high-quality hospice services is an important element of VA's comprehensive strategy to improve care for terminally ill veterans. The Veterans Hospice Care Study provides important information on how to achieve this goal. The final report, which was submitted to Congress, highlights the different programs through which hospice care is delivered in the VA, describes patient and family satisfaction with care, and identifies barriers to obtaining hospice care. These results are serving as the focal point for efforts to improve end-of-life care throughout the VA delivery system.

Hickey EC, Berlowitz DR, Anderson J, Hankin C, Hendricks A, Lehner L. The Veterans Hospice Care Study: an evaluation of VA hospice programs. Final Report. February, 1998. Report Number MRR 97-004.
MRR 97-004

Chronic Diseases

Heart Disease

Study highlights need for more aggressive hypertension management.

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, HSR&D 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 hypertensive population. New England Journal of Medicine. 1998;339:1957-1963.
SDR91-011

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 Fellowship

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

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

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, a nonprofit public service organization that advances the use of high quality, standardized patient-based measures of health and quality of health to improve the value of health care.

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

Diabetes

Not all type 2 diabetics need to achieve tight blood-sugar control.

Research by VA has produced critical information that will help patients with type 2 diabetes, and their physicians, who are faced with the important decision of whether to start insulin therapy. VA researchers examined the effectiveness, safety and costs of starting and managing insulin therapy for patients with type 2 diabetes. The results, which were published in the *Journal of the American Medical Association*, call into question the need to achieve tight glycemic control for all type 2 diabetics, since patients who use pills and are already in moderate control of their blood sugars receive only modest improvements from insulin. These findings were reported by *Time Magazine*, the *Wall Street Journal*, *New York Times*, CNN International, CBS Radio, and the local press, as well as in *AHCPR Research Activities*.

Hayward RA, Manning WG, Kaplan SH, et al. Starting insulin therapy in type II diabetics: effectiveness, complications and resource utilization. Journal of the American Medical Association. 278: 1663-1669, 1997.

Ann Arbor COE; AHCPR PORT

Targeting glycemic control achieves better outcomes for high-risk diabetics.

It is well known that patients who develop type 2 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

Using telecare to improve health care for patients with diabetes.

A telephone-based disease management system may be a viable "clinician extender" for diabetic patients, bringing monitoring, diabetes education, and behavior support services into the homes of VA patients with diabetes. HSR&D researchers are studying the use of an automated voice messaging system (AVM) with nurse telephone follow-ups. The AVM calls patients weekly to monitor their health status. Nurses then use each patient's responses to the system to determine appropriate follow-up. Results so far are promising. Researchers observe that the automated system has identified a number of serious health problems that otherwise might have gone undetected – thus avoiding acute events and subsequent hospitalization. This work was presented to the Senate Special Committee on Aging during a hearing on the use of TeleHealth Services. In addition, findings have been published in *The Diabetes Educator* and *Diabetes Care* and were widely disseminated within and outside the VA.

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

Study provides important information for treatment of diabetic foot ulcers.

Foot ulcers are a serious problem for patients with diabetes and precede most amputations. Through a two-year observational study of patterns and outcomes of care for patients with diabetic foot ulcers, HSR&D researchers identified several best treatment practices that promote ulcer healing and prevent amputation. This research is informing the development of prevention techniques to reduce the incidence of amputation for diabetic patients.

Reiber GE, Lipsky B, Gibbons G. The burden of diabetic foot ulcers. American Journal of Surgery 1998; 176:5S-10S.
IIR92-097

Prostate Disease

Researchers work to ease psychological stress in men with prostate cancer.

This ongoing HSR&D study of men with advanced prostate cancer is tracking how their preferences, utilities, health-related quality of life, and functional status change as their disease burden increases. So far, this groundbreaking research has documented that men with incurable prostate cancer suffer from a great deal of untreated psychological distress. The researchers are trying to get their findings out to men with prostate cancer and to work with health psychologists so that they can develop programs to help these patients.

Clark JA, Wray NP, Brody B, Ashton CM, Giesler RB, Watkins H. Dimensions of quality of life expressed by men treated for metastatic prostate cancer. Social Science & Medicine, 1997, 45:1299-1309.
SDR 93-007

Prostate cancer education efforts target low-literacy men.

A study by the Chicago VA health care system found that Veterans with low literacy levels are at high risk for diagnosis of advanced-stage prostate cancer. 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.

HSR&D researchers have found that a plant extract called Serenoa repens may be a safe and effective treatment option for men with mild to moderate symptoms of benign prostate disease, or BPH. This condition is common among men over age 60, whose therapeutic options currently include surgery, devices, and medication. In this HSR&D study, a systematic review was conducted to examine the available evidence on the safety and efficacy of Serenoa repens in treating BPH. This study's promising findings have been disseminated systemwide to VA policymakers, managers and clinicians.

Wilt TJ, Ishani A, Stark G, MacDonald R, Lau J, Mulrow C. Saw palmetto extracts for treatment of benign prostatic hyperplasia. Journal of the American Medical Association. 1998;280(18):1604-1609.
VA Practice Matters, Diagnosis and Management of Benign Prostatic Hyperplasia, Vol. 3, July 1998
Minneapolis COE

Chronic Lung Disease

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, McDonell 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

HIV/AIDS

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. 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. 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.

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

Health Services and Systems

ACQUIP system for monitoring ambulatory care shows promise in clinical trials.

VA's new information system for monitoring and improving ambulatory care is getting positive reviews as it is put to the test in a series of clinical trials and large-scale automated surveys. The Ambulatory Care Quality Improvement Project (ACQUIP) is an ongoing, multi-site, randomized trial of the effectiveness of providing patient-based feedback and other information to primary care physicians. The ACQUIP system collects patient reports on health status and satisfaction and links that information with clinical data. It then packages all of this information into concise reports for primary care providers, along with evidence- and guideline-based practice information. Instruments developed for this study, including the Seattle Angina Questionnaire and the Seattle Obstructive Lung Disease Questionnaire, have been well-received and used in other clinical trials. The methods developed for ACQUIP also are being used to survey all 150,000 veterans in the Northwest Network (VISN 20). Meanwhile, the ACQUIP study, a firm-based, randomized trial involving more than 59,000 patients at seven VA facilities, continues to assess the new system's impact on patients' health status, outcomes, and satisfaction. Ultimately, the ACQUIP system may be used throughout VA to improve the quality of ambulatory care.

McDonell 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

Study finds that regionalization is a good model for cardiac care.

In a study with national implications, HSR&D researchers found substantial evidence to support the regionalization of cardiac care that is used in the VA system. The researchers evaluated the quality and outcomes of care in heart attack patients admitted to high-tech and low-tech hospitals in Seattle. The high-tech hospitals had on-site catheterization facilities. In the Seattle area, where distances between hospitals are small and transfers are easy, patients admitted to lower-tech hospitals had the same outcomes as those treated in high-tech hospitals. In addition, per-patient costs at the low-tech hospitals were $2,500 lower. This study shows that regionalization of high-tech resources is an effective and efficient model for cardiac care.

Every NR, Parsons LS, Fihn SD, Larson EB, Maynard C, Hallstron AP, et al. Long-term outcomes in acute myocardial infarction patients admitted to hospitals with and without on-site cardiac catheterization facilities. MITI Investigators. Myocardial Infarction Triage and Intervention. Circulation. 1997; 96:1770-1775.

RCD94-304

Results from national veterans survey help VHA focus on functional status.

Results from a national survey of more than 42,000 veterans are helping VHA leaders incorporate measures of functional status into decisions for resource allocation and outcomes evaluation at the Veterans Integrated Service Network (VISN) level. Researchers are collaborating closely with the Office of Performance and Quality to develop measures of case-mix and outcomes for VA hospitals, as well as measures of VISN performance, that reflect functional status. The VHA has designated functional status as its fifth "domain of value" – the others are access, price, quality, and satisfaction.

Health Status of Veteran: Physical and Mental Component Summary Scores (SF12-V): 1997 National Survey of Ambulatory Care Patients – Executive Report. 1998.

SDR 91-006

Automated pharmacy system may be more cost-effective.

A consolidated outpatient pharmacy system can increase patient satisfaction with mail refills and promote more efficient delivery of refill orders. This automated system was designed by VA researchers to process and distribute prescription refills through the mail in a more centralized fashion. An evaluation of the system indicates that patient satisfaction with mail refills increased, the proportion of veterans using the local outpatient window for refills dropped, and more

veterans received 90-day refills. This is helping VISN and local VA managers identify the costs and benefits of adding automated dispensing technology to their outpatient pharmacy systems.

Weaver FM, Hynes, DM, Kubal, JD, Ippolito D, and Kerr M. An Evaluation of the Hines Consolidated Mail Outpatient Pharmacy. 1998 Annual Meeting, Health Services Research, Washington, DC.
Hines COE; CMOP

Researchers provide critical budgeting and forecasting information to VA managers.

Medical care cost recovery – the process by which the VA bills veterans' private, third-party insurers for treatment of non-service-connected conditions – is of great financial importance to the VA. VA researchers are helping the Office of Medical Care Cost Recovery forecast these cost recoveries into the fiscal year 2002. As a result of this work, VA Headquarters has changed the way it sets goals for third-party payment collections by the 22 VISNs. Forecasts now originate at the VISN level and are modified to meet the overall target set by the Under Secretary. The projections are also used in VA's budget negotiations with the Office of Management and Budget.

Hendricks AM. A Model for MCCR Projections: Final Report. Veterans Health Administration - Chief Finance Office. Denver, CO. 1997.
MCP96-002

Service Line Evaluation provides support for VA reorganization.

VA leaders are gleaning valuable lessons about the design and implementation of clinical service lines from HSR&D's Service Line Evaluation Project, which has generated reams of descriptive information on service line development at VA. Project researchers are studying the implementation of service lines in VA medical centers and networks. So far, the project has produced a detailed analysis that compares service line development in VA with that in the private sector, and has provided needed clarification of the various purposes and organizational designs of service lines. Project researchers have collected their data through site visits, telephone surveys, and employee questionnaires. Their findings have been widely disseminated within VA to Headquarters and senior managers at VA networks and medical centers. In addition, the Service Line Evaluation team participated in the development of VA's national service line guidelines.

Charns, MP. If you are confused about the definition of service line management you are not alone. Transition Watch. 1(1):1-3, 1997
MCP97-006

Study identifies elements of successful facility integrations.

Since January 1995, 48 VA medical centers have integrated to form 23 health care systems. In practice, these VA integrations encompass a broad and complex merger of operations and clinical services. The Analysis of Facility Integration was commissioned by the Under Secretary for Health to study 14 of these integrations to provide management lessons for integrating other VA medical centers and to assess the effectiveness of these early VA integrations. Preliminary findings on the process, structure and perceived impact of integration have been disseminated throughout VA and have been used as consulting tools for other medical centers that are beginning their own integration efforts.

Lukas CV, Mittman B, Hernandez J, Macdonald JD, Yano E, Simon B. Analysis of Facility Integrations. Management Decision and Research Center, Department of Veterans Affairs. July 1998.
MCP96-023

Surgical quality at VA improves since implementation of NSQIP.

The quality of surgical care at VA hospitals has improved significantly since the inception of the National VA Surgical Quality Improvement Program (NSQIP), a collaborative effort of HSR&D and VA's Office of Quality Management. The 30-day mortality rate after major surgery has fallen from 3.1 percent to 2.8 percent – a 9.6 percent decline. The rate of postoperative complications has decreased from 14.8 percent to 10.3 percent – a 30 percent decline. Better surgical and anesthesia techniques, improved supervision of residents in surgical training, and improvements in technology and equipment have contributed to VA's progress in surgical care. The NSQIP has been instrumental in identifying ways to improve surgical care. The project researchers gather data from 123 VA medical centers on patient-specific factors that affect post-surgical mortality and morbidity. These data enable the researchers to differentiate high-quality from low-quality facilities and to identify best practices to improve care. NSQIP researchers currently are studying functional outcomes of veterans who undergo major surgery in urology and orthopedics in 14 VA medical centers. They also are collaborating with four affiliated academic health centers

to implement the NSQIP at non-VA hospitals.

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.
Daley J, Forbes M, Young G, 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.
SDR91-007
SDR91-007(s)

Service coordination improves outcomes for surgery patients.

Service 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 VA Surgical Risk Study have disseminated results to VA surgical staff through newsletters and meetings.

Young G, Charns MP, Desai K, et al. Patterns of coordination and clinical outcomes: a study of surgical services. Health Services Research 33(5 part 1):1211-1236, December 98.
SDR 94-006

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 VA 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 G, 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

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 made available to VHA 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.
IIR94-085

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 that 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

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

Research efforts put outcomes data into practice.

HSR&D researchers are putting important outcomes information into the hands of VA managers, where these data can be used to evaluate and improve the quality of care received by veterans. The researchers are conducting a longitudinal analysis of outcome and utilization rates within the VA, analyzing multiple mortality and morbidity measures as screens for quality of care. To ensure rapid dissemination of the study results, this information is available electronically to VA managers and clinicians on a VA web site. Some of the mortality rates calculated for this project are posted on the VA's electronic report card, which is published by the VA National Performance Data Resource Center in Durham, so that VA managers and clinicians can use them for quality improvement purposes.

Ashton CM, Petersen NJ, Souchek J, Menke TJ, Yu HJ, Pietz K, Eigenbrodt ML, Barbour G, Kizer KW, Wray NP. Geographic Variations in Utilization Rates in Veterans Affairs Hospitals and Clinics (Special Article). The New England Journal of Medicine. Jan 7, 1999; 340 (1), pp 32-39.
SDR98-001

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 (Final Report). Management Decision and Research Center, Veterans Health Administration, 1996.
MRR 96-012

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. Estimated 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 who 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.
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 recommend 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.

Center for Health Quality, Outcomes and Economic Research. 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 (NHCU) 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 the VA is helping clinicians, researchers and policymakers plan care and services for those veterans who need long-term care. Now available through the World Wide Web at the VA Information Resource Center Home Page (http://www.va.gov/resdev/ps/pshsrd/ltcrguid.htm), 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.virec.research.med.va.gov). 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 find that published research does not support routine incorporation of positron emission tomography into diagnostic strategies for cancer or dementia.

Based on a technology assessment by HSR&D on positron emission tomography (PET), VA has decided not to invest in additional PET centers, and to systematize data collection on the use of PET within VHA. The report has been consulted by other agencies, including the Health Care Financing Administration, and will serve as a focus for a collaborative report on PET from 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

Mental Illness

VA's pioneering efforts advance outcomes measurement in mental health.
Work by VA's Center for Mental Health Outcomes Research (CeMHOR) continues to have national and international impact. To date, the Center's investigators have developed seven disorder-specific outcomes modules and self-report instruments that can be used to assess and improve quality of care. Several modules have been translated for use outside the United States; for example, the Schizophrenia Outcomes Module has been translated into Spanish. Articles by CeMHOR investigators have been reprinted in a special compendium published by *Psychiatric Services* and were included in a special issue of *Evaluation and the Health Professions* on improving mental health outcomes measurement. The Depression Outcomes Module is part of the VISTA/DHCP Mental Health Package and has been adopted by the Foundation for Accountability, a not-for-profit organization that develops outcomes measurement modules.
Cuffel BJ, Fischer EP, Owen RR, Smith GR. An instrument for measurement of outcomes of care for schizophrenia: issues in development and implementation. Evaluation and Health Professions 1997; 20 (1):96-108.
SDR91-005

VA researchers contribute to advances in care for schizophrenia.
VA researchers have defined meaningful quality-of-care indicators for medication management in schizophrenia that can be derived easily from routine administrative data. This research has had a regional and national impact on how disorder-specific performance is measured in VA. VISN 16, for example, has adopted this approach for identifying indicators and monitoring performance in guideline implementation and, with the help of HSR&D researchers, expanded it to cover 10 conditions. HSR&D also is working with the VHA's Mental Health Strategic Health Care Group and the Office of the Chief Information Officer to develop national indicators of the quality of medication management for schizophrenia.
IIR95-020

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 help identify veterans with major depression. They also have a new awareness of the scope of the problem. Recent research shows that depression is prevalent 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

Special Populations

Study helps VA better plan for services for women veterans.
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 suggest that resources needed to care for women veterans differ greatly from those needed to care for male veterans. As the number of women veterans seeking VA care continues to increase, this information is critically important for providing high quality care for this special population of VA users.
Skinner KM, Furey J. The focus on women veterans who use Veterans Administration health care: the Veterans Administration women's health project. Military Medicine, 163(11): 761-766, Nov 1998.
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

Research evaluation suggests greater role for community-based substance abuse care in VA.
An HSR&D evaluation shows that VA can substantially reduce costs for substance abuse treatment by placing more emphasis on community-based care for veterans with substance abuse problems. Although treatment costs for patients admitted directly to community residential facilities (CRFs) from outpatient care were much lower than those for patients who first had an episode of inpatient care, their one-year outcomes were comparable. By admitting substance abuse patients directly to CRFs, VA would save more than $11 million a year for each 1,000 patients diverted from inpatient care, the researchers found. They also observed that one-year outcomes for substance abuse patients who averaged 52 or fewer outpatient mental health visits in a year were as good as for patients who averaged 53 visits or more. A policy limiting substance abuse patients to no more than 52 outpatient mental health visits annually could save $1.4 million per 1,000 patients. These findings have been disseminated throughout VA Headquarters and systemwide to network and facility staff at all levels, including network directors and clinical managers, facility directors and chiefs of staff, directors of mental health service lines, and coordinators of substance abuse and mental health programs.
Finney JW, Moos RH, Timko C. The course of treated and untreated substance use disorders: remission and resolution, relapse and mortality. In: McCrady BS, Epstein E, eds. Addictions: a comprehensive guidebook for practitioners. New York: Oxford University Press: in press.
Finney JW, Noyes CA, Coutts AI, Moos RH. Evaluating substance abuse treatment process models: I. changes on proximal outcome variables during 12-step and cognitive-behavioral treatment. Journal of Studies on Alcohol 1998; 59:371-380.
Greenbaum MA, Moos RH. FY94, FY95, and FY96 inpatient, outpatient, and extended care substance abuse programs' FTE, workload, and direct costs as summarized from the Cost Distribution Report. Palo Alto, CA: Program Evaluation and Resource Center and Center for Health Care Evaluation, Department of Veterans Affairs Health Care System (DVAHCS), 1997.
RCS90-001

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 suggests that the amount of treatment, rather than the setting, is 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 improvements in patient outcomes. Further, the findings indicate that shortening length of stay from 28 to 21 days would save $18.9 million. However, 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