

Using Outcomes to Improve Health Care Decision Making

Primer

Management Decision and Research Center
Health Services Research and Development Service
Office of Research and Development
Department of Veterans Affairs

In collaboration with
Association for Health Services Research

The Health Services Research and Development Service (HSR&D) is a program within the Veterans Health Administration's Office of Research and Development. HSR&D provides expertise in health services research, a field that examines the effects of organization, financing and management on a wide range of problems in health care delivery — quality of care, access, cost and patient outcomes. Its 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.

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Using Outcomes to Improve Health Care Decision Making

Donald L. Zimmerman, Ph.D.
Jennifer Daley, M.D.

Purpose of primer series: to disseminate information that will support VA managers in their efforts to improve the quality and cost-effectiveness of health care for veterans. The primer series is part of a larger set of dissemination initiatives developed by the Veterans Health Administration's (VHA) Office of Research and Development through its Management Decision and Research Center and in collaboration with the Association for Health Services Research.

Purpose of *Using Outcomes to Improve Health Care Decision Making*: to introduce the purposes, scope and general approaches to outcomes and outcomes measurement. The primer provides a basic framework for understanding outcomes and how outcomes measurement can be used by decision makers in VA. The primer is not an exhaustive text in outcomes and it is not a how-to manual; however, a list of more in-depth reference material is provided in Appendix C. Appendices A and B provide a select list of organizations within and outside VA that perform and disseminate outcomes research.

Suggested audience: health care professionals involved in health care system decision making. This includes managers involved in policy, administration, clinical care and strategic planning. Other users include Veterans Service Organizations, health care educators and students.

Suggested uses: n outcome measurement training programs in Headquarters, Veterans Integrated Service Networks and medical centers, n resource for program planning and evaluation, n curriculum for medical schools, nursing schools, schools of business administration and public health, continuing medical education courses, and other medical and health professional training programs.

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Kenneth W. Kizer, M.D., M.P.H., as Under Secretary for Health in the Department of Veterans Affairs, is responsible for managing the Veterans Health Administration (VHA), the nation's largest integrated health care system. Among Dr. Kizer's previous positions are Chairman of the Department of Community and International Health, University of California, Davis; Director, California Department for Health Services; Chairman of the Board, The California Wellness Foundation; and Director, Health Systems International, Inc. Dr. Kizer's special areas of interest include health promotion and primary care.

John R. Feussner, M.D., is VA's Chief Research and Development Officer. Dr. Feussner oversees all of the VHA's internal and extramural research programs. Prior to his current appointment, Dr. Feussner served for 13 years as the Director of the Health Services Research and Development Service (HSR&D) field program, the Center for Health Services Research in Primary Care, and five years as Associate Chief of Staff for Ambulatory Care at the Durham VA Medical Center. Dr. Feussner has held several senior academic appointments at Duke University and the University of North Carolina, including Professor in Duke's Division of General Internal Medicine and Associate Professor in the Department of Community and Family Medicine, and Associate Professor of Health Policy and Administration at the University of North Carolina School of Public Health. Over the last seven years, Dr. Feussner has been a Senior Research Associate in the Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

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Preface

*...VA must measure its
performance at all
levels...*

A new VA is taking shape to meet the needs of America's veterans-- a VA that is committed to change and ready to face increased demands for accountability and excellence in health care.

Perhaps the most visible of VA's changes are its reorganization into integrated service networks, its implementation of universal primary care, a heightened focus on customer service and its conversion from a hospital-based, specialty-focused system to one centered on outpatient-based primary care. Many other changes are being implemented, and still others are in the works. Quite simply, every process and every practice is being re-examined to see if it is still appropriate in today's rapidly changing health care environment -- and whether it will continue to be appropriate in tomorrow's world.

Underlying VA's sweeping transformation are several strategic objectives and guiding principles. Among these are the goals of demonstrating excellence in health care value and excellence in teaching and research. Essential to achieving these goals is knowing what works most efficiently and effectively. And that means that VA must measure its performance at all levels, evaluate variations from benchmarks and rapidly institute process redesign where needed. Likewise, we must monitor what our patients feel about the accessibility and quality of the care they receive. These activities fall under the general rubric of outcomes management.

The Veterans Health Administration (VHA) is committed to applying existing outcome measures to our work, where appropriate, and to supporting new developments in outcomes research. In fact, VA is now uniquely positioned to advance knowledge in this area.

This primer is one of several VHA efforts to assist health care managers, clinicians and policy makers -- both within and outside VA -- to better understand outcomes research and its use to improve both health care decision making and services.

**Kenneth W. Kizer, M.D., M.P.H.
Under Secretary for Health
Veterans Health Administration**

Introduction

*The Department of
Veterans Affairs has
made an appropriately
strong commitment to
use the tools of outcomes
research to improve the
system's accountability. . .*

For decades, clinical epidemiologists have sought to establish the "real world" effectiveness of diagnostic tests and treatments. These researchers have been concerned not only with the "intervening" variables that characterize disease status, but with the "patient outcome" variables that characterize patients' health status.

Health services researchers have broadened that research paradigm to include issues related to the patient, the provider of health care and the health care delivery system -- focusing their research questions at the interface of one or more of these dimensions. The term "outcome," accordingly, carries a broader meaning within the construct of this broader research paradigm. To the health services researcher, outcomes are the results of interactions within the health care system that include patient, employee or provider satisfaction; quality of care; system efficiency; cost-effectiveness; and cost of care.

Measuring and understanding the implications of outcomes have assumed increasing importance in recent years, as providers, purchasers, policy makers and consumers have stepped up their efforts to improve the body of evidence on which medical decision making is based and to maximize the value of health care expenditures.

The Department of Veterans Affairs has made an appropriately strong commitment to use the tools of outcomes research to improve the system's accountability for patients' health status, satisfaction with care, ease of access, quality of care and efficiency of operations. This primer has been prepared to help clinicians, managers and policy makers acquire a clearer understanding of the dimensions of outcomes research by answering some basic questions about outcome measurement and its potential role in improving health care value. The primer is written in a question-and-answer format for reading ease and accessibility. Because of the prominent role that VA research has played in the broader outcomes research field, several VA research products are highlighted. Resources for further information, including appendices of organizations involved in the conduct and dissemination of outcomes research and an appendix listing more in-depth readings, also are provided.

John R. Feussner, M.D.
Chief Research and Development Officer
Veterans Health Administration

What are outcomes?

... outcomes are the results of specific health care services and interventions.

Simply put, outcomes are the results of specific health care services and interventions. They may be measured at several levels: the community, the system and the individual. When information about outcomes is properly collected and analyzed, outcomes may be useful tools for assessing the effectiveness, quality and value of health care services. They also may be used to compare the benefits and costs of different treatment approaches.

Outcomes encompass many aspects of health care, including clinical quality, cost, effectiveness, access, patient satisfaction and resource use. Post-discharge mortality was the first outcome to be systematically assessed on a large scale, but outcomes run a gamut of measures that include functional status, rates of complications and/or readmission, length of stay, length of recovery, cost-effectiveness and patient satisfaction with care. Outcomes are as varied as the questions concerning health care services, so the specific outcomes in which you are interested will depend on the issues you are trying to address.

How are outcomes measured?

A variety of data sources may be used to measure health care outcomes, but the three most frequently used sources are:

- n administrative records,
- n medical records, and
- n patient and provider surveys.

These data sources have their own unique strengths and weaknesses. Administrative records, for example, are particularly useful in tracking service utilization and costs, but lack clinical detail. Medical records are better sources of clinical information, but may be incomplete or illegible. In addition, the abstraction of relevant data from medical records is a time-consuming and expensive task. Patient and provider surveys may be used to assess functional status, satisfaction with care or perceptions of how care was provided. But they too are costly because of the time required to administer them and the expertise needed to analyze them properly. The SF-36 and the TyPe instruments are examples of some of the better-known survey tools in use, but there are hundreds more.¹

VA is using patient survey data in a number of ways. The National Customer Feedback Center, for example, surveys patients annually on their perceptions of care coordination and continuity, access to needed services, waiting times and whether the care they received met their expectations. This information is then used to monitor compliance with VHA's customer service standards. In addition, VA's Ambulatory Care Data Capture Project will improve VA's ability to track data about ambulatory care patient encounters and to assess outcomes of care.

Regardless of which data sources are used, outcomes must be tracked and assessed rigorously over time to identify the organizational characteristics and processes that affect quality and to use that information to improve services. Reliable data collection is necessary to develop strong evidence for health care decision making.

Why is VA interested in outcomes measurement?

Outcomes measurement provides objective information to customers and promotes data-driven decision making by VA managers.

"Excellence in health care value [and] excellence in service as defined by its customers" are at the core of VA's ongoing transformation into a comprehensive, integrated health care system. Under Secretary for Health Kenneth W. Kizer notes in *Prescription for Change*,² VA's strategic plan for reorganizing health care delivery. Value in this case means health care services that are not only high-quality, but appropriate and cost-effective. Outcomes measurement provides objective information to customers and promotes data-driven decision making by VA managers.

The private sector also is interested in outcomes measurement, where its use has expanded rapidly. Providers, purchasers, payers and patients all have different interests in outcomes measurement. Purchasers and payers, for example, want to maximize the value of their health care dollars. Providers want to improve the quality of their care and be able to demonstrate it. Patients want information that will help them select good providers and participate more knowledgeably in decisions concerning their health care needs.

How are outcomes used?

Outcomes once were the domain of the researchers who pioneered them, but with the demand for greater value and accountability in health care, interest in using outcomes measurement to guide health care delivery has spread throughout the industry. "You can't manage what you can't measure" is the oft-quoted phrase with regard to the importance of outcomes measurement. Outcomes analyses may be used by clinicians, health care system managers and policy makers to better manage costs, quality, patient health status, patient satisfaction and overall system performance. Possible uses of outcomes include:

"You can't manage what you can't measure. . ."

n Identify areas for quality improvement and use data for quality improvement processes. VA is using quality improvement methods to help clinicians improve their treatment outcomes and cost-effectiveness.

n Establish performance benchmarks, which identify the best performance in the industry for a particular process or outcome. VA is working to develop and monitor performance benchmarks for network and facility managers.

n Track and compare provider performance over time. VA will assess and compare quality at the national, network and facility levels.

n Develop evidence-based clinical practice guidelines. VA's Office of Performance Management Services is facilitating the production of guidelines for many common conditions and interventions. Examples of this work are detailed guidelines for use with patients having acute ischemic heart disease and for treatment of major depression. VHA's Office of Research and Development contributes to the evidence base for guidelines such as these and through its Health Services Research and Development Service is funding new research to evaluate implementation of practice guidelines.

- n Establish clinical "Centers of Excellence" by allowing providers to identify those treatments and conditions where they excel. VA also hopes to develop new service lines at the national, network and facility levels.
- n Inform patients and purchasers in their selection of providers. VA believes that outcomes measurement will help it demonstrate the quality and value of its services.
- n Assess new and existing technologies. VA's Technology Assessment Program is coordinating information on technology assessment and related activities within VA and assessing the use of selected clinical technologies for VA.
- n Educate patients. VA is studying whether patient participation in health care decision making improves treatment outcomes and patient satisfaction.
- n Improve provider-customer relations. VA wants to identify how well veterans' needs and expectations are being met.
- n Assess system change. Outcomes measurement will help VA monitor and evaluate the effects of change underway within VA.

How is VA using outcomes measurement to achieve its vision for the future?

One important VA objective emphasized in *Prescription for Change* is to promote a culture of continuous quality improvement that will maximize the value of the health care services VA provides. VA is using outcomes data and measurement tools to achieve that objective. Following the guidance in *Prescription for Change*, VA has launched a number of activities, including:

n ***Use #1: Developing performance indicators -- which are defined, measurable variables used to monitor important aspects of patient care -- to assess the effectiveness and efficiency of all VA programs.*** Those measures reflect five domains of value:

- n cost/price,
- n technical quality,
- n customer satisfaction,
- n patient function, and
- n access to care

Measurement categories and performance indicators have been developed for use in performance agreements between Headquarters and the Veterans Integrated Service Network (VISN) directors. These performance agreements evaluate processes and progress in networks and facilities. Additionally, work is progressing in the development of performance measures in ambulatory care, mental health and the special emphasis programs. Performance measures collected uniformly across all VA medical centers and VISNs ultimately may permit the comparison of medical centers within a VISN, in different VISNs and of similar medical centers across the country.³

Report cards are becoming increasingly popular throughout the industry as tools that allow policy makers, purchasers and patients to compare and understand provider performance. . .

n ***Use #2: Establishing provider, service line, facility, network and systemwide benchmarks and performance measures for the five domains of value.*** Where possible, measures that permit performance comparisons between VA and non-VA providers will be developed.

n ***Use #3: Developing, revising and disseminating national practice guidelines that reflect outcomes data.*** VA's Office of Policy, Planning and Performance and the Office of Patient Care Services are working together to design a process for developing, revising and disseminating national practice guidelines. Practice guidelines are systematically developed statements designed to improve and standardize care. They generally are based on a combination of the best available scientific evidence and expert opinion. Practice guidelines for rehabilitation medicine, ischemic heart disease and major depression were produced and others are underway.

n ***Use #4: Refining and developing new risk-adjustment methodologies to facilitate comparison of VA, private sector and other service populations.*** Risk adjustment, which controls for differences in patient populations such as age and comorbid conditions, is a major issue in outcomes measurement. New risk-adjustment tools have been developed to assess readmissions, length of stay, pressure sore development in long-term care, surgical morbidity and mortality, psychiatric and substance abuse readmissions and cardiac surgery.

n ***Use #5: Establishing performance monitoring systems and mechanisms for dissemination of best practices systemwide.*** Benchmarking and performance monitoring systems that routinely track performance and provide timely feedback to providers are underway. In addition, the Office of Policy, Planning and Performance is taking steps to establish a Center for Dissemination of Innovations to assist the field in keeping abreast of best practices, which serve as blueprints for achieving exemplary outcomes. Clinical programs and facilities that meet new performance excellence criteria may soon apply for selection as a Center of Excellence to celebrate and disseminate best practices.

n ***Use #6: Exploring the use of "report card" measures for use in VA, especially for chronic diseases.*** Report cards are becoming increasingly popular throughout the industry as tools that allow policy makers, purchasers and patients to compare and understand provider performance by supplying data for specific measures of health care quality and utilization, patient satisfaction and other areas of interest. VA is interested in developing and applying measures that assess processes of care, similar to those in the Health Plan Employer Data and Information Set (HEDIS). VA is discussing this idea with the National Committee on Quality Assurance, which oversees the development and updating of HEDIS.⁴

What do VA managers need to know about using outcomes measurement and research findings to improve services?

Outcomes measurement supplies objective data to assist in decision making. . .

Evidence-based decision making is the ideal. But sometimes, despite all efforts, there are no clear-cut answers.

Outcomes measurement will provide VA managers with a better understanding of how care is delivered within their organizations. Outcomes measurement supplies objective data to assist in decision making and helps managers achieve greater accountability. But the practical integration of outcomes information and analysis into day-to-day program operations, clinical behavior, systems of care and policy is no simple task. Managers who want to make good use of outcomes findings should bear in mind the following guidelines:

n *Guideline #1: Make sure that research results are relevant to your organization before trying to put them to work for you.* Many factors play a role in determining the applicability of a given study to a specific setting, although they are often overlooked. These factors include variables such as patient characteristics, the standards of care or methods that were used in the study and the proposed use or purpose of the study intervention. You should also pay close attention to differences in provider types, sites of care and delivery system characteristics. Managers may want to consider consulting with a researcher or other expert who is knowledgeable about the strengths and limitations of specific outcomes findings for advice on the applicability of those findings before trying to adopt them. (See contact information in Appendix A for VA Office of Research and Development and Health Services Research and Development Service.)

n *Guideline #2: Be careful in interpreting research results.* Evidence-based decision making is the ideal. But sometimes, despite all efforts, there are no clear-cut answers. For example, the effects of a specific treatment may be difficult to separate from other confounding variables. Or, the effectiveness of a new medical device may be highly dependent on factors such as provider training and experience, financial incentives associated with using the device, patient socioeconomic status, the setting in which care is provided and the quality of follow-up care. Or, changes associated with higher patient satisfaction may not conform with what has been shown to be the most effective medical treatment. Research findings that are ambiguous or inconclusive should be avoided as tools for changing clinical behavior. VA managers might consider requesting literature reviews or new research from VA's Technology Assessment Program. (See contact information for this program and others in Appendix B.)

n *Guideline #3: Work with clinicians.* Clinicians want to practice good medicine, but they need to be convinced that suggested changes will indeed improve patient outcomes. The best way to enlist clinicians' backing is to involve them in the process from the outset. By engaging their help in defining and solving problems, they are more likely to applaud those solutions. Use good, reliable data to support recommended changes. Dissemination of research results to clinicians without educational or other activities is not likely to make a difference in their behavior.

n *Guideline #4: Equip yourself to evaluate the impact of the change.* System managers and policy makers must be able to evaluate the effects of outcomes-based interventions and changes. That means being able to isolate and measure the effects of complex interdependencies within the organization that, taken together, "create" a

given set of outcomes. Measurements should differentiate behavior of clinicians, managers, policy makers and consumers.

n **Guideline #5: Be realistic about what can be accomplished.** Systematic improvement is hard work, and it takes time. If you go in with the idea that you will make dramatic strides in a short time, you likely will be disappointed with the results.

What are some examples of outcomes research conducted at VA?

VA investigators are conducting outcomes studies on a wide range of topics, all in an effort to improve the quality and cost-effectiveness of health care services for U.S. veterans. Here are just a few examples of the scores of VA outcomes studies that are either already completed or underway:

n **Quality Assessment:** The Veterans Ambulatory Care Assessment Project is identifying key variables to assist managers in assessing the quality of care for patients with hypertension, diabetes and chronic obstructive pulmonary disease.⁵

n **Best Practices for Surgery:** A study of the management and organization of surgical services will provide managers with best clinical and management practices for providing surgical care to support surgical quality improvement efforts.⁶

n **Acute Myocardial Infarction:** The Brockton/West Roxbury VA Medical Center is conducting a study of the appropriateness and necessity of cardiac catheterization, coronary angioplasty and coronary artery bypass graft surgery -- three alternative treatments following an acute myocardial infarction -- to identify possible overutilization or underutilization.⁷

n **Quality of Life:** The Veterans' Health Study is monitoring ambulatory veterans with common illnesses such as diabetes and chronic obstructive pulmonary disease. This study includes patients' evaluations of their own overall physical and mental well-being, ability to conduct normal activities of daily living and general satisfaction with their health.⁸

n **Schizophrenia Patient Outcomes Research Team (PORT):** The PORT for Schizophrenia will help VHA policy makers reconfigure programs to improve the quality of care for these severely dysfunctional and disabled patients.⁹

n **Oral Health:** The Dental Longitudinal Study examines the effects of various treatments on oral health outcomes for aging veterans. Study results help VA managers to more efficiently design and effectively target intervention strategies for these high-risk patients.¹⁰

n **Treatment of Aneurysm:** The Aneurysm Detection and Management trial examines the necessity of surgery for aneurysms that are not large or symptomatic. If postponing such surgery is safe, many unnecessary operations could be avoided -- resulting in significant cost savings and reduced patient suffering.¹¹

n **Liver Cirrhosis:** An ongoing clinical trial is investigating treatment to prevent development of cirrhosis in patients with alcohol-related liver disease. A simple, effective treatment is being sought to reduce human suffering and health care costs.¹²

n ***Patient-physician Interaction:*** A study at the Portland VA found that patient outcomes can be improved by enhancing interaction and information exchange between outpatients and physicians. This study suggests an intervention that easily could be adopted in VA primary care clinics to improve patient outcomes and patient satisfaction.¹³

n ***Prostate Cancer:*** There is no universally accepted "best" treatment for prostate cancer -- one of the most significant health risks facing male veterans. A large-scale, national study is under way in VHA, in collaboration with the National Cancer Institute, to evaluate the use of surgery to remove the prostate entirely versus medical treatment as symptoms develop. Each treatment strategy is being examined for its impact on patient health status and overall costs.¹⁴

n ***Cardiac Services:*** The Denver VAMC is conducting a study of how the organization and processes of its cardiac services unit are affecting outcomes in open heart surgery for atherosclerotic cardiovascular disease. Among the outcomes being measured are patient health-related quality of care, chest pain and patient satisfaction with care.¹⁵

n ***Care for Homeless Veterans:*** A study comparing a new program of domiciliary care with standard VA treatment for homeless veterans with chronic alcohol and drug addiction is expected to provide VA policy makers with better strategies for serving this very needy veteran population.¹⁶

Concluding remarks

Outcomes measurement helps bring the focus of the entire health care delivery system back to the patient.

Outcomes measurement helps bring the focus of the entire health care delivery system back to the patient. Rigorous and continuous evaluation of the processes of care through outcomes measurement and analysis ultimately will improve the quality of care.

The technical capabilities of this still-young field have expanded dramatically during the past few years -- in accordance with demands on health care managers to demonstrate greater accountability for the value of the services they provide. It's not surprising that the use of outcomes measures has become more central to the management and practice of good clinical care.

VA will continue to use the tools offered by outcomes measurement to enhance its efforts to provide excellent health care services to U.S. veterans. All levels of the organization will be engaged to improve health care quality and value: patients and their families, providers, the staff who contribute to the processes of care, the administration and the communities served by VA facilities. VA's Office of Research and Development through its Health Services Research and Development Service will continue to support the development and application of outcomes measures to improve the quality of health care for our nation's veterans.

Appendices

The following appendices provide more detailed information on VA and non-VA organizations that perform and disseminate outcomes research and offer additional readings on the topic.

References and endnotes

1. For more information on survey instruments, contact the Health Outcomes Institute for the TyPe condition-specific instruments at 612/858-9188, fax: 612/858-9189, or the Medical Outcomes Trust, for the SF-36 Health Survey and other generic and condition-specific instruments, 20 Park Plaza, Suite 1014, Boston, MA, 02116, phone: 617/426-4046, fax: 617/426-4131, e-mail: motrust@worldnet.att.net.
2. Kizer, K.W. *Prescription for Change: The Guiding Principles and Strategic Objectives Underlying the Transformation of the Veterans Healthcare System*. Washington: U.S. Department of Veterans Affairs, Veterans Health Administration, March 1996.
3. For more information on performance measures and other activities of VA's National Performance Data Resource Center, contact Eileen Ciesco, Ed.D., Acting Director, phone: 919/286-6978, ext. 229, FTS: 700/671-6978, fax: 919/286-6864.
4. For more information about HEDIS, contact the National Committee on Quality Assurance at 202/955-3500, fax: 202/955-3599.
5. For more information on the study, Veterans Ambulatory Care Assessment Project, contact Dan Berlowitz, M.D., Bedford VAMC, phone and FTS: 617/687-3250, fax: 617/687-3106, e-mail: berlowitz.dan@bedford.va.gov.
6. For more information on the study, Coordination and Patient Outcomes: A Study of Surgical Services, contact Martin P. Charns, D.B.A., Management Decision and Research Center, Boston VAMC, phone: 617/278-4433, FTS: 700/839-4433, fax: 617/278-4438, e-mail: charns.martin@forum.va.gov.
7. For more information about Brockton/West Roxbury VAMC's study of the appropriateness and necessity of three alternative treatments following acute myocardial infarction, contact Laura Petersen, M.D., M.P.H., Principal Investigator, Brockton/West Roxbury Health Services Research and Development Program, phone: 617/323-7700, ext. 6278, FTS: 700/885-6278, fax: 617/363-5587, e-mail: petersen.laura_l@ brockton.va.gov.
8. For more information on the study, Health-related Quality of Life in Veterans: The Veterans Health Study, contact Lewis E. Kazis, Sc.D., Edith Nourse Rogers Memorial Veterans Hospital, phone and FTS: 617/687-3250, fax: 617/687-3106.
9. For more information on the study, A Comparative Study of VA Mental Health Services for Schizophrenia, contact Robert Rosenheck, M.D., West Haven VAMC, phone: 203/937-3850, FTS: 700/428-3850, fax: 203/937-3433.

10. For more information on the study, Dental Longitudinal Study, contact Judith Jones, D.D.S., M.P.H., Bedford VAMC, phone: 617/687-2644, FTS: 700/840-2470, fax: 617/687-3511, e-mail: jones.judith@bedford.va.gov.

11. For more information on the study, Aneurysm Detection and Management Trial, contact Frank A. Lederle, M.D., Minneapolis VAMC, phone: 612/725-2000, ext. 2679, FTS: 700/780-2158, fax: 612/725-2118, e-mail: leder002@maroon.tc.umn.edu.

12. For more information on the study, Colchicine in the Treatment of Alcoholic Cirrhosis of the Liver, contact Timothy R. Morgan, M.D., Long Beach VAMC, phone: 310/494-5756, FTS: 700/966-5756, fax: 310/494-5674, e-mail: morgan.timothy_r@longbeach.va.gov.

13. For more information on the study, Patient-Physician Interaction and Patient Outcomes, contact David Hickam, M.D., Portland VAMC, phone: 503/423-6775, FTS: 700/424-7288, fax: 700/424-5367, e-mail: hickam@portland.va.gov.

14. For more information on the study, Prostate Cancer Intervention Versus Observation Trial (PIVOT): A Randomized Trial Comparing Radical Prostatectomy Versus Palliative Expectant Management for the Treatment of Clinically Localized Prostate Cancer, contact Timothy J. Wilt, M.D., M.P.H., Minneapolis VAMC, phone: 612/725-2000, ext. 2681, FTS: 700/780-2681.

15. For more information on the study, Processes, Structures and Outcomes of Care in Cardiac Surgery, contact Karl E. Hammermeister, M.D., Denver VAMC, phone: 303/399-8020, ext. 3051, FTS: 700/322-3146.

16. For more information on the study, Case Managed Residential Care for Addicts: An Outcomes Study, contact Kendon Conrad, Ph.D., Hines VAMC, phone: 708/216-2414, FTS: 700/381-5876, fax: 708/216-2316, e-mail: kendon.conrad@uic.edu.

Appendix A: What organizations perform outcomes research?

Both the private and the public sectors are heavily involved in outcomes research. Numerous universities, academic medical centers, hospitals, group practices, foundations, managed care organizations, trade associations, health care purchasers and purchasing coalitions participate in efforts to measure and apply outcomes to health care decision making, and to develop new and better measures.

Within the federal government, VA is a leader in conducting and supporting outcomes studies, and VA scientists and clinicians are key members of the national community of experts in outcomes research. VA's outcomes research activities are conducted through the Office of Research and Development.

Listed below are a number of organizations within and outside VA that conduct outcomes research.

Within VA

n Office of Research and Development

VA Headquarters

John R. Feussner, M.D., Chief Research and Development Officer
phone and FTS: 202/273-8284

fax: 202/273-6526

e-mail: feujoh@mail.va.gov

VA's Office of Research and Development focuses its efforts on the health and care of our nation's veterans. The office oversees the full range of medical research, multi-site cooperative studies, rehabilitation research and health services research in VA. Outcomes research is a priority for VA's Office of Research and Development, and several of these studies are highlighted on pages 6 and 7 of this primer.

q Health Services Research and Development Service (HSR&D)

VA Headquarters

Shirley Meehan, M.B.A., Ph.D., Acting Director
phone and FTS: 202/273-8287

fax: 202/273-9007

e-mail: meeshi@mail.va.gov

Within the Office of Research and Development, the Health Services Research and Development Service provides expertise in health services research, a field that examines the effects of health care organization, financing and management on a wide range of delivery issues, including quality of care, access, cost and patient outcomes. These programs span the continuum of health care research and delivery, from research to the dissemination of research results, and, ultimately, to the application of these findings to clinical, managerial and policy decisions.

s Health Services Research and Development Service
Management Decision and Research Center (MDRC)
Boston VAMC
Martin P. Charns, D.B.A., Director
phone: 617/278-4433
FTS: 700/839-4433

The MDRC's mission is to enhance the delivery of the highest quality health care by providing VA senior staff with consultation, technical assistance, management information and research findings. MDRC's four interdependent programs -- management consultation, information dissemination, technology assessment, management and organizational research -- provide VA researchers and managers with powerful tools for planning and decision making, helping them find solutions to a wide range of problems in health care delivery.

s Health Services Research and Development Field Programs
HSR&D Field Programs are Centers of Excellence in targeted focus areas. These nine Field Programs foster the integration of research and practice, linking the clinical aspects of patient care with administrative needs through a core of VA staff at selected medical centers. Each program develops its own research agenda and maintains affiliations with community institutions -- schools of public health, university health administration programs and research institutes -- to support its objectives.

m Center for Practice Management and Outcomes Research
Ann Arbor VAMC
Rodney A. Hayward, M.D., Director
phone and FTS: 313/930-5100
Primary research areas: Optimal management of resource-intensive care including: quality monitoring and improvement, evaluation of outcomes of alternative treatments, variations in practice and outcomes and resource allocation.

m Center for Health Quality, Outcomes and Economic Research
Edith Nourse Rogers Memorial Veterans Hospital, Bedford
Mark Prashker, M.D., M.P.H., Director
phone and FTS: 617/687-3250
Primary research areas: Health economics, productivity measurement, quality assessment in ambulatory and long-term care, health outcomes measurement, case-mix measurement, cost-effectiveness analysis and decision analysis.

m Center for Health Services Research in Primary Care
Durham, VAMC
Ronnie Horner, Ph.D., Acting Director
phone: 919/286-6936
FTS: 700/671-6936
Primary research areas: Ambulatory care, women's health, geriatrics, epidemiology of chronic disease.

m Midwest Center for Health Services and Policy Research
Edward Hines, Jr. VA Hospital, Hines (with participating
VAMCs in Lakeside, North Chicago and West Side)
John Demakis, M.D., Director
phone: 708/216-2414
FTS: 700/381-2414
Primary research areas: Long-term care/geriatrics, sociode-
mographics, medical decision making, quality assurance, cost-
effectiveness, database development/management.

m Houston Center for Quality of Care and Utilization Studies
Houston VAMC
Nelda Wray, M.D., M.P.H., Director
phone: 713/794-7615
FTS: 700/528-7615
Primary research areas: Determinants of utilization of
health care, quality assessment using large databases and
outcome measures of quality of care.

m HSR&D Field Program for Mental Health
Little Rock VAMC
G. Richard Smith, M.D., Director
phone: 501/688-1622
FTS: 700/740-1622
Primary research areas: Mental health services research,
cost-effectiveness of treatments, patient outcomes of care.

m Center for Health Care Evaluation
VA Health Care System, Palo Alto (with participating
Sierra Pacific VISN VAMCs in Fresno, Reno and San Francisco
[including Livermore] Northern California System of Clinics)
Rudolf H. Moos, Ph.D., Director
phone: 415/493-5000 ext. 65527
FTS: 700/463-5527
Primary research areas: Health care evaluation, health eco-
nomics, diagnostic assessment and clinical decision making
and alcohol/substance abuse.

m VA Puget Sound Health Care System, Seattle Division
Seattle VAMC (with participating VAMC in Portland, OR)
Stephan D. Fihn, M.D., M.P.H., Director
phone: 206/764-2430
FTS: 700/396-2430
Primary research areas: Care of the aging veteran, research
in ambulatory care, outcomes research and disease preven-
tion/health promotion.

m Center for the Study of Healthcare Provider Behavior
Sepulveda VAMC (with participating VAMCs in West Los
Angeles and San Diego)
Lisa V. Rubenstein, M.D., M.S.P.H., Director
phone: 818/895-9449
FTS: 700/966-9449
Primary research areas: Health care quality and outcomes,
quality improvement, clinical practice guideline implementa-
tion and primary care/managed care evaluation.

Outside VA

n ***Agency for Health Care Policy and Research (AHCPR)***

Center for Outcomes and Effectiveness Research

Carolyn M. Clancy, M.D., Director

phone: 301/594-1485

website: www.ahcpr.gov

AHCPR offers on-line reports that address evidence-based practice information, recommendations for clinical practice preventive interventions on more than 80 conditions, health technology assessments and reviews, updates on the Medical Treatment Effectiveness Program (MEDTEP) and outcomes research. The Center for Outcomes and Effectiveness Research conducts and supports studies of the outcomes and effectiveness of diagnostic, therapeutic and preventive health care services and procedures.

Please note that this list is not intended to be exhaustive. MDRC, AHSR and the authors are interested in knowing of additional organizations that conduct outcomes research. Please list additional programs on the “Fax us your comments!” page at the back of this primer and fax or mail it to the MDRC.

Appendix B: What organizations disseminate outcomes research?

The private and the public sectors also are committed to the dissemination of outcomes research. A majority of VA's outcomes dissemination activities are conducted through the Office of Policy, Planning and Performance and the Office of Research and Development.

Listed below are organizations within and outside VA that disseminate products based on the results of outcomes research.

Within VA

n Office of Policy, Planning and Performance

VA Headquarters

Gregg Pane, M.D., M.P.A., Chief Policy, Planning and Performance Officer

phone and FTS: 202/273-8932

fax: 202/273-9030

e-mail: pangre@va.mail.gov

The Office of Policy Planning and Performance (OPPP) is responsible for integrating VHA's strategic planning and performance management activities with policy implications to ensure that quality management considerations drive the planning activities and underlie all operations. The office has primary responsibility for strategic and delivery system planning initiatives, performance management, policy review and analysis. Within the OPPP, the Performance Management Services are of particular interest.

q Performance Management Services (formerly the Office of Quality Management)

VA Headquarters

Nancy Wilson, M.D., Director

phone and FTS: 202/273-8936

fax: 202/273-9030

e-mail: wilnancy@va.mail.gov

The mission of the Office of Performance Management is to facilitate the delivery of VA health care value through ongoing performance improvement. Value is defined as the delivery of the best patient outcomes for technical quality, satisfaction and functional status at the lowest cost to the largest number of eligible veterans. This office is responsible for system performance measures and evaluation; benchmarking and best practices; data risk adjustments; leadership on issues related to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and the National Committee for Quality Assurance (NCQA); facilitating clinical guidelines; and the National Performance Data Resource Center (NPDR) and the National Customer Feedback Center (NCFC). The NPDR and the NCFC may be of particular interest to managers working with outcomes data.

s National Performance Data Resource Center (formerly the Quality Management Institute)
Durham VAMC
Eileen Ciesco, Ed.D., Acting Director
phone: 919/286-6978
FTS 700/671-6978 ext. 229
fax: 919/286-6864
e-mail: ciesco.eileen@forum.va.gov

The mission of the NPDRC is to enable VISNs and facilities to improve performance and advance the delivery of health care by offering understandable, applicable, impartial and comparable data and information systems that support VHA's vision and strategic principles.

s National Customer Feedback Center
Brockton/West Roxbury VAMC
Eileen Tarsky, R.N.C., Director
phone: 617/323-7700 ext. 5538
FTS: 700/885-5538
fax: 617/363-5539

The NCFC surveys inpatients and outpatients annually, collecting data on patients' perceptions of care continuity and coordination, access to needed services, waiting times and whether the care they received met their expectations. These and other factors form the basis of VHA's customer service standards. The NCFC provides each VA medical center with information about how well each medical center is meeting these customer service standards and how each medical center compares with its peers.

q National VA Surgical Quality Improvement Program

Brockton/West Roxbury VAMC and Hines VAMC
Jeannette Spenser, R.N., M.S., C.S., National Coordinator
phone: 617/323-7700 ext. 6738 or 6740
FTS: 700/885-6738
fax: 617/363-5567

e-mail: spenser.jeanette@brockton.va.gov
Continuous collection and analysis of valid information about surgical practice and outcomes within VHA are critical for monitoring and improving the quality of care in all VA medical centers. The National VA Surgical Quality Improvement Program (NSQIP) is an example of a successful program of measurement and local use of data for substantive clinical improvement. The NSQIP provides the best available outcomes data (risk-adjusted and normalized) for specific surgical interventions.

n Health Services Research and Development Service, MDRC, Technology Assessment (TA) Program

Boston VAMC
Karen Flynn, D.D.S., M.S., Manager
phone: 617/278-4469
FTS: 700/839-4469
fax: 617/278-4438
e-mail: flynn.karen@forum.va.gov

The Management Decision and Research Center has created a Technology Assessment Program to coordinate information from existing technology assessment and related activities within VA and to assess the clinical use of selected technologies for VA. The TA Program's focus is to improve quality of care and efficiency of resource use within VA by promoting evidence-based clinical practice and policy decisions. The program's components include a technology assess-

ment information service, major assessments, technology assessment education and methodology support within VA and a clearinghouse for VA technology assessment activities.

q San Antonio Cochrane Center
San Antonio VAMC
Cynthia D. Mulrow, M.D., M.Sc., Co-director
Elaine Chiquette, Pharm.D., Co-director
phone: 210/617-5190
fax: 210/617-5234
e-mail: cochrane@merece.uthscsa.edu

The Center is formally affiliated with the Cochrane Collaboration, an international network of more than 2,000 individuals committed to preparing, maintaining and disseminating systematic reviews of the effects of health care. Reviews are based on the results of randomized controlled trials (RCTs) and, when RCTs are not available, the most reliable evidence from other sources. The reviews are disseminated through the Cochrane Database of Systematic Reviews -- a regularly updated electronic journal, currently distributed on CD-ROM and disk (website: hiru.mcmaster.ca/cochrane/). VA's San Antonio Cochrane Center provides support to contributors to the Cochrane Collaboration throughout the U.S.

Outside VA

n Agency for Health Care Policy and Research (AHCPR)

Center for Health Information Dissemination

Christine G. Williams, M.Ed., Director

phone: 301/594-1360

website: www.ahcpr.gov

AHCPR offers on-line reports that address evidence-based practice information, recommendations for clinical practice preventive interventions on more than 80 conditions, health technology assessments and reviews, updates on the Medical Treatment Effectiveness Program (MEDTEP) and outcomes research. The Center for Health Information Dissemination designs, develops, implements and manages programs for disseminating the results of agency activities, including public affairs, information products, electronic dissemination, reference services, dissemination research and liaison activities.

n Association for Health Services Research (AHSR) and National Library of Medicine (NLM)

Health Services Research Projects (HSRProj) database

Marian Mankin, M.Ed., Associate Project Director (AHSR)

phone: 202/223-2477

fax: 202/835-8972

website: www.ahsr.org

HSRProj is a growing database of 4,000 records describing health services research grants and contracts funded by the public and private sectors. The database provides information about current research before the research results are published. Users can readily access HSRProj through NLM's MEDLARS system and retrieve information on a broad array of topics. The database provides primary investigator contact information to facilitate linkages among researchers working within a topic area, allowing them to share methodological and other lessons learned. A compendium of abstracts of ongoing outcomes research projects is available from AHSR upon request.

n ***National Library of Medicine***

Health Services/Technology Assessment Text (HSTAT) Database

National Information Center on Health Services Research and

Health Care Technology (NICHSR)

phone: 301/496-0176

fax: 301/402-3193

e-mail: nichsr@nlm.nih.gov

website: text.nlm.nih.gov

HSTAT is an electronic resource that provides access to the full text of documents useful in health care decision making. HSTAT includes clinical practice guidelines, quick reference guides for clinicians and consumer brochures sponsored by AHCPR.

Please note that this list is not intended to be exhaustive. MDRC, AHSR and the authors are interested in knowing of additional organizations that disseminate the results of outcomes research. Please list additional programs on the "Fax us your comments!" page at the back of this primer and fax or mail it to the MDRC.

Appendix C: Where do I go for more information?

For more in-depth reading on outcomes measurement and research and its role in the delivery of care, the following publications may be helpful:

n Berwick, D.M. "A Primer on Leading the Improvement of Systems." *British Medical Journal*, 312 (7031):619-22, March 9,1996.

n Brook, R.H., Chassin, M.R., Fink, A., et.al. "A Method for the Assessment of Acute Medical Care for the Elderly: An Analysis of the Literature." *Health Policy*, 14 (3): 225-242, 1990.

n Brook, R.H., McGlynn, E.A., and Cleary, P.D. "Measuring Quality of Care." *New England Journal of Medicine*, 335 (13): 966-70, September 26,1996.

n Buffum, M. and Dean, H., eds. *Toward Enhanced Outcomes Measurement: An Outcomes Measurement Reference Book*. Washington: U.S. Department of Veteran Affairs, Nursing Service, Research Constituency Center, June 1996.

n Chassin, M.R. "Improving the Quality of Care." *New England Journal of Medicine*, 335 (14) : 1060-4, October 3,1996.

n Donabedian, A. *The Methods and Findings of Quality Assessment and Monitoring: An Illustrated Analysis*. Ann Arbor: Health Administration Press, 1985.

n Goodman, C., Snider, G., Flynn, K. *Health Care Technology Assessment in VA*. Boston: U.S. Department of Veterans Affairs, Health Services Research and Development Service, Management Decision and Research Center (in conjunction with Association for Health Services Research), May 1996.

n Halpern, J. "The Measurement of Quality of Care in the Veterans Health Administration." *Medical Care*, 34 (3 Supplement): MS55-68, March 1996.

n U.S. Department of Health and Human Services, Public Health Service, Health Care Financing Administration. *Health Care Financing Review: Consumer Information in a Changing Health Care System*. Washington: U.S. Government Printing Office, January 1997. HCFA Pub. No. 03385.

n Lammers, J.C., Cretin, S., et.al. "Total Quality Management in Hospitals: The Contributions of Commitment, Quality Councils, Teams, Budgets, and Training to Perceived Improvement at Veterans Health Administration Hospitals." *Medical Care*, 34 (5): 463-78, May 1996.

n *The 1997 Medical Outcomes & Guideline Sourcebook*. New York: Faulkner & Gray, 1996.

n “The Nuts and Bolts of Outcomes Management.” *Business and Health*, Special Report, 14 (4 Supplement B): 11-6, 1996.

n Pane, G.A. “The New VHA: Leading the Way in Performance Measurement.” *FORUM*, June, 1996. [FORUM is the newsletter of the Health Services Research and Development Service, U.S. Department of Veterans Affairs.]

n Perry, A. “How to Obtain Data Now to Measure Cost.” *FORUM*, June, 1996. [FORUM is the newsletter of the Health Services Research and Development Service, U.S. Department of Veterans Affairs.]

n “Quality and Accountability in Practice: Measuring, Managing and Making it All Work in a Reformed Health Care System.” *Medical Care*, 33 (1 Supplement): JS1-76.

n U.S. Congress. Office of Technology Assessment. *Identifying Health Technologies That Work: Searching for Evidence*. Washington: U.S. Government Printing Office, September 1994. OTA-H-608.

n U.S. Department of Health and Human Services. Public Health Service. Agency for Health Care Policy and Research. *Report to Congress: The Feasibility of Linking Research-Related Data Bases to Federal and Non-Federal Medical Administrative Data Bases*. Washington: U.S. Government Printing Office, 1991. AHCPR Pub. No. 91-0003.

Fax us your comments!

To: MDRC

Fax: 617/278-4438

From:

name

title

address/facility

How will you use the outcomes primer? (check all that apply)

for my own education/information

to work with other staff members to increase understanding of outcomes measurement/outcomes research

as a meeting/conference/in-service training handout

other (please specify) _____

Please rate the amount of information provided (circle one)

(1=not enough 5=just right) 1 2 3 4 5

What is your overall rating of the primer? (circle one)

(1=not helpful 5=very helpful) 1 2 3 4 5

General comments _____

Suggestions for future primer topics _____

U*sing Outcomes to Improve Health Care Decision Making* is available in electronic and printed formats. Additional copies may be obtained from the sources listed below.

Electronic copies (PDF format) can be downloaded from one of VA's electronic bulletin board systems listed below. For additional information or assistance, contact the system administrator at 304/264-4486 or 304/263-0811 ext. 4037.

VA Online (all users)
800/US1-VETS (871-8387) or 301/427-3000
Modem Settings: 14,400-N-8-1; terminal type -ANSI
The primer is available in the HSR&D file library.

VA World (VA employees)
FTS 700/940-4393 or 304/264-4493
IDCU Destination: VAWORLD
Modem Settings: 14,400-N-8-1; terminal type=ANSI
The primer is available in the HSR&D file library.

Faxed copies:
From a fax machine or telephone, call
617/278-4492
Follow the voice menu system instructions to order the outcomes primer. Requesters are advised that fax transmission may take up to 30 minutes.

Printed copies-contact:
Special Projects Office (152)
VA Medical Center
Perry Point, MD 21902
VA FTS System 700/956-5442
Commercial 410/642-1092
Fax 410/642-1095
Email: long.laurel@forum.va.gov