



Volume 2, Issue 2
November 2002

VA HEALTH ECONOMICS BULLETIN

DSS Validation Results are In for Fiscal Year 2001 Data

The Decision Support System (DSS) has been adopted by the U.S. Department of Veterans Affairs to determine the cost of care provided in its nationwide network of hospitals and clinics. DSS cost data are produced by each medical center. To facilitate use of these data by headquarters staff, planners, and VA researchers, comprehensive encounter-level extracts of these DSS production data have been created and placed at the VA computer center in Austin, Texas. The electronic files of these DSS extracts are quite large, with records representing each of the millions of patient care encounters provided each year to the nation's veterans. HERC staff evaluated FY (Fiscal Year) 2001 DSS discharge data against the VA National Care Patient Database (NPDC) discharge file. The datasets had nearly identical information on inpatient stays.

HERC also evaluated the DSS treating specialty file that divides stays into segments based on the type of care received. About 40% of the segments in the DSS file did not have a corresponding segment in the NPCD bedsection file. HERC found a comparable percentage of NPCD stays for which there was no match in the DSS file. These discrepancies were largely attributed to different methods used to record patient stay dates – about half of the discrepancies differed by only one day.

The evaluation of outpatient data determined that since FY 2000, cost outliers have been reduced significantly. In FY 2001 there were only 119 records with daily cost of more than \$100,000; however, 44% were from a single site. There were 252 other DSS outpatient encounters with a cost of more than \$100,000. None of the outliers was over \$1 million.

Almost all (99.9%) of the outpatient records in DSS that were flagged as having a corresponding visit in the NPCD had a corresponding encounter in the

Special Event:

The 2003 Health Economics Meeting
at the
HSR&D National Meeting

Renaissance Washington DC Hotel
Washington, DC
February 12, 2003
3:00 P.M. - 5:00 P.M.

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NPCD event file. About 7% of the records in the NPCD file did not have corresponding NPCD-flagged records in the DSS extract, although much of the difference reflects different definitions of what constitutes an outpatient visit. Even after these differences are considered, about 2% of outpatient care records in NPCD were not found

in DSS.

Hospital stays in the DSS discharge file were compared to hospital stays in the DSS treating specialty file. The comparison was limited to stays that began and ended entirely within FY 2001. HERC found fewer discrepancies between these files than were found in FY 2000 data. There were

153 stays with cost differences of more than \$100, and 69 stays with differences of more than \$1,000.

To download HERC's technical report on reconciling FY 2001 DSS encounter-level national data extracts with the VA National Patient Care Database, please visit

www.herc.research.med.va.gov/DSS.htm.

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Spotlight on OPTIMA

OPTIMA (Options in Management with Anti-retrovirals) is a clinical trial for evaluating disease management strategies for treating HIV patients for whom first and second-line highly active anti-retroviral therapy (HAART) has failed. It is the first study in the Tri-National Clinical Trials Research Initiative for the VA Cooperative Studies Program in the United States, the Canadian Institutes for Health Research and the Medical Research Council in the United Kingdom. This large-scale, multi-site, randomized controlled trial will involve 1,700 patients enrolled at over 70 sites in three countries.

The study tests the hypothesis that administering a regimen consisting of five or more highly active anti-retroviral drugs followed by a drug-free period will delay the occurrence of new or recurrent AIDS-related symptoms or death, and will prove to be more cost-effective in treating patients with advanced HIV disease. The standard treatment regimen normally consists of up to four drugs.

Since joining HERC in October 2001, OPTIMA project director Juliet Munakata, MS, has worked with project investigators Douglas Owens, MD and Wei Yu, PhD to evaluate the cost-effectiveness of OPTIMA's treatment strategy.

The study was initiated in June 2001. The planned study duration is 3.5 years, with 2.5 years of intake and a minimum of one-year follow-up.

Staff Update

Vilija Gulbinas, BA, has joined the HERC team as a research assistant for the OPTIMA project. Since July, she has worked with project staff to compare and evaluate outcomes for HIV patients. Vilija is a UCLA alum and former employee of the West Los Angeles VA where she was a program assistant for the nationwide QUERI project entitled, "Measuring HIV Quality of Care."

Phillip Post, BA, recently graduated from UC Santa Cruz with a degree in psychology and has joined HERC in the dual role of Research Assistant/Administrative Officer. Since September, Phillip has worked with economist Todd Wagner to determine the cost of research administration in VA. He has also assumed a variety of administrative duties in his short tenure at HERC.

For more information on HERC staff, visit the HERC staff web page at www.herc.research.med.va.gov/About_Staff.htm.

New Bibliography of VA Cost Studies Released

HERC staff have prepared a new bibliography of VA cost studies.

Consisting of more than 100 items published over the last 25 years, it represents a unique collection of literature on determining VA healthcare cost.

The bibliography was designed for ease of use. It is indexed by keyword, enabling users to search for common cost-related terms. The keywords cover general approaches (e.g., average costing, micro-costing), data collection methods (e.g., patient survey, time-and-motion study), data sources

(e.g., CDR, FMS, VISTA, DSS), and other topics. The database includes MEDLINE keywords. The database can be sorted by year or author name. Most entries have full abstracts, enabling the user to gauge the value of a particular article before obtaining a copy.

Most bibliography entries were articles published in peer-reviewed journals. They were selected if they described how VA healthcare costs were estimated in an actual study. Articles that presented theory alone or which focused solely on the cost of VA

pharmaceuticals were excluded. The entries reflect a wide range of clinical areas and costing methods, as well as broader studies of administrative expense.

The bibliography will be updated annually. It is stored as an EndNote® database and can be downloaded from HERC's web site at www.herc.research.med.va.gov/bibliography.

For users without EndNote®, HERC has prepared an Adobe PDF document that lists all the citations in alphabetical order by author.

HERC Micro-cost Guidebook Released

HERC announces the release of its fourth guidebook, "Micro-Cost Methods for Determining VA Health Care Costs." This volume completes a set of HERC guidebooks describing micro-cost and average cost methods for VA studies.

Micro-costing and average costing are complementary methods for assigning costs to healthcare. In average costing, an inpatient stay or outpatient visit is assigned the average cost of all events having similar characteristics. In micro-costing, the

researcher determines the cost of each service the patient receives.

Micro-costing has several important features. Because it is more sensitive to the exact mix of services received, it is better able to reveal differences in cost among patients obtaining similar but not identical levels of care. It can also be performed in cases where an average cost does not exist, such as for new or rarely performed procedures.

Three chapters of the new guidebook describe VA cost datasets. Particular attention is paid to the Cost

Distribution Report (CDR) and the Financial Management System (FMS). Although the CDR has been the source of average costs for many studies, it has notable weaknesses. FMS, the VA general ledger, is the primary source for salary and benefit information.

The new guidebook explains the standard micro-costing approaches of pseudo-bills and cost functions. Pseudo-bills are created when a researcher uses non-VA data to assign costs to individual VA services, then

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HERC Micro-cost Guidebook Released

sums across services to find the total cost. Cost functions are statistical models that use regression analysis to find the marginal impact of a particular service on total cost. The guidebook also discusses data collection

strategies typically used in micro-costing, such as direct observation and surveys of patients, providers, and managers.

The guidebook is a joint effort of HERC economists Mark Smith, Paul

Barnett, Ciaran Phibbs, Todd Wagner, Wei Yu, and editor Frank Lynn.

Copies are available on the HERC web site at

www.herc.research.med.va.gov/MCM.htm.

HERC Releases Fiscal Year 2001 Average Cost Data

HERC has released both the Inpatient and Outpatient Average Cost datasets for FY (Fiscal Year) 2001.

The 2001 inpatient discharge data now includes a subtotal of the cost and length of stay for each of 10 categories of inpatient care. These 20 new variables make it much easier for the user to distinguish the cost and length of stay of different types of care such as psychiatry, acute medical-surgical status, or long-term care.

For FY 2001, HERC estimated the cost of long-term care as a per diem rate. VA also switched from using RUG II (Resource Utilization Group) scores to the RUG III/MDS dataset; however, the new RUG scores are not yet available. Therefore, HERC's FY 2001 data for nursing home care does not reflect adjustments for case-mix.

The three main changes to the FY 2001 Outpatient Average Cost Data involve changes in source data. Ingenix 2001 data included RVUs

(Relative Value Units) for most dental services, so these were used to replace the American Dental Association and Wasserman charge surveys as the source of dental payment information for most of the dental codes. The availability of Medicare payment data for more types of durable medical equipment is reflected in the FY 2001 datasets. VA costs were used instead of the Red Book average wholesale price for many pharmaceutical products.

To sign up to use HERC Average Cost Data, please visit the web page www.herc.research.med.va.gov/nondisclosure_form.htm.

This web page has instructions on applying for a timesharing account at the Austin Automation Center and accessing average cost datasets. Registered users receive e-mail updates when new datasets or documentation are released, and helpful hints for using the data for health economics research.

The downloadable PDF version of the updated Inpatient Average Cost Data Guide can be found at HERC's Publications page:

www.herc.research.med.va.gov/Pubs.htm. An updated version of the Outpatient Average Cost Data Guide is forthcoming.

VA Health Economics Bulletin

is published by

Health Economics Resource Center
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Looking to the Future

HSR&D Renews HERC's Funding for Five More Years

HERC's funding was renewed for five years by Health Services Research and Development Service (HSR&D). HERC has developed a strategic plan to respond to changes in VA healthcare.

In response to VA's increased outsourcing, HERC plans to document VA databases on contract care.

Because pharmaceuticals account for an increasing share of healthcare cost, HERC will document data on VA pharmacy cost. VA datasets on prosthetics and capital cost, the new DSS department-level cost dataset, and the new VA general ledger will also be documented. HERC will also create a new person-level database. Due to sharp increases in healthcare cost and an increase in the number of users of the VA healthcare system, HERC expects increased demand for information needed to undertake

cost-effectiveness research.

HERC will expand its validation of Decision Support System (DSS) data, and will work with the VA Information Resource Center (VIREC) to document a forthcoming DSS database of all prescriptions dispensed by VA. Patient-incurred cost and the cost of

veterans' non-VA care will also be the focus of a collaborative effort between HERC and the VA HSR&D Measurement Excellence Initiative. HERC will continue to develop and improve upon its costing methods, create new cost fields in its average cost datasets, and provide updated guidebooks for users of these data.

HERC will offer an introductory course on using VA data and teleconference seminars. To fulfill its mission to improve the quality of VA health economics research, HERC will survey HSR&D staff to identify barriers to recruiting, hiring, and retaining economists. HERC has already recruited for its VA health economics experts web page, which lists researchers according to their geographic locations and areas of expertise:

www.herc.research.med.va.gov/findexpert.asp.

HERC Launches Intranet Web Site for VA Employees

HERC has launched a new intranet web site at the web address vawww.herc.research.med.va.gov. This intranet web site can only be accessed by VA employees using computers connected to VA's private network.

The intranet site contains the same pages and information as the Internet site, as well as links to VA-specific resources such as the Annotated Patient Database Inventory, the VA office of Information, and intranet links for other VA centers. In addition, it contains e-mail address for HERC staff and members of the VA Economics Expert list—these have recently been removed from HERC's Internet site for security reasons.

Both Internet and intranet web sites are constantly updated with new materials such as answers to Frequently Asked Questions (FAQs), HERC's latest technical reports, and informational spreadsheets. Visit us at vawww.herc.research.med.va.gov today!

HERC Offers Resources

The Health Economics Resource Center is a national center dedicated to improving the quality of health economics research in VA. HERC assists VA researchers in assessing the cost-effectiveness of medical care and evaluating the efficiency of VA programs and the providing of care. HERC helps researchers determine the costs of VA health care.

Research Consulting Service

HERC's economics research consulting service is accessible via a telephone support line at (650) 617-2630 or by e-mailing herc@med.va.gov. Submit a help request or question and HERC staff will contact you.

HERC Web Site

HERC offers a variety of resources on its web site, www.herc.research.med.va.gov. The site features essays with details of the three cost methods: Average Costing, Micro-costing, and the Decision Support System. The following guidebooks are available in PDF format on the web site:

- HERC'S National and Local Outpatient Average Cost Dataset for VA Care: Fiscal Years 1998-2000
- HERC's Inpatient Average Cost Datasets for VA Care: Fiscal Years 1998-2001
- HERC's Research Guide to Decision Support System National Cost Extracts Fiscal Years 1998-2000
- HERC's Research Guide to using Micro-costing Methods to Determine VA Healthcare Costs

Additional web resources include a searchable database of health economics experts, downloadable technical reports, a Frequently Asked Questions section, and training materials for the Health Economics Seminar Series course.

Please visit us at www.herc.research.med.va.gov soon!



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