

**REPORT TO THE DIRECTOR, HSR&D SERVICE:**  
**HSR&D MDRC WORKING MEETING ON COST STUDIES**

**February 17-18, 1998**

### **Purpose**

The working meeting provided a forum for key stakeholders in VA cost research to hold face-to-face discussions with three goals in mind:

- To assess methods and data for costing VA health care
- To develop a plan of action for improving both methods and data
- To develop a plan for broadly disseminating information on measuring costs

### **Participants**

Forty-seven individuals attended the two day meeting on February 17-18, 1998, in Washington, DC. Participants included HSR&D economists and other researchers, VHA HQ and field managers, and several non-VA investigators (see attached list).

### **Summary of Priority Issues**

The lessons learned about the current **state-of-the art methods** for identifying VA health care costs can be broadly summarized in two statements:

- ***The basic emergent model of VA research costing assumes a mix of methods, using CDR cost estimates and microcosting (e.g., hybrid model). Sensitivity analysis should be used to test that the results do not depend on the methods used.*** (DSS cost estimates will be useful as they become available.) While there are drawbacks to a cookbook approach, there are certain conventions that can be adopted, incorporating decision rules or models. In addition, every study requires a cost method that is tailored to the unique clinical or managerial question under investigation.
- We are all using a limited, similar set of methods to estimate costs. However, many of us are reinventing these methods and re-analyzing similar data. ***Working independently we are replicating each other's methodological work: we are finding greater convergence about appropriate methods as we share our findings.***

Major areas of concern—and of consensus in meeting discussions— focused on **cost data adequacy and data quality**. By data adequacy, we mean that the VA costing system was not designed to provide accurate assignment of costs to individual patients in a way that reflects the resources actually used by the patient. Data quality refers to the reliability and validity of cost estimates within VA costing systems. Thus many of the policy, research and infrastructure recommendations that followed focus, from a variety of perspectives, on data adequacy and quality. The detailed concerns fall in three areas:

- ***In the Decision Support System (DSS) VHA has made a major investment in providing a capacity to assign costs at the patient level.*** We recognize the

importance of this investment in improving data adequacy and we seek closer working relationships with the DSS development and implementation teams to maximize the potential of this system for VA.

- ***VHA should undertake a national, independent audit of data systems design and quality. This audit should include independent assessments of DSS validity. There should be HSR&D input to the design of the audit.***
- ***HSR&D should develop the capacity, at a national level, to centralize and disseminate information, and to coordinate a wide range of research activities related to health care costs and cost data.***

Some of the specific issues and research needs that should be addressed in order for VHA to accurately determine the cost of veteran's health care include:

### ***Gaps in Knowledge/Research Areas***

- Microcosting
  - source of relative value weights and unit cost estimates
  - microcosting methods
  - required level of detail
- Information on costs from a per capita or enrollment basis
- Limited data on fee-basis and contracted health care services
- Information for managers on incremental costs for make-or-buy decisions
- Non-VA health care
  - routine extract of veteran patient's Medicare utilization
  - veterans use of other non-VA health care
- Relative accuracy of pseudo bills versus cost estimates based on DRGs
- Use of HCFA cost estimates instead of VA costs
- Cost-effectiveness and utility analysis
- Managerial need for cost data
- Indirect costs of veteran's medical care

### ***Database Limitations***

- Reliability and validity of DSS and CDR for cost analyses
  - need for standardization across sites
  - need to identify organizational incentives for collection of quality data
  - need for user training to ensure quality of data entered [coders], and to ensure understanding of data available [managers, researchers]
  - concern about quality of CDR, DSS and the new outpatient encounter system
- Loss of cost and utilization data from national databases
  - concern that the health care provided under sharing agreements, contracts, and fee-basis arrangements is not being adequately documented in VA databases.
  - need to obtain these data as VA relies increasingly on purchased care.
- Limitations of CDR-based databases to identify cost at individual patient-, health care encounter- and treatment unit- levels of aggregation
- Difficulty accessing DSS data

## ***HSR&D Infrastructure Limits Related to Costing Models and Data Sets***

- Limited avenues for disseminating what is currently known—and considered best practices in VHA cost identification (e.g. methodologies from past and current studies; decision trees; written resources and "standards" for reviewers and grant proposers; case studies; lessons learned; WWW, etc.)
- Need for cost methods development and studies of alternative costing methods
- Shortage of experienced VA health economists and analysts
- Lack of on-going coordination between HSR&D and CSP researchers in studying VHA costs

## **Recommendations**

Meeting participants developed recommendations in four areas to address these policy, research and HSR&D infrastructure issues and concerns.

### ***1. Provide resources for researchers to conduct studies that will improve cost methods and validate cost data:***

- Support development and evaluation of methods to determine costs
- special RFA for cost methods development (e.g., pseudo bill development, microcosting, sensitivity analysis, etc.)
- add-on RFAs to already approved projects to add key cost components and/or explore alternative cost methods
- Support research in the use of the DSS in cost-effectiveness analysis, including the evaluation of the accuracy of DSS data, methods of extracting it, and applications of DSS cost-estimates to VA research
- comparisons of DSS to Canadian and other TSI systems
- physician profiling

### ***2. Develop an infrastructure to coordinate, at a national level, HSR&D cost research functions in two areas:***

#### ***2.1 Research and development***

- Facilitate a VHA-wide focus on cost data system quality
  - encourage VHA audits and HSR&D evaluations of cost data bases
  - develop specific recommendations to VHA on policies to improve the quality of cost and utilization data. These might include recommendations for incentives, staff training, periodic audits, or network performance measures related to data quality
  - develop standard cost and utilization data for care provided under contract and sharing agreements
- Determine and contribute to national requirements for the minimum cost and utilization data to be included in centralized databases on care provided under contract and sharing agreements
- Determine the need for and facilitate documentation and training
- Help create and maintain a national cost multiplier file (best estimate unit costs for

specific services, procedures, and care episodes) based on the strongest sites DSS data, to be used to estimate costs from detailed utilization data obtained from medical records, surveys, or VISTA

- Develop VA expertise in cost-effectiveness analysis, including measurement of outcomes with patient utility values

## *2.2 Dissemination and support*

- Broaden the charge (and budget) for dissemination of cost methods in and outside VA
  - mandate and disseminate cost methodology section of final reports
- Centralize information related to cost methods and data
  - accumulate information on the availability and accuracy of DSS cost data and the techniques for extracting cost information from DSS for research
  - create a cost methods Web page with technical reports and library
  - identify researchers with experience with data systems to work with HSR&D management
  - create a library of survey instruments used for direct measurement of the cost of particular programs and departments
  - aid in acquisition of non-VA databases for multiple users
  - ensure access to relevant cost databases
- Develop, collect and disseminate information on up-to-date VA cost methods
  - develop support materials and methods
  - code and post papers on cost methods and cost methods sections of past and current research final reports (e.g. Web Page)
  - sponsor meetings and workshops on cost methods
    - economics section of HSR&D Annual Meeting
    - specific training sessions (e.g., on databases, for new economists, for non-economist researchers, etc.)
  - prepare methods texts/monographs that include decision trees/methods summaries, etc.
  - encourage on-going discourse among researchers related to cost methods and lessons learned (e.g., HSRData e-mail, etc.)
  - develop new outlets for dissemination of cost methods
- Develop a cadre of cost analysts and economists to serve as consultants to HSR&D and CSP researchers
- Increase VA's health economics manpower
  - train new VA economists, mentoring
  - expand career development program

## **3. *Develop recommendations for improvement of VA data bases for cost analysis needs (e.g. DSS, OPC, PTF, etc.)***

- Continue HSR&D representation on VA Corporate Data Users Steering Committee
- Assist in an advisory capacity in the development of system enhancements, user training, contractor responsibilities, etc., that would enable improved cost research
- Assist in a national, independent audit of data systems design and quality (audits should include a validity test of DSS with significant input by HSR&D to the design of the audit)

- Work with IRM to develop methods to more easily extract data for researchers from DHCP/VISTA

#### **4. Develop a formal HSR&D/DSS relationship in order to:**

- Negotiate access for investigators
- Develop a national extract of DSS for use by researchers and managers
- Modify the national patient care databases so that they identify the DSS department that provided care to a specific patient

There was a consensus among meeting participants that there is a need to coordinate these functions at a national level. It was not clear however what the most appropriate coordinating structure would be. One approach would be to establish a real or virtual HSR&D Cost Data Center. Such a "Center" could operate as a free-standing cost data center, a virtual consortium, or an augmented budgeted function added to the currently planned information resource center. (Delegates from the Cost Meeting have volunteered to assist in the development of the RFA for these coordinating functions. See Interim Activities below.)

#### **Interim Activities**

In addition to the formal recommendations from Working Meeting on Cost Studies listed above, participants agreed to continue work by immediately embarking on the following tasks that will advance the state-of-the-art of costing health care in VA:

Develop sample decision trees (*Terri Menke, Michael Kashner, Rick Homan drafted an article for the Medical Care supplement*).

1. Collect and disseminate "collective wisdom" of meeting participants such as experiences and lessons learned using the CDR and microcosting (*to be collated by Paul Barnett and put on Web Page by Doug Bradham this summer*).  
Develop a DSS training session for investigators (*Anne Sales and Howard Green*).
2. Request the addition of a health economics section for the 1999 HSR&D Annual Meeting so that health economists have a greater opportunity to present papers to their colleagues (*Carol VanDeusen Lukas*).
3. Recommend that research be represented on the DSS steering committee being organized by the Chief Network Office. (*Completed: Paul Barnett will serve on the committee*)
4. Distribute, to all meeting participants, enrollment information about the HSRdata list server (*Ralph Swindle*).
5. Coordinate *Medical Care* supplement publication (*Ann Hendricks, Paul Barnett, Carol VanDeusen Lukas*).
6. Develop criteria for creating and maintaining a national cost multiplier file (*Ciarin Phibbs, Denise Hynes*).
7. If requested by Dr. Demakis, develop guidelines for RFA for a cost data center (*Paul Barnett, Charles Bennett, Doug Bradham, Michael Chapko, Ciaran Phibbs, Laura Sarro*).
8. Obtain agreement to include DSS patient encounter-level Department identifiers on the national patient care database (*Completed: Ralph Swindle negotiated the agreement in the VHA Corporate Data Users Meeting March 18-20, 1998*).

*May 5, 1998*