

# VA HEALTH ECONOMICS BULLETIN

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The VA Health Economics Bulletin is a quarterly publication of the Health Economics Resource Center (HERC) to bring VA researchers updates on datasets and data sources.

For more information on VA datasets, visit the HERC web pages for [Guidebooks](#) and [Technical Reports](#).

For economics-related questions, please view our [Methods](#) web pages.

For economics advice, please call the HERC consulting service at (650) 617-2630 or email us at [here@va.gov](mailto:here@va.gov).

## Workgroup Created to Reduce Low-Value Services

A workgroup of HSR&D investigators is talking with VA leadership about improving the safety and efficiency of VA care by reducing use of low-value services.

“There are hundreds of targets for action,” said workgroup leader Paul Barnett, of the Health Economics Resource Center, “it is a question of deciding who needs to participate and where to begin.” In addition to the services identified by the Choosing Wisely initiative, lists of unneeded services have been developed by the Institute for Healthcare Improvement, the National Quality Forum, and the Institute on Clinical Excellence.

Workgroup members include David Au, Christian Helfrich, and Adam Rose from the new HSR&D QUERI center on de-implementation, and Eve Kerr, Director of the HSR&D Center in Ann Arbor, Michigan. These HSR&D investigators are involved in one or more studies designed to de-implement unnecessary or harmful care.

The workgroup wants to hear from VA operations groups interested in addressing poor safety and high cost that result from low-value services. Its goal is to identify potential VA operations customers for this work, to consider how to obtain patient and clinician input, and to identify high priority areas for action.

For more information contact Paul Barnett at HERC ([paul.barnett@va.gov](mailto:paul.barnett@va.gov)).



Dedicated to improving  
the quality of health  
economics research

## Cost Effectiveness Analysis Course

### Course Overview

The Health Economics Resource Center will offer a 12 session course in cost-effectiveness analysis as part of the VA HSR&D Cyberseminar series starting in January. This introductory course covers cost-effectiveness and budget impact analyses and VA economic data sources. Cost-effectiveness analysis is a method to determine if interventions provide sufficient health benefit to justify their cost. Budget impact analyses complement cost-effectiveness analyses, providing decision makers with information on the effect of adopting cost-effective interventions. This HERC course will provide an overview of these and other types of decision analysis and how to conduct these analyses with VA data.

The course is designed for researchers who would like an introduction to methods of cost-effectiveness analysis and budget impact analysis as applied to health services and medicine.

Students may attend any or all of the free sessions. The course takes place through conference calls with web-based slide presentations. Please visit the [HERC website](#) to register. A summary of each lecture is available on [page 3](#).

### Course Schedule

- 01/06/16** **An Overview of Decision Analysis**  
*Risha Gidwani, DrPH*
- 01/13/16** **Recommendations for Conducting Cost-Effectiveness Analysis: Elements of the Reference Case**  
*Ciaran Phibbs, PhD*
- 01/27/16** **Estimating the Cost of an Intervention**  
*Todd Wagner, PhD*
- 02/03/16** **VA Costs: HERC versus MCA**  
*Jean Yoon, PhD*
- 02/10/16** **Introduction to Effectiveness, Patient Preferences, and Utilities**  
*Jo Jacobs, PhD*
- 02/24/16** **Modeling in Medical Decision Analysis**  
*Jeremy Goldhaber-Fiebert, PhD*
- 03/02/16** **Estimating Transition Probabilities for a Model**  
*Risha Gidwani, DrPH*
- 03/09/16** **Evidence Synthesis to Derive Model Transition Probabilities (Part I – Systematic Literature Review)**  
*Risha Gidwani, DrPH*
- 03/23/16** **Evidence Synthesis to Derive Model Transition Probabilities (Part II – Quantitative Pooling)**  
*Risha Gidwani, DrPH*
- 03/30/16** **Sensitivity Analyses**  
*Risha Gidwani, DrPH.*
- 04/06/16** **Budget Impact Analysis**  
*Todd Wagner, PhD and Wei Yu, PhD*
- 04/13/16** **How can Cost-Effectiveness Analysis be Made More Relevant to US Healthcare?**  
*Paul Barnett, PhD*

## Estimated Labor Costs Database Released

HERC has released the Researchers' Guide to Estimating VHA Labor Costs, which analysts can use to determine the labor costs for a program or intervention. This release includes both a database of estimated Labor Costs and a guide on how to use these data. HERC used data from the Financial Management System (FMS) and Managerial Cost Accounting System (MCA) Account Level Budgeter Cost Center (ALBCC) to prepare these labor cost estimates. This database can serve as a resource for analysts conducting economic evaluations of current programs or evaluating the cost of a new intervention. Analysts can find the Researchers' Guide to Estimating VHA Labor Costs as well as the dataset on the [HERC website](#).

# Cost Effectiveness Analysis Course

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## Course Descriptions:

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### **An Overview of Decision Analysis**

This lecture kicks off the HERC Cost-Effectiveness Analysis cyber course by providing an introduction to the field of decision analysis. Topics include: why to engage in decision analysis; the difference between cost-effectiveness analysis, cost-utility analysis, cost-benefit analysis and budget impact analysis; and the different ways to operationalize a decision analysis (modeling versus measurement alongside a clinical trial). This lecture is aimed at providing a general, high-level overview of the field.

### **Recommendations for Conducting Cost-Effectiveness Analysis**

This lecture will present what the Public Health Service's cost-effectiveness guidelines refer to as the reference case. These are a standard set of methods and assumptions that should be used in the base or reference case of any cost-effectiveness analysis. Using a standard set of methods and assumptions greatly facilitates the comparison across cost-effectiveness studies; the ability to make comparisons across studies greatly increases the utility of all studies that meet these standards.

### **Estimating the Cost of an Intervention**

Researchers are frequently engaged in developing and testing new behavioral interventions. In this lecture, we will discuss different methods for estimating the cost of new interventions.

### **VA Costs: HERC versus MCA**

Researchers conducting cost-effectiveness analyses often need cost and utilization data. In this lecture, we will review the HERC Average Cost and the Managerial Cost Accounting (MCA; formerly Decision Support System (DSS)) data. We will briefly review the different datasets commonly used in research studies. We will also discuss how these data can be merged to VA utilization data.

### **Introduction to Effectiveness, Patient Preferences, and Utilities**

Cost-effectiveness analysis measures the benefit or health outcome of an intervention in natural units (like a flu episode avoided) or in quality-of-life improvement, defined by the quality-adjusted life year or QALY. This class will provide an introduction to the concepts of QALYS and preference measurement and a description of the most common techniques used for measuring QALYs in economic evaluation.

### **Medical Decision Making and Decision Analysis**

The lecture will provide an introduction to decision analysis as applied to the context of medical and public health decision making. The lecture will cover the goals and necessary elements of a decision analysis, the construction and evaluation of decision trees, and provide an introduction to how Markov models are embedded in decision analyses to consider more complex diseases. It will also discuss the important link between such analyses and cost-effectiveness analyses.

### **Estimating Transition Probabilities for a Model**

Inputs for a decision model often come from the published literature, but may not be in a form suitable for a decision model. This lecture will discuss ways of deriving probabilities that are specific to a model's constraints as well as deriving probabilities from published summary statistics. This lecture is aimed at the researcher who is interested in operationalizing his or her own decision model.

### **Evidence Synthesis to Derive Model Transition Probabilities (Part I)**

When there are multiple publications that have evaluated a parameter of interest, one may be able to quantitatively synthesize these estimates into a single input for use in a decision model. This approach to evidence synthesis is called meta-analysis. This lecture will walk researchers through the process of conducting a meta-analysis from start to finish.

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## New Medicare Wage Index for VA Facilities

HERC has combined data from Centers for Medicare and Medicaid Services (CMS) and the VA Planning System and Support Group (PSSG) to create a Medicare wage index for VA facilities. This index enables researchers using VA data to adjust their cost analyses for the various labor costs across the country. A detailed description of the Medicare wage index for VA facilities can be found in the guidebook Station-Level Cost Data: Medicare Wage Index for VA Facilities: 2000-2015 on the [HERC website](#). Please contact HERC ([herc@va.gov](mailto:herc@va.gov)), if you would like a copy of the file.

## Extended Economist Help

HERC has created the [Extended Economist Help](#) webpage to provide guidance for researchers considering including a health economist on their study team. The webpage includes a list of VA economists and their research specialties. The best time to contact a health economist collaborator is early in the proposal development process. If an economist is needed, it is often a necessary to include the economist in all phases of the study, including initial design, data gathering, and analysis. For additional guidance on when to involve a health economist, HSR&D issued [guidance on expectations for proposals involving health care cost estimation and analysis](#). If you are a health economist who would like to be included on the list, please email [samantha.murrell@va.gov](mailto:samantha.murrell@va.gov).

## Cost Effectiveness Analysis Course ([continued from page 3](#))

### Evidence Synthesis to Derive Model Transition Probabilities (Part II)

When there are multiple publications that have evaluated a parameter of interest, one may be able to quantitatively synthesize these estimates into a single input for use in a decision model. This approach to evidence synthesis is called meta-analysis. This lecture will walk researchers through the process of conducting a meta-analysis from start to finish.

### Sensitivity Analyses

Inputs for a decision model come in the form of point estimates and these point estimates inevitably have some degree of uncertainty. Sensitivity analyses test how robust the model is to this uncertainty by varying model inputs and evaluating the effect of these variations on model results. This lecture will cover deterministic and probabilistic sensitivity analyses. The latter are increasingly necessary to publish a model in a peer-reviewed journal.

### Budget Impact Analysis

A budget impact analysis (BIA) estimates the cost of adopting a new or proposed intervention over 1-3 years. A BIA includes costs of the intervention and its implementation, as well as the downstream costs of healthcare utilization. It is often done alongside a clinical trial to estimate the costs of adoption. This class will provide a framework for the BIA and tools to determine if a BIA is an appropriate study to undertake.

### How can cost effectiveness analysis be made more relevant to U.S. health care?

Health policy decision makers in other countries use cost-effectiveness analysis to set practice guidelines, determine pharmacy formularies, and make coverage decisions. Attempts to formally incorporate cost-effectiveness into U.S. policy have failed, but there are many examples of informal use. Surveys of decision makers have identified barriers to using cost-effectiveness findings. Published recommendations provide economics researchers with tips on how to increase the chances that their findings will be implemented.

## HERC

The Health Economics Resource Center produces pioneering, rigorous health economics and related research that improves health care within and beyond VA.

Our research activities include innovation and excellence in:

- Performing cost and cost-effectiveness analyses
- Studying the efficiency of health care
- Evaluating health programs and interventions
- Planning, managing, and analyzing randomized clinical trials
- Health care decision modeling
- Assessing health-related quality of life
- Health economics and health services research

We are committed to:

- Integrity
- High quality of work
- Productivity
- Transparency
- Mutual trust and respect
- Teamwork
- Investment in people through learning and mentoring
- A flexible, supportive, and enjoyable work environment



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## Fee Basis Guidebook Available

The 2015 Fee Basis Data Guidebook is now available on the [HERC website](#). This guidebook is intended to help researchers understand and use the National Fee Basis files, which come in both SQL and SAS formats. This update describes for the first time the SQL Fee Basis files. The authors provide information about the characteristics of the data in both SAS and SQL, compare the data available in the two formats, highlight important variables, and discuss certain data limitations. For more information, please visit the [HERC website](#).

## Staff Update

Josephine (Jo) Jacobs joined HERC in August 2015. Her research focuses on the interaction between paid and unpaid work, particularly on the economic and labor market consequences of unpaid care provided by family and friend caregivers in community settings. Her previous research applied health economic evaluation tools to quantify the effects of unpaid caregiving on government and private expenditures. Jo also conducts research exploring women's health issues, with an emphasis on how economic, policy, and demographic factors impact fertility decisions and contraceptive behavior. She received her PhD from the University of Toronto's Institute of Health Policy, Management and Evaluation. In her free time, she enjoys watching, playing, and dabbling in research related to soccer. She is looking forward to her first winter without snow.

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