

Health Services Research and Development Service
QUERI Economic Analysis Guidelines

April, 2004

The Quality Enhancement Research Initiative (QUERI) is developing and testing interventions to improve the quality of VA care. Economic analysis can provide important information needed to evaluate quality improvement efforts. Not all QUERI projects will benefit equally from an economic analysis. An economic analysis may be more appropriate if the intervention is costly, has large effects on health care utilization, or is nearly ready to be replicated on a wide-scale.

A QUERI economic analysis may be a study of the relationship between quality and production efficiency, the determination of the cost of an intervention, an evaluation of the impact of an intervention on total health care costs, or a cost-effectiveness analysis. A QUERI economic analysis should measure costs and outcomes and place this information in context. A standard method of cost-effectiveness analysis, described below, allows the cost-effectiveness of new health care interventions to be compared. The standard method does not provide all of the information needed by VA decision makers, however.

In designing an economic analysis of a QUERI intervention, the following points should be considered:

Transparency of analysis. The economic evaluation must document data sources, methods, and assumptions. It should describe when costs are incurred and when benefits are realized.

Impact of the intervention on cost. The analysis should estimate the cost of adopting the intervention. Micro-cost methods are needed to determine the costs of activities that are unique to this intervention, such as a program to promote guideline implementation or a change in the way health care services are delivered. The analyst should determine what types of care will be affected by the intervention, and may determine its effect on total VA health care cost. When the intervention changes the quantity but not the character of health services, standard unit costs or average cost methods may be used to estimate cost.

Sunk costs, supply constraints, and facility-specific considerations. The economic analysis will be more applicable to managerial decisions if it considers how much funding is needed to adopt the intervention given the current staffing and configuration of equipment and facility at sites where adoption is being considered. For example, an intervention that reduces hospital stays may save little if the effect is too small to allow reassignment of ward staff. Space and staffing constraints may make it unexpectedly expensive to adopt a new program. Unused capacity may make a program more economically feasible. Such considerations are often specific to a particular facility, making it difficult to generalize from a small sample of sites. The analyst may wish to consider whether the analysis would change if VA were to buy or make new services required by the intervention.

Time horizon. Managers are concerned about the impact of new programs on the current budget. When costs are incurred in the short run but savings are realized over the longer term, it is important that the analysis distinguish current year costs from those incurred in the future.

Cost perspective of provider. QUERI economic analyses are likely to focus on the effect of the intervention on the VA health care system. Impacts on the cost incurred by other health plans and by patients should be distinguished; these costs may be secondary considerations to VA managers.

Effect on revenue. The analysis may need to identify any effects that the intervention will have on health care system revenue, for example, whether the intervention might result in a new service that might attract draw high-cost, low-revenue patients.

Relation of intervention to community standard. The analysis should indicate whether the intervention would bring VA up to the community standard of care, or whether successful implementation would allow VA to exceed the standard.

Effect on outcomes. The economic analysis should describe the effect of the intervention on patient outcomes. It should indicate the number and characteristics of affected patients. All outcomes should be described, including benefits such as prevention of mortality or catastrophic illness, or improvement in quality of life, as well as risks and side-effects of treatment. If possible, the impact of the intervention should be expressed as a change in Quality Adjusted Life Years.

Standard cost-effectiveness analysis

A standard method of cost-effectiveness analysis (CEA) has been described by the U.S. Public Health Service Panel on Cost-Effectiveness in Health and Medicine. This standardization allows the cost-effectiveness of different health care interventions to be compared using a common set of methods.

The standard CEA uses the perspective of society as a whole. As a result, it considers not only the cost of an intervention and its effect on subsequent health care utilization, but also costs incurred by other health care systems, and by patients and their families. Standard CEA considers average, not incremental costs. The standard CEA thus includes fixed costs, facility overhead, and depreciation.

Standard CEA considers a lifetime perspective. Long-term costs and benefits are included. These are discounted to reflect the decline in economic value that results from delay.

In a standard CEA, outcomes are translated into a specific measure of benefit, the Quality Adjusted Life Year (QALY). Typically new interventions are more effective and more expensive than usual care. When this occurs, an incremental cost-effectiveness ratio is calculated. This provides information about whether the benefits of the intervention justify the costs. QALYs are treated as equal, regardless of the patient characteristics. Interventions are judged equivalently, regardless of their relation to the current standard of care.

More information on the standard CEA method, and methods for conducting economic analysis in VA, are provided in the document “Cost Analyses: Information for Applicants and Reviewers,” available from the HSR&D web site at: http://www.hsr.d.research.va.gov/for_researchers/funding/general-information.cfm.