Costing Annotated Bibliography of Key Economic Analysis Resources Especially Relevant for Implementation Science

This tool was created by UC San Diego ACTRI DISC and the ACCORDS D&I Program to compile resources, tools, and studies about cost/cost-effectiveness research in implementation science. Costing methods and cost-effectiveness analyses are important for measuring and improving the value of healthcare practices.

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### Cost and Cost-Effectiveness Studies


This study estimated and compared the costs of a counseling intervention for smoking cessation in pregnant women at three different settings.


This study was a cost analysis of implementing the Cultivating Awareness and Resilience in Education (CARE) for Teachers professional development program. The authors detail all of the necessary resources needed for project implementation.

This article assesses the cost effectiveness of the Electronic Communications and Home Blood Pressure Monitoring to Improve Blood Pressure Control (e-BP) study. Overall, the goal of the study is to better understand the cost effectiveness of web-based approaches to managing chronic illness.


This study analyzed the cost-effectiveness of the pay-for-performance strategy to improve the implementation and effectiveness of the Adolescent Community Reinforcement Approach to treat substance use disorders.


This article discusses (with mention of traditional economic evaluation) how processes that focus on the measurement/inclusion of costs, defining, identifying and discussing relevant costs, as well as how phases of implementation/time horizon factors can impact costing on the whole.


This editorial stresses the importance of economically evaluating implementation strategies. Furthermore, the authors address how these evaluations can be used in decision-making processes about implementation.


The authors evaluated the costs of translating a Diabetes Prevention Program for older adults residing in senior centers. Specifically, the study evaluates the cost effectiveness of this translation when delivered by lay health educators.

The authors assessed and compared the cost effectiveness of motivational interviewing, health education, and brief advice for smoking cessation.


This study assessed the cost effectiveness of interactive voice reminders to get the influenza vaccine and compared it to that of postcards. Specifically, the authors assessed its cost effectiveness in adults with asthma or chronic obstructive pulmonary disease.


Authors assess the cost effectiveness of ¡Viva Bien!, a multiple-risk-factor lifestyle intervention for Latinas with type 2 diabetes.

The authors analyze the cost effectiveness of a two-year weight-loss and blood pressure control intervention.

**Systematic Review/Overview of Cost-Effectiveness and Economic Evaluation**


Conducted semi-structured interviews of eight health economists and eight implementation science researchers with the goal of understanding the current capacity for collaborative research. Found that although there was a desire for collaborative research among both groups of researchers, there needs to be a stronger effort to build relationships outside of one’s discipline and understand other disciplinary methodologies.


Acknowledging limitations associated with “Aim 3”, this study discusses the need to advance transdisciplinary efforts by using Hall et al’s four-phase model (development, conceptual, implementation, translation) of transdisciplinary research to propose how implementation study teams can integrate others (such as health economists, etc.) and collaborate to effectively address social and public health needs.


A systematic review of cost analysis studies in implementation science, specifically those for behavioral health services.

An overview of different cost effectiveness terminology and strategies. The authors detail these methods and explain their relevant use in oral health interventions.

https://www.biomedcentral.com/collections/EconomicEvaluation

This collection of articles is Implementation Sci. and Implementation Sci. Commun. includes key issues, and highlights some approaches and examples to inform the field of economic evaluation in implementation science. The collection hopes to enhance understanding as well as inform future research collaborations by bridging multiple fields.


An editorial presenting the conceptual challenges that come with economic evaluation in implementation science. The authors also address the implications of conducting economic analysis of primary care research.


This article assesses the use of cost effectiveness measures such as cost-per-QALY (quality-adjusted life-years), which were previously banned from being used as thresholds.


This study examines the argument for the utilization of a broader range of analytic methods (ex: mixed-method approaches) in the estimation of costs/outcomes involved in economic evaluations for EBI implementation.

This chapter gives a brief review of economic evaluation, presents examples of economic evaluation in dissemination and implementation science literature, and proposes ways to improve (and promote) economic evaluations in implementation science.


A systematic review of thirty studies, including ex-post economic evaluations, cost effectiveness analyses, cost utility analyses, and cost-consequence analyses. The authors used the Quality of Health Economic Studies (QHES) framework to rate these studies and concluded that while overall quality of these studies is good, there still lacks adequate attention and collaboration on this topic.


The Second Panel on Cost-Effectiveness in Health and Medicine assess the state of the field and recommend strategies to improve cost-effectiveness analyses.


This article aims to provide an overview of the typical cost-effective analyses for treatment/prevention of HIV, the potential for systematic bias in the process, and how re-thinking of the conventional approach of economic evaluation, along with integration...
of approaches/insights from implementation science, can magnify impact and effectiveness of HIV interventions/investments.


The authors explain key considerations that should be made for downstream health care costs and budget impact analysis. Specifically, the authors present considerations for the implementation of evidence-based programs aimed to reduce a quality gap.

WEBINAR on Economic evaluation and Implementation Science from the NCI: https://cancercontrol.cancer.gov/is/training-education/webinars/details/65

Dr. Ramesh Raghavan and Dr. Heather Gold explain the cost effectiveness analyses play in implementation science. They assess health economics within the field currently and propose next steps for the field.


This article explains the variability in behavioral and public health interventions (as discussed in two working meetings among the Society for Health Psychology, the National Cancer Institute (NCI), and the Office for Behavioral and Social Sciences Research (OBSSR) at the National Institutes of Health), discusses standardizing methods for evaluating cost effectiveness, and provides examples.


Short article calling for more economic evaluation in implementation science. The author details a study that can be used as an example for future evaluation of economic outcomes of implementation science.
Cost Dimensions/Data Collection Tools and Guides


A list of projects that have identified and evaluated the transformation costs for patient-centered medical homes (PCMH). Each project has a short description of its methods and the costs it estimated.


A compiled list of three cost dimensions tools developed. Includes screenshots of each tool with a short overview.


This study estimates the cost-effectiveness of the Chronic Disease Self-Management Program (CDSMP) and estimates the cost-effectiveness ratios based on depression status.

D2V Costing Resource Hub - Costing and Data Collection

Online resource that details the reasons for measuring cost and different methods that can be used to evaluate cost effectiveness of an intervention.


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This study collected expenditure data for ten interventions using a standardized instrument. This was used in ten practice-based research networks across the United States.


This article provides an overview of different cost evaluation methods, presents different approaches to economic evaluation of implementation, and details a specific example for a cognitive-behavioral therapy program.


This article describes a field trial for a expenditure data collection tool. The tool was tested on 10 practice-based research networks.

**Prescription for Health, Guide for Collecting Expenditure Data in a Clinical Intervention in a Primary Care Practice**
[http://www.prescriptionforhealth.org/results/P4H_exp_template/hndt3_dtacolgdpdf](http://www.prescriptionforhealth.org/results/P4H_exp_template/hndt3_dtacolgdpdf)

An extensive guide that goes over the process for collecting expenditure data. The authors cover research design and give examples for how to fill out tables to keep track of expenditure data.


This paper recommends steps to evaluate the cost and cost effectiveness of interventions. The authors emphasize distinguishing intervention costs from R&D/recruitment costs and also including sensitivity analyses. The authors use a smoking reduction clinical trial to illustrate the procedures they outlined.
Time-Driven Activity-Based Costing/Microcosting


In this paper, the authors cost a multifaceted intervention in primary care with the hopes of improving attendance for diabetic retinopathy screenings. Through their study, the researchers found that there was a need for significant human capital input.


This study measures and compares the costs of different arthroplasty surgeries using two methods: time-driven activity-based costing and traditional hospital accounting.


In this study, the authors used time-driven activity-based costing (TDABC), to assess the costs of performing an abdomen and pelvis computed tomography (AP CT) in an academic radiology department. The authors also identified opportunities to improve the efficiency at which this service is delivered.


This article presents a new method for economic evaluation, combining time-driven activity-based costing and Proctor implementation framework. Use of this method is demonstrated with synthetic data.

This study assesses the use of time studies in determining the cost of personnel for evaluating the cost effectiveness of an intervention.


In this cover story, the authors assess the use of time-driven activity-based costing (TDABC) in a primary care setting. Explains the results of a Harvard Business School and Mayo Clinic collaboration.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9013046/

Regarding staff time estimation, this study sets out to provide a comparison of conventional and emerging TDABC approaches, meanwhile uncovering both semi-automated and automated EHR-Based approaches as potential rival alternatives.


Hilsenrath et al. discuss the use of activity-based costing (ABC) to better evaluate the cost of healthcare and improve pricing models.


This article describes the use of time-driven activity-based costing in healthcare organizations in the United States and Europe, and the authors describe the opportunities for improvement found using this method.

This article explains how TDABC can be used to identify and document the costs and time spent in providing for patients going through a continuum of care.


In this review, the authors explain why TDABC is relevant in health care, discuss how its application reflects a method developed for value-based health care, and present implications for TDABC use.


In this article, the authors attempt to measure the relationship a value-driven outcomes tool has with quality measures to individual patient encounters with cost reduction and health outcome optimization.


In this article, the authors discuss how cost effectiveness analyses can be used to improve healthcare and provide high-value care.


In this study, the authors developed a micro-costing methodology to estimate the costs of "outreach motivational interviewing for smoking cessation and relapse prevention"
among low-income pregnant women.” The authors test this methodology with a randomized controlled trial (RCT), and report the results.


The authors used time-driven activity-based costing to compare the costs of different therapies for management of early-stage breast cancer.


In this book, Smith et al. present a guide to microcosting as a way of determining the cost of healthcare.


This article explains how direct measurement can be used to determine health care costs. The authors also describe the advantages and drawbacks of using direct measurement.


A review of current literature on microcosting studies of health and medical interventions.