

## Comparative effectiveness research (CER)

The federal Affordable Care Act (ACA) passed in March 2010 laid the groundwork for greater availability of evidence-based medicine and benefit design, transparency of healthcare cost and quality trend, comparative effectiveness research (CER), and in the process of implementing all health reforms, actively shared decision making and building trust in healthcare settings. The ACA devotes \$1.1 billion medical spending for CER and offers Connecticut exciting opportunities to provide higher quality, less expensive, more equitable health care.

### **Q: WHAT is CER, as supported by the Affordable Care Act?**

A: CER is defined by the Institute of Medicine (IOM) as, “the generation and synthesis of evidence that compares the benefits and harms of alternative methods to prevent, diagnose, treat, and monitor a clinical condition or to improve the delivery of care(Manchikanti, Falco, Boswell, & Hirsch, 2010). The purpose of CER is to inform patients, providers, and decision-makers, responding to their expressed needs, about which medical interventions are most effective for which patients under specific clinical situations.

### **Q: WHY CER?**

A: The greatest health contribution occurs for low cost but highly effective treatments, such as antibiotics for bacterial infection, or aspirin and beta-blockers for heart attack patients. Many analysts believe that lack of information is one of the largest drivers of health care costs. Health care spending would drop from 17% of the gross domestic product to 13%, and \$640 billion would be saved if CER were in general use (Fuchs & Milstein, 2011). Large variability in clinical practice and high rates of inappropriate care, combined with increased spending, drive demand for more research on clinical effectiveness. CER has the potential to generate clearer evidence on which care options work the most effectively and efficiently for each patient’s decision making.

### **Q: CER is not new. WHY does it diffuse so slowly?**

Some perceive that the application of CER to decision making could limit their choice of providers, interfere with clinicians’ recommendations on treatments, or appear to “ration” care based on cost. **Comparative Effectiveness Research Will Not Ration Care.** Under the ACA, explicitly prohibits the research from being used as the basis of coverage or reimbursement decisions for Medicare. The government isn’t mandating that clinicians adopt the results of CER, and it is not rationing care. Each patient has unique needs and the ultimate decision for how to proceed should be left to the caregiver and the patient.

## **Comparative Effectiveness Research Will Help Curb the Overuse of Medical Treatments.**

Often highly productive treatments diffuse slowly. For example the benefits of many new, expensive imaging technologies, such as computed tomography (CT), MRIs, and positron-emission tomography (PET), is questionable (Chandra & Skinner, 2012). The productivity of medical treatments varies significantly, ranging from very high (aspirin for heart attacks and surfactants for premature births) to low (stents for stable angina and arthroscopy for osteoarthritis of the knee). ACE inhibitors, anti-cholesterol drugs (statins), and thrombolytics (“clot-busters”) have great benefits and lower costs than most treatments. The anti-retroviral therapy for HIV is a highly cost-effective “home run” innovations with little chance of overuse. However the effectiveness of some treatments is highly patient specific, for example surgical interventions such as angioplasty (stents), bypass surgery, and the diffusion of cardiac rehabilitation and cardio-pulmonary resuscitation (such as automated defibrillators)(Chandra & Skinner, 2012). The US health system often experiences rapid diffusion of expensive new technologies with uncertain benefits, such as proton-beam therapy for prostate cancer. CER would provide caregivers and patients with unbiased information on the most effective treatments, help make safe informed decisions, and improve the overall quality of care.

### **Q: What is the current effort in Connecticut?**

Initially funded by a three-year grant from the federal Agency for Healthcare Research and Quality (AHRQ) and supported with New England state policy makers, the New England Comparative Effectiveness Public Advisory Council (CEPAC) provides objective, independent guidance on how the adapted AHRQ evidence reviews can best be used across New England to improve the quality and value of health care services. CEPAC is a collaboration of academics, clinicians and patient advocates that conduct a very deep dive into the state of independent research on treatment options for common, expensive conditions and evaluates the effectiveness and relative costs of treatments, voting on whether there is enough research to support each treatment’s use. The goal is to provide a forum in which all the evidence, information and public and private values can be discussed together, in a public and transparent process. Previously published reviews of [atrial fibrillation](#), treatment-resistant depression, and [attention deficit hyperactivity disorder](#) is available online: <http://cepac.icer-review.org/>. Both public and private payers have considered CEPAC’s decision-making process and votes and used that work in setting coverage policies.

**However, many questions still remain:** Which methods would be the most efficient to conduct CER? How will patients and caregivers learn about the CER findings? How the CER be conducted openly and soundly to strengthen patients’ and providers’ trust on outcomes? Will private insurers and payers use the findings effectively to make decisions on specific treatment coverage and cost sharing?

Patients, clinicians, and policymakers need to consider many different kinds of evidence on the comparative clinical risks and benefits of care options to make appropriate healthcare decisions. Patients and clinicians collaborate, weighing patient values and individual clinical needs to decide on the optimal treatments and make judgments on how to gain the best value for every healthcare dollar.

Reference

ICER: [www.icerreview.org](http://www.icerreview.org)

CEPAC: <http://cepac.icer-review.org/>

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