Using Comparative Effectiveness Research to Pay Equally for Equivalent Outcomes: 
An Evaluation of a Multi-Stakeholder Effort Focused on Prostate Cancer Treatments

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About ICER

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ICER’s academic mission is funded through a diverse combination of sources; funding is not accepted from manufacturers or private insurers to perform reviews of specific technologies. Funding for this evaluation was provided by the Robert Wood Johnson Foundation. Since its inception, ICER has received funding from the following sources:

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Abstract

Policymakers are faced with the challenge of improving value in the healthcare system while ensuring patients have access to high quality care. Increasingly, stakeholders are looking toward comparative effectiveness research to inform efforts to improve value by paying equally for equivalent outcomes. A multi-stakeholder initiative in Massachusetts attempted to enact this principle by changing reimbursements for prostate cancer treatments. Ultimately, the effort failed due to several factors, including misalignment of goals between payers and providers; competing priorities among quality improvement leaders at provider organizations; and decreasing emphasis on fee-for-service payment arrangements. Policymakers can improve the chance for success with similar projects by ensuring engagement from leading employer groups; being clear about the business case for change from the outset; and by emphasizing how the initiative’s goals align with broader system as well as internal organizational change.
Introduction

Policymakers and stakeholders are increasingly aware of the need for bold approaches to improve the value of healthcare delivered in the U.S. Payment reform programs that focus on changing how and how much clinicians are paid for certain services have been the focus of many recent initiatives. Often in the U.S. healthcare system, provider reimbursement is high for interventions that produce similar outcomes to less expensive alternatives. In these cases, some policymakers have called for leveling payment to remove the incentive for physicians to use more expensive, yet not more effective technologies. In Massachusetts, a regional stakeholder coalition endeavored to change reimbursement for the treatment of low-risk prostate cancer based on the results of comparative effectiveness research (CER). The goal was to use CER evidence to change payment for specific services to reflect relative effectiveness while reducing incentives for clinicians to provide equally effective but more expensive options.

In this paper, we report the results of an evaluation of this effort. The Institute for Clinical and Economic Review (ICER) performed a series of qualitative interviews with the key participants from the project. Interviewees were selected if they worked directly on implementation efforts for the project, led the strategic direction of the coalition, or supervised those working on implementation. A total of 12 people were contacted and 10 people were interviewed. Of the 10 interviewed, three were providers, five were payers, one was a business consultant and one was an employer representative. ICER conducted semi-structured interviews over the phone during November and December 2011. All participants were sent the questions in advance and verbal informed consent was obtained at the beginning of each interview. ICER analyzed the interview notes to discern major themes concerning the facilitators and barriers of the group’s attempt to use CER to improve value in the system. The major themes that emerged from the interviews and lessons for policymakers are described in the Evaluation section.
Background

About the EACH Initiative: In 2009, ICER began working with the Employers Action Coalition on Healthcare (EACH) to explore ways to use CER to improve value in the healthcare system. EACH was a multi-stakeholder coalition convened by employers and purchasers in 2009 and included the largest provider groups in the Boston area (Atrius Health, Boston Medical Center, Partners Healthcare, Tufts Medical Center); the three dominant private health plans in Massachusetts (Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care, Tufts Health Plan); and several large employers and business leaders (EMC, Mass Mutual, Associated Industries of Massachusetts, Greater Boston Chamber of Commerce, Massachusetts Business Roundtable, Massachusetts Taxpayers Foundation). In late 2011, EACH merged with another regional health initiative to form Massachusetts Health Leaders for Appropriate and Affordable Healthcare. For clarity, “EACH” is used throughout this paper to refer to the collaboration.

Central to EACH’s mission was developing innovative ways for these stakeholders to join efforts in implementing comparative effectiveness research (CER) to shift care towards higher value; the EACH CER Working Group led this effort. The goals for this project grew organically from a series of discussions focused on how EACH could use ICER’s research on management options for low-risk prostate cancer as a pilot project for how to improve value in the system. As a stakeholder coalition, the members of EACH were aligned in their commitment to finding ways, through CER and other mechanisms, to reduce costs while improving quality in the care delivered in Massachusetts. The early stages of the collaboration focused on aligning different perspectives on just how to do that. After facilitation and deliberation, the Working Group agreed that aligning patient knowledge with the evidence would be the first critical step, followed by an exploration of ways to promote the use of high-value services for treating low-risk prostate cancer, potentially through a shift in provider reimbursement.

Each year, over 200,000 men are diagnosed with prostate cancer, the vast majority with low-risk prostate cancer (Wilson). ICER’s comparative effectiveness appraisals of prostate cancer treatments compared the clinical effectiveness and value of active surveillance, radical prostatectomy, and two forms of radiation therapy: intensity modulated radiation therapy (IMRT) and implanted radioactive seeds (brachytherapy). Using an innovative rating methodology developed to support the inclusion of CER in medical policy, the findings of the assessment concluded that for patients with low-risk, localized disease, the clinical effectiveness of these treatment alternatives is comparable (Ollendorf). In spite of the comparable clinical effectiveness of these treatment alternatives, stark differences exist in the level of reimbursement providers receive for each service. For example, even though each radiation therapy is provided by the same clinician and has a similar side effect profile, Medicare reimburses IMRT at over twice the level of brachytherapy ($20,000 versus $10,000 respectively) (Ollendorf).

Building from ICER’s research on prostate cancer, ICER directed the development of a collaboratively designed patient decision support website that the provider groups in EACH use as a common, community standard for patient education. The patient website served as a critical first step in the project, as it aligned the perspectives of payers and clinicians regarding the evidence for different treatment options, forming a foundation for moving toward payment change. As the project progressed, attention turned to how to leverage the opportunity
presented in the wide variation in provider reimbursement for treatments for localized prostate cancer that offer no significant clinical advantages over other effective alternatives. As a result, the focus of the Working Group shifted to how to incentivize the provider community to use higher value options. The Working Group discussed several options – such as differential co-payments for patients, prior authorization for some services, and provider reimbursement changes – ultimately agreeing to explore provider payment changes that would reduce payment disparities and come closer to the goal of paying equally for treatments that achieve equivalent patient outcomes.

Implementation: To explore the provider reimbursement approach, the payers and providers in the Working Group built consensus around a set of guiding principles for the work (see Appendix A). This step was critical, as it established a common framework from which all of the future efforts emanated. It allowed both the payers and the providers the opportunity to commit to a shared set of goals. Next, the group explored how payment could be changed to lower the provider reimbursement for IMRT, perhaps to the level of brachytherapy, while keeping the reimbursement for brachytherapy flat. (Note: there was some discussion of also raising brachytherapy’s reimbursement, but the primary focus on many members of the Working Group was to reduce costs, so lowering IMRT’s reimbursement became the main objective.)

Before adjustments to provider reimbursements for IMRT could be made, the group needed to understand the operational changes involved in implementing a payment change. This process uncovered the first hurdle: in the standard billing codes that are submitted for reimbursement, there is no way to tell if a patient has low-risk prostate cancer. Because the CER on which the project was based explored only low-risk disease (as opposed to intermediate- or high-risk), the only patients for which a lower reimbursement would be warranted are those with clinically-localized prostate cancer. This led the team to uncover a way to identify low-risk patients in the billing record: CPT Category II codes. These Category II codes, designed as performance measurement codes, allow clinicians to designate risk of recurrence as low, intermediate, high or undetermined (see Appendix B for complete description). However, streamlining how these codes were used presented the next hurdle: educating clinicians about the codes. Because the Category II codes are designed for use in performance measurement, they are not as common or familiar to most clinicians. To educate physicians and administration staff to their use, members of the Working Group worked in their individual hospital systems to communicate the initiative and the new codes in meetings, emails and newsletters.

In parallel to disseminating information to those physicians treating low-risk prostate cancer patients, the members of the Working Group modified billing sheets and electronic billing systems to include the Category II codes. Most standard billing systems did not include the codes, so billings sheets were re-printed and electronic medical records systems were updated to have the specific codes listed. While the provider members of the Working Group attempted to drive change at the hospitals, the payers began configuring their systems to capture the Category II codes and link payments to prostate cancer recurrence risk. All of the payers were able to capture the Category II codes in their systems, but only one payer’s system would allow a linkage between the code and payment. This limitation was a surprise to all the payer representatives, as their systems are configured to link Category I codes to certain payment levels. Initially, the one payer with the ability to link payment to the Category II code was poised to proceed with making the Category II code required, rejecting all claims without the code, and lowering reimbursement for IMRT for low-risk patients. However, as time passed, during a “run-in” period where no claims were rejected that did not have the code, the use of Category II codes
did not increase significantly (less than 4% of claims with a prostate cancer diagnosis contained the code five months after launch). In addition, providers expressed concern that their efforts to communicate the coding requirement to physicians and billing staff were challenging and unsuccessful. Given both these factors, the project concluded and the coalition failed to implement any provider reimbursement changes.
Evaluation

Facilitators: Several themes emerged through the interviews concerning the aspects of the project that were deemed critical for implementation, especially surrounding goals, principles and process. Stakeholders expressed universal support for the importance of having ICER’s independently-produced, detailed evidence reviews as the basis for the project. One interviewee commented, “Evidence reviews are crucial... they can be the impetus to have conversations with providers.” In addition, many saw the creation and launch of an aligned patient decision aid as helpful to the overall goals of the project. One interviewee commented that the process of developing the decision aid “kept everyone together in a patient-centered way, which was very important and useful.” However some expressed that, in retrospect, the development of the website ultimately distracted from the primary goal of implementing a payment change.

There was also overall agreement from the Working Group that the process of establishing guiding principles for the project was helpful and necessary. However, we never achieved full commitment from all the stakeholders on the principles, as many members defaulted to pre-existing payer-provider dynamics when attempting to reach consensus on the principles. Without wide employer engagement, that tension persisted, and the group was unable to agree on the overall goal of the effort – shared savings or overall savings to the system.

As one may expect, the main approach of paying equally for equal outcomes resonated with the payers interviewed. Of the stakeholders interviewed, many expressed different perspectives on how to incentivize the use of evidence in medical practice. Payers believed providers need a real “threat” in order to use evidence, while providers expressed a preference for using evidence to help set quality improvement priorities, then allowing each organization the flexibility to implement that evidence in a manner consistent with its organizational priorities and goals.

Lessons- The key facilitators for this project are important to note for policymakers considering payment change programs. For example, having an independent, detailed evidence review on which to base the payment change project is critical. In addition, establishing shared principles and the theory of change upfront is essential to coalition cohesion. And finally, policymakers must decide how to balance how different stakeholders see the role of financial incentives in making change.

Barriers: Several barriers to implementing the provider reimbursement change were elucidated during the interviews. These themes proved to be the most illustrative of the challenges we faced in our efforts to change payment. The themes fell into three categories: 1) failure of commitment (misalignment in the scope of the project; lack of employer engagement; and no clear business case); 2) failure of systems (billing infrastructure limitations); and 3) failure of environment (broader shift in reimbursement policy away from fee-for-service toward global payments). Below we provide more detail on these themes from the interviews, with commentary on the lessons for policymakers.

Challenge - Some of the project’s failure could be attributed to not making a clear business case at the outset for why the provider reimbursement changes were necessary, according to several interviewees. By business case, respondents referred to having data on the current financial impact of the different treatment options, the
impact the potential changes could have, and the overall operational goal of making the change. In the case of this project, even though providers acknowledged that the small financial impact of prostate cancer in the commercially-insured population made the change more feasible, some expressed worry about losing revenue and would have preferred to have had a firmer understanding of current practice patterns through existing data, in order to be able to better estimate the financial impact of the payment change before its implementation. One interviewee noted, “We did not know how much a payment change would impact [us]... and it was not clear if all this effort was even going to save anyone any money.” While another interviewee added, “Choosing an area with small dollars ended up being a disadvantage – not enough financial incentive to motivate change.”

Relatedly, providers are more familiar with having their individual practice patterns analyzed as the basis of quality improvement efforts – however, this project did not focus on individual practice patterns, but on wider community changes, causing further challenges to implementation. In addition, providers felt that focusing on one fee-for-service reimbursement change did not address the wider issue of cross-subsidization of certain hospital services. One interviewee noted,

**Lessons** - When choosing a topic on which to focus payment reform efforts, policymakers must navigate the tension between tackling a problem with a small financial impact to serve as a proof-of-concept with addressing a larger cost issue with the opportunity to greatly improve value across the system. Both approaches to change have merit, and our project, which focused on a condition with a small financial impact, illustrated the challenges of that approach. For those involved in the coalition, initially the small financial impact was considered a net positive for doing the work. Providers would not “lose” much revenue and payers would learn the operational and contractual pathways for implementing a provider payment change. However, the positives of this approach – small dollars – can also be used to justify decreased effort by coalition members. In our project, the small potential savings became a reason for payers and providers alike to shift their quality improvement efforts to other topics. Policymakers should consider the potential financial impact – and business case – for the payment change clearly and transparently at the outset, so that all members of the coalition agree to the concept up front. Continually revisiting the over-arching goal, no matter the potential savings, will reinforce the strategy and should produce more ownership and accountability from all stakeholders. Evidence, in itself, will not prompt stakeholder groups to pay equally for equal outcomes.

**Challenge** - The project implementation process described above relied on the involvement of personnel focused on quality improvement initiatives at provider and payer organizations; personnel who often have several internal projects they are directing. One interviewee noted, “How you choose a topic, and how we choose if we participate, is important. The content area is important, and might be useful to look at everyone’s activities in upcoming areas, and made sure the initiative aligned with other projects that people already have planned.” Many of those interviewed also noted that having clinical leaders from the specialties that would be directly impacted by the reimbursement change (in this case radiation oncology) involved in the planning stages may have helped project implementation.

**Lessons** - When engaging with payer and provider groups, the limited capacity of an organization’s quality improvement leaders may hinder involvement in community-wide efforts because internal priorities will take precedence. Understanding an organization’s internal quality improvement priorities
will help policymakers set the agenda for a payment change initiative such as this. In addition, garnering buy-in from an institution’s clinical leaders could help ensure downstream acceptance of change.

**Challenge** - Both payers and providers noted that the infrastructure changes required to modify reimbursement, such as the incorporation of new CPT codes in billing as described above, were not always known ahead of time, especially by the quality improvement leaders. Only one payer was ultimately able to make the new CPT codes required to implement the reimbursement change. And with only one payer committed to making the payment change, the political will of the coalition waned. Specifically, that payer feared the political backlash of being the only commercial insurer to deny claims – a necessary step in linking the new code to the payment change.

*Lesson* - Policymakers should consider adding personnel with operations expertise to the coalition. The disconnect between a promising idea and how that idea can be implemented with existing systems can hinder progress; those with knowledge of the operational limitations of different payment and billing systems can aid efforts to shift payment.

**Challenge** - Several of those interviewed for this evaluation noted that greater employer engagement, and perhaps pressure, was needed to help foster consensus and motivate real change, but also noted that many employers are not always trained on how to be effective in these types of initiatives. One interviewee noted, “Employers – if they want to – can put a lot of pressure on insurers to adopt payment practices that are based on comparative effectiveness research.”

*Lessons* - When building a coalition to tackle this type of initiative, policymakers should include employer and purchaser groups who bear the ultimate burden of paying health insurance premiums, as their presence may encourage the payers and providers to stay focused on the ultimate goal – saving money. While the broader EACH coalition did include employer and business leaders, the Working Group for our project consisted of mainly payers and providers.

**Challenge** - Finally, several of those interviewed mentioned the changing landscape for provider payment, as policymakers in Massachusetts shifted their focus to global payments. This shift away from traditional reimbursement arrangements may have negatively impacted our efforts to do a fee-for-service provider reimbursement change.

*Lessons* - Care should be taken to align payment reform efforts with existing priorities both in payer and provider organizations and in the community at large. Over the course of this initiative, the wider policy context of Massachusetts shifted with more and more organizations experimenting with global payments and new organization structures, such as accountable care organizations and medical homes. This change in policy landscape made the potential replicability of a fee-for-service payment change less relevant.
Conclusions

This payment change effort, based on using comprehensive comparative effectiveness evidence, yielded many important lessons about the best practices for using CER to improve value in the healthcare system. When considering how to use CER in payment reform efforts, this project highlighted a key inflection point in the broader policy landscape: is it still worth targeting existing services already part of common medical practice, or is the future of payment reform efforts focused on how best to use CER in accountable care organizations and global budgets. As policymakers wrestle with this tension, this payment reform project has demonstrated a important and critical role for detailed evidence reviews that can support multi-stakeholder dialogues about “value.” Despite the failure of this project to enact a provider reimbursement change, the participants’ perspectives on how the process unfolded have produced helpful lessons for policymakers considering a payment change based on comparative effectiveness research.
References


Appendix A: EACH CER Guiding Principles

The Comparative Effectiveness Working Group of EACH ascribes the following guiding principles to our efforts to improve the quality and value of care through the implementation of comparative effectiveness information:

1. Sustainable health system innovation requires aligned efforts by patients, providers, employers, and payers to make better use of comparative effectiveness information.

2. Comparative effectiveness information should be used to help identify the best care for individual patients while shifting community care patterns toward those options that produce higher value.

3. One of the primary methods of implementing comparative effectiveness research should be the design of patient-decision aids that can empower patients to make more informed medical decisions in consultation with their clinicians.

4. Comparative effectiveness information should be framed to support providers in global payment structures in making the best use of available resources.

5. For providers outside of global contracts, payers should use comparative effectiveness evidence to structure payments in a way that achieves the following goals:
   a. To encourage the use of comparative effectiveness information in decision-making by patients and clinicians
   b. To encourage the development of more robust evidence on the comparative effectiveness and value of new interventions as they are introduced into care
   c. To avoid the creation of perverse incentives in the initial payment rates for new tests and treatments by not paying more for new interventions until adequate evidence exists to demonstrate improved patient outcomes or health system efficiency
   d. To reduce incentives for over-utilization of established test and treatment options when they are more expensive than equally effective alternative options
   e. To reward providers for innovations that lead to higher quality and value
   f. To produce overall savings for the health care community that will lower the costs of insurance coverage borne by purchasers and patients

6. Patients should also have financial incentives to reward them for making the best use of comparative effectiveness information. Financial incentives for patients, however, should not be used as a mechanism to shift costs but should be structured to encourage more educated patient choice in conjunction with shared decision-making tools.
Appendix B: CPT Category II Codes

- **CPT Category II Code 3271F**: Low risk of recurrence, prostate cancer
- **CPT Category II Code 3272F**: Intermediate risk of recurrence, prostate cancer
- **CPT Category II Code 3273F**: High risk of recurrence, prostate cancer
- **CPT Category II Code 3274F**: Prostate cancer risk of recurrence not determined or neither low, intermediate nor high

**Recurrence risk guidelines:**

Low risk: PSA ≤10mg/dL and Gleason score 6 or less and clinical stage T1c or T2a

Intermediate risk: PSA >10 to 20mg/dL or Gleason score 7 or clinical stage T2b, and not qualifying as high risk

High risk: PSA >20mg/dL or Gleason score 8 to 10 or clinically localized stage T3a1