

# Health Care Decision Makers' Use of Comparative Effectiveness Research: Report from a Series of Focus Groups

Lorenzo Villa, PharmD; Terri L. Warholak, PhD, RPh; Lisa E. Hines, PharmD; Ann M. Taylor, MPH, MCHES; Mary Brown, PhD; Jason Hurwitz, PhD; Diana Brixner, PhD, RPh; and Daniel C. Malone, PhD, RPh

## ABSTRACT

**BACKGROUND:** Comparative effectiveness research (CER) is a helpful approach to improve health outcomes by developing and disseminating evidence-based information to patients, clinicians, and other decision makers about the most effective interventions.

**OBJECTIVES:** To (a) identify the factors necessary to increase the use of the Agency for Healthcare Research and Quality's (AHRQ) CER reviews in hospitals and managed care organizations; (b) assess current awareness and implementation of CER materials in these facilities and organizations; and (c) inform development of content for a workshop on CER.

**METHODS:** Pharmacy and therapeutics (P&T) committee members and supportive personnel were recruited to participate in focus groups conducted at national health professional meetings. Prior to the sessions, each participant completed a prefocus group questionnaire evaluating the organization and process of the respondent's P&T committee, as well as the respondent's role in the P&T committee and awareness of AHRQ CER reports. Each session consisted of a focused discussion about CER and sources of evidence for P&T monographs, and each participant completed a ballot to rank topics of importance for inclusion in a CER workshop for health care professionals involved in the P&T process. Overarching themes were later identified using qualitative analysis of the transcripts of the focus group sessions.

**RESULTS:** Thirty-nine (68%) pharmacists and 18 (32%) physicians involved in the P&T process participated in 1 of 7 focus groups. Almost half of the participants had 6-15 years experience with the P&T process. Participants represented health plans, hospitals, and health care systems. Two-thirds indicated they were aware of AHRQ's Effective Health Care Program's CER reviews, yet only 26% reported using the reviews in their organizations. The overarching themes reflected the need for timely and conclusive CER information; the role of the pharmacist as central to evidence synthesis for the P&T process; and the need for educational programs in online formats that are designed primarily for pharmacists.

**CONCLUSION:** Health care decision makers identified timeliness as a key factor for facilitating the use of AHRQ CER reviews and guides in hospitals and managed care organizations. To facilitate integration of CER into the decision-making process, it is imperative that key stakeholders have access to comprehensive and timely information. While the majority of participants indicated that they were aware of AHRQ CER reviews, few had used them in the P&T process.

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## What is already known about this subject

- Comparative effectiveness research (CER) is a systematic research method that compares new technology with established therapies. The purpose of CER is to assist consumers, clinicians, and policymakers to make informed decisions to improve health care at individual and population levels.
- CER requires the development and use of a variety of data sources and methods to conduct relevant research.

## What this study adds

- Participants suggested they were aware of CER reviews; however, few had used materials from the Effective Health Care Program (EHC) as part of the pharmacy and therapeutics committee process.
- A major obstacle for integration of EHC materials (and CER reviews) was the timeliness of the EHC products.
- It is imperative that key stakeholders have access to up-to-date information and effective continuing education programs on the topic of CER.

The purpose of comparative effectiveness research (CER) is to improve health outcomes by developing and disseminating evidence-based information to patients, clinicians, and other decision makers about the most effective interventions.<sup>1,2</sup> Improved quality, lower costs, and improved patient outcomes are some of the many perceived benefits of CER.<sup>3</sup> CER has the potential to aid all types of organizations that have a pharmacy and therapeutics (P&T) committee.<sup>4,5</sup> P&T committees oversee the use of pharmaceuticals and other health care products and services for millions of Americans who have pharmacy and medical benefits or are treated within acute care institutions. P&T committees are responsible for ensuring that safe and effective medications and treatments are available for selection and use.<sup>6</sup> Even though the U.S. Food and Drug Administration approves a drug as safe and efficacious for a given indication, this is insufficient information for health care decision makers because regulatory approval does not consider whether the drug is safer or more effective than other marketed agents, or whether it is appropriate for off-label uses.<sup>7-9</sup> CER, therefore, plays a vital role in assessing comparative safety and effectiveness of medical interventions to improve patient outcomes.<sup>4</sup>

Under the Effective Health Care Program (EHC), the Agency for Healthcare Research and Quality (AHRQ) sponsors the development and synthesis of clinical evidence for medical interventions including medications, services, devices, and procedures. The resulting CER reviews are available online (see <http://effectivehealthcare.ahrq.gov>) to assist patients, health care providers, and policymakers in making informed decisions. The primary intended beneficiaries of the EHC's CER reviews and guides are health care decision makers, such as P&T committees.<sup>10</sup> Despite the availability of these resources and their potential value to improve health care quality, little information exists regarding the use of these CER documents and their influence on clinical decision making. It is important to note that there are limitations to the ability of the EHC's CER reviews to meet the safety and efficacy needs of P&T committees and health care decision makers. These reports are not intended to replace the randomized controlled trial as a gold standard; rather, they are meant to augment the information from clinical trials with information on how these medications will react in practice-based settings (i.e., effectiveness).

This investigation was part of an AHRQ-funded grant to increase P&T committees' knowledge of CER methods and increase use of EHC's CER publications and reviews. The objectives of this study were to (a) identify factors necessary for increasing the use of AHRQ CER reviews within hospitals and managed care organizations; (b) assess current awareness and implementation of CER materials in these organizations and facilities; and (c) inform development of content for CER workshop materials.

### Methods

#### Study Characteristics

This study utilized a qualitative design involving a prefocus group questionnaire evaluating the organization and process of each participant's P&T committee and his or her awareness of AHRQ CER reports; a moderated focus group discussion to identify key factors for increasing the use of CER reviews and developing future CER educational programs; and a postfocus group ballot for ranking topics of importance for inclusion in a CER workshop for health care professionals involved in the P&T process. Qualitative analysis of the focus group transcripts was later conducted to identify overarching themes. The University of Arizona Institutional Review Board approved the study.

#### Target Population

Individuals were recruited to participate in focus group discussions, which were held at several national health care-related conferences. Participants were recruited from the Academy of Managed Care Pharmacy (AMCP), the American Society of Health-System Pharmacists (ASHP), the Indian Health Service

(IHS), and a TPG National Payor Roundtable (an invitational meeting of medical and pharmacy directors). AMCP and ASHP memberships include approximately 5,700 and 35,000 pharmacists, respectively, while the IHS and National Payor Roundtable have considerably fewer constituents. The invitation to participate was sent by the partnering organizations, not by the researchers. Members of the respective organizations were invited to participate in the focus groups via e-mail invitations. Participants were asked to self-select based on their participation or support of P&T committees within their activities.

To participate, individuals met the following eligibility criteria: (a) have served on or supported a P&T committee within a hospital, health plan, or other health care delivery system; (b) have completed more than 2 years of experience with a P&T committee; (c) have a clinical background (pharmacist, physician); (d) are between the ages of 25 and 70 years old; and (e) have committed to spending at least 2 hours in a focus group discussion during a national meeting. Individuals were excluded if they were (a) employed by a pharmaceutical company or (b) had not participated in a P&T committee as a member or support staff within the past 12 months. Participants received \$200 for their time if permitted by their respective organizations.

#### Focus Group Procedures

A series of focus group sessions was conducted in 4 different venues during 2010 and 2011, using procedures adapted from the Nominal Group Technique,<sup>11,12</sup> including independent silent idea generation, to increase balanced participation, improve efficiency, and limit response bias. The team conducted 3 face-to-face focus group sessions in conjunction with the 2010 AMCP, ASHP, and TPG National Payor Roundtable fall meetings. During each session, 2-3 focus groups were conducted simultaneously. In spring 2011, a teleconferenced focus group was conducted with the IHS national P&T committee members, during their semiannual meeting.

Each 90-minute focus group session comprised 10-15 participants. At the beginning of each session, participants provided informed consent and signed a confidentiality statement to protect individual identities and comments shared during the session. The focus group session included these components: (a) a brief questionnaire on CER; (b) a formal moderated discussion to identify how CER reviews are being used and how they could be used in the P & T process and to identify knowledge gaps that need to be addressed to ensure optimal use; and (c) a ballot for ranking topics to address in a CER training program. Trained facilitators led the focus group and a noninvestigator team member served as the note taker. Sessions were audio recorded to enable future verification of information and were transcribed for further analysis.

**FIGURE 1** Focus Group Discussion Questions

1. Please describe the process within your organization for assembling the evidence for creating pharmacy and therapeutics (P&T) drug class reviews, patient or provider educational programs, clinical programs (i.e., drug use guidelines).
2. Who assembles the P&T materials? Who writes the monograph/therapeutic class reviews? Anyone else involved?
3. Do you use an outside vendor for P&T monographs/therapeutic class reviews? If yes, how often or what proportion?
4. What resources (e.g., drug information, medical information) are available to construct monographs/therapeutic class reviews?
  - a. Cochrane Review?
5. Do you have a drug information service to support your P&T committee?
6. How are materials for review presented to the P&T committee members prior to decision making?
7. What information is shared with committee members?
8. How detailed are the materials that committee members see?
9. Prior to signing up for this focus group, were you aware of the Agency for Healthcare Research and Quality comparative effectiveness research reviews?

Participants were asked to take a minute or two to familiarize themselves with the comparative effectiveness research (CER) report distributed and to refer to it during the remaining discussion.

1. Does this report provide any useful information that would assist the P&T process? Why/why not? How would it fit into the development of P&T materials and the discussion at the P&T meeting?
  - a. Are you aware of the website and the availability of the reports?
2. What skills do you believe would enhance the ability of those in your organization to understand and use information contained in this report?
3. What skills do you feel your organization lacks to effectively use CER reviews?
  - a. Grading systems for levels of evidence?
  - b. Meta analysis?
4. What would be the most effective way to increase use of this type of report by P&T committees?
5. Would you or other members of your organization be interested in attending a training session on the use of CER reports at a future conference? Why/why not?
  - a. Debriefing on purpose of the grant, etc.
  - b. What can we do to improve dissemination?

### **Prefocus Group Questionnaire**

The questionnaire included 18 items pertaining to each respondent's (a) organization and its P&T process; (b) role in the P&T process; and (c) awareness and use of the AHRQ EHC Program's CER reports. The questionnaire was administered prior to discussion in order to obtain individual baseline responses that were not influenced by others' comments. One of the questionnaire items included a list of 18 resources that could be used for preparing P&T materials, with space to write in additional resources. Participants were asked to rank the 5 most important of these resources. To calculate overall rankings, the most important resource (ranked first) was given a weight of 5 and the least important (ranked fifth) was given a weight of 1.

### **Focus Group Discussion**

Participants were asked to respond to 2 sets of questions during the focus group discussion—the first set related to their organizations' processes and resources used for assembling evidence, while the second set concerned using CER reports in the P&T process. Specifically, the items on evidence gathering

included the following: organizational assembly process; individuals involved in assembly and preparation of monographs/therapeutic class reviews; use of (and roles of) outside vendors; resources used in assembling monographs/therapeutic class reviews; use of drug information services to support the P&T committee; presentation of materials for P&T review and decision making; types and extent of information shared with committee members; and awareness (prior to focus group) of CER reviews. The questions pertaining to CER reports included (a) usefulness of report content to P&T process, such as in development of P&T materials and in discussion at P&T meeting; (b) skills necessary for understanding and using information in CER reports; (c) skills lacking among organizations' members to use CER reports; (d) most effective ways to increase use of this type of report by P&T committees; and (e) interest in attending future training sessions on the use of CER reports (Figure 1).

### **Ballot of Topics to Address in a CER Training Program**

To prioritize perceived educational needs at the end of the session, participants were asked to rank the top 5 topics (from a

**FIGURE 2** Focus Group Ballot of Topics to Address in a CER Training Program

Please check the top 5 topics to include in a comparative effectiveness research (CER) training program with 1 being the topic you view as the most essential.

- \_\_\_\_\_ Definition of CER
- \_\_\_\_\_ Role of CER in decision-making processes
- \_\_\_\_\_ Description of the Effective Health Care Program (i.e., process for topic selection, evidence synthesis, and report generation)
- \_\_\_\_\_ Threats to internal and external study validity in CER (e.g., selection bias, generalizability).
- \_\_\_\_\_ Overview of CER methods
- \_\_\_\_\_ Study designs for CER (e.g., randomized controlled trials, quasi-experimental designs, epidemiological studies)
- \_\_\_\_\_ Evidence synthesis approaches for CER (e.g., traditional reviews, meta-analysis)
- \_\_\_\_\_ Evaluating the quality and usefulness of clinical information sources and evidence for CER (e.g., study sponsor, study design, outcome measures)
- \_\_\_\_\_ Application of CER in the pharmacy and therapeutics (P&T) committee
- \_\_\_\_\_ Reviews of existing CER guides
- \_\_\_\_\_ Identification of approaches to increase awareness and adoption of CER reports
- \_\_\_\_\_ Methods for disseminating CER guides to clinicians and patients
- \_\_\_\_\_ Technical issues (e.g., where to find CER reports)
- \_\_\_\_\_ Description of approach to identify topic areas
- \_\_\_\_\_ Other (Please specify) \_\_\_\_\_
- \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

list of 14) to include in a future CER training program; additionally, participants could write in other topics of interest. A score of 1 indicated the most essential topic for inclusion (Figure 2).

### Analysis

Notes taken by a nonfacilitator investigator during focused discussion were validated with audio recordings for accuracy and de-identified and categorized using a common data dictionary. Specific qualitative data classification techniques included descriptive coding, topic coding, analytical coding, and postcoding. Descriptive coding was used for demographic characteristics. Topic coding occurred in 2 phases: a general categorization followed by a recording to incorporate specific categories (themes), thus allowing for the larger meaning and ramification of responses. Analytical coding was used to interpret responses. Postcoding was used to compile data into counts where applicable. Descriptive statistics were used to summarize the sample characteristics and compare attributes of participants. Recoding and consistency checking were performed for quality control. PASW Statistic 18 (SPSS, Chicago, IL) was used to calculate descriptive demographic statistics and frequencies of categories on themes.

## Results

### Prefocus Group Questionnaire

Between October 2010 and March 2011, a total of 57 health care professionals—39 (68%) pharmacists and 18 (32%) physi-

cians—participated in seven 90-minute focus groups. Almost half of the participants reported considerable experience (6-15 years) with the P&T process (Table 1). The 57 participants represented 53 public, private for-profit, and private non-profit health care organizations throughout the United States. When participants were asked about AHRQ's EHC Program website, 51% (29/57) indicated they had seen the site, and 28% (16/57) indicated they had used material from the site. When asked if they were aware of AHRQ's CER reviews, 58% (33/57) responded affirmatively, but only 26% (15/57) had used these reviews in their organizations for the P&T process or for health provider or patient education. Thirty-seven focus group participants ranked the importance of resources used in preparing P&T materials at their institutions (Figure 3). Of the 18 important information sources identified, clinical trials and clinical practice guidelines scored highest in importance overall, followed by cost-effectiveness and related economic analyses, CER, and Cochrane Reviews. Although included among important resources, AHRQ EHC reviews were ranked lowest.

### Themes Identified in Focus Group Discussions

Several themes were identified during the focus groups and are described in detail in Table 2.

**Theme 1: Focus group members had varying familiarity with the AHRQ EHC Program website and reviews.** While the majority of participants had heard of AHRQ's CER reviews,

**TABLE 1** Demographic Characteristics of Focus Group Participants, N=57<sup>a</sup>

	Number (%)		Number (%)
Geographical region of participant		Most relevant general resources used by participant to develop P&T monographs	
Midwest	21 (37)	Clinical trials	47 (82)
West	17 (30)	Clinical practice guidelines	46 (81)
Northwest	15 (26)	Cost-effectiveness and related economic analyses	39 (68)
Southwest	4 (7)	Review articles	39 (68)
National meeting associated with participant's focus groups		Meta-analysis	38 (67)
American Society of Health-System Pharmacists (ASHP)	17 (32)	Expert opinion or testimony	33 (58)
Academy of Managed Care Pharmacy (AMCP)	13 (25)	Product labeling and tertiary references	32 (56)
National Managed Care Roundtable	13 (25)	Most relevant manufacturer resources used by participant to develop P&T monographs	
Indian Health Service (IHS)	10 (19)	Product monograph (prepared by manufacturer)	25 (44)
Type of organization in which participant is involved in pharmacy and therapeutics committee (P&T) process		AMCP format for formulary submissions	19 (33)
Managed care organization	21 (29)	Most relevant U.S. government resources used by participant to develop P&T monographs	
Hospital	20 (18)	CDC guidelines	35 (61)
Health maintenance organization/health plan	11 (15)	FDA letters, reviews, and related documents	33 (58)
Other	9 (12)	FDA advisory committee transcript	22 (39)
Medical clinic	7 (10)	Has participant seen the AHRQ effective health care program website?	
Pharmacy benefit manager	4 (6)	Yes	29 (51)
Ownership status of participant's organization		No	22 (39)
Private, not-for-profit	23 (43)	If the participant has seen the website, is he/she using it?	
Public	13 (25)	Yes	16 (28)
Private, for profit	9 (17)	No	13 (23)
Other	8 (15)	Prior to focus group, was participant aware of AHRQ CER reviews?	
Participant's profession		Yes	33 (58)
Pharmacist	36 (68)	No	18 (32)
Physician	17 (32)	If yes, had he/she used CER reviews in his/her organization?	
Years participating in P&T process		Yes	15 (26)
6-15	24 (46)	No	15 (26)
1-5	15 (29)	If yes, how did he/she use CER reports?	
> 15	13 (25)	As source of evidence for drug monographs	9 (15)
Participant's current role in P&T process		As formulary placement	9 (15)
Member	29 (55)	To educate physicians	8 (14)
Other	9 (17)	To educate patients	7 (12)
Clinical specialist/writer	8 (15)		
Chair	7 (13)		

<sup>a</sup>Percentages for each question do not necessarily add up to 100% due to missing data or respondents selecting more than 1 response.

AHRQ=Agency for Healthcare Research and Quality; CDC=Centers for Disease Control and Prevention; CER=comparative effectiveness research; FDA=U.S. Food and Drug Administration.

only 26% had personally used an evidence review to prepare materials, such as drug monographs or therapeutic class reviews for the P&T committee process.

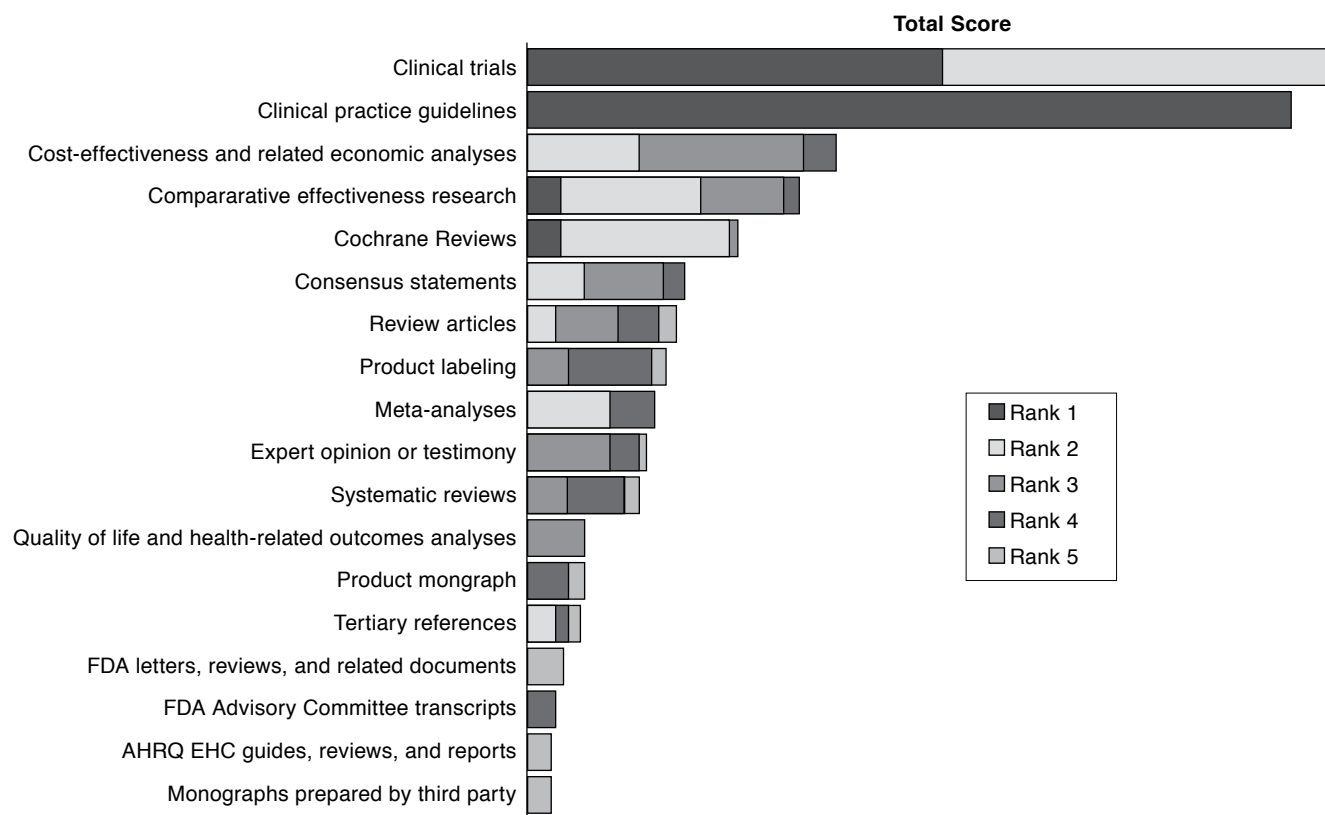
**Theme 2: AHRQ's CER reviews are perceived as untimely.** When asked about their impressions of AHRQ CER reviews, participants expressed a universal concern regarding the timeliness of the information. Participants stated that P&T committees most frequently review new products and felt that CER reviews would be more useful for therapeutic class reviews, not for specific technology evaluation.

**Theme 3: AHRQ's CER review findings are perceived to be largely inconclusive.** Some participants stated that reviews

should have more decisive conclusions because sufficient supporting evidence is expected for P&T committee decisions. To a large degree, this is expected because AHRQ specifically states that reviews will not contain specific recommendations. Nevertheless, participants felt that the CER reviews could serve as an additional information source for support staff to consider when preparing evidence summaries and recommendations for P&T committees.

**Theme 4: Pharmacists are typically responsible for preparing evidence summaries for P&T committees.** According to focus group participants, pharmacists are typically assigned the task of synthesizing the evidence for P&T committee review. In some cases, larger medical centers, academic

**FIGURE 3** Most Important Resources for Preparing P&T Materials



AHRQ=Agency for Healthcare Research and Quality; EHC=Effective Health Care Program; FDA=U.S. Food and Drug Administration; P&T=pharmacy and therapeutics.

institutions, outside vendors, and pharmaceutical companies are consulted during the information-gathering process, typically as a way to save time and resources.

**Theme 5: CER training should focus on pharmacists and should be offered online.** Participants felt that CER educational interventions should be designed principally for pharmacists preparing the evidence summaries; however, they felt that physicians and other P&T members could also benefit. Some participants stated that incorporating CER into pharmacy student education would benefit new graduates that, in turn, could teach other practicing health care professionals. Participants viewed statistics as a necessary component of CER education and indicated that training to evaluate hierarchies of evidence was the most important skill necessary to effectively use CER reviews in the P&T process.

Almost every focus group reached the consensus that online training modules are the best method for delivering CER education. While participants expressed personal interest in attending a live CER educational program, they felt online

modules that allowed completion over an extended period of time were optimal for physicians and other P&T committee members limited by time constraints. In contrast, the IHS focus group participants indicated a clear preference for live educational programs.

**Education Needs Identified in Ballot of Topics to Address in a CER Training Program**

Fifty-six focus group participants ranked topics for inclusion in a live CER educational program. Figure 4 shows total scores and assigned ranks for 13 selected topics. The 5 top-ranked topics were as follows: (a) evaluating the quality and usefulness of CER evidence and sources; (b) the role of CER in decision-making processes; (c) evidence synthesis approaches for CER; (d) application of CER in the P&T committee; and (e) definition of CER. The topics ranked first most often were definition of CER (n=13) and evaluating the quality and usefulness of CER evidence and sources (n=9).

**TABLE 2** Focus Group Themes

Theme	Comments
1. Focus group members had varying familiarity with the AHRQ EHC Program website and reviews	<p>Many participants had heard of AHRQ's CER reviews, although few had read one, and none had directly used one when preparing materials for P&amp;T committees.</p> <p>Relevant focus group comments:</p> <p><i>"Yes, I have heard about [them], but I sort of haven't really looked at them."</i></p> <p><i>"I think it is a website that not a lot of people are aware of [...] once you get there, and you start digging, now you are a frequent visitor. I don't know whether it is their marketing strategy, but it is very low key and not enough people know about it."</i></p>
2. AHRQ's CER reviews are perceived as untimely	<p>Participants felt that CER reviews provide limited utility to P&amp;T committees based mainly on the datedness of the information.</p> <p>P&amp;T committees most frequently review new products, and CER reviews would be more useful for reviewing therapeutic classes of drugs rather than new products.</p> <p>Relevant focus group comments:</p> <p><i>"This information takes a long time to compile, and it looks retrospectively at a drug class, whereas most of our P&amp;T activity is really driven off of new market products versus looking retrospectively at a therapeutic class."</i></p>
3. AHRQ's CER review findings are perceived to be largely inconclusive	<p>CER reviews need to include more decisive conclusions because P&amp;T committees need more definitive evidence to support their recommendations.</p> <p>Although the CER reviews were perceived to be inconclusive, participants felt that they could serve as an additional source of information to consider when preparing evidence summaries and recommendations for P&amp;T committees.</p>
4. Pharmacists are typically responsible for preparing evidence summaries for P&T committees	<p>Pharmacists are typically appointed the task of summarizing evidence and preparing materials such as drug monographs or therapeutic class reviews for P&amp;T committees.</p> <p>Organizations with limited resources may consult outside sources such as larger medical centers, academic institutions, outside vendors, or pharmaceutical companies during the information-gathering process.</p> <p>Relevant focus group comments:</p> <p><i>"A majority of the data come from our clinical pharmacist who does a lot of the data collection and comparison for us, which is very nonbiased [...] so we don't have to do all the research."</i></p> <p><i>"Although we use information from other institutions, our pharmacy department will review it and extract it and will put together a final monograph."</i></p>
5. CER training should focus on pharmacists and should be offered online	<p>Participants expressed personal interest in attending or completing a CER training program.</p> <p>Educational interventions should primarily target pharmacists who review and summarize the evidence for P&amp;T committees; however, P&amp;T committee members would also benefit.</p> <p>P&amp;T committees could incorporate CER education in short sessions as part of their meetings.</p> <p>CER methods and assessment should be part of evidence-based medicine curricula.</p> <p>Educational programs should include instruction on where to locate credible CER reports (e.g., EHC Program, Cochrane Library) and related products, and how to best use them.</p> <p>Education on statistics and assessing levels of evidence are most important for CER training.</p> <p>A preference for online training modules, especially multiple shorter (e.g., 30 minute) modules, was expressed as the best method of delivery.</p> <p>The only focus group that displayed a clear preference for live training was the Indian Health Service.</p> <p>Relevant focus group quotes:</p> <p><i>"Sometimes it is hard because you're traveling all the time, and you do not have time, but when you have a web base and you can come on whatever time, it is easier to get things done without worrying about it."</i></p> <p><i>"Modules that you could take at different times, you just log on when you want to do them."</i></p>

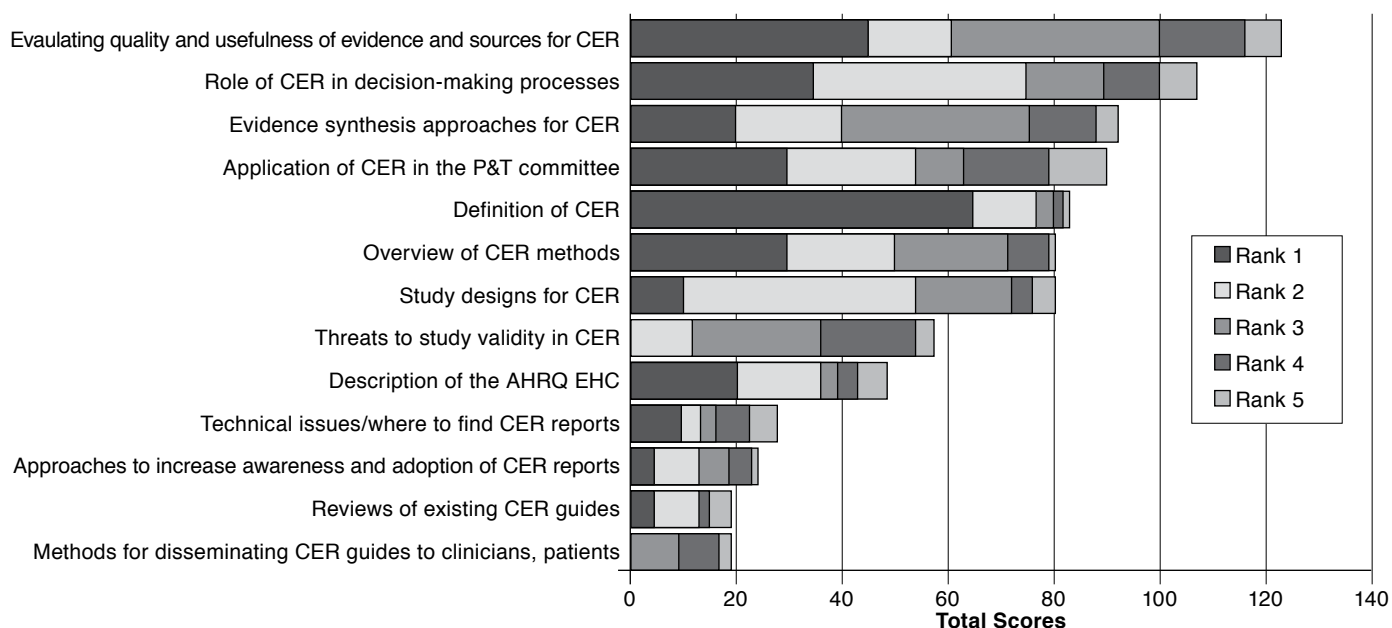
AHRQ=Agency for Healthcare Research and Quality; CER=comparative effectiveness research; EHC=Effective Health Care; P&T=pharmacy and therapeutics.

## Discussion

The goal of CER is to inform health care decision makers, providers, and patients to facilitate evidence-based decision making. For this reason, CER has been identified as a national priority by the Institute of Medicine and various agencies within the U.S. government. This study evaluated the views and opinions about CER among professionals involved in the P&T process with the intent to provide a framework to promote effective translation of CER into improved patient care, health, and safety.

It is imperative to create an effective mechanism for integrating evidence to inform health care professionals about what works best in order to enable them to deliver interventions to those who will benefit. We were unable to identify published information regarding the awareness and use of AHRQ's EHC Program reviews by P&T committees. In this evaluation, focus group participants involved in the P&T process expressed a range of familiarity regarding AHRQ's CER reviews. Our

**FIGURE 4** Focus Group Ballot Results: Most Important Topics for Future CER Educational Programs, by Rank and Overall Score



AHRQ= Agency for Healthcare Research and Quality; CER= comparative effectiveness research; EHC= Effective Health Care Program; P&T= pharmacy and therapeutics.

findings indicate that about 58% of focus group participants were aware of the AHRQ reviews, yet only 26% had personally used them. While participants indicated that the EHC Program website could be useful, they found it difficult to find information addressing their needs. Therefore, it may be helpful for CER reviews to be indexed in PubMed citations and other databases to increase clinician ability to find information.

In general, focus group participants felt that in their current form, CER reviews would provide minimal benefit to P&T committees due to the outdated information contained in the reports. P&T committees often deal with questions regarding whether to add a new therapeutic entity to the formulary, and the latest modalities are often not included in systematic reviews. If a systematic review is not timely, it may fail to analyze important new clinical information regarding the benefits or harms of an intervention. Decision makers require up-to-date information on which to base their decisions.<sup>13</sup> P&T committees are often caught in the crossfire between clinicians demanding new therapies and health care organizations attempting to ensure the most appropriate use of resources.<sup>7</sup> When new data reveal serious risk of harm, or a new and superior alternative treatment is introduced, an update or new systematic review of the evidence is critical.<sup>13</sup> Although much of the P&T committee process focuses on evaluation of new prod-

ucts to the market, participants considered CER reviews most useful for P&T evaluation of therapeutic classes of medications. Despite their concerns, participants stated the reviews could serve as an important resource for support staff when gathering information and preparing P&T committee materials. In line with our findings, studies of physicians emphasized the importance of frequent updates and the timeliness of CER.<sup>14,15</sup>

Participants in this investigation perceived CER review findings to be inconclusive and indicated that decisive conclusions are needed to support P&T decisions. However, it is important to note that the EHC reviews are systematic comparative effectiveness reviews of medical interventions that address key questions designed with stakeholder input. They are not intended to be practice guidelines and are not designed to dictate policy. Furthermore, inconclusive findings are common in medical literature. Frequently, EHC conclusions and recommendations must rely on insufficient good-quality evidence. For example, less than 20% of heart disease management recommendations are based on high-level evidence, and more than 40% are based on the lowest level of evidence; furthermore, the proportion of recommendations with high-evidence levels has not increased over time.<sup>16</sup>

The value of CER to the health of the nation will depend on a workforce prepared to interpret and implement evidence



at the point of care.<sup>17</sup> Members of P&T committees may be ill equipped to make decisions about the comparative effectiveness of medications due to lack of familiarity with CER. P&T committees are typically composed of physicians and pharmacists, although other members may have backgrounds in nursing, allied health, health economics, ethics, quality improvement, or be a consumer representative.<sup>18</sup> Participants expressed that all P&T committee members would likely benefit from CER educational interventions, but efforts should focus primarily on pharmacists, as they most commonly review CER information for P&T committees.

Some focus group participants felt that integration of CER into pharmacy school curricula would benefit pharmacy graduates, who, in turn, could teach other practicing pharmacists. Other researchers emphasize that medical school teaching hospitals should play a vital role in providing effective training to prepare practitioners for compassionate, culturally appropriate, and personalized use of CER.<sup>17</sup> The authors contend that the role of pharmacists and colleges of pharmacy is equally important. Focus group participants viewed targeted education on biostatistics as essential and singled out training to assess study quality and strength of evidence as the most important concepts needed to understand and use CER reviews in practice. Theoretically, modifying health care professional educational programs to incorporate CER would not require significant curricular changes because these professionals have long been exposed to evidence-based clinical decision making. However, 1 study indicated that physicians and pharmacists receive relatively little formal training in evidence synthesis and statistics through medical and pharmacy curricula.<sup>19</sup>

Another study specifically called for CER short courses at national health care professional meetings addressing CER methods.<sup>20</sup> Focus group results supported this recommendation, as many participants, particularly IHS clinicians, expressed a personal interest in attending a live educational program on CER. This preference among IHS clinicians may reflect a preference for working in teams and a desire for face-to-face networking. However, most of the participants also strongly recommended online training modules as the best method of delivery to target a wider audience. Online modules were recommended because they could be completed over an extended period of time. Participants felt that time constraints would limit attendance of most P&T committee members at live sessions, particularly physicians. Although online learning may appeal to a broader audience overall, live programs offer several advantages, including concentrated, continuous learning (e.g., 4-hour sessions vs. intermittent 1-hour sessions); face-to-face interactions with colleagues and presenters; real-time discussions; and opportunities for immediate application of information and feedback (e.g., case scenarios).

CER will continue to grow as a valuable component of P&T decision making.<sup>21</sup> These focus groups were designed to assess the needs of and identify issues related to P&T committee members' use of CER evidence. Our findings, while informative, do not represent the views of all members of the respective organizations or professionals serving on P&T committees.

### Limitations

The authors did not measure participants' attitudes towards CER. Some studies have suggested that physicians<sup>14,15</sup> believe that combining existing data with personal clinical experience was sufficient to make treatment decisions. This is concerning, although not surprising, because personal clinical experience is highly valued in health care. Yet, it speaks to the importance of considering (and measuring) individuals' attitudes toward a particular concept or issue, as it may serve as a key indicator of one's willingness to adopt a new behavior (e.g., begin using AHRQ's reports or seek out new sources of CER information). Additional research in this area is warranted.

Another potential limitation of this study is the differences in representation in the study sample between pharmacists (68%) and physicians (32%). While it is not likely that the themes generated from the focus group discussions would be considerably different had more physicians participated in the focus groups, that possibility does exist. Additionally, greater representation by physicians may have affected the top 5 topics to include in a live training program, as their knowledge base and interests are conceivably different from those of pharmacists. The impact of overrepresentation of pharmacists is of less concern given that they are the primary professionals involved in synthesizing the information for P&T committee review and therefore need to be more familiar with CER and CER resources.

### Conclusion

For this study, focus group sessions were conducted with key health care decision makers to identify factors necessary to facilitate the use of AHRQ's CER reviews in hospitals and managed care organizations. While many participants indicated they were aware of EHC reviews, few had used the EHC products as part of the P&T process. A major obstacle for integration of EHC materials was the timeliness of the EHC products. To facilitate integration of CER into the decision-making process, it is imperative that key stakeholders have access to up-to-date information and effective continuing education programs on the topic of CER.

Authors

LORENZO VILLA, PharmD, is a graduate student, The University of Arizona College of Pharmacy, Tucson, Arizona, and Instructor, Faculty of Pharmacy, University of Concepcion, Chile. TERRI L. WARHOLAK, PhD, RPh, is Associate Professor; LISA E. HINES, PharmD, is Clinical Research Pharmacist; ANN M. TAYLOR, MPH, MCHES, is Program Manager; MARY BROWN, PhD, is Research Associate; JASON HURWITZ, PhD, is Assistant Research Scientist; and DANIEL C. MALONE, PhD, RPh, is Professor, The University of Arizona College of Pharmacy, Tucson, Arizona. DIANA BRIXNER, PhD, RPh, is Professor, University of Utah College of Pharmacy, Salt Lake City, Utah.

AUTHOR CORRESPONDENCE: Daniel C. Malone, PhD, RPh, College of Pharmacy, The University of Arizona, 1295 N. Martin Ave., Tucson, Arizona 85721. Tel.: 520.626.3532; E-mail: malone@pharmacy.arizona.edu.

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