Technical Brief Disposition of Comments Report

Research Review Title: *Public Reporting of Cost Measures in Health: An Environmental Scan of Current Practices and Assessment of Consumer Centeredness*

Draft review available for public comment from April 30, 2014 to June 03, 2014.

Research Review Citation: Bridges JFP, Berger Z, Austin M, Nassery N, Sharma R, Chelladurai Y, Karmarkar TD, Segal JB. Public Reporting of Cost Measures in Health: An Environmental Scan of Current Practices and Assessment of Consumer Centeredness. Technical Brief No. 19 (Prepared by the Johns Hopkins University Evidence-based Practice Center under Contract No.290-2012-00007-I). AHRQ Publication No. 15-EHC009-EF. Rockville, MD: Agency for Healthcare Research and Quality. March 2015. www.effectivehealthcare.ahrq.gov/reports/final/cfm.

Comments to Research Review

The Effective Health Care (EHC) Program encourages the public to participate in the development of its research projects. Each research review is posted to the EHC Program Web site in draft form for public comment for a 4-week period. Comments can be submitted via the EHC Program Web site, mail or email. At the conclusion of the public comment period, authors use the commentators' submissions and comments to revise the draft research review.

Comments on draft reviews and the authors' responses to the comments are posted for public viewing on the EHC Program Web site approximately 3 months after the final research review is published. Comments are not edited for spelling, grammar, or other content errors. Each comment is listed with the name and affiliation of the commentator, if this information is provided. Commentators are not required to provide their names or affiliations in order to submit suggestions or comments.

The tables below include the responses by the authors of the review to each comment that was submitted for this draft review. The responses to comments in this disposition report are those of the authors, who are responsible for its contents, and do not necessarily represent the views of the Agency for Healthcare Research and Quality.

Source: http://www.effectivehealthcare.ahrq.gov/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productID=2053
Published Online: March 5, 2015

	Commentator	Section	Comment	Response
1.	Reviewer #1	General	I'd like to suggest that the assumption that consumer centeredness should only refer to "shoppable" (non-urgent and non-severe events) seems limiting. The consumers who really use websites are those with acute cancer, serious and severe surgical procedures (transplants, CABG), and rare and serious diseases. Second, the briefing paper scoring mechanism did not take into account whether the website was comprehensive. Consumers in focus groups I've run want information that will cover their conditions--information for someone "just like me".	We certainly agree that the concept of shoppable needs further definition. Our revisions have helped make this point clearer.
2. 1	Reviewer #1	Background	a. A correction references Leapfrog as a for profit organization, it is a nonprofit. Other nonprofits preceded Leapfrog, e.g., Pennsylvania Healthcare Cost Containment Commission was founded in 1986. Might be a better example. b. NCQA was established in 1990 to accredit health plans, so it is really out of scope for this report. c. May also want to reference the arising of APCD's which contain hospital, outpatient, physician, pharmacy, and laboratory data. Most are founded specifically to address cost and most require transparency of cost data. The APCDs are positioned to supply the comprehensive data consumers want. d. Judith Hibbard's earlier work did show public reporting impact on consumers even after 6 months consumers could remember the best and the worst of hospital performers.	a. Thank you, this sentence has been removed from the report. b. Agreed, this sentence has been removed from the report. c. Thank you for the suggestion but All Payer Claims Databases (APCDs) are beyond the scope of this study. d. Thank you, but this point is beyond the scope of this study.
3.	Reviewer #1	Guiding Questions	a. A question I would ask in GQ2 is "does the data underlying the reporting reflects all patients"? Or is it a subset, Medicare only, Medicaid only, private payer data only, etc.? Again, this is key when you think about a "patient like me". Another measure of comprehensive information that would be more specific to the consumers' needs. It would be helpful to see which of the sites used" census" type data vs. a select population. b. It would also have been useful to spend some time identifying the barriers to collecting and producing data that is "consumer-centered". Perhaps, a question for the experts--to see what stands in the way of moving public reporting forward.	a. Yes, we agree this is important, but these were not data that we extracted during our review. In part, we have aimed to address this in the section describing factors impacting diffusion. b. We agree that this would be good in a fuller environmental scan, but not feasible within the current mechanism. To a limited degree, we have attempted to address barriers in the conclusion section.
4.	Reviewer #1	Methods	The methods section was very good clear about the process that was used.	Thank you
5.	Reviewer #1	Findings	I am concerned that without additional scrutiny of the private vendors system and the validity of their efforts, the report may be promoting this as a better way to meet consumer's needs. Given that many consumers do not trust their employers or their health plans; they may not trust the information on these sites.	We did not want give this impression and have moved this section to an appendix. We also revised the text to make sure that the language does not suggest that we are recommending this approach.

	Commentator	Section	Comment	Response
6.	Reviewer #1	Summary and Implications	I am concerned that the scoring for Real Comparisons has not taken into account the nature of the underlying data. That is, was the data for the full population or some subset? If a subset, then it should not receive the same amount of points... Also, regarding the comment that state departments of health may find acquiring plan information difficult--this barrier is being overcome by the development of mandated submission of health plan data to states. Having the ability to look beyond just your health plan's cost structure is more helpful to consumers than having only your plan's information.	We agree that this is a limitation. Unfortunately, the source of the data was not always identifiable during the evaluation of the websites.
7.	Reviewer #1	Next Steps	I certainly agree that charge masters are meaningless for consumers. However, hospitals use arcane accounting structures which mask the true costs of delivering care across the hospital. This situation must be addressed soon. Can we see some operational research in the economics/accounting area that would address the inadequate financial structures in hospitals?	We have added these points now on page 24.
8.	Reviewer #1	Clarity and Usability	Yes, it is. I do think that the authors were clear about their methods and limitations. I am not sure however, that we should use today's websites as models for the future—most websites today are hindered by politics. Historically, and currently there was and is much pressure to not identify the facilities and providers with the highest value. There is also limited funding for data collections and presentation of data; it has taken almost 30 years to get the public reporting we have today. To get better reporting, we need favorable politics and financing, along with supporting research.	We agree completely with this comment and hope that this technical brief of current websites will stimulate future research and improve future public reporting practices.
9.	Reviewer #2	General Comments	In this report, the authors describe and rate the data put on public websites related to cost. Unfortunately the authors had little to work with. The information on these websites is of questionable value and there is little known on even basic questions of how often the websites are used. While the authors tried to do the best they could (I should emphasize I don't think I could do any better), in the end, the report does not advance the literature or thinking on this topic in any substantive way. Several short thought pieces that they cite (e.g. Kullgren, Sinaiko) have already made the key points in this report.	Again, as a technical brief, we are trying to bring together this literature and current practices into a single document. We hope that it stimulate advances in research and practice.
10.	Reviewer #2	General Comments	My five major criticisms are: 1. This is acknowledged in the report, but the concern is that the websites they studied was a small sliver of the cost and utilization data available to consumers. Organizations like Truven are reporting 20million people have their cost tool available to them. Castlight has millions of users. I recognize the authors cannot do anything about this, but it is a point that should be highlighted to a greater degree in the conclusions.	We have added comments in the conclusions.

	Commentator	Section	Comment	Response
11.	Reviewer #2	General Comments	2. GQ3 is difficult. Together with AHRQ's input, the authors posed a number of interesting questions, but can't answer any of them due to lack of data. On page 27 they list a lot of the theoretical reasons why public reporting should have an impact, but I read the questions on GQ3 as needing quantitative answers not theoretical discussion. The authors then substitute GQ3 with an underdeveloped table on semipublic websites which doesn't say much and is unrelated to the questions posed. I'm not sure this is possible at this stage, but my recommendation is to just acknowledge you can't answer the questions posed in GQ3 and move on. The write up on page 27 and table on semipublic doesn't help the reader's knowledge.	Thanks, we have deleted this GQ. Some of the material was moved to the gaps analysis section and the semipublic review was moved to an appendix.
12.	Reviewer #2	General Comments	3. 81% of the websites they included were based on charge data. It is hard to justify the inclusion of these websites in the 59 scored websites. Given that charge data has no relationship to reality, I don't know if readers should care if the websites scored highly on all the other criteria. Charge data that is well displayed, market level, customizable, comparisons with a great interface is still useless for a consumer. At this stage, it doesn't make sense for the authors to eliminate these websites, but I might emphasize the lack of utility of charge data.	We agree with the reviewer point of view, although we do not think that charge data are entirely useless. They can contribute to a patient's cost-consciousness as we state on page 22. I think that we do not know what impact charge reporting has on consumers behavior. The assumption is little but this is unknown.
13.	Reviewer #2	General Comments	4. One criticism that they could more easily address is about framing. The report is built on the premise that consumer engagement is the best way for cost information to drive change. However, similar to the information on quality public reporting, it is not clear that this is correct. Similar to quality reporting, use of this information by providers/payers may be more effective. I think this point should be acknowledged and fleshed out in the report and they could cite the quality literature (Judy Hibbard's nice review piece in Annals of Internal Medicine) and the report recently published by Center for Health System Change on the impact of the NH cost reports website on negotiations between payers and providers.	Thank you. Our focus was on consumers' points of view. In revising the report, we have acknowledged these other mechanisms of change.

	Commentator	Section	Comment	Response
14.	Reviewer #2	General Comments	5. I struggled with the PRICE. While I agree with the major themes, I had concerns with quantifying what is basically a qualitative exercise. Specifically: a. It assumes that each point value had equal value. Why is logistics valued equally as some clearly more important criteria? I didn't agree with pooling the points to create a composite score such as shown in Figure 2. b. Vast majority of websites rated hospitals, but one of the criteria with a point was "acceptance of new patients". How is that relevant to a hospital? Could this criterion be removed? c. I'm not I understood why user support was included as a criteria? It struck me as such a minor issue that I'd favor removing it. d. I was confused by the distinction between "high value providers" and "quality comparators" If quality is displayed doesn't that allow consumers to identify high value providers. Are these really two criteria? If so, I'd explain this in more depth. Re: PRICE score. I'm not sure what is possible at this stage. If possible, I'd remove two of the criteria I was concerned about. e. Then I recommend they only present how often each of the criteria are included on the websites (i.e. Table 5) and remove the histogram and discussion of an overall "PRICE score."	We thank the reviewer for agreeing with the major themes of our price taxonomy. a. We use the summery measure to summarize and not to say they that are equally important. b. This criterion was important in the previous literature, so we were reluctant to delete. Generally, we are trying to highlight the issue of accessibility. c. Again, we were asked by AHRQ to focus on the consumer's perspective and user experience is an important topic (both in principle and in the literature). d. Thanks for noting this issue; we have attempted to explain why we think they are different. Please see page 16 e. Sorry, we disagree with this recommendation we have been asked to assess consumer centeredness as a whole, not simply its parts. Hence we have retained the graph.
15.	Reviewer #2	Background	In general comments I made the point about emphasizing that consumer engagement is only one pathway that public reporting can have an impact. I'd cite Don Berwick and Judy Hibbard's work on pathways that public reporting of quality data can have a positive impact.	Thank you. Our focus was on the consumer. We have given a broader introduction.
16.	Reviewer #2	Background	Above I raise concern about substitution of semipublic websites for GQ3. Not sure if that decision can be revisited at this point. Minor points: On page 3, lines 40-46, section starting with "Although efficiency…" I read this several times and I didn't quite understand what the authors were trying to say. Could they clarify? On page 3 in background, it would be useful for the authors to highlight the rapid growth of CDHP and patient-cost sharing in general as motivation for why the public should care about price data. On page 4, lines 26-27 what is difference between patients and consumers?	Thank you, this was a bit of a work around. We have dropped GQ 3 and moved the semipublic to an appendix.
17.	Reviewer #2	Methods	Minor points: How did the authors define "shoppable" services? That was never described.	Edited. Please see page 16
18.	Reviewer #2	Methods	Misspelled Sinaiko on line 34 on page 21	We have fixed it.

	Commentator	Section	Comment	Response
19.	Reviewer #2	Methods	Resource use data. (page 8, lines 51 on) I think they should flesh out the explanation of why these were excluded. Seemed like resource use is very important piece of information for consumers, but the explanation read as if the authors just couldn't agree on how to include these data.	Thank you. We have better explained our reasons.
20.	Reviewer #2	Findings	My major points in general comments. Specifically I raised concern about display of PRICE score and what was provided to answer GQ3.	Thanks you, we have addressed both issues. Sorry, we disagree with this recommendation we have been asked to assess consumer centeredness as a whole, not simply its parts. Hence we have retained the graph.
21.	Reviewer #2	Summary and Implications	To emphasize again public reporting can have a positive impact without any consumer engagement.	Our focus was on consumers, but we have introduced the other pathways.
22.	Reviewer #2	Clarity and Usability	a. The report is well structured and organized. It reads well (except a few minor issues identified above). b. I'm not sure the conclusions can be used to engage in research but that is due to the lack of information for the authors to use.	a. Thanks you. b. As a technical brief, we clearly understood the limitations of our approach, but we hope that this document stimulates research by describing and disseminating the current approaches to the pubic reporting of cost data.

	Commentator	Section	Comment	Response
23.	Reviewer #3	General Comments	a. Overall this is a useful and interesting report and mostly very clearly written. Its strengths lie in the large quantity of work done to review the literature and review the websites that publicly report cost information. The guiding questions cover the following: a description of the measures of cost that have been publicly reported an assessment of the consumer-centeredness of the reports, and the intended and unintended consequences of consumers' use of publicly reported cost data. b. Areas for improvement for the technical brief include: clarifying the mechanisms through which public reports of cost might work to create improvements; c. and better descriptions of key informants. d. Mechanisms Description/Conceptual model: The AHRQ guidelines describe what a technical review is supposed to achieve: "[A Technical Brief] is intended to provide an overview of key issues related to the technology/intervention such as current indications, relevant patient populations and subgroups of interest, outcomes measured, and contextual factors that may affect decisions regarding the intervention… [A] Technical Brief is likely to focus on what claims or concerns are associated with the intervention and whether existing research is able to address them, or what methodological/framework problems need to be resolved in order to design research that could answer the important questions. "The report as it stands does not go clearly into the mechanisms by which the "intervention" (aka, the public reports of cost) might work to influence either healthcare value or consumer choice. It is important to articulate these mechanisms early on, since it seems that a conceptual model is underlying the PRICE elements, and also because the conceptual model is relevant to the discussion and suggestions for future research. GQ#3 actually lays out many of the elements in the conceptual model. I recommend re-ordering the GQs, so that making GQ#3 into GQ#1 (and keeping the other two in the same order). e. In re-ordering the GQ and revising the current GQ#3, the authors should consider being clearer about what the potential outcomes of interest are, as well as the mechanisms through which they might be achieved. For instance, for outcomes, are decreased out of pocket costs for consumers the desired outcome or an intermediate step towards system efficiency? Is the goal of public reports of cost an overall decrease in the cost of health care? Or an overall increase in value? Clearly stating these outcomes up front will allow for a tighter discussion at the end of the report in the "Future research and directions" section.	a. Thank you for your positive comments. With the revisions to the documents, we have now deleted GQ3. b. We are grateful for these two comments. We have made some modifications to the report to highlight the possible mechanisms by which public reporting might work, but the focus of our report is on whether those have an impact on consumers. c. It is not protocol to describe the key informants in a draft report. We have now detailed them per AHRQ protocol. d. Thank you for this comment. This report sits half-way between a technical brief and an environmental scan. As such, we were forced to deviate from standard protocols. We agree that GQ3 has some parts of a conceptual model, but there is clearly a lack of evidence or conceptualization currently available to say that this is rigorous or absolute. In discussion with AHRQ, we have deleted GQ3 from the report, but we have aimed to keep some of the text from this section in other parts of the report. e. Thanks. Continuing in this early section of cost measures and consumer centeredness, we have detailed both consumer and society endpoints. Furthermore, we have discuss the lack of evidence to make an actionable indicator of consumer centeredness using these approaches and why it might better to do an axiomatic approach – like the one that we did with PRICE.

	Commentator	Section	Comment	Response
24.	Reviewer #3	General Comments	f. It is also important to more clearly articulate the full spectrum of how public reports of costs might lead to a change in outcomes. Consumer choice is one mechanism, another is provider behavior change (as pointed out in the Background on page 2), and another is large employer and insurer behavior change (through negotiations with providers and reference pricing). Once the authors make the point that public reports of cost might work through other mechanisms aside from consumer choice, it is reasonable to justify the other two GQs by saying that the purpose of the report was to focus just on the one mechanism of consumer choice. g. If the authors then describe the assumed model of consumer choice based on the literature cited in the current GQ#3, the basis for the elements in the PRICE taxonomy will be much clearer. h. In addition, the PRICE taxonomy warrants a discussion (potentially in the limitations and/or future research section) about whether it would be appropriate to weight some items more heavily than others. For instance, it might be that providing information on Connect to Care is not as important as providing tailored information on out of pocket costs of care. Being more explicit about the mechanisms through which the public reports of cost might work will allow the authors to propose a more systematic approach to future research assessing the relative importance of each element in the taxonomy. **i. Key Informant information needed** also need additional information on key informants. What types were there and how many of each type? The piece in limitations that says that you did not include any consumers at all is concerning. Is this true about key informants as well, or only in the review of the literature and the websites?	f. We agree with this point, but the focus of this report is on consumers. We have clarified this point in the first paragraph of the background. Please see page 1 g. With the restructuring of the report, we cannot do this exactly, but the changes detailed in response to letters d through f of this comment. h. We are limited in our capacity to weigh these factors, and we never intended this to be weighted, but we have addressed this several times throughout the report. i. We have detailed the key informant section as per protocol. We agree that more consumer representation would have been nice. This said many of our experts and some of our study team were experts on the consumer's point of view.
25.	Reviewer #3	Background	Page 2, Line 5556. Use of the word "providers" here is confusing. Would change to "individual clinicians" or "physicians" to clarify that it is not referring to hospitals or medical groups.	We apologize that this is confusing. We have aimed to better define what providers and facilities are at the beginning of the document. Please see page 4
26.	Reviewer #3	Background	Page 3, Lines 5245: Agree that it is unclear but there is some literature on when consumers might be making choices: www.ahrq.gov/news/events/conference/2011/shaller2/index.html. Consider discussing the other mechanisms through which public reports of costs might drive efficiencies in the Background.	Thanks. We have done this.
27.	Reviewer #3	Guiding questions	Page 6, Line 6: "out" should read "our"	Thanks.

	Commentator	Section	Comment	Response
28.	Reviewer #3	Methods	Engagement section: Would like to see types of Key informants and numbers of each type. Page 9, lines 3435: please give a bit more detail regarding the formative feedback given by the key informants.	Thanks. As per EPC guidelines, we use key informants as guides, but not as primary sources of information. Hence, we are reluctant to give too much detail here. We have given a little more detail that was not in the original report (again, as per the EPC guidelines) The KIs are identified in the beginning of the report. Please see page iv.
29.	Reviewer #3	Methods	Page 9, lines 3738: Was there any discussion as to whether to differentially weight the different elements of the taxonomy in the Summary measures?	Developing a weighted score was not our intent. The rational is now discussed in the brief.
30.	Reviewer #3	Methods	Page 9, lines 4041: This was a qualitative inductive sort of approach, or were there specific characteristics chosen that authors thought would be illuminating in this comparison of the most and least consumer centered websites?	This was simply the characteristics that we delineated in GQ 1. We made this more transparent.
31.	Reviewer #3	Findings	Page 13. Table 1. Consider adding in raw n's as well.	Thanks. We added in raw numbers.
32.	Reviewer #3	Findings	Page 13. Lines 4648: "actionable" for the consumer. Consider introducing this concept much earlier (by putting GQ#3 at the top), in order to make it easier to understand.	Thanks, we have strived to better describe the notion of actionable (although with the deletion of this section, the actual term no longer appears in the report). As suggested we have done this earlier in the report under the heading cost measures and consumer centeredness.
33.	Reviewer #3	Findings	Page 16. Table 3. Clarification: Were there a minimum number of conditions necessary to meet the criterion of "shoppable conditions" or "customizable searches"?	As long as websites reported data for at least one condition, they met the criteria. This was, however, a very subjective method since we developed this taxonomy ourselves. We tested the concordance between two reviewers and discussed the discordance.
34.	Reviewer #3	Findings	Page 17. Lines 4042. Not clear what you mean here. That websites should be gathering data on consumer feedback about the website or they should be reporting narrative consumer reviews of the providers? I'm not sure that I would call either of these a norm. This discussion seems beyond the scope of the Brief, so might more appropriately be brought up as a question rather than an imperative or a description of a norm.	Thank you, we have revised this section in our revision. This concept has been discussed in the literature; patients' abilities to review their providers as well as the data is important, but we agree it is not the norm in the public reporting websites.

	Commentator	Section	Comment	Response
35.	Reviewer #3	Findings	Page 17. Lines 4353. This does not seem as important a set of features. Again, I would put this as an area for further research rather than an imperative that the most "consumer centered" websites would provide this. This in part is because report sponsors will need to sink a great deal of resources into data gathering for this piece. So making it an imperative without good empirical evidence that it is a crucial element to the success of public reports of cost seems to go beyond the scope of the technical brief.	The taxonomy has some limitations. These are important factors to consider, albeit not with equal weight or priority as some of the other features.
36.	Reviewer #3	Findings	Page 18. Lines 412. Agreed. There is good evidence about the importance of not making the websites cognitively burdensome.	Thank you
37.	Reviewer #3	Findings	Page 19. Lines 4046. Very important points. Only slightly confused here, because here there is a claim that only New Hampshire provides out of pocket info, but on page 12 the authors describe the Maine website that allowed the patient to navigate the website as insured or uninsured. Based on that description, the Maine website also sounded to me like the website was giving data on out of pockets costs.	Sorry for the confusion. Maine Health Data Organization does not provide out-of-pocket expenses
38.	Reviewer #3	Findings	Page 19 lines 4656 and Table 6: I found this data hard to interpret and glean take home messages from. The data seemed a bit circular the most consumer centered websites are compared to the least based on the same characteristics that were used to define whether they were consumer centered.	Because of the ambiguity of this section, we have removed this discussion and table.
39.	Reviewer #3	Findings	Table 7: This table and the descriptions of semipublic cost reports seem to better fit into the currentGQ#1 (description of cost measures).	We have moved this to an appendix.
40.	Reviewer #3	Summary and Implications	Summary and Implications: Box 6: GQ#3 final bullet point this did not come out as a key finding in the summary of results.	We have deleted GQ 3.
41.	Reviewer #3	Summary and Implications	Page 26, 312: agreed that this is a limitation and appreciate the straightforward discussion. Recommend more nuanced description of next steps needed to further validate, rather than only how the limitation was addressed.	Thank you. We have included such a discussion, briefly, during our revisions.
42.	Reviewer #3	Summary and Implications	Page 26, line 27: Were there no consumers in your key informant group?	Correct, although many were experts in consumer engagement. Engaging consumers was not within the scope of this project.
43.	Reviewer #3	Summary and Implications	Page 27, bullet #1 in limitations. I did not see any description of other grading systems? Bullet #4: I don't understand this bullet: "We did not have any websites on individual providers..."	We had a single other grading system to compare ours too. We now state in bullet #4: We did not include any websites from individual providers or individual hospitals.
44.	Reviewer #3	Summary and Implications	Page 28, Box 8: consider mentioning the unintended consequences in the Limiting Impact column. Strong agreement with the need for creating awareness of the public reports is an important aspect of creating impact.	Thank you, we aimed to say this. We have removed this box and revised the text to make this more transparent.

	Commentator	Section	Comment	Response
45.	Reviewer #3	Summary and Implications	Page 28: Lines 4757. There are multiple ways of getting feedback from consumers, with a forum embedded on the website only one method (other methods include focus groups, A/B testing, web analytics data, etc.). Might be better to recommend that websites have mechanisms for understanding how well the sites meet the needs of consumers, and that that is an area of future research.	We had added on page 22: "There may be other ways to collect this information as well such as consumer focus groups or website analytics."
46.	Reviewer #3	Next steps	Page 29. Lines 3643: these sentences are a bit confusing. What does the "It" at the end of line 38 refer to?	Sorry, "it" is the impact on consumers.
47.	Reviewer #3	Next steps	What do the authors mean that "further research into how this data is collected from hospitals and providers is also a key next step?" How would it lead to "This would remove the option for hospitals to post their charge masters...?"	Sorry for the ambiguity here. We have revised this section.
48.	Reviewer #3	Clarity and Usability	Yes, overall. Please see my comments in the general section regarding structuring and clarity. Also see my comments in the General Section regarding how to make the conclusions more useful for future research.	Thank you.
49.	Reviewer#4	General Comments	This is a very nicely executed scan and description of public reporting websites presenting comparative cost data. The authors have developed an assessment of consumer centeredness for public reported cost measures that I think will be a very useful tool for organizations designing public report websites.	Thank you.
50.	Reviewer#4	General Comments	One area that I thought it could be improved was the set up for "Guiding Question 3"— it felt like a mismatch for what was answered. The key question was to identify intended and unintended consequences of consumers' use of publicly reported cost data, but because there was so little empirical work on those topics, what was provided was a scan of the semipublic websites and topics for further research. I wondered if the literature review synthesis on intended and unintended consequences would better fit in the intro section of the whole paper, and then the question 3 could be about future research (which could include the point that there is a scarcity of literature on intended and unintended consequences), and the semipublic website scan would better fit. Or, there could be a separate question on the semipublic websites. I also wondered if others could use the PRICE taxonomy given the current amount of detail provided on the scoring, and would suggest that an appendix be included with more specifics so that others could use the taxonomy in a consistent manner.	Thank you. We have removed GQ 3 and put it into the report in the Implications section as a way to delineate the gaps in this research area. The descriptions of each criterion in the PRICE taxonomy in Table 3 were refined through multiple discussions and use by the research team. Our experience in the descriptions as written allow for use by other parties.
51.	Reviewer#4	Other issues	Other issues: The phrasing of guiding question 2 struck me as a bit awkward. What about something like "Are the cost measures reported in a consumer centered way?"	Thanks. We edited GQ 2.
52.	Reviewer#4	Other issues	On page 9 where the taxonomy is described, I didn't feel that I got enough information since it was all in the results section. I think it would be helpful to the reader to add a sentence that lists the sub domains of PRICE, and states what page the full taxonomy is presented on.	In an earlier version, we had this in the methods, but now it is a result of our study.

	Commentator	Section	Comment	Response
53.	Reviewer#4	Other issues	Given the small number of websites reviewed, I felt a bit uncomfortable with only presenting percentages in the tables. I wondered if counts on their own, or counts in one column with percentages in another would be fairer. I was struck by the percentages when realized it was only 1 report that had out of pocket costs. And then in table 6, percentages are reported out of 6 sites.	Thanks, we have done this.
54.	Reviewer#4	Other issues	The "understandable" criteria raised a question for me. There is research by Hibbard, Greene, Sofaer and colleagues that found using a dollar sign resulted in more people avoiding high value providers. I was concerned that "understandable symbols" might have included dollar signs when they seem to be problematic.	We used the "understandable symbols" as a way to gauge if the symbols, as they were represented on the website, would be easily recognizable by consumers going to the website. Symbols, in themselves, have been reported by others as consumer centered. However, there is not enough evidence to say that each and every criteria has been tested to ensure it captures what we intend it to capture. This would require other stakeholder engagement, specifically, patients. The need to assess reliability and validity of consumer-centered metrics is stated in the Implications section now.
55.	Reviewer#4	Minor issues	Why "guiding questions" rather than "research questions"? I found "GQ" an unfamiliar acronym.	EPC procedure guide calls for the use of the term "guiding questions".
56.	Reviewer#4	Minor issues	There was no call out in the text for Appendix C.	Thanks. Fixed.
57.	Reviewer#4	Minor issues	There were a number of typos ("in out protocol" p6, Yegeian p 15, and Saiko p 1)	The report was professionally edited. We reviewed again for typos.
58.	Anonymous Public Reviewer	Methods	For the PRICE methodology, my understanding is that the researchers essentially just checked yes or no for each of the 15 criteria and then added them up. I feel like there should have been weighting of the criteria, particularly the first item (out-of-pocket cost). Only 2% of the websites had this information, yet the average score was 8/15.Seems like if the website doesn't have the information that is of interest and relevance to consumers, the rest of the criteria hardly matter.	Your point is well taken. We opted to equally weight the criteria in the taxonomy, as we had no *a priori* reason to more heavily value some criteria than others. In future work, we might find that some criteria are indeed stronger contributors to consumer centeredness and require greater weighting.
59.	Reviewer #6	Background	The report needs a "thoughtful overview" – a few paragraphs very early on, that describes why shopping for health care is different than shopping for other goods, and the motivation for public reporting of cost information to consumers. Clearly lay out the goals of these initiatives and why they matter.	Thank you, we have aimed to improve the clarity in the report.

	Commentator	Section	Comment	Response
60.	Reviewer #6	Background	Then, the key terms used in the review need clear, concise definitions that appear very on early in the brief. These include: "Public reporting" – Generally, this term can include reporting of quality information, cost information, or both. It seems to be used interchangeably through this report and that should be changed. Please define clearly what is included (i.e., is cost always included when the term public reporting is used in this report) in the beginning of the report and then use the term consistently thereafter.	We have used the term public reporting, as an action, broadly. If we intend it to refer to quality, we have stated that. Otherwise, the term refers to cost measures as that are the focus of the report.
61.	Reviewer #6	Background	Consumer centered – what does it mean for cost data to be consumer centered? This isn't defined until page 15 – too late.	Thank you, we have given a definition early in the report. Please see page 5
62.	Reviewer #6	Background	•Efficiency. This term appears as early as the introduction. What is the criterion for improved efficiency in health care?	Thanks. The "information on value" gets at the efficiency issue. Encouraging patients to seek appropriate, low-cost care could improve this "efficiency" aspect of the health care system. We have defined in the background section
63.	Reviewer #6	Background	Price transparency – please define	Thank you, we have clarified in the objective section.
64.	Reviewer #6	Background	a. Health care costs – early on, please include descriptions of how health care cost data can be presented and what the differences are, including charges, allowed amounts/costs, out-of-pocket costs, and episode level costs. Right now this appears in Table 2, 14 pages into the report, after the terms have been used very frequently. b. Also, early on the report should acknowledge the potential for public reporting of cost data to affect provider behavior, and that isn't the focus of this report.	a. In box 1 (on page 4) we define what we mean when we say a **cost measure:** A financial measure of cost, charge, reimbursement, payment, or out-of-pocket expenses associated with a visit to a health care provider. We are using the word "cost" very inclusively throughout this report. b. We have addressed this in the background section.
65.	Reviewer #6	Background	I think the scope of the review, as it is defined (on page 5, line 14 and elsewhere), is misstated. I think it should be changed to "…publicly reported measures of costs for health care services provided at or by providers and facilities … "	We have clarified. In our objectives we say that the scope of this review was limited to services provided by individual health care providers (such as physicians and other providers who charge for their services and health care facilities...As such, it excludes public reporting on products such as pharmaceuticals and medical devices...".
66.	Reviewer #6	Methods	Please add more detail about the Key Informant interviews – how many people were interviewed, how were they selected, what perspectives do they represent, when were they interviewed, etc.	Thank you. We have provided more information on the key informants. Please see page iv,

	Commentator	Section	Comment	Response
67.	Reviewer #6	Findings	GQ1 – page 10, line 35, the authors note that they reviewed only public reporting websites designed for comparisons of providers and facilities within a geographic area. Was the review of sites in fact limited to these, and websites presenting standalone information for a provider or facility excluded? If so, why? If you think about the airline industry, the Delta airlines sited publishes airfare on its flights and is designed for shopping, but it doesn't post its competitors' prices/flights. I think there's value here to reporting on the extent that sites like these exist in health care and how they compare to the other sites.	We included websites that gave consumers the opportunity to make comparisons as part of the decision making process. Therefore, yes, we excluded those from a single provider or facility. The airline analogy probably doesn't work so well because there is marked variability in prices by day that encourages the consumer to make these day to day comparisons – this doesn't exist for healthcare services.
68.	Reviewer #6	Findings	In results to GQ1 – could the authors report on the extent that consumers across the country have access to price information in their markets? What is the geographic coverage of the sites – e.g., how much of the country is covered, do they mostly report on costs in urban settings, are any states left out?	While we understand the merits of this, such an analysis is beyond the scope of this report.
69.	Reviewer #6	Findings	Results, GQ2 – in the discussion of the literature on page 15, I'm concerned that the evidence (and specific papers) on public reports of quality information and quality measures are being conflated with those reporting on costs. Can the authors please go back to the articles cited here and confirm they address presentation of health care costs.	We made a deliberate choice informed by the key informant interviews and AHRQ to use both cost based and quality based literature. It would be appropriate to only focus on cost-based literature.
70.	Reviewer #6	Findings	PRICE Taxonomy Table 3 : In price transparency, I think the question of whether sites provide an estimate of costs for an episode of care (i.e. the bundle of services used to treat patients needing a procedure) is really important and should be included here.	Thank you for the comment. We understand this concern. We did not find much information on costs for episodes of care. This could be seen as a limitation in the taxonomy and/or the websites themselves. It could be a criterion that websites should not only include, but be evaluated upon as well in the future.
71.	Reviewer #6	Findings	PRICE Taxonomy Table 3: Information on value – please include more discussion of how sites define and measure high value. How is value measured and who is reporting on value?	We have added more information. Please see page 15
72.	Reviewer #6	Findings	PRICE Taxonomy – general comment: I do not think that the 15 dimensions of the PRICE taxonomy should be weighted equally. In particular, I think that price transparency, and in particular the availability of person specific cost information is much more important to whether a website is consumer centered vs having a site that is easy to use but provides data on hospital charges which are essentially meaningless to a patient. I encourage a revisiting of this framework and analysis of the relative importance of each domain, and each criteria within domains, against each other in achieving consumer centered reporting of health care costs/prices.	We only wanted this to be descriptive, and not a formal scoring rule. We agree that evaluating the value of weighting of the criteria should be included in future research.

	Commentator	Section	Comment	Response
73.	Reviewer #6	Findings	PRICE taxonomy – general comment: The resulting median PRICE score of 8 suggests to me that these sites are more than halfway to where we want them to be yet given the description of the data (71% of sites only reported average charges, which are almost useless to a patient) this seems too high. Again, argues for differential weighting of the criteria in the taxonomy.	Thank you. While we agree, we aimed to be descriptive. We never say that 8 of 15 is a good score – perhaps all websites should be scoring a full 15 to be considered truly consumer centered.
74.	Reviewer #6	Findings	Rather than Figure 2 as it is now summed across all five domains, I think it would be more informative to take Table 4 and turn it into 5 charts showing the range of scores of the sites from 03 on each domain separately. Especially because certain of these domains are, I think, more important to the site being useful and consumer centered.	Thanks you, we have added five charts as you suggested.
75.	Reviewer #6	Findings	Table 6 is not very informative or helpful.	There is no “Table 6.” in the current version.
76.	Reviewer #6	Summary and implications	On the issue of public vs. semipublic websites – I think the report is missing some discussion of whether it’s worth it for a consumer to go to a public website at all, when really the health care costs they face are specific to their insurer. This is an additional area where we need more evidence and a challenge that public sites need to address. What is the role for public reporting of this information? Should public websites be consumer focused or more providers focused? Should they target particular subsets of consumers (e.g. Medicare, the uninsured)?	Thank you for this valuable point. We briefly touch upon the limitations we encountered in assessing the semipublic websites. As the focus of the report was public websites, we moved the results for this evaluation to the Appendix. Given, the small sample size of semipublic websites that we had access to, we could not make definitive conclusions. We have included additional discussion in the implications section about the value (or lack of value) of these public sites.
77.	Reviewer #6	Clarity and Usability	Please see my comments and suggestions for restructuring the report to improve clarity and usability in the introduction/background section above.	Thank you. We have accommodated some of these points and have done a major restructure due to the removal of GQ 3.
78.	Reviewer #6	Other Issues	While there is a lot of detail presented throughout this report, I think it needs to be rewritten and reorganized considerably. Please see my specific comments below.	Thank you. We have revised and reorganized the report.