Editor’s Perspective

The Privilege of Editorship

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The end of a journey brings both the sweetness of its memories and the tinge of sadness that comes with the conclusion of an adventure. This sense describes my feelings as we transition Circulation: Cardiovascular Quality and Outcomes (CQO) from its founding team to a new group of editors who are prepared to catapult the journal to new levels of success. It is a sense accompanied by the knowledge of having had the great privilege to serve the community of people devoted to improving cardiovascular and stroke health and health care—and that the enterprise is in great hands for the future.

In September 2008, CQO published its first issue. In its conception, CQO was distinctive in not focusing on a condition or procedure, but on research that was related to improving the prevention, care, and outcomes of people with, or at risk for, cardiovascular disease and stroke. CQO was built to focus on safety, effectiveness, efficiency, patient-centeredness, and timely and equitable health and health care. The emphasis was on results achieved, lives improved, and value promoted. Over the subsequent 8 years, our fledgling ideas developed into an established journal with an international presence. Now, CQO is undergoing a planned transition in leadership with Brahmajee Nallamothu as Editor in Chief and P. Michael Ho as Deputy Editor.

On behalf of the founding group, I extend my thanks to all who made this journey worthwhile and promoted CQO’s success. In my last Editor’s Perspective, I would like to provide an account of the state of the journal, highlight some of my contributions published in the journal during the course of my tenure as Editor, and reflect on the future of CQO.

Gratitude

CQO owes its success to so many. Under the advocacy of researchers in the field, particularly David Goff, the American Heart Association (AHA) launched its first subspecialty journal associated with Circulation. We thank Nancy Brown, the AHA Chief Executive Officer, and members of the AHA who supported the existence of a journal without a large established constituency. The field had only established an annual conference in 1999 and at the time of the journal’s launch, the AHA Quality of Care and Outcomes Research Council had only recently been established. Even the term outcomes research was relatively unfamiliar to most practitioners and researchers.

I was blessed by an exceptional team. John Spertus, the Deputy Editor, provided rigor and guidance. He was an extraordinary partner and leader and deserves great credit for the journal’s achievements. Moreover, we were able to assemble a dream team of Associate Editors, including Patricia Davidson, Fred Masoudi, Veronique Roger, and John Rumsfeld, and our Economic Editor, Elizabeth Magnuson. We had an exemplary statistical team led by Sharon-Lise Normand, our Senior Statistical Editor, which included Associate Statistical Editors Alan Brookhart, Yulei He, and Armando Teixeira-Pinto. These individuals provided immense methodological support and the backbone for the methodological reviews that elevated the quality of our publications. Our Senior Guest Editors, Paul Heidenreich, Peter Groeneveld, and Dennis Ko, played a critical role and contributed a large volume of work to ensure that we avoided conflicts of interest in handling manuscripts from collaborators. Marilyn Mann, our Patient Advisor who led our social media efforts, brought tremendous skills, insight, and sensibility to our work. Our Senior Advisor, Jerome Kassirer, former Editor of the New England Journal of Medicine, provided critical guidance to our editorial group. His role throughout our tenure was an opportunity to learn from an extraordinary individual of wisdom and experience. Our Editorial Board—spirited, diverse, thoughtful, and ever-ready to contribute to the journal’s mission—was an important reason for our success. And I owe a personal debt of gratitude to Maria Johnson, my assistant, who provided me support in so many essential ways, including being a skilled editor of my written work.

A strong collaborative spirit pervaded the Circulation group. Joe Loscalzo, the Editor of Circulation during our term, was ever-supportive and helpful—as were colleagues at the other Circulation journals. Our efforts were continually strengthened by our Circulation staff led by Karen Barry (Managing Editor of the Circulation journals), our own Managing Editors Rebecca Seastrong, Kristina Sine, Emily Picillo, Kathleen Sullivan, and Christine Beatty, and our Editorial Assistants Samantha Feisel, Elizabeth Sheelely, and Martin Banigan. Karen was a constant in ensuring the highest quality of editorial support, and these individuals deserve tremendous credit for what CQO has become. The AHA team was terrific; it was led by Heather Goodell and included the Scientific Publications Committee, which provided oversight. Our authors supplied us with a steady stream of high-quality content that made it difficult to say no. Our reviewers, who contributed without pay and with too little recognition, helped
the Editors immensely in our decisions. And finally, we owe a thanks to our readers, who were steadfast in their support and encouragement even through the early years when we were finding our way and the community was growing.

Performance
Performance should be measured against our strategic goals. From the outset, we sought to establish a welcome home for outstanding cardiovascular outcomes research and perspectives, with the hope that the content might help shape the future of medicine. We wanted to encourage pieces that questioned conventional wisdom and focused on what was best for patients and the public. We wanted to serve our authors by rendering rapid, fair decisions and serve our readers by assisting our authors in elevating their work. We wanted to ensure that our papers received attention. We wanted CQO to be a place where work had to be rigorous to merit publication, such that publishing in CQO would be a validation of having passed a high level of peer review. We also sought to be a mechanism of change, an instrument of new approaches, and a catalyst to better implementation.

Our measures are primarily structure and process, as assessing the outcomes impact of a journal is challenging. We never accepted the idea that we should attend to the impact factor, but rather seek impact. In fact, it is difficult to develop metrics that capture the lofty goals of a journal, even by editors with experience in performance measurement. Ultimately, a mixed methods approach would be required. Nevertheless, in Figures I to XIII in the Data Supplement, we present a basic accounting from 2010 (more than a year into our tenure) through 2015, using traditional methods of the AHA.

During this period, CQO grew substantially. The number of annual submissions increased from 396 to 828, with original research increasing from 336 to 713. The time from submission to first decision, a focus of our quality improvement, improved from 35.9 days to 25.3 days. The time from submission to acceptance dropped from 206 days to 154 days, but it is still long. CQO became more competitive over time, with the acceptance rate dropping from 23.0% to 10.4%. Our 2-year impact factor hovers slightly above 4, and our 5-year impact factor is 5.7. Evaluations that depend on social media and other forms of attention rank us highly, with, for example, an Altmetric score of 19.8 and a Scimago Journal Rank of 3.5.

In addition, CQO had several seminal accomplishments. First, we established the journal from the start, developing policies and procedures, a sense of focus, and a reputation of rigor and relevance.

From the outset, we sought to incorporate the patient perspective, which was strengthened by the appointment of Marilyn Mann, a layperson and patient advocate, to the leadership group. We also instituted Caregiver or Patient Viewpoints to focus attention on the experience of our patients.

In addition, we instituted a section on Innovations of Care, which sought to provide a platform to present novel approaches to care, recognizing that the evaluation may be formative. We wanted to promote the idea that people in the field could share new ideas and stimulate thinking about healthcare delivery.

Furthermore, we strongly promoted the idea that qualitative research and mixed methods studies have a place in medical research. Many questions are best served with a qualitative component or an entire reliance on qualitative methods. We wrote in support of being open to these methods and provided guidance regarding methodology. The result was the publication of some spectacular articles, including a notable one by a former Quality of Care and Outcomes Research Young Investigator winner, Colleen McIlvennan and colleagues on decisions about destination therapy.

We also promoted diversity in our leadership, Editorial Board, and among the authors of editorials. Our senior editor group is 50% women as is our Editorial Board. The diversity extended to race, ethnicity, backgrounds, and perspectives. We included a nurse in our senior editor group and have nurses, a pharmacist, and a patient advocate on our Editorial Board. We promoted an annual issue devoted to women’s health. And in recent years, we sought to include diversity in our choices for editorials, with a specific goal of including women as at least half of the authors. We also sought to pay attention to other characteristics, including race and ethnicity and country. In considering articles, we were attentive to studies on disparities and equity, which we consider important in outcomes research.

In addition, we made a strong effort to create a presence in social media. We recognized that dissemination of ideas is important and that traditional press releases, while helpful, are not sufficient. Marilyn Mann led this effort and enabled us to have a presence and grow a following @CircOutcomes. Our outstanding Altmetric scores and our visibility on social networks are because of her and our Editorial Board, who took turns tweeting.

Of particular note, we established at the outset our interest in being an international journal. We included international members on our Editorial Board and always gave careful consideration to international submissions; almost 60% of our articles are from outside the United States, a percentage that has been relatively constant since our inception. The countries that lead in submissions are Canada, the United Kingdom, Australia, Italy, The Netherlands, and China. In addition, we have stimulated the European Society of Cardiology to establish an outcomes research journal.

In deference to emerging methods, we also introduced a section called Data Visualizations with the intent of providing a platform for brief reports that are visual in nature. As our field progresses, the role of visualizations and dynamic presentations of data will increase. We are just beginning this feature, but are already receiving submissions and have published the first one, an infographic.

We also had many special theme features including a series on shared decision making and another on statistical methods. In addition, we devoted special issues to women’s health and stroke.

Lastly, we consistently produced exceptionally high-quality content. Although this assessment is not quantitative, not necessarily representative, and not necessarily valid, it is my deepest sense that this community produced a journal that honored its authors and its audience—and provided content that could promote better care, more empathy, and improved outcomes for those we serve.

Our top 20 most highly cited articles give some perspective into our content and the quality of the contributions. The top
The article is Predictors of Survival From Out-of-Hospital Cardiac Arrest: A Systematic Review and Meta-Analysis by Sasson et al. The articles that present the development and validation of the Medicare mortality and readmission measures for patients with acute myocardial infarction and heart failure are on the list, as is an article presenting the patterns of outcomes for acute myocardial infarction and heart failure, and one focused on stroke among hospitals in the United States. An article on the relationship between patient satisfaction and outcomes was also highly rated. Articles on atrial fibrillation, including an assessment of anticoagulation control—one on trends in the prevalence and one on total costs—and one focused on decisions about anticoagulation made the top group. Risk factor studies also headlined this list, including a study of the predictive value of C-reactive protein and of various lipid measures. The methods paper from the ACTION (Acute Coronary Treatment and Intervention Outcomes Network): A National Effort to Promote Timely Clinical Feedback and Support Continuous Quality Improvement for Acute Myocardial Infarction registry was popular. Others included a study of frailty and cardiac surgery risk scores, a Markov model projecting cardiovascular risk in China, the TRIUMPH (Translational Research Investigating Underlying Disparities in Acute Myocardial Infarction Patients’ Health Status) methods paper, an assessment of bleeding after undergoing coronary artery bypass surgery, an evaluation of women in randomized trials, a contemporary assessment of hospital performance on the Medicare measures, and a report from Mission: Lifeline registry on systems of ST-elevation myocardial infarction care.

Editor’s Perspectives

During the course of 8 years, I have had a chance to write several Editor’s Perspectives. They have varied from defining our mission, to questioning practices, to recommending approaches. The end of my tenure provides an opportunity for me to highlight some of my favorites. I apologize for my indulgence.

In the journal’s first issue, I wrote that, “The launch of Circulation: Cardiovascular Quality and Outcomes occurs during a time in which our health care system is achieving its greatest triumphs and facing its most daunting challenges.” “Scholarship is needed to promote improvements in cardiovascular and stroke health and health care, focusing on the end results of our efforts.” “The mission of Circulation: Cardiovascular Quality and Outcomes is to improve clinical decision making, population health, and healthcare policy.” Note that the mission was not only to publish high-quality papers—but to use publication as a means to an end, which is improvement in health and healthcare. I further wrote that, “The ultimate success of Circulation: Cardiovascular Quality and Outcomes will not be in the pages published but in the way that the journal supports ideas and scholarship that lead to tangible benefits for patients and populations. We have audacious hopes for this endeavor; please join us in making it a success.”

I authored several pieces on outcomes research, including those that examined common misunderstandings about the field, the responsibilities of clinician-scientists to question conventional wisdom, and the role of CQO as a vehicle for such change. “If your work is done well and your conclusions follow your arguments and data, you will not be disqualified because your conclusions are at odds with conventional wisdom.”

I have frequently questioned conventional wisdom, including in The End of Journals, a piece about the publication enterprise. I enumerated weaknesses in the current journal model, which I suggested is too slow, too expensive, too limited, too unreliable, too focused on the wrong metrics, too powerful, too parochial, too static, and too dependent on a flawed business model. I concluded that, “We have arrived at a juncture where medicine and science need new vehicles for the dissemination of knowledge…The question for all of us in medical publishing—and for those who consume medical knowledge—is how would that best be accomplished in a new world that is flat, digital and transparent.”

I have often focused on the importance of measuring outcomes. Too many people wonder why outcomes research is different than other areas since every study has outcomes. The key is the focus on the end results—the outcomes that truly matter. As a result, although surrogate outcomes have a place, they should not be mistaken for outcomes that matter to patients and the public—outcomes that are experienced. I have expressed the belief that outcomes research has the “Show Me” mentality. I wrote that, “We do not want to be laggards in adopting strategies that provide clear benefit.” However, perhaps we should insist on a “Show Me” mindset when it comes to those strategies in which net benefit is yet unproven. I also published my remarks from the American College of Cardiology on the ENHANCE (Ezetimibe and Simvastatin in Hypercholesterolemia Enhances Atherosclerosis Regression) trial: “It is not right that we are this far down the line with this drug and have so much uncertainty about its balance of risks and benefits. We must understand the effect of new drugs on people and relying on a drug’s effect on a set of laboratory tests may not tell the whole story. We have learned this lesson before. It seems we must learn it again.” In another piece focused on patient-centered medicine, I wrote that, “We need to ask what our efforts have done to make it more likely that patients achieve what they desire given the tools available to us, and we need to be sure that we continually hold ourselves to the standard of patient-centered medicine.” I have also discussed issues surrounding surrogate markers, writing that, “People too often conflate the pharmacological modification of risk factors with the safety and effectiveness of drugs. Most drugs have the potential to influence a wide range of biological processes far beyond a single biomarker or even set of biomarkers.” I concluded that, “The biology of humans is complex and we are far from understanding it in a comprehensive way…This humility is making its way into clinical medicine, particularly as it applies to the adoption of expensive medications with risks and benefits that are incompletely characterized by outcomes studies. Such caution should not diminish our hopes that certain interventions may have wonderful effects on health; we just need to prove it.”

I wrote several articles on improving the scientific enterprise, with an emphasis on open science. I wrote that, “Now is the time to bring data sharing and open science into the mainstream of clinical research, particularly with respect to trials that contain information about the risks and benefits of...
treatments in current use.”31 In a subsequent piece,32 I joined colleagues in the Yale Open Data Access Project to describe the growing availability of industry trials.

I have addressed a wide range of other issues in the research enterprise. I suggested that we would benefit from knowing whether questions in observational studies were prespecified: “Without information about the history of a study and prior beliefs about the analyses that could be useful to frame the findings, readers may wonder about whether the findings resulted from combing through many analyses to find the most impressive.”33 I further wrote, “We need to improve our communication about how studies are conducted and incorporate that information into our interpretation of their meaning. We do not wish to preclude important exploratory work, but to improve our understanding of the strength of the evidence and where it fits into the medical literature.” In another piece, I suggested the need for greater accountability for the quality of data in registries34: “Registries have made the evidence and where it fits into the medical literature.”

Ultimately, researchers have a responsibility to ensure that the product is commensurate with the investment that was required to produce it.” With regard to grant applications,35 I suggested that we could do better in identifying which proposals are likely to yield important results by having submissions with a simulation of the end product. This approach would include “an application that consists primarily of a sample article, written in the format of a top journal, which presents the applicant’s vision of the completed study, including a high-level description of the anticipated main findings.” Thus, “An outcomes research approach to grant applications has the capacity to ensure that more projects that will make a difference are funded by improving our ability to assess what we are purchasing with available resources.”

One of my most influential pieces, with Rodney Hayward, was an open letter to the Adult Treatment Panel IV about why it should abandon low-density lipoprotein targets.37 We stated: “Dear ATP IV Committee: We are writing to encourage you to abandon the paradigm of treating patients to LDL targets, a change that will better align ATP IV with current clinical evidence.” We explained that there is no scientific basis supporting the treat-to-LDL paradigm, especially agnostic to the drug used to do so. Furthermore, the safety may depend on the drug used. And finally, “Tailored treatment is a simpler, safer, more effective, and more evidence-based approach.” These arguments by us and others led to a marked change in the lipid guidelines, one that acknowledged that treatment effects vary by the treatment, not merely the change in LDL. Moreover, high-risk patients have the most to gain from effective treatments.

I have also collaborated with experts in qualitative research, including Elizabeth Bradley and Leslie Curry, to make the case that the tenet of medical research should be broad enough to encompass these techniques. Like any research, the method should fit the question and the judgment of use should depend on the question and the quality of the approach. We wrote that, “We believe that, when used appropriately and with scientific rigor, qualitative methods can play a critical role in advancing the fields of biomedical research, health services research, outcomes research, and implementation science. The well-established standards for qualitative methods provide guidance about what constitutes a high-quality design.”38 I joined Leslie Curry and colleagues to publish a primer on mixed methods in biomedical and health services research39 in which we state, “Mixed-methods studies, in which qualitative and quantitative methods are combined in a single program of inquiry, are increasingly common and can be valuable in biomedical and health services research, in which the complementary strengths of each approach can characterize complex phenomenon more fully than either approach alone.”

Several of my pieces sought to inspire people to consider their role in making the world better. In one such publication,40 I sought to encapsulate the difficulties and rewards of being true to yourself and willing to question what authorities state to be true: “Defining moments can occur when you least expect them. Are you prepared to respond in a way that will bring honor to you and our profession? If you are prepared to let science lead you to your conclusions, then your work and your ideas will find a venue in these pages. Patient-centered improvement will require such a commitment from all corners of our profession. Be brave.”

In 2015, Dean Lee Goldman invited me to give the Commencement Address to the graduating class of the Columbia College of Physicians and Surgeons. That speech, my first commencement address, was shared in the pages of CQO with the following central message41: “You are here at the right time and the right place. Now seize the moment, whether your focus is on providing care, teaching students, or any of so many possibilities. Go for the big win. Go for big impact. Be aware of time. Build bridges—relationships and teams. And always put people first.”

Future
As usual, our work is not completed. The next generation of editors have considerable opportunities to strengthen CQO, position it to better serve the community, organize it to better communicate about its content, and position it to better influence policy and practice. I would like to offer the following top-of-mind list about where the new Editors might lead us.

We have great capacity to ease the burden on our authors and reviewers. We can further speed our assessments without sacrificing the quality of the published work. In the end, members of the group can grapple with the role of journals and the value of peer review. They may reach for more open content so that those who cannot pay, including patients, are not shielded from the data. They may also investigate ways to transition from static papers to more dynamic presentations of data, which may even evolve over time. They may seek heightened transparency into the journal process, including the performance...
metrics, the flow of money, the decisions about content, and the selection of discretionary material. They may also seek ways to more fully integrate with appropriate conferences and support activities in the outcomes research community as a vital partner. They could initiate programs to better support junior investigators and further advance our efforts to strengthen the diversity of our community. They may find ways for vibrant interactions to reverberate after the publication of articles and have virtual journal clubs with guest authors who enable more people on a global scale to learn of the work. They may expand the scope of outcomes research and incorporate content from fields including health information technology, engineering, and machine learning, while developing standards for the evaluation of such content. They could also provide a welcome venue for studies of the evaluation of policies and the implementation of operational strategies in cardiovascular care, an area sorely in need of rigorous study. They could partner with funders, such as the National Heart, Lung, and Blood Institute and the National Institute for Neurologic Diseases; the Agency for Healthcare Research and Quality; the Patient-Centered Outcomes Research Institute; the Gates Foundation; and the Robert Wood Johnson Foundation to be a platform for initiatives and a place where grantees can write about their work. They could provide space to evaluate research investment. They could explore ways to disrupt the current model, including finding ways to avoid burdening authors with page charges. They could promote studies of value in health care and be the platform for economic studies that illuminate where resources are spent well and where they are squandered. They could be a platform for critical analyses of high-stakes studies, where disparate opinions provide differing opinions of the same data. And they could be brave enough to question conventional wisdom and make the journal more than what it has been—and better than any that has preceded it. Their aspirations should be large, as the stakes are high. Independent voices with reasoned suggestions about how the future could unfold are urgently needed. The science of outcomes research can lead the way.

Conclusions

We are handing over a journal that is firmly established, receiving many submissions, and producing high-quality content. We defined ourselves by our commitment to supporting work that would likely lead to impact, promoting diversity in our community and pages, and supporting ideas over anything else. We leaned heavily on talented members of our community to build the foundation for a journal that cared whether its content would ultimately improve health and health care. I give full credit to whatever good has occurred to the legions whose fingerprints were left on the journal. It has been one of the special privileges of my career to be the founding Editor and to have taken this journey with the family of people who have been involved, and to be in partnership with the AHA. I leave with fond memories and anticipation of how CQO will grow and improve as a next generation begins its own journey and finds ways for this journal to be an instrument to improve the world.

Disclosures

Dr Krumholz is a recipient of research agreements from Medtronic and from Johnson & Johnson (Janssen), through Yale University, to develop methods of clinical trial data sharing; is the recipient of a grant from the Food and Drug Administration and Medtronic to develop methods for postmarket surveillance of medical devices; works under contract with the Centers for Medicare & Medicaid Services to develop and maintain performance measures; chairs a cardiac scientific advisory board for UnitedHealth; and is the founder of Hugo, a personal health information platform.

References


KEY WORDS: cardiovascular disease • leadership • publications • research • stroke
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The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circoutcomes.ahajournals.org/content/9/5/489

Data Supplement (unedited) at:
http://circoutcomes.ahajournals.org/content/suppl/2016/09/01/CIRCOUTCOMES.116.003233.DC1

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Reject without Review
Original Research

2010: 80
2011: 104
2012: 147
2013: 192
2014: 222
2015: 283
Time from Submission to First Decision

- 2010: 35.9
- 2011: 30.4
- 2012: 27.9
- 2013: 27.3
- 2014: 28
- 2015: 25.3
Time from Submission to Acceptance

- 2010: 206.9
- 2011: 161.4
- 2012: 146.3
- 2013: 154.9
- 2014: 166.4
- 2015: 154.9

Years: 2010 to 2015
Reviewer Performance (Time)

- 2010: 13.5
- 2011: 13.0
- 2012: 13.8
- 2013: 12.9
- 2014: 12.6
- 2015: 12.0
Geographic Distribution of Submissions

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<thead>
<tr>
<th>Year</th>
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<th>Rest of World</th>
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<td>158</td>
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<tr>
<td>2015</td>
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Geographic Distribution of Accepted Manuscripts

- 2010: 69 (53 in United States, 16 in Rest of World)
- 2011: 63 (52 in United States, 11 in Rest of World)
- 2012: 87 (56 in United States, 31 in Rest of World)
- 2013: 80 (68 in United States, 12 in Rest of World)
- 2014: 87 (67 in United States, 20 in Rest of World)
- 2015: 73 (50 in United States, 23 in Rest of World)

Legend:
- Blue: United States
- Orange: Rest of World
SUBMISSIONS BY COUNTRY: 2010 - 2015

- CANADA, 211
- UNITED KINGDOM, 136
- AUSTRALIA, 108
- ITALY, 101
- NETHERLANDS, 98
- CHINA, 98
- JAPAN, 96
- FRANCE, 45

Note: Top 8 Countries Represented