Message From the Chair

John Spertus
MD, MPH, FAHA

I love the field of outcomes research. For almost 20 years, I have been interested in systematically trying to determine what works best in medicine. This knowledge would allow us to apply treatments to those with the greatest potential to benefit and avoid their use in those unlikely to benefit (and potentially improve outcomes). In the early 1990s, when we were eagerly exploring novel interventions such as acute reperfusion for STEMI patients, most scientific inquiry was devoted to improving our understanding of disease mechanisms. Few scholars were examining variations in patients’ care and outcomes. What a change has occurred in the past two decades! With the passage of healthcare reform, the demand for greater value in healthcare expenditures and the emerging age of accountability, it would have been impossible to predict the central role that outcomes research would play when the field began to emerge as a unique discipline. Central to the acceleration of the field has been the support of the American Heart Association, which has created an interdisciplinary council specifically focused on cardiovascular quality and outcomes research.

The AHA’s Quality of Care and Outcomes Research (QCOR) Council represents a diverse spectrum of investigators committed to improving the quality of cardiovascular and stroke care. Importantly, this council serves as a phenomenal opportunity to collaborate with colleagues and to help articulate a vision of safer, more evidence-based, efficient and patient-centered healthcare.

To support this goal, there are numerous important opportunities to get involved and help move forward.

1. The Annual Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke Scientific Sessions: Under the leadership of Drs. Ed Havranek and Henry Ting, the QCOR conference will be held in Washington, D.C., May 12–14. This premier event for our community enables more than 600 interdisciplinary scholars to meet, share ideas, form collaborations and develop friendships that can support lifelong satisfaction in one’s professional activities. The poster session enables the highest level of intellectual interchange. I encourage everyone to submit an abstract and attend.

2. The AHA Pharmaceutical Roundtable (PRT)/Spina Outcomes Research Centers: The AHA has made an unprecedented investment into the infrastructure of our field by supporting four outcomes centers to conduct cutting-edge research and train the next generation of leaders. I encourage trainees to apply to the last class of fellowship training positions from this program. While the NIH has admirably followed suit by identifying three outstanding outcomes centers to support through its own network, there is no training option being supported by that program, which further underscores the importance of this unique opportunity offered by the AHA centers.

3. Scientific Statements: The QCOR Council has a phenomenal opportunity to propose AHA scientific statements to identify gaps in the literature and clarify challenges or address contemporary approaches to care. Once published, these statements have an immense opportunity to bring national attention to critical areas in clinical care that can serve as the foundation for additional research or identify new programs to elevate the translation of existing knowledge to clinical practice. Currently, QCOR is leading statements in medical decision making in advanced heart failure, defining the role of quality of life in research and care, and defining the importance of prognostic models in stroke. New concepts in the transition of heart failure care from the inpatient to the outpatient setting and methods to reduce radiation exposure are being developed. If you have ideas for future scientific statements, please contact Dr. John Rumsfeld, Council Vice-Chair, or me.

4. Fellow Research Support: We have funds available to support critical needs in the field. We have elected to support some fellow travel stipends to the QCOR meeting. We are also considering support for fellow and junior faculty to get analyses done through Get With The Guidelines databases. We hope to provide not only analytic support, but create distant mentorship opportunities with leading scholars. Please contact our Council Manager, Navida Virani (navida.virani@heart.org), if you are interested in staying abreast of these exciting developments.

5. Recognition of Outcomes Research Scholars: Our council can nominate and endorse leading scholars for national recognition by AHA. Last year we successfully proposed Dr. Daniel Kelly as the Basic Scientist Award recipient for his visionary partnerships with outcomes researchers. This year we successfully nominated Dr. Harlan Krumholz for an AHA Distinguished Scientist Award. His receipt of this recognition was not only an endorsement of his work, but a terrific acknowledgement of our field. If you have recommendations for nominees, please let Dr. Eric Peterson (Chair of our Nominations Committee) know.

6. Recognition of Fellows of the American Heart Association: This year we recognized two colleagues as FAHAs. Drs. Don Casey and Robert McNamara have made outstanding contributions to the field and were recognized at our reception in Chicago. If you or a colleague is deserving of this recognition, please contact Dr. Peterson or Ms. Virani.

7. Research Grant Evaluations: The AHA is committed to increasing the
proportion of funding between basic and population-based clinical research, which traditionally has applied 85 percent of its research portfolio to basic science research. Toward that end, there have been fundamental changes in the categories of proposed research, so that those doing outcomes research can more clearly dictate the field of their scientific inquiry. This has been supplemented with a reorganization of research review committees so that outcomes researchers can be the ones evaluating outcomes research projects. We believe that this will substantially elevate the quality of the review process and better support the funding of meritorious outcomes research.

This is a brief review of the many activities and accomplishments of our council. We have also had other extraordinary successes. For example, Dr. Harlan Krumholz was chosen to serve on the board of governors for the Patient Centered Outcomes Research Institute (PCORI). This entity is charged, through the healthcare reform bill, to invest in research that will fundamentally change the field of clinical care. Over the next decade, PCORI will invest billions of dollars in outcomes-oriented research and we look very forward to the evolution of this critically important program.

The delivery of health care is fundamentally changing. As outcomes researchers, we are in a unique position to meaningfully impact that change. There has never been a better time to be engaged in the field and I strongly encourage you to actively involve yourself in our council. We welcome you with open arms and are eager for your help in advancing our collective goals.

NHLBI Awards Three Cardiovascular Outcomes Research Centers and a Coordinating Unit

The NHLBI funded three cardiovascular outcomes research centers as of September 2010. Eric Peterson of Duke University will lead the coordinating unit and work with principal investigators at Boston Medical Center, University of Massachusetts Medical School and Yale University. Each center will conduct two projects. A total of $4,529,347 is committed to the three centers focusing on outcomes research and the development of early stage investigators.

Boston Medical Center’s project, led by Nancy Kressin, will develop the Center for Health Insurance Reform, Cardiovascular Outcomes, and Disparities at Boston University. One project will evaluate the effect of healthcare reform in Massachusetts on cardiovascular outcomes. Recent legislation resulted in 97 percent of residents obtaining health insurance. The effect of the legislation on preventable inpatient admissions and readmissions for cardiovascular conditions will be examined. The second project will examine care and outcomes for venous thromboembolism. Three early career investigators will participate in the projects to promote their development into seasoned cardiovascular outcomes researchers.

The University of Massachusetts Medical School will develop the Transitions, Risks, and Actions in Coronary Events Center for Outcomes Research and Education (TRACE-CORE). Led by Catarina Kiefe, this is a longitudinal study on acute coronary syndrome patients that will follow 2,500 individuals for two years following hospital discharge to examine quality of life, cognitive impairment, adherence to medications and health-related behaviors. The project will characterize the 90-day transition process and develop an evidence-based transition measurement set focusing on the discharge process. Quality of care in relation to outcomes will evaluate modifiable aspects of healthcare delivery and patient behaviors. The TRACE-CORE also will be used as a training center for early stage investigators.

The Cardiovascular Research Center at Yale University, led by Harlan Krumholz, will promote hospital and regional excellence in patient outcomes and healthcare value. The investigators will characterize hospital and hospital referral region performance using CMS data for several cardiovascular diagnoses and procedures. Hospital organizational strategies associated with low hospital risk for percutaneous coronary intervention will be identified and used to guide efforts to improve care and outcomes. The research projects will promote interinstitutional collaboration and the development of early stage investigators.

Young Investigator Award Finalists at QCOR 2010 Sessions

The five research presentations for the Young Investigator Award abstract competition at the QCOR 2010 Scientific Sessions were again outstanding and provided excellent examples of the breadth of cardiovascular outcomes research. Congratulations to the finalists below, with their abstract titles listed, and to winner Ying Xian. We are looking forward to another round of outstanding abstracts for the Young Investigator Award competition at the QCOR 2011 Scientific Sessions, May 12–14.

**Amit P. Amin**, Mid-America Heart Institute. Impact of predicted bleeding risk on the cost-effectiveness of direct thrombin inhibition vs. heparin monotherapy for patient undergoing PCI.

**Karen E. Joynt**, Brigham and Women’s Hospital. Impact of race and hospital racial makeup on readmissions for heart failure.

**Thomas M. Maddox**, Denver VA Medical Center. Treatment intensification and medication adherence are factors in improving blood pressure trajectories among newly diagnosed CAD patients.

**Adam C. Salisbury**, Mid-America Heart Institute. Acute, hospital-acquired anemia is associated with increased mortality and worse health status in patients with acute myocardial infarction.

In 2008, four AHA–Pharmaceutical Roundtable (PRT)/Spina Centers for Outcomes Research were established to support research into primary and secondary prevention and improving care for patients with coronary heart disease. Each center is charged with completing a series of outcomes research projects, organized around a common theme, as well as training six research fellows over a four-year period. The centers are at Saint Luke’s Mid-America Heart Institute in Kansas City, Mo.; Duke University in Durham, N.C.; the University of California Los Angeles, Los Angeles; and Stanford University/Kaiser Permanente of Northern California in Palo Alto, Calif.

In the two years since funding began, all four centers have initiated ambitious research portfolios and recruited fellows to undergo training in outcomes research. Details are provided below.

**Saint Luke’s Mid-America Heart Institute (MAHI)**
Kansas City, Mo.
Center Director: John Spertus, MD, MPH, FAHA

The primary goals of the MAHI center are to test the feasibility of implementing individualized, evidence-based informed consent documents for PCI to support the safety and cost-effectiveness of angioplasty and to train five fellows in cardiovascular outcomes research.

Their research project, “Transforming Informed Consent for PCI Into an Evidence-Based Decision-Making Experience,” builds on their preliminary work at the Mid-America Heart Institute to improve PCI consent. During the period of center funding, they have updated their program and process for incorporating individualized, evidence-based estimates of patient outcomes in routine clinical care using multivariable regression models with individual patient data. They have implemented these models at several sites including Integris Health System, Oklahoma City; Mayo Clinic, Rochester, Minn.; and Yale-New Haven Hospital in New Haven, Conn. They have also updated prediction models for target vessel revascularization with bare metal and drug-eluting stents to include both preprocedural and angiographically enriched models of TVR risk. These models enable doctors and patients to discuss the optimal choice for patients, aligned with patients’ goals and preferences. Data collection about the impact on patients, stent selection and outcomes are ongoing and baseline data collection will be completed in 2011.

The first class of fellows at MAHI has published 17 peer-reviewed papers (including publications in JAMA, Circulation, JACC and Circulation: Cardiovascular Quality and Outcomes) and 35 abstract presentations. Fellows have engaged in a wide variety of projects including the identification of new risk factors for AMI prognosis, the development of novel methods for analyzing treatment efficacy in observational studies, and the creation of a novel prospective registry in peripheral arterial disease. The center has also launched a novel educational seminar series in outcomes research that is being broadcast over the Internet to the three other outcomes centers and four other institutions throughout the country.

**Duke University**
Durham, N.C.
Center Director: Eric Peterson, MD, MPH, FAHA

The theme of the Duke center is to improve transitional cardiovascular care through innovative patient care models that will ideally result in improved long-term outcomes. Duke’s projects focus on: (1) identifying the aspects of care, associated with better outcomes, that are amenable to change; (2) understanding how all members of the healthcare team can contribute to enhanced care and outcomes; and (3) how to incorporate evolving information technology to better engage patients in their own healthcare management. Duke has organized their research efforts into three major projects:

1. **The Reperfusion of Acute Myocardial Infarction in North Carolina Emergency Departments (RACE) to Improve STEMI Care:** This project is designed to better understand how systems of emergency care for ST-segment elevation myocardial infarction patients can be improved.

2. **Supporting Post Myocardial Infarction (MI) Risk Modification Intervention via Telemedicine Evaluation (SPRITE):** This program
aims to expand risk factor monitoring from an office-based model to one based in patients’ homes, using innovative information technology tools and nurse-led disease management systems.

**3. Preventing Recurrent Heart Failure (HF):** This project examines whether HF rates are modifiable by improved transition of patients from hospital to home.

Collectively, faculty and fellows working on these projects have produced 33 publications, including 14 abstracts and 19 submitted in-press or published manuscripts. The center has successfully recruited five fellows for its outcomes research fellowship. All fellows are currently enrolled in the two-year Clinical Research Training Program, which provides courses that count towards a MHS degree. Fellows are required to attend weekly Duke Clinical Research Institute (DCRI) research conferences, cardiology grand rounds, DCRI “survival skills training” and participate in AHA PRT Network teleconferences.

**University of California Los Angeles**

Los Angeles

Center Director: Barbara Vickrey, MD, MPH

The UCLA center’s vision is to address racial, ethnic and socioeconomic disparities in the care and outcomes of patients with stroke and heart disease. The center’s four-year goal is to elucidate the causes of these disparities and create and test effective and sustainable interventions at both the individual and community levels. This goal will be accomplished through two projects:

1. A randomized trial to test the efficacy and sustainability of a quality-of-care intervention to improve risk factor control in stroke survivors in an urban, underserved, predominantly Latino population.
2. Assess the impact of neighborhood socioeconomic disadvantage on stroke occurrence, care and outcomes through analysis of data from the Cardiovascular Health Study, a large, population-based, longitudinal study of heart disease and stroke in adults age 65 and older.

In addition to these research projects, the UCLA center is training fellows to be future leaders in cardiovascular outcomes research. The center has successfully recruited four fellows, who are mentored by multidisciplinary trained investigators and participate in a variety of courses and training enhancement opportunities, such as courses in conjunction with the UCLA Robert Wood Johnson Clinical Scholars Program and the school of public health. The fellows attend a weekly RWJ journal club and monthly Journal Club with the other three AHA Outcomes Research Centers, in addition to being invited to various UCLA School of Medicine and RAND events.

Collectively, they have produced seven abstract presentations and are preparing a manuscript.

**Stanford University/Kaiser Permanente of Northern California**

Palo Alto, Calif.

Center Co-Directors: Mark Hlatky, MD, Alan S. Go, MD

The Stanford/Kaiser center is organized around the theme of “Defining and Delivery of Optimal Therapy for Cardiovascular Disease in Practice.” This theme is realized through two projects:

1. Optimal therapy for ischemic heart disease.
2. Optimal therapy for heart failure.

The center has successfully recruited four outcomes fellows.

As evidenced by both their research production and robust fellowships, these four centers are leading the way in generating important insights and future leaders in the field of cardiovascular outcomes research.

### Harlan Krumholz elected to Board of Governors for PCORI

QCOR’s Dr. Harlan Krumholz was recently elected to the board of governors for the Patient Centered Outcomes Research Institute (PCORI). The PCORI is a private nonprofit institute that will establish and execute a national comparative effectiveness research agenda by identifying research priorities and funding, and facilitating related studies. The institute will be funded through the Patient-Centered Outcomes Research Trust Fund and by 2015 total annual funding will reach nearly $500 million. (http://www.gao.gov/about/hcac/patientcentered_outcomes.html)