

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH
NATIONAL CENTER FOR COMPLEMENTARY
AND ALTERNATIVE MEDICINE**

**NATIONAL ADVISORY COUNCIL FOR COMPLEMENTARY
AND ALTERNATIVE MEDICINE
MINUTES OF THE FORTY-SECOND MEETING
June 3, 2011**

NACCAM Members Present

Dr. Brian Berman, Baltimore, MD
Dr. Timothy Birdsall, Goodyear, AZ
Dr. Gert Bronfort, Bloomington, MN
Dr. Adam Burke, San Francisco, CA
Dr. Lupo Carlota, Memphis, TN
Dr. Daniel Cherkin, Seattle, WA
Dr. Stephen Ezeji-Okoye, Palo Alto, CA
Dr. Susan Folkman, San Francisco, CA
Dr. Janet Kahn, Burlington, VT
Dr. David Kingston, Blacksburg, VA
Dr. Shin Lin, Irvine, CA
Dr. Lloyd Michener, Durham, NC
Dr. Richard Niemtzow, Clinton, MD
Dr. Katherine Shear, New York, NY
Dr. Herman Taylor, Jackson, MS
Dr. Xiaoming Tian, Bethesda, MD

NACCAM Members Not Present

Dr. Gary Curhan, Boston, MA
Dr. Steven DeKosky, Charlottesville, VA

NIH Staff Present

Rebecca Henry, CSR, NIH
Marguerite Klein, ODS, NIH
Erica St. Michel, NLM, NIH
Dan Xi, OCCAM, NCI

Members of the Public

Steven Dentali
Julia Dollinger
Jason Ezzelle

Aviad Haramati
Kathy Meister
Lori Pettnitz
Aviad Harmatti

I. Closed Session

The closed session of the National Advisory Council for Complementary and Alternative Medicine (NACCAM) convened at 8:30 a.m. This portion of the meeting was closed to the public, in accordance with the provisions set forth in Sections 552b(c)(4) and 552b(c)(6), Title 5, U.S.C., and Section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2). Dr. Martin Goldrosen, NACCAM Executive Secretary, called the meeting to order

A total of 314 applications were assigned to NCCAM. Of these, 153 were reviewed by NCCAM, 161 by Center for Scientific Review. Applications that were noncompetitive, not discussed, or were not recommended for further consideration by the scientific review groups were not considered by Council.

Council agreed with staff recommendations on 148 applications, requesting \$46,457,159 in total costs.

II. Open Session—Call to Order

The open session of the meeting of the National Advisory Council for Complementary and Alternative Medicine (NACCAM) convened at 10:40 a.m. Dr. Martin Goldrosen, NACCAM Executive Secretary, called the meeting to order.

The minutes of the February 4, 2011, NACCAM meeting were approved unanimously.

III. Outcomes and Effectiveness Research at NCCAM

Dr. Josephine Briggs, Director of the National Center for Complementary and Alternative Medicine (NCCAM), introduced a session on outcomes and effectiveness research in complementary and alternative medicine (CAM). She explained that the session was intended as a followup to issues discussed during the strategic planning process. Unlike most institutes and centers (ICs) at the National Institutes of Health (NIH), which emphasize the application of basic research to clinical practice, NCCAM studies practices already in wide use. Therefore, capturing the effectiveness or lack of effectiveness of these practices in real-world settings is a high priority. Dr. Briggs reported on several NCCAM- and CAM-related activities related to outcomes and effectiveness:

- A year and a half ago, the Institute of Medicine identified 100 high-priority areas for comparative effectiveness research, four of which are central to the NCCAM portfolio: mindfulness-based interventions, acupuncture, dietary supplements, and establishing a registry to compare treatment strategies for low-back pain.

- NCCAM has assumed a leadership role in a cooperative project involving NIH and an existing network of health care delivery organizations, primarily health maintenance organizations (HMOs) that have banded together to do health services research. Efforts are being made to strengthen the capacity of this network to perform studies such as cluster randomized trials, in which an intervention is used at some sites but not others and outcomes are compared.
- A survey by the Centers for Disease Control and Prevention showed that about half of the hospices in the country include CAM therapies as part of their care and those that offer CAM also have better pain management in general.
- In response to an analysis showing that children who received care from CAM providers were less likely to have received recommended immunizations and more likely to have been diagnosed with a vaccine-preventable disease, NCCAM has called for all health care provider organizations, both conventional and CAM, to raise awareness of the importance of immunization and promote support of and adherence to childhood vaccination recommendations.

Science to Improve the Nation's Health: the Case for Comparative Effectiveness Research

Dr. Michael Lauer, Director of the Division of Cardiovascular Sciences at the National Heart, Lung, and Blood Institute, explained that comparative effectiveness research (CER) has been a hot topic in the past few years. CER can be defined as research that compares the outcomes—for both patients and the health care system—of treating patients in different ways. CER is controversial because some of the outcomes it examines involve costs and some people fear that CER will promote rationing of health care.

Although the term CER is relatively new, the concept is not. Centuries ago, when bloodletting was a popular but controversial therapy, a well-known physician recommended that the effectiveness of bloodletting should be systematically tested using a methodology remarkably similar to that of modern CER. It took 150 years after the issue was raised before an assessment of this type was conducted, but when it did take place, the results were dramatic: 10 percent of patients treated by a hospital service that allowed bloodletting died, but the death rate was only 1 percent for comparable patients who were treated by hospital services where bloodletting was prohibited. Unfortunately, this finding did not change medical practice, and bloodletting was still widely used more than a century later.

A more recent example involves high-dose chemotherapy followed by bone marrow transplant as a treatment for advanced breast cancer. This therapeutic approach was so widely supported that some researchers considered a comparative effectiveness trial to be unethical, but when a trial was actually conducted, it showed that this arduous treatment regimen was no more effective than standard therapy. Fortunately, in this instance, medical practice changed rapidly to accommodate the new findings.

CER is crucial to evidence-based health care, but it faces challenges, including the need to design pragmatic, affordable trials; the risk of overinterpreting data derived from observational studies or nonrandomized trials; and the difficulty of reconciling the desire to bring in as many

stakeholders as possible with the reality that some stakeholders have conflicts of interest. The highest priorities for CER are identifying medical practices that are not evidence based and focusing efforts on those areas so that outcomes can be improved.

Discussion. NACCAM member Dr. Daniel Cherkin noted that CER is sometimes thought of as a less expensive alternative to randomized trials because it often uses observational data. Dr. Lauer explained that randomized trials as typically done in the United States and Europe are expensive, but it is possible to do robust, powerful, relevant trials at lower cost. Trials of this type should be part of CER. Dr. Briggs commented that with the HMO network, NIH hopes to rely more on health care delivery organizations to capture data on real-world outcomes.

Cost-Minimization Analyses and Washington State's Approach to Funding CAM

Dr. William Lafferty, Professor of Medicine and Hicklin Endowed Chair in the Department of Biomedical and Health Informatics at the University of Missouri—Kansas City School of Medicine and former Professor in the University of Washington's School of Public Health in the Department of Health Services, described the State of Washington's unique approach to CAM providers and health care reform and how this approach relates to CER.

In 1995, the Washington state legislature mandated insurance coverage of licensed CAM providers, which led to concerns that CAM provider use would greatly increase and costs to insurance companies would skyrocket. However, a study of insurance claims data from three major private insurers shows that this did not happen. Only 2.9 percent of all medical costs were for CAM providers, and the cost of CAM care was lower than expected, probably because CAM providers charged less per visit than conventional providers did, and at least some people substituted CAM care for conventional care. The insurance claims data also showed that the most significant predictors of CAM provider use were (1) using many medical services for chronic diseases, (2) having more generous and less restrictive insurance, and to a lesser extent, (3) being female.

The medical conditions most commonly treated by CAM providers were musculoskeletal problems such as back pain. CAM treatment for these conditions was less expensive at least in part because CAM providers are less likely to use sophisticated and costly types of imaging. Whether the CAM care was effective has not been established, but the effectiveness of conventional care for these types of problems is also uncertain.

The Washington experience suggests several important questions that should be addressed by CER including the following: Are patients who see conventional providers more expensive because they are sicker or because they are overtreated? How effective are the various forms of conventional and CAM treatment for conditions such as back pain? Can some expensive conventional treatments for back pain with potentially more adverse events be replaced by less expensive CAM treatments with less adverse events of comparable effectiveness?

Discussion. Dr. Briggs and Dr. Jack Killen, Deputy Director of NCCAM, commented that NCCAM is actively interested in back pain. NCCAM has held conferences on this topic and has built a coalition across NIH of seven ICs with substantial interests in the problem of chronic back pain. Dr. Briggs also explained that data from the National Health Interview Survey indicate that

CAM represents only about 1 percent of total health care expenditures but that most of these expenditures are out of pocket.

Complementary and Alternative Medicine at the Department of Veterans Affairs

Dr. Stephen Ezeji-Okoye, Deputy Chief of Staff, Veterans Affairs (VA) Palo Alto Health Care System presented findings from a new survey of CAM use at VA facilities. Comparison of 2011 with 2002 data showed an increase in the proportion of facilities offering CAM therapies (89 percent up from 84 percent) and that meditation is now the most commonly provided therapy, followed by stress management/relaxation therapy, progressive muscle relaxation, biofeedback, and guided imagery. This pattern of use of CAM therapies likely reflects the high proportion of VA patients who are being treated for mental health conditions, as well as VA rules that require care to be provided by licensed providers who fit VA occupational codes. CAM care is provided primarily by conventional practitioners, most commonly psychologists.

In the VA, CAM is most often used as adjunctive rather than stand-alone treatment and is most commonly used for mental health conditions. The five conditions most frequently treated with CAM were stress management, anxiety disorders, post-traumatic stress disorder (PTSD), depression, and back pain. CAM is well accepted by providers and patients in the VA system, but belief in the effectiveness of various modalities may be greater than the evidence of their effectiveness. The use of CAM is probably underrepresented in medical records, and oversight in granting clinical privileges to providers of CAM therapies is still limited and variable.

Discussion. In discussion, it was noted that it is too early to determine how the medical home movement in the VA will affect CAM use. The change in the status of chiropractic in the VA (it was considered CAM in 2002 and conventional care in 2011) is unlikely to have greatly affected study results because the largest use of CAM in the VA system is for mental health conditions that are not treated by chiropractors. The VA is emphasizing wellness and prevention, and much CAM activity, such as self-referral to yoga and tai chi, for example, has occurred in a wellness context.

NACCAM member Dr. Shin Lin commented and Dr. Lauer agreed that only a minority of conventional therapies have been proven effective in randomized clinical trials. Dr. Briggs and the speakers agreed that cluster randomization was a promising study design for CER, including CER within the VA. In response to a question from Dr. Killen, Dr. Lafferty explained that the likelihood of being able to use health care systems data to assess outcomes other than cost depends on whether institutions put appropriate information in their databases. This would require a concerted effort by the institution, such as discharge and followup surveys. Dr. Ezeji-Okoye commented that in the VA, outcome data are available but data on CAM interventions are incomplete. NACCAM member Dr. Brian Berman commented on the need to assess outcomes and effectiveness from a public health viewpoint as well as a clinical viewpoint, and others agreed.

IV. Concept Clearance—Systematic Review of Complementary and Alternative Medicine

NCCAM Program Officer Dr. Wendy Weber presented a concept proposal for an initiative involving an open competition that would support a research team to develop or maintain a publicly available database of CAM clinical trials and to conduct a series of high-quality systematic reviews of CAM interventions. The database would include trials published in journals not referenced in PubMed, including those published in languages other than English. Additional objectives of the proposal would be to promote international collaboration, reinforce the importance of systematic reviews, and provide education and training to the CAM community about how to conduct systematic reviews.

In the past, NCCAM has funded several groups to conduct systematic reviews, including the Agency for Healthcare Research and Quality (AHRQ) and the Cochrane Complementary Medicine (CAM) Field, which created a registry of CAM clinical trials as well as conducted a series of reviews. Systematic reviews provide an excellent methodology to combine findings from multiple clinical trials, pool the data, and summarize results in an unbiased manner. They are helpful to patients, practitioners, and policy makers. Agencies such as NCCAM also find them useful because they may identify gaps in the literature and indicate where future research is needed. To maximize the value of systematic reviews, they should include all available evidence, including evidence from obscure journals or databases and from studies published in all languages.

Discussion. In response to members' questions, Dr. Weber and Dr. Briggs clarified that this initiative would be largely investigator initiated and would allow considerable grantee autonomy, unlike the AHRQ reviews, for which NCCAM commissions a review on a specific topic. It is expected that the successful applicant will have skills in setting up databases and conducting systematic reviews as well as CAM subject-matter knowledge. NCCAM is proposing to outsource this project rather than performing the work in-house because the grant mechanism provides greater flexibility.

The financial scope of the project is under \$500,000 per year for 5 years and would depend on the amount the applicant requests. The possibility of multiple awards for several content-specific databases and sets of reviews could be considered; for example, mind and body interventions and natural products might be handled separately. Separating the registry from the performance of systematic reviews is not considered desirable because the strongest applicants would be unlikely to be interested in database creation only. Mechanisms for ensuring open access can be written into the request for applications and the grant award. Applicants would be expected to name a team of advisors to ensure that all areas of CAM are included. The educational component of a proposal could include presentations at meetings as well as dissemination of information about the resource and technical assistance for database users. Resources that are published in foreign languages would not necessarily be translated into English in their entirety, but sufficient information would be provided in English so that the database would be fully searchable.

A motion to approve this concept was made, seconded, and passed with 12 affirmative votes.

V. Report From the NCCAM Director

NIH, NACCAM, and NCCAM News

Dr. Briggs welcomed the four new members of NACCAM, Dr. Brian Berman, Dr. Daniel Cherkin, Dr. David Kingston, and Dr. Lloyd Michener. Dr. Briggs thanked them for their contributions and the breadth of expertise they bring to NACCAM. Dr. Briggs also welcomed Dr. Lee Alekel, a new Program Officer in the Division of Extramural Research.

Dr. Martha Somerman has been appointed Director of the National Institute of Dental and Craniofacial Research.

The creation of NIH's National Center for Advancing Translational Sciences (NCATS) is a very complex undertaking, but NCATS should, over time, enhance NCCAM's natural products portfolio. In instances where a natural product has potential for development as a drug, NCATS will have the resources to take over its development. NCATS will facilitate not duplicate, other translational research at NIH. It will be a discrete, stand-alone center with a strong collaborative mandate.

The NCCAM budget for FY2011 is \$127.7 million. NIH is operating under a full-year continuing resolution, which imposes constraints that would not apply with a normal appropriation. Because NIH had to develop a grants funding policy under the continuing resolution, making new awards was delayed. The policy does not allow inflationary increases, and it makes a 1-percent reduction in modular awards and a 3-percent reduction in nonmodular awards. These reductions were made to allow some capacity for making new awards. Because new awards were delayed and renewal awards must be revised, NCCAM's program and grants management staff face a period of intensified effort in the coming months.

Legislative Update

The Senate Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies held a hearing on NIH's FY2012 budget request on May 11, 2011. No House hearing has been scheduled, and it is unclear whether a hearing will be held.

CAM has received substantial attention in several presentations made to the House and Senate by military leaders, many of whom emphasized the potential value of mindfulness, yoga, acupuncture, massage therapy, and other CAM interventions in addressing the mental health and pain management problems faced in military settings.

The Intramural Program

NCCAM has initiated a search for a scientific director to develop and implement an intramural program focused on the mechanisms and management of pain. NCCAM is seeking a neuroscientist with a demonstrated track record of internationally recognized research on pain and a commitment to both basic and clinical research to fill this position. The search committee includes representatives from five NIH ICs and two academic institutions. While searching for the new scientific director, NCCAM has solicited projects from other intramural programs that focus on pain and has received proposals for short-term projects to build collaborations for the new program.

Other features of the intramural program include clinical inpatient acupuncture consultation services at the NIH Clinical Center, postdoctoral training, cosponsorship of a pilot study to evaluate the effect of acupuncture on epigenetic regulation of inflammatory mediators in chronic low-back pain, and cosponsorship of the second phase of the Age-Related Eye Disease Study (AREDS2). The first phase of AREDS demonstrated that a multicomponent antioxidant supplement could reduce the progression of age-related macular degeneration. The second phase is investigating whether including additional antioxidants in the supplement will enhance its effectiveness and whether removing or reducing the concentrations of components with potential side effects will reduce its effectiveness. Effects of the supplements on cardiovascular disease and cognitive function are also being investigated.

Research Highlights

Recently published studies from the NCCAM portfolio include (1) a study showing that mindfulness practice leads to increases in regional brain gray matter density, (2) a study showing that sublingual immunotherapy has promise as a method of desensitization for children with peanut allergy, (3) an evidence review on the safety of probiotics commissioned from AHRQ (which did not identify any new safety issues but noted that product characterization and reporting of safety data have not always been adequate to exclude the possibility of safety concerns), and (4) a survey conducted with AARP that showed Americans older than age 50 often do not discuss CAM use with their health care providers. A cover story on pain treatment in the March 7, 2011, issue of *TIME* discussed NCCAM-sponsored research and quoted Dr. Briggs.

Recent and Upcoming Events

NCCAM recently sponsored or cosponsored workshops on acupuncture, omega-3 fatty acids, and vitamin E, as well as a stakeholder meeting with 24 health care organizations, at which NCCAM's new health care provider portal was unveiled. NCCAM will cosponsor a conference on palliative care with the National Institute of Nursing Research in August 2011. The Stephen E. Straus Distinguished Lecture will be delivered on November 7, 2011 by Dr. Sean Mackey of the Stanford University Pain Management Center.

VI. Analysis of Centers of Excellence for Research on Complementary and Alternative Medicine (CERC) Program Grant Portfolio

Dr. Emmeline Edwards, Director of the Division of Extramural Research, and Cindy Caughman, scientific program analyst, summarized the NCCAM staff's recent analysis of the CERC program. The review was undertaken to determine how the CERC program, which accounts for 8.4 percent of NCCAM's overall budget, is contributing to the advancement of CAM natural products and mind and body research and to guide the development of the next funding opportunity announcement for CERCs.

The CERC program was designed as a program project grant with three to four synergistic projects structured around a central scientific theme relevant to CAM. Emphasis was placed on applying cutting-edge scientific approaches to the elucidation of mechanisms of action of CAM

therapies. The program was developed as a vehicle by which accomplished investigators would apply mainstream expertise to CAM research questions.

Center programs are inherently difficult to evaluate because (1) results are not obtained quickly, (2) centers do several things at once, (3) much of the value added by centers is intangible, and (4) human resources are difficult to track. Nevertheless, the staff analysis, which used a case study approach including both quantitative and qualitative indicators, was able to identify characteristics of the most successful CERCs, including productive multidisciplinary research programs that bring new expertise to CAM, leveraging of resources, and strong leadership and effective management. Concerns raised during the evaluation of some of the CERCs included the paucity of publications in several CERCs, a lack of synergy within projects and between CERCs, the sequential nature of individual projects, unexpected delays and safety concerns, and investigator turnover.

The NCCAM analysis concluded that there was a wide range of successful outcomes in the 15 CERCs included in the analyses but that overall, the CERC program stimulated multidisciplinary CAM research, resulted in a large number of publications, and attracted well-known, established investigators to CAM research.

Discussion. Council members complimented NCCAM staff on the thoroughness of their analysis of the CERCs and strongly supported the continuation of the CERC program. They pointed out that NIH centers spur other grants, including grants from funders outside the Federal Government, create prestige in an academic institution, and attract world-class scientists from multiple disciplines as collaborators. CERCs also provide training opportunities for postdoctoral researchers, and, through training grants, they can provide predoctoral training opportunities as well. Members encouraged leadership and management training for grantees and suggested possible topics for future funding, including substance abuse and obesity.

VII. Public Comment Session and Closing

No public comments were offered. Dr. Briggs thanked Council members and adjourned the meeting at 3:45 p.m.

We hereby certify that, to be the best of our knowledge, the foregoing minutes are accurate and complete.

Martin Goldrosen, Ph.D.
Executive Secretary
National Advisory Council for
Complementary and Alternative
Medicine

Josephine Briggs, M.D.
Chairperson
National Advisory Council for
Complementary and Alternative
Medicine