

Integrative Medicine and Health Disparities: A Scoping Meeting

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Executive Summary

A scoping meeting on Integrative Medicine and Health Disparities was held at the Samueli Institute Conference Center in Alexandria Virginia, on Monday April 28th, 2008. This one-day meeting, the first of its kind in the Samueli Conference Center, was co-sponsored by the Health Resources and Services Administration (HRSA)'s Health Disparities Collaboratives, the Disparities Reducing Advances Project (DRA Project) of the Institute for Alternative Futures and the Samueli Institute.

The goal of this meeting was to explore current knowledge about the use of integrative medicine (IM) and complementary and alternative medicine (CAM) in low income and underserved populations and their health care providers, and how this integration of CAM can be incorporated into the quality improvement of outpatient primary health care through the community health center (CHC) network. While it is clear that a majority of Americans use CAM, it is not clear to what extent there are differences in process, use, and health outcomes resulting from CAM use. And while many CAM practices have important cultural, historic and ethnic ties to underserved populations, little is known about CAM use in minority populations -- either by lay people or their healthcare providers.

The group discussed a wide range of topics, including key themes and issues related to the integration of IM and health disparities. Dr. Robert Saper from Boston University School of Medicine presented data from the 2002 National Health Interview Survey showing disparities in access to CAM therapies between whites and minority populations. Dr. Jonathan Tobin, CEO of the Clinical Directors Network, Inc. discussed practice based research addressing clinical outcomes, patient and clinical satisfaction along with exploring interest in and challenges of integrating CAM into Community Health Centers (CHCs). Kim Tippens, a research fellow from the National College of Natural Medicine spoke next and discussed CAM teaching institutions. Finally, Tom Trompeter, CEO of Community Health Centers of King County, WA, discussed a success story of integrative medicine use at CHCs in King County.

These speakers believe that it is imperative to understand and address disparities because federal, academic, private and industry leaders are investing substantial resources in researching CAM. These speakers note that the field will fail if research is conducted solely in white populations while ignoring racial and ethnic minorities. It was argued that it is unethical and morally incorrect to NOT incorporate CAM into CHCs, -that we have a moral and ethical imperative to maximize the great potential for IM to address disparities in the CHC setting, and that lack of access to effective self-management modalities becomes a social justice issue.

In order to facilitate discussion amongst the members of the group, participants split off into “break-out” groups to further elaborate on the above mentioned key themes and how they relate to their individual organizations goals and practices with CAM use in community health centers, low income populations or communities of color, and to discuss key questions related to CAM, CHCs and health disparities.

Following the meeting, DRA created a list of “Next Steps” based on the feedback from the group participants, which includes the generation of this report and the formation of a “vanguard” working group that will be composed of select meeting participants who will be charged with 1) taking the lead in developing a research and knowledge dissemination agenda for CAM use in underserved populations and 2) building on the strong foundation of this meeting to advance the integration of CAM/IM into the Expanded Care Model (ECM) and HRSA Collaborative framework to address health disparities.

Background and Significance

CAM Use in Ethnic Minority Populations

It is clear that many people use Complementary and alternative medicine (CAM) for improving their health care; national surveys have indicated that CAM is used by 62% of adults in the United States on a yearly basis.ⁱ However, it is not clear to what extent there are disparities in process, use, and health outcomes resulting from CAM. Little is known about CAM use in ethnic minority populations, either by lay people or their healthcare providers. Many CAM practices have their roots in ancient traditional medicine practices from various cultural and ethnic origins and have important cultural, historic and ethnic ties to underserved populations.

Barnes et al. have summarized data from the Alternative Health Supplement to the 2002 National Health Interview Survey (NHIS) and found that use of CAM varies by sex, race, geographic region, and health insurance status, among other factors.ⁱⁱ Graham et al. ⁱⁱⁱanalyzed the same NHIS data and found that use of 19 different CAM therapies over the past 12 months was highest for non-Hispanic whites (36%), followed by Hispanics (27%) and non-Hispanic blacks (26%). After controlling for other socio-demographic factors, it was found that Hispanics and non-Hispanic blacks use CAM less often and are less likely to disclose their use to their primary care provider. Also, Graham et al. found that Non-Hispanic whites use herbal medicine, relaxation techniques and chiropractic more frequently, possibly due to their relatively high cost. Grzywacz has hypothesized that differences in CAM use by age and ethnicity likely reflect differences in CAM availability and prevailing public health policies.^{iv}

CAM use across these three groups is greater with higher income and educational level. Modalities that involve a practitioner show more disparities in access, while self-care therapies show disparities of a lesser magnitude. An overall multivariate regression on the variables gender, education level and residence, showed that 29% of blacks and 22% of Hispanics are less likely to use CAM compared to whites. Education level is the strongest predictor of CAM use; respondents with a college education and above use CAM more frequently than those with a high school education or below.

The Expanded Care Model (ECM)

The Expanded Care Model (ECM) is an outgrowth of the lessons learned in the Health Disparities Collaboratives (HDC) national quality improvement infrastructure using the Chronic Care Model (CCM) that was originally described by Ed Wagner.^v ^{vi}The Collaboratives and the CCM have been significant in

raising the quality of care provided by community health centers, improving outcomes and reducing disparities. The ECM expands the CCM beyond its original focus on specific diseases to the overall process of health care. As the ECM comes into focus, it is important to consider how evidence based CAM approaches can be integrated into best practice health care, community health centers, low income communities and communities of color. A major focus of this effort is the role that evidence based CAM options can play in community health centers. It is believed that 2/3 of CHC patients are using CAM actively. The Primary Health Care Home model within the HRSA Collaboratives implies seamless responsible coordination of care within the community, within health care organizations, and within their internal and external systems, based on care models for appropriate evidence-based “handoffs.”

The Health Disparities Collaboratives

The vision of the Health Resources and Services Administration’s (HRSA) Health Disparities Collaboratives (HDC) is to expand access to high quality, culturally and linguistically competent primary and preventive care for underserved, uninsured, and underinsured Americans. They strive to achieve excellence in practice using evidence-based methods through the following goals:

1. Generate and document improved health outcomes for underserved populations;
2. Transform clinical, operation, and financial practices through the Expanded Care Model and the Model for Improvement
3. Develop infrastructure, expertise and multi-disciplinary leadership to support and drive improved health status and organizational systems; and
4. Build strategic partnerships.

Types of HDC include Disease Collaboratives using the CCM (e.g., Diabetes, Cardiovascular, Depression, Asthma, and AIDS); Business Case Redesign Collaboratives (e.g., Patient-Flow, Advanced Access, Advanced Finance, and Lean Systems); Prevention Collaboratives (e.g., Cancer Screening, Diabetes Prevention, General Prevention and Community Systems); and Prenatal and Patient Safety Collaboratives (e.g., Workforce Development, Organ Transplant, Health Education, and Patient Safety and Clinical Pharmacy Services Collaboratives). These HDCs in health centers have improved quality of care among health care providers serving the poor. While these collaboratives have focused on specific diseases using the CCM (e.g. diabetes, cancer, heart disease or asthma), they are evolving to a focus on the “whole person” approach through the ECM.

Other Federal Efforts

Numerous federal organizations are involved in the health disparities effort: the National Institutes of Health (NIH) is responsible for research capacity and development; the Centers for Medicare & Medicaid Services (CMS) conduct demonstration projects; the Centers for Disease Control and Prevention (CDC) lead surveillance efforts; and the Agency for Healthcare Research and Quality (AHRQ) is responsible for both the annual National Healthcare Disparities Report and the National Healthcare Quality Report and other similar related evaluation analysis. HRSA delivers services but it does not have demonstration, research, or surveillance authority. HRSA can, however, operate quality improvement efforts and it is under these auspices that the Collaboratives have been successful.

ARHQ and NIH funded evaluations of the HDC and presented results at an AHRQ Research Summit in 2007. These results included improvement in clinical processes of care over the short-term (1-2 year time period)^{vii}, improved processes of care and health outcomes over a longer time period of 2 – 4 years^{viii}, and their group concluded that the HDC are cost-effective for society^{ix}. Nationally, everyone currently agrees that further evaluations are indicated: of CAM/IM, of the HDC, of the Primary Health

Care Home model, and of the Medical Home model - as well as of possible integration of the lessons learned from these efforts.

The Disparity Reducing Advances Project (DRA Project)

The Disparity Reducing Advances Project (the DRA Project) is a multi-year, multi-stakeholder project developed by the Institute for Alternative Futures (IAF) to identify the most promising advances for bringing health gains to the poor and underserved and accelerating the development of advances to reduce disparities.

The last century has seen major advances in public health, health technology, economic wealth and prosperity. While these advances have translated into increased health status for Americans, there are many underserved communities that have been left behind. The DRA project is motivated by the fact that health disparities in the US are significant, but most Americans are unaware that the problem exists. The pursuit of equity (fairness) is a trend, like civil rights, anti-slavery and women's rights. It will take time and support for society to change its mind, but the process can be accelerated. The commitment to Health Equity is growing with support coming from WHO, Healthy People 2010, IOM's *Crossing the Chasm* and *Unequal Treatment* Reports along with foundations such as the Robert Wood Johnson Foundation.

The next decade will see a myriad of advances in prevention and treatment that will yield significant health gains. Notable advances are likely in community approaches to prevention, healthy eating and active living, the expanded care model, patient navigation, complementary and alternative medicine, and biomonitoring. Typically the poor and underserved are the last to benefit from such advances as health disparities in the US are significant with African-Americans being 23% more likely to die from all types of cancer than whites. Additionally, in 2001 the death rate from diabetes among Hispanics was 40% higher than the death rate of whites.

Launched in 2006, the project is funded with support from the National Cancer Institute, the Agency for Healthcare Research and Quality, CDC, the Robert Wood Johnson Foundation, the American Cancer Society, the University of Texas Medical Branch, Florida Hospital, and Novo Nordisk. The DRA Project includes a wide range of health and health care organizations, including community organizations and community health centers, health systems, government agencies, health technology companies, research centers, public policy and advocacy organizations. Partners contribute to DRA Project efforts. Currently there are over 55 organizations that are DRA Project Partners.

The DRA Project is working with these Partners to explore the appropriate integration of complementary and alternative methods of care into primary care for low income and minority populations. Eight efforts (four public health priorities and four health care priorities) have been selected as focal points of the DRA Project in the initial phase, and they include The Expanded Care Model and Integrative Primary Care.

The Samueli Institute

The Samueli Institute is a non-profit, non-affiliated organization that conducts and supports health care research in areas such as patient-centered approaches, healing environments, complementary therapies and traditional medicines. The mission of the Institute is to transform health care through the scientific exploration of healing. Samueli Institute achieves this mission by performing and supporting rigorous scientific research through a dynamic grants program, as well as through extramural partnerships and intramural basic, clinical, and health services research. In collaboration with the International Clinical

Epidemiology Network (INCLIN) and the Johns Hopkins University, the Institute conducts a research program on traditional medical systems, which includes underserved populations in India and throughout the developing world.

The Institute works in collaboration with universities and research organizations around the world, including such organizations as Harvard University, Johns Hopkins School of Medicine, Allina Health System, Rockefeller Foundation, National Institutes of Health, and Walter Reed Medical Center. The Institute also sponsors conferences and educational programs and partners with many other health care and philanthropic organizations interested in exploring opportunities to advance health care. The Institute is funded through an annual endowment from the Samuelli family, various other philanthropic donations, partnerships with other nonprofit organizations as well as government grants for research.

Goal and Objectives

The goal of this scoping meeting was to explore what is currently known about the use of integrative medicine (IM) and CAM in low income and underserved populations and by their health care providers, and how this integration of CAM should be incorporated into the quality improvement of outpatient primary health care. The specific objectives of this meeting were to:

1. Explore the relationship of Integrative Medicine (IM) to the Expanded Care Model (ECM) Framework, with the goal of explicitly integrating IM into the ECM
2. Review what is known about CAM use in diverse and underserved populations
3. Consider the role of CAM in underserved populations within the Collaborative framework and how to improve relationships among key relevant federal players and other private partners to lead to improved processes and outcomes
4. Analyze the implications for related topics and models, including patient safety and clinical pharmacy services, community oriented primary care, the patient centered medical home model, and optimal healing environments

Methods

Motivation

This meeting was co-sponsored by the Samuelli Institute, Institute for Alternative Futures (IAF), and Health Resources and Services Administration (HRSA) via the Health Disparities Collaboratives (HDC). In September of 2006 the DRA Project and the Samuelli Institute proposed creating the Integrative Primary Care effort to develop an integrative primary care protocol to enable community health center providers to use culturally appropriate, evidence based CAM modalities in their practice. Under the general premise that clinically effective, cost effective, and culturally appropriate CAM modalities could be disparity reducing, this proposal sparked great interest on the part of the HRSA HDC and several DRA Partners. Discussions were held in the fall and winter of 2006, and planning began in earnest in the fall of 2007 with discussions among Co-Sponsors.

Meeting format and Results

The meeting was held on April 28, 2008 in the Conference Center of the Samuelli Institute. Forty-five participants were invited, and 32 attended. We received 5 meeting evaluation forms and other feedback, with generally excellent reviews of the meeting facilities, organization and materials. The

meeting agenda is included as Appendix 1, and a list of participants and their biographical information is included as Appendix 2.

In the opening plenary session, Wayne Jonas gave an overview of the Samueli Institute, its Optimal Healing Environments program and activities related to health disparities. Clem Bezold gave an update on the DRA Project. Ahmed Calvo, Director and Chief Medical Officer of HRSA Health Disparities Collaboratives, gave an overview of the Expanded Care Model (ECM), Patient Centered Medical Home, Community Oriented Primary Care (COPC) and the Health Disparities Collaboratives. Dr. Calvo summarized the roles of his office in quality improvement and measurement and noted that HRSA as a DHHS agency has distinct roles that must be understood by non-government entities. HRSA has no research and demonstration authority, only dissemination and resource authority. There are multiple converging needs, and parallel activities on many fronts. To further explain, Dr. Calvo clarified that T1 dissemination/translational science from basic to clinical is the responsibility of NIH, while T2 dissemination/translational science for quality improvement is the responsibility of AHRQ. Further research on dissemination science is felt to be necessary because it can take 15-17 years for the nation to implement the evidence based knowledge into clinical health care practice on topics already known by some agencies. Dr. Calvo went on to discuss current efforts in HDCs at HRSA using the ECM and COPC. The HDCs utilize evidence-based methods through documenting improved health outcomes, transforming practices through the expanded care model and model for improvement, and building strategic partnerships.

Key themes and issues related to IM and Health Disparities

Four representatives were asked to make comments on key themes and issues related to the integration of IM and health disparities. Dr. Robert Saper from Boston University School of Medicine presented data from the 2002 National Health Interview Survey showing disparities in access to CAM therapies between whites and minority populations. He showed that 36% of non-Hispanic whites reported using CAM in comparison to 27% of Hispanics and 26% of Blacks. The data also indicated that there were differences in CAM therapy use by income level and education within the same race, with education having a stronger influence than income. Dr. Saper also discussed the importance of conducting CAM research in low-income and minority populations and integrating this research and CAM therapies into hospitals, clinics, and community health centers. Several barriers to integrating CAM into health centers accessed by low-income, minority populations include issues surrounding reimbursement by insurance companies for services such as acupuncture and massage in populations with relatively little discretionary income, lack of knowledge/awareness of these types of therapies in these communities, and lack of diversity within the profession making it difficult to address unique cultural differences in ethnic and cultural groups. The National Survey data shows that there are significant disparities in accessibility of CAM therapies in CHC settings. There is a moral and ethical imperative to change this.

Dr. Jonathan Tobin, CEO of the Clinical Directors Network, Inc. discussed practice based research addressing clinical outcomes, patient and clinician satisfaction along with exploring interest in and challenges of integrating CAM into Community Health Centers (CHCs). The research has included approximately 53,000 patients over the last few decades and has focused on those patients typically excluded from research: 70% women, 50% African Americans, and 34% Latinos. The research is bidirectional, focusing on the community as well as the clinicians with the goal of building fundable research programs. The study showed that the use of CAM excluding vitamins and prayer follow an income gradient, becoming a social justice issue. There was a written decree entitling CHC to include CAM, but the follow through never took place. There are practitioners in place that could provide CAM

services. One of the greatest challenges is giving them the tools they need and services they can deliver within the 10 minute interval allotted to each patient visit. Data from 2002 showed that 16% of HRSA grantees provided osteopathic services. Additionally, mind and body techniques, osteopathic manipulation and herbs were used by a small percentage of HRSA grantees. So, there is some evidence of use as of six years ago, though it is low. Dr. Tobin highlighted two studies; one recently released in JNMA showed that home remedy use was associated with compliance to conventional treatments. He pointed out that this could indicate that those people who are more likely to comply are also more likely to seek out self care as opposed to those who partake in home remedies being more likely to comply with conventional treatment. Nonetheless, there seems to be an association. The second study from a South Carolina health center showed that approximately 70% of the Latino patients used some form of CAM and overall, the estimate at the end of the study showed that approximately 62% of the patients used some form of CAM, showing higher rates of acceptability. Finally, Dr. Tobin highlighted a CHC in Manhattan as the first CHC providing access to CAM services including nutritional care, osteopathic manipulation, etc. These services have been providing for more than a decade. In terms of next steps, Dr. Tobin discussed the need for making training available focusing on CAM and mind-body stress techniques. On-line or website training resources are being developed and made available. The next hope is to provide a fellowship for physicians and incorporate how to apply CAM to CHC and low-income populations.

Dr. Kim Tippens, research fellow from the National College of Natural Medicine, speaking next, discussed CAM teaching institutions. They have developed four accredited clinics in the United States and two in Canada. The National College of Medicine runs 11 clinics in Portland, Oregon. The model includes interns, residents and attending physicians. Visits average around 60 minutes per patient. These clinics provide a training opportunity for students and a commitment to community health. In one of the federally qualified centers, 90% of the care in the clinic setting is provided to homeless youth. The visits are free. There is a coalition of community clinics including CAM services that can share referrals for unmet needs. Services are need based, free or discounted. The students pay for the opportunity to work in the clinics. The clinics use an integrative primary care, holistic approach that is patient centered. In Portland, sliding scale acupuncture schools have set up group acupuncture where there are 10-11 patients in one room so costs are reduced. A significant obstacle is the lack of Medicare reimbursement. Vermont is currently the only state that is eligible. In Oregon, there was a separate health plan set up that was reimbursing, but due to budget cuts, CAM safety net got the overflow of those cut offs. Another obstacle is reframing CAM, as some patients associated CAM use with lack of access to care. Dr. Tippens also discussed sustainability as a major limitation as many of the medications are often donated.

Tom Trompeter, CEO of Community Health Centers of King County, WA, relayed a success story of the integrative medicine use at CHCs in King County. A survey conducted in 1996 showed that patient preferences indicated a need/demand for CAM services. A start-up grant was awarded, including a partnership with Bastyr University and a research consultant in 1996/1997. Administrative commitment to CAM has kept the program running since the initial funding ended in 1999. The CHCs in King County include seven medical clinics, one school based clinic and four dental clinics, and are located in the suburban ring around Seattle. There are approximately 45,000 patients and roughly 150,000 visits per year. Staff includes two naturopathic physicians, one dual licensed ND/acupuncturist, one acupuncturist, two ND residents of Bastyr University, two registered dieticians, and one FTE allocated for non-clinical activities. Naturopathic and acupuncture services are provided several days per week at two clinics, one day per week at four clinics and dieticians are available one day per week at all clinics. There are in-house pharmacies at two clinics that keep CAM formulary. The lead provider for natural

medicine is a member of the Pharmacy and Therapeutics Committee. A key strategy to integration has been including CAM representation on key staff committees such as the leadership team, the clinical programs team and the natural medicine task force. The CAM program in the first quarter of 2008 kept 735 appointments per month with 1.39 visits per contact hour. Some of the innovative care provided includes community acupuncture, where one provider treats several patients in a group setting, mind/body skills group visits including heart rate variance biofeedback, classes to support healthy lifestyles, and grocery store tours. A comparison of conventional medicine and CAM showed a lower number of visits per patient (2.3 for CAM and 3.0 for conventional medicine) for those using CAM services.

These speakers believed that it is imperative to understand and address disparities because federal, academic, private, and industry leaders are investing substantial resources in researching CAM, noting that it is a failing field of studies are done in white populations and not in racial and ethnic minorities. It was argued that it is unethical and morally incorrect to *not* incorporate CAM into CHCs, that we have a moral and ethical imperative to maximize the great potential for IM to address disparities in the CHC setting, and that lack of access to effective self-management modalities becomes a social justice issue.

Following the four presentations, participants broke into three small groups to clarify and expand the understanding of CAM use in community health centers and/or with low income populations or communities of color, and to discuss five key questions related to CAM, CHCs and health disparities. Below is a cross group summary of each question addressed.

Question 1: Issues in the integration of CAM into CHCs

Presenters identified several barriers to the integration of IM and health disparities. Financial barriers, such as how to bring non-reimbursable services to those with very little discretionary income, were identified as the most prominent. Lack of knowledge, awareness and familiarity with CAM therapies may lead to skepticism or hesitancy to use them. Another barrier is the disproportionate number of therapists in minority communities, which leads to consideration of how to increase the representation of minorities in various CAM professions and better understand the unique cultural differences among ethnic groups. There are also practical logistic issues such as transportation, parking and child care.

Some common themes also emerged from the small groups regarding challenges to integration of CAM/IM into community health centers. Licenses of CAM providers were discussed by two of the groups. This issue was discussed from the business standpoint related to reimbursement as well as from a quality standpoint. While licensing may make reimbursement easier, one of the groups brought forward the idea that CAM practitioners do not necessarily want to be licensed/professionalized. The group discussed, in greater detail, the challenge of obtaining reimbursement. For low income, minority populations, CAM services become unaffordable without reimbursement. Two of the groups also contemplated the practical challenges of introducing CAM services into health centers. The groups agreed that this would create culture changes that would require trust building, and that CAM providers would need to be recognized as equal partners. The group discussed what constitutes evidence and what the purpose of the evidence would be. Without the evidence base for CAM, reimbursement is more difficult and knowing what will work for whom is a challenge.

Question 2: Challenges, Opportunities and Strategies for Implementing CAM Use

Ian Coulter stated that a set of policy issues needs to be cleared up before progress can be made on integrating CAM/IM into the ECM. Where CAM use is affected by education of health care providers and

reimbursement for CAM services, it is difficult for institutions to make a large amount of progress until education funding is provided and these issues will have to be resolved at the state and federal level. He noted that coding and reimbursement issues cannot be solved by the communities themselves. Coulter also noted that there seems to be a lot of good will right now and that underserved populations need to be engaged as full partners while developing policies. Janet Kahn suggested that the issue of debt/loan forgiveness might be a good place to start the integration process, while Ian Coulter suggested that Medicare/Medicaid coverage of CAM services might be a good place to start, citing the example of dental care for underserved children.

Within the larger group discussion, Ian Coulter stated that a set of policy issues needs to be cleared up before progress can be made on integrating CAM/IM into the ECM. If it has to do with education and reimbursement, it is difficult for institutions to make a large amount of progress until then, and these issues will have to be resolved at the state and federal level. He noted that coding and reimbursement issues cannot be solved by communities themselves. He also noted that there seems to be a lot of good will right now and that underserved populations need to engage as full partners while developing policies. Janet Kahn suggests that the issue of debt/loan forgiveness might be a good place to start the integration process. Ian Coulter suggested that Medicare/Medicaid coverage of CAM services might be a good place to start, citing the example of dental care for underserved children.

There was general agreement that education both in the community and at the clinician level is necessary. At the clinician level, there is limited knowledge of CAM. One of the groups suggested turning to professional schools to utilize their interns who need clinical experience to increase CAM capacity and education. Two of the groups discussed the need to create uniform guidelines/credentialing for regulation of CAM. Another common theme that emerged was ensuring that CAM is implemented in culturally appropriate ways and increasing the ethnic diversity of practitioners. At the community level, CAM has sometimes been used in place of conventional medical care instead of in conjunction with it, and education is necessary so that people do not feel like they are receiving substandard care. In relation to this challenge, one of the groups discussed opportunities already in place to educate the community including health educators, community health workers and medical assistants who regularly talk to the patients. Another possibility considered was utilizing *Promotoras* in the waiting room to explore CAM services with patients.

Question 3: Research and Evaluation Needs

Within the larger group discussion, Paula Gardiner mentioned that there are currently internet resources and helpful documents that are available on the web, but there is not currently an online forum for sharing and disseminating information on CAM and health disparities. Ben Kligler, who is on the editorial board of *Explore*, a peer reviewed, indexed journal, mentioned the need to publish best case series for communities and other research results related to CAM and health disparities. Jonathan Tobin suggested a national survey, geographical coding and mapping by state or by county to determine what CHCs are currently doing in this area. Along these lines, Ian Coulter suggested tying into HRSA educational modeling efforts.

Wayne Jonas asked whether we know if CHCs that are providing IM services are actually better at communicating with patients. Erica Oberg noted that the plans offering better coverage for CAM have higher patient satisfaction scores, and that plans have started to include CAM coverage to increase their

scores. Ian Coulter suggested an AHRQ survey to see what difference CAM makes in quality scores and choice of providers.

All groups discussed a need for research to show what are effective and the financial benefits of CAM, though the focus of each group was slightly different. One of the groups focused on determining best practices, which therapies are desired by different communities. The second group concentrated on the financial implications of the system, both beneficial and detrimental. Groups two and three discussed the need for research on the nature of the health encounter from the staff as well as the patient side, while group three further explored the research needs related to the perceived benefits of CAM to the patient. Both groups recognized a need for qualitative research including focus groups. All of the groups discussed the need for outcomes research rather than process research focused on the mechanics.

Question 4: Relationships to Improve Processes and Outcomes

During the large group discussion, Evelyn Lewis discussed several ideas for improving processes and outcomes through cultivating relationships, such as with insurers, pharmaceutical industries and CMS. Theresa Watkins-Bryant suggested partnering with professional organizations such as the National Medical Association, which has partnered with local, elementary, middle and high schools in an effort to get children interested in health care. Ian Coulter mentioned as a model a Robert Wood Johnson Foundation initiative involving 16 dental schools in increasing the underserved population. Howard Hughes and Robert Saper mentioned an African American yoga organization and NIH and HHS initiatives towards Center of Excellence and Historically Black Colleges and Universities (HBCUs).

Kim Tippens noted that there are currently four accredited clinics in the US and two in Canada that have been established as CAM teaching institutions. These include one federally-qualified health center and other clinics at Bastyr University, University of Bridgeport, Southwest College of Naturopathic Medicine and the National College of Natural Medicine. These clinics have interns, residents, and attending physicians, provide 45-90 minute appointments for patients, training for students and the surrounding community, and integrative, patient-centered primary care for acute and chronic conditions. Care delivery models, such as fee for service delivery and collaborative, team-oriented approaches, were discussed.

In the small group discussion, two of the groups discussed the need to cultivate relationships with insurance companies and AMA CPT coding committee regarding reimbursement structure. Other recommendations included: regulatory organizations, local governments/NACCHO and federal government (DoD), and teaching institutions including continuing education committees. Additionally, it was suggested that relationships be pursued with the industry including drug representatives and the herbal/vitamin industry. Other important partners included VA, HIS, AAHP, CMS (on CAM demonstration projects and consensus conferences to increase Medicare coverage of therapeutic modalities), and Community Health Centers.

Question 5:

The fifth question varied among the three breakout groups. Group 1 discussed strategies for integrating CAM/IM into the ECM and Collaborative framework to address health disparities and for integrating CAM in the patient safety and clinical pharmacy services collaborative. Group 2 was asked to discuss

strategies for using the Optimal Health Environments paradigm for enhancing quality and outcome. Group 3 addressed the question of how CAM/IM use relates and contributes to patient centered care, personalized health care (personalized for the individual and their community) by the team of clinicians needed to provide medical home care.

In response to integrated CAM/IM into ECM to address health disparities, group one discussed the need to include CAM representatives on expert panels, enhance community relationships, for example: creating apprenticeships within the Community Health Center setting, specifically defining patient self-management strategies to improve reporting of CAM and having clinicians discuss and document self-management with patients. In response to strategies for integrating CAM in the patient safety and clinical pharmacy services collaborative, group one recommended considering drug-drug, drug-supplement and drug-practice interactions, improving reporting of CAM use, developing a set of basic questions that providers can feel comfortable asking about CAM/IM use and enhancing decision support.

Group three addressed how CAM/IM use relates and contributes to patient centered care and personalized health care by the team of clinicians needed to provide medical home care. They pointed out that CAM in general tends to be a health facilitator and that most CAM modalities are individualized to the patient, which makes research more difficult. They also discussed the need for CAM to contribute to developing health guidelines and contribute to team activity. They noted that feedback from the community is important. Following report-backs from each of these small groups, the whole group strategized on key topics, such as how to improve processes and outcomes through cultivating relationships among federal, non-profit and other private partners.

Conclusions and Next Steps

CAM is an important component of care in many low income and minority communities. Many community health centers (CHCs) who serve these communities provide some CAM services, but little is known about how these practices are integrated into these centers or the impact these practices may have on health disparities or costs. The inclusion of evidence based methods of complementary and alternative care may significantly reduce health disparities by making care more accessible, culturally appropriate and affordable. They may also provide a vehicle for education about self-care, wellness and prevention in underserved communities.

A systems-level approach for addressing health disparities needs to incorporate the natural overlap between integrative medicine and CHCs, the relationship between care provider and patient and its potential for therapeutic impact beyond the therapy, the context of family and culture, care delivery trends such as the looming shortages of PCPs, and innovative, team-based delivery approaches.

One of the key recommendations from this meeting was the creation of a “vanguard group” to take the lead in developing the next steps for CAM use in underserved populations. Many participants expressed interest in participating in such a working group. Other next steps include developing an NIH/AHRQ research agenda and HRSA knowledge dissemination agenda in the area of CAM and health disparities; further analysis of integration of lessons learned from the HRSA collaborative focused on developing and applying an integrative primary care protocol, pursuing funding opportunities, and considering a program evaluation of CAM use in HRSA related clinics. The evaluation would need to identify what is

currently used, consider what is known about effectiveness and challenges of CAM use, and propose what appropriate next practice-based research or other next steps should be.

As a follow-up to this preliminary scoping meeting, the meeting suggested convening a Symposium on Integrating Complementary and Alternative Medicine in Integrative Primary Care for low income and minority populations and their health care providers. With leadership from the Samueli Institute and other key DRA Partners, this symposium would launch the aforementioned “vanguard group” as a conscious steering committee to promote this area. The group would consider specific examples of CAM use in low income populations, review key data on CAM use in these populations, consider models and approaches for making appropriate CAM sustainable in the cost and funding environments of health care providers serving low income populations develop a research and knowledge dissemination agenda and publish a monograph. As a regular, special edition, or supplement to a peer-reviewed journal, the monograph would then be made widely available through MEDLINE and distributed in bound form to key audiences and through the DRA Partners network.

Acknowledgments

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Appendix 1: Meeting Agenda

8:30 – 9:10 am	<p>Welcome: Introduction of Sponsors Objectives, rules and roles for the meeting Participant introductions <i>Wayne Jonas, MD, President/ CEO, Samueli Institute and</i> <i>Clement Bezold, PhD, Chairman, Institute for Alternative Futures (IAF)</i></p>
9:10 – 9:30 am	<p>Overview of the Expanded Care Model (ECM), Patient-Centered Medical Home, Community Oriented Primary Care (COPC) and the Health Disparities Collaboratives <i>Ahmed Calvo, MD, MPH</i> <i>Acting Deputy Director, Center for Quality, Health Resources and Services Administration</i></p>
9:30 – 10:30 am	<p>Moderated discussion on key themes and issues related to IM and Health Disparities <i>Lead discussants:</i></p> <ul style="list-style-type: none"> • <i>Tom Trompeter, CEO, Community Health Centers of King County, WA</i> • <i>Jonathan N. Tobin, PhD, President/CEO, Clinical Directors Network, Inc.</i> • <i>Kim Tippens, ND LAc, Research Fellow, National College of Natural Medicine</i> • <i>Robert B. Saper, MD MPH, Boston University School of Medicine</i>
10:30- 10:45 am	Break
10:45 am – 1:00 pm	<p>Small groups</p> <ul style="list-style-type: none"> • Group 1: <i>Room 1, Facilitator: Dr. Calvo</i> • Group 2: <i>Room 2, Facilitator: Dr. Jonas</i> • Group 3: <i>Executive Conference Room, Facilitator: Dr. Bezold</i>
12:00 – 1:00 pm	Working Lunch in small groups
1:00 – 1:30 pm	<p>Recap/ Report back on findings and recommendations from small groups <i>Reporters chosen by each group</i></p>
1:30- 2:00 pm	<p>Discussion of small group findings <i>Moderator: Dr. Bezold</i></p>
2:00- 2:30 pm	<p>Developing a strategy for integrating CAM/IM into the ECM and Collaborative framework to address health disparities <i>Discussion leader: Ian Coulter, PhD, RAND Corporation</i></p>
2:30 – 3:00 pm	<p>Improving processes and outcomes through cultivating relationships among federal, non-profit and other private partners <i>Discussion leader: Evelyn Lewis, MD, Pfizer</i></p>
3:00 – 3:30 pm	<p>Summary, next steps and closing <i>Summary and next steps – Matthew Fritts, MPH, Senior Research Associate, Samueli Institute</i> <i>Closing Comments: Dr. Bezold, Dr. Calvo and Dr. Jonas</i></p>

Appendix 2: Participant Biographical information & CAM/IM Experience

Clement Bezold, Ph.D. is founder of the Institute for Alternative Futures and its for-profit subsidiary Alternative Futures Associates. He received his Ph.D. in Political Science from the University of Florida. As a “futurist” he has applied scenarios and visioning techniques to help governments (local, state, national and international), major voluntary organizations, and corporations more wisely choose and create the futures they prefer.

To promote health equity he has developed and leads the Disparity Reducing Advances Project (The DRA Project). With a network of over 60 organizations the DRA Project is working to accelerate key advances in public health and healthcare. He has consulted with the World Health Organization in Geneva and its European Office (WHO/EURO), as well as the Pan American Health Organization (PAHO) on enhancing their ability to use health futures in their operations, particularly in support of WHO's vision of Health For All.

Maria Cristina Brazil found a home in Albuquerque five years ago and began working with the Kalpulli Izkalli. For two years she coordinated their Traditional Medicine clinic. She helped to organize the yearly Ferias de Salud, where over 400 people attended healings by indigenous practitioners from Mexico and New Mexico. She has acted as translator, triage worker, coordinator and networker in this capacity. In 2004, she was one of the founding members of the Topahkal Health Collaborative, an “interwoven” health clinic. In that capacity, she developed and coordinated a “fair-priced” weekly ultrasound clinic for uninsured patients. Most recently she has taken the job at the Family Medical Office as the “clinic flow coordinator” where she is responsible for working with the many volunteers and staff as well as issues around evaluation and quality improvement.

Ian Coulter, Ph.D. was born in New Zealand and holds degrees in sociology from the University of Canterbury (B.A., M.A. Honors) and he received his Ph.D. from the London School of Economics & Political Science. He has held faculty and administrative positions at Laurentian University, University of Toronto and was President of Canadian Memorial Chiropractic College from 1982-1991. From 1992 to 1995, Dr. Coulter was the Director of the UCLA/Drew University Minority Oral Health Research Center. In July of 1996, he was appointed as a full Professor in the School of Dentistry, UCLA, in the Division of Public Health and Community Dentistry. He also currently holds the positions of Senior Health Policy Researcher at RAND; and Research Professor at the Southern California University of Health Sciences. Dr. Coulter currently holds the Samueli Institute Chair in Policy for Integrative Medicine at RAND.

Ahmed Calvo, M.D., M.P.H. is Acting Deputy Director, Center for Quality, Office of the Administrator, Health Resources and Services Administration, U.S. Department of Health and Human Services. Dr. Calvo is responsible for integrating lessons learned from the HRSA Health Disparities Collaboratives and related quality improvement activities from the various HRSA Bureaus/Offices and other Collaboratives, into an Agency-wide quality systems strategy, engaging all of the Bureaus/Offices. HRSA has announced that it will be implementing a new national Collaborative on Patient Safety and Clinical Pharmacy Services, under the leadership of the HRSA Center for Quality and the HRSA Office of Pharmacy Affairs.

Damara Cockfield, M.P.A. is a Program Specialist for Military Medical Research at the Samueli Institute with the responsibility of coordinating and managing various clinical trials at military and veteran medical treatment facilities in the Washington, DC area and nationwide. She has experience in simultaneously managing and monitoring the status of 15+ clinical research trials in military, VA, and

civilian medical facilities throughout the country. She also acts as a liaison with Institute grantees and the military Institutional Review Boards. Ms. Cockfield received a Master of Public Administration degree, with a concentration in Public Health, from the University of Connecticut's Department of Public Policy in 2005; a Bachelor of Arts degree from Dartmouth College in 2002; and a Certificate in Clinical Trials Management from the University of Chicago in 2006.

Matthew Fritts, M.P.H. is a Senior Research Associate at the Samuelli Institute. He has over ten years of experience in research on complementary and integrative medicine, including four years at the National Institutes of Health (NIH). He received his Masters in Public Health degree with honors in Epidemiology and Biostatistics from the George Washington University, and a B.A. in Pre-Medical Studies, Asian Religions and Music from the University of Virginia. Before joining the Samuelli Institute, Mr. Fritts completed the Presidential Management Fellowship Program at the NIH and worked at the National Cancer Institute (NCI) to coordinate research on tobacco use cessation and nicotine addiction across the NCI, NIH, and Department of Health and Human Services. Mr. Fritts has been teaching yoga and meditation for 12 years, and his primary research areas are mind-body interventions for chronic and mental illness, and traditional medical systems for HIV/AIDS.

Paula Gardiner, M.D., M.P.H. is the Assistant Director of Integrative Medicine in the Boston University Department of Family Medicine. She completed a three-year NIH funded research fellowship in CAM research at Harvard Medical School and earned her master's in public health. Her main areas of research have been of the efficacy and safety of dietary supplements for pregnant women and children in low-income minorities. She has published extensively in the area of safety of dietary supplements and drug/supplement interactions. She is the co-director of the Longwood Herbal Task Force and holds academic appointments at the Massachusetts College of Pharmacy and Health Sciences and Tufts Medical School. Dr. Gardiner has had over seven years of training and practice in Mindfulness Based Stress Reduction (MBSR) and other mind body techniques such as yoga, relaxation response, hypnosis, and guided imagery. She is a professional member and registered herbalist with the American Herbalist Guild.

Kelly Gourdin is a Program Manager for the Optimal Healing Environments (OHE) Program at the Samuelli Institute. With over fourteen years of Clinical healthcare management experience within the Department of Defense, her position with the Institute focuses on management of various VA and Military projects within the OHE Program. Formally with the Defense and Veterans Brain Injury Center, she has served as the National Case Manager for Traumatic Brain Injury interfacing with network sites within the military medical treatment facilities and Veterans Administration healthcare systems nationwide. Currently an honor graduate student in the department of education at the George Washington University, Ms. Gourdin has a Bachelor of Science in Psychology from the University of South Carolina, three years of nursing education, and a Certificate in Education for Transitional Acquired Brain Injury from the George Washington University.

Larry Gourdine is currently a member of a community group lead by the Summit Health Institute (www.Shireinc.org) working in Maryland/DC metro area to develop a bottom up, grass roots health disparities healthcare information exchange collaborative as part of that region's comprehensive approach to improving healthcare delivery, health outcomes and eliminating health disparities. His career background is in the pharmaceutical industry, where he has extensive experience studying the impact of chronic diseases most often associated with health disparities: diabetes, heart disease and mental illness. In 2004, Mr. Gourdine worked collaboratively with key stakeholders and health policy advocates in Maryland to help pass the first state level healthcare disparities prevention act; HB 883

sponsored by Delegate Shirley Nathan-Pulliam. This bill mandated that public health agencies and healthcare delivery organizations develop strategies to eliminate healthcare disparities in Maryland. Also in 2004, he was recognized with a Governor Citation for his work in health literacy. Mr. Gourdine is a Distinguished Military Graduate (DMG) from The Citadel in Charleston, SC.

Anita Greene, M.A. is Outreach Program Manager at the National Center for Complementary and Alternative Medicine (NCCAM). In this role she plans, directs, and implements national, regional and local outreach strategies to reach the CAM community and special populations to: strengthen the relationships of these groups with NCCAM, attract new NCCAM investigators, promote NCCAM programs and initiatives, attract trainees, and enhance participation of these communities in NCCAM-supported clinical trials. Prior to assuming this role, Ms. Greene served as Press Communications Program Officer/Media Spokesperson for NCCAM--formerly the Office of Alternative Medicine. She served as the first Editor of NCCAM's external newsletter, *Complementary and Alternative Medicine at the NIH*, and Editor of an in-house newsletter, which received a national communications award. Ms. Greene received her Bachelor of Arts degree in sociology and psychology from Frostburg State University, and her Masters of Arts degree in applied management from the University of Maryland.

Wayne B. Jonas, M.D. is the President and Chief Executive Officer of the Samueli Institute. A family physician and scientist, he formerly served as the Director of the Office of Alternative Medicine at the National Institutes of Health, the Director of the Medical Research Fellowship at the Walter Reed Army Institute of Research, a Director of a WHO Collaborating Center for Traditional Medicine, and a member of the White House Commission on Complementary and Alternative Medicine Policy. He sits on numerous national and international advisory boards and scientific review groups. He is the author of over 150 publications and five books. Dr. Jonas is a graduate of Davidson College and Wake Forest University School of Medicine.

Janet Kahn, Ph.D., NCTMB is a medical sociologist and a massage therapist with a long-standing interest in issues of healthcare delivery and systems integration. Dr. Kahn works as a Research Assistant Professor in the Department of Psychiatry at the University of Vermont, and serves as Executive Director of the Integrated Healthcare Policy Consortium. She is co-investigator on two studies currently in the field -- a clinical trial comparing two kinds of massage for people with chronic low back pain, and a Phase II SBIR grant to develop and test an educational DVD for cancer patients and their caregivers.

Benjamin Kligler, M.D., M.P.H. is Associate Professor of Family and Social Medicine at Albert Einstein College of Medicine and Research Director of the Continuum Center for Health and Healing, an integrative medicine practice which opened in May 2000. In addition, Dr. Kligler is Co-director of the Beth Israel Fellowship Program in Integrative Medicine, which accepted its first fellows for training in January 2002, and teaches in the Beth Israel Residency Program in Urban Family Practice. Dr. Kligler is the author of *Curriculum in Complementary Therapies: A Guide for the Medical Educator*, and co-editor of *Integrative Medicine: Principles for Practice*, a textbook published by McGraw-Hill in 2004. He is also Co-Editor-in-Chief of the peer-reviewed journal *Explore: The Journal of Science and Healing*. Dr. Kligler is certified in Ericksonian Hypnotherapy and acupuncture, and incorporates these and the use of botanical medicines into his primary care practice at the Center for Health and Healing.

Fredi Kronenberg, Ph.D., a physiologist, has studied women's health for more than 25 years, with expertise in menopause and alternative therapies for women's health conditions. She examines herbal, nutritional and other approaches to optimizing women's health, and studies Traditional Chinese Medicine and medicines of various ethnic traditions to understand impact on public health.

Dr. Kronenberg is Professor of Clinical Physiology at Columbia University, College of Physicians & Surgeons, and was founding director of the Richard and Hinda Rosenthal Center for Complementary & Alternative Medicine. She was founding editor of the *Journal of Alternative & Complementary Medicine*, and co-founder of the North American Menopause Society.

For 14 years, Dr. Kronenberg directed the Richard and Hinda Rosenthal Center for Complementary and Alternative Medicine at Columbia University College of Physicians and Surgeons. The Center's main mission was in areas of research, education and information. She also directed an NIH-funded Center for CAM research in Aging and Women's Health. The research ranged from basic science, including photochemistry and molecular biology, to clinical trials and survey studies, and has included studies of efficacy, mechanisms of action and safety of complementary and traditional therapies.

While Dr. Kronenberg's research spans diverse aspects of women's health and traditional/complementary/alternative medicine, her primary interest is in women's health across the life-cycle, with a research and educational focus on botanical medicine. Her research has examined alternative treatments for menopausal problems, including a study of the American herb 'black cohosh' for menopausal hot flashes.

Dr. Kronenberg collaborates with botanists and ethno botanists to explore herbal medicines of various ethnic traditions in New York City for treating women's health problems and other conditions. Through this work, she looks to understand the impact of the use of traditional medicines, particularly in minority communities, on the health of the community and the broader public health of the city. A model manual is being prepared for use by community physicians and local health care providers, as well as many of their patients who use traditional medicines of differing origins. This work also includes an evaluation of how the medicines change (in practice and content) when they move from country of origin to a new country.

An NIH-national survey conducted by Dr. Kronenberg and colleagues, on the complementary/alternative medicine use by women across race/ethnic groups, has pointed out the considerable and complex medical pluralism practiced by many, and the nuanced difference between the practices and remedies employed by different immigrant groups.

Global health issues include the expanding use of traditional systems of medicine world wide. Dr. Kronenberg collaborates with institutions in China, Italy and Hong Kong to study traditional Chinese medicine, and she is also a member of the Asian-based *Consortium for the Globalization of Chinese Medicine*.

Monique LaRocque, M.P.H. is a public health programs manager for Canyon Ranch Institute. She currently supports partnership programming and provides strategic public health and communications counsel to Canyon Ranch Institute's executive leadership. Monique's prior experience includes work with government, private, and national and community non-profit entities on the development of public health leadership and science communications initiatives to advance health and wellness. Monique is a graduate of New York University and the George Washington University. She also completed short courses and a certificate program in the Dominican Republic and in South Africa where she worked in underserved communities to promote prevention and improve quality health care.

Linnea Larson has worked in a range of health care settings including a psychiatric hospital, community mental health center, hospitals in oncology, renal and hospice. She has taught social work at the both

the undergraduate and graduate level. She served on the White House Commission on Complementary and Alternative Medicine Policy. The population she served in the residency program and mental health center comprised minority, uninsured, or underinsured patients with multiple health issues. In these programs she taught patients stress reduction techniques in group and individual settings that were used effectively by patients and their family members. Linnea Larson works as a yoga and meditation teacher in Oak Park, Illinois. Her graduate training is in social work and family therapy. She is also trained in guided imagery, hypnosis, HeartMath, and meditation which she has practiced for sixteen years.

Evelyn L. Lewis M.D., M.A., FAAFP earned her medical degree from the University of the Health Sciences, The Chicago Medical School and completed a residency in family practice at Naval Hospital Jacksonville, Jacksonville, FL. She also completed a two-year faculty development fellowship at Madigan Army Medical Center and Pacific Lutheran University with a Masters degree in the Social and Behavioral sciences. Dr. Lewis is currently a Medical Policy Director, World Wide Public Affairs and Policy for Pfizer, Inc and also serves as a Consultant Principal Investigator, Uniformed Services University (USU) Center for Health Disparities. During her tenure at the Uniformed Services University, she was awarded a Project EXPORT grant from the NIH Center for Minority Health and Health Disparities and served as the Principal Investigator. In her position as a Medical Director, Healthcare Policy, she has employed this experience in Cultural Competency and Healthcare Disparities to increase patient's awareness of diseases and treatments, increase physicians' awareness of the special needs of minority populations, increase the number of minority health care professionals, and increase access to quality health care through her work with multiple organizations to include the Black Ministers Council, Congressional Black Caucus (CBC), CBC Health Brain Trust, National Medical Association, National Black Caucus of State Legislators, NAACP, National Urban League, American Academy of Family Physicians, National Medical Association, National Hispanic Medical Association, and the American Medical Association Commission To End Health Disparities. She is a member of the Editorial Board for the journal, *Cognitive and Behavioral Practice*. Her professional and research interests include adolescent medicine, adolescent sexuality and pregnancy issues, weight management (obesity and overweight), health and healthcare disparities, clinical trials and minority participation, cultural proficiency and women's health care delivery.

Todd Linden, M.A. is president and CEO of Grinnell Regional Medical Center, a private non-profit hospital in Grinnell, Iowa. Linden received a Bachelors of Arts and a Master of Arts in Health Administration from the University of Iowa. He is a fellow in the American College of Healthcare Executives. Linden served on the American Hospital Association's Board of Trustees from 2000 to 2005; currently serves on the board of advisors to AHA's Center for Healthcare Governance; was appointed to the National Advisory Committee on Rural Health and Human Services; is past-chair of both the Iowa Hospital Association and Health Enterprises of Iowa; serves on Grinnell College board of trustees and advisory boards of the University of Iowa College of Public Health and of Hospitals for a Healthy Environment. He is also an adjunct faculty member at the University of Iowa and Des Moines University.

Richard Nahin, Ph.D., M.P.H. is NCCAM's Senior Advisor for Scientific Coordination and Outreach. He provides guidance and leadership on research priorities and promotes coordination among Federal agencies concerned with CAM research, research training, and information dissemination. Dr. Nahin received his undergraduate degree in psychology and his doctorate in neuroscience, both from the University of California, Los Angeles. He also received a master's in public health, specializing in epidemiology from the Uniformed Services University of the Health Sciences. Dr. Nahin came to NCCAM (then the Office of Alternative Medicine) in 1996 as the program officer for extramural activities. Dr. Nahin was later appointed as Director of the Division, as well as Executive Secretary for the National

Advisory Council for Complementary and Alternative Medicine and the Cancer Advisory Panel for Complementary and Alternative Medicine. He is the author or coauthor of numerous scientific publications in the fields of CAM and neuroscience.

Erica Oberg, Ph.D., M.P.H. completed her doctorate and residency at Bastyr University in 2003 and holds an MPH degree in Health Services & Research from the University of Washington. Dr. Oberg practices at the Institute of Complementary Medicine, a six physician primary care naturopathic practice located on the Swedish Hospital campus in Seattle. She holds research faculty appointments at both the University of Washington School of Public Health and Community Medicine and Bastyr University. At UW, she is conducting two studies: a NCCAM-funded clinical trial testing an ND diet/behavioral intervention in type 2 diabetes. The second study is evaluating secondary prevention (cardiac and stroke rehabilitation) in WA state with recommendations for the development of future secondary prevention programs using evidence-based therapeutic lifestyle guidelines. At Bastyr, she is leading an initiative to replicate a successful naturopathic school-based health center, establishing integrative primary care within an underserved public school.

David Pakter, M.D. is a staff physician in the San Francisco Department of Public Health, and is a Fellow at Dr. Andrew Weil's Program in Integrative Medicine. He completed his residency training in Family and Community Medicine at UC San Francisco. Dr. Pakter is passionate about increasing access to Integrative Medicine for all people. Currently, he divides his time between the Beyond Emancipation Teen Health Center (a small clinic in Oakland for Foster Youth) SF Department of Public Health's Potrero Hill Health Center (PHHC), and his private practice consulting as an Integrative Medicine specialist at the Berkeley Integrative Healing Clinic. His latest efforts have culminated in the *Potrero Hill Integrative Medicine Project*. This is a pilot project in collaboration with UCSF's Osher Center for Integrative Medicine, which has brought access to acupuncture, chiropractic and soon, massage therapy to the patients of PHHC. The program also includes organic gardening at a nearby community garden and yoga. Dr. Pakter has submitted a proposal to expand the current pilot program and is working with SF's board of supervisors and the DPH director of primary care clinics to work out the details of obtaining funding to increase current CAM services. In working with low income and underserved populations, Dr. Pakter has encountered some cultural barriers to CAM. Therefore, a portion of this funding would be dedicated to initiating a "Health Conductor" concept, whereby selected patients will experience an Integrative approach to their own care and will be trained to explain this model. These "Health Conductors" will then recruit other patients and spread this message among their peers. Lastly, the proposal provides for funding to support a research component studying the effectiveness of this expanded care model by evaluating patient outcomes. The DHP and district supervisor were please with the proposal and suggested expanding the project to include two other sites to begin the July 2008. This is a promising step towards Dt. Pakter's goal of making San Francisco the site of the first Integrative Public Health System.

William Rowley, M.D. is the Chief Operating Officer and a Senior Futurist at the Institute for Alternative Futures where he focuses his attention on the future of the broad field of health, health care delivery and biotechnology. His provocative insights come from 30 years of experience as a vascular surgeon, teacher and chief executive officer of academic medical centers. Trained as a vascular surgeon with extensive clinical and medical teaching experience, he went on to be chief executive officer of two medical centers and a large managed care organization. Dr. Rowley received a Bachelor's degree in psychology and a Doctor of Medicine degree at the University of Minnesota. His general surgery residency at the University of California, San Diego and the Naval Medical Center, Philadelphia was

followed with a peripheral vascular surgery fellowship at Naval Medical Center, San Diego. He is a retired Navy Admiral.

Robert B. Saper, M.D., M.P.H. is a family physician with 20 years of experience in integrating evidence-based conventional medicine with evidence based complementary alternative medicine (CAM). He graduated from Harvard Medical School, completed a family medicine residency and chief residency at UCSF, and was in private practice for eight years in the San Francisco Bay area. He completed a NCCAM funded Alternative Medicine Research and Faculty Development Fellowship at Harvard Medical School. In 2004, he joined the Boston University School of Medicine Department of Family Medicine as Assistant Professor and Director of Integrative Medicine, where his main focus is to study the feasibility, efficacy, and safety of integrating CAM therapies into the care of low-income minorities. Dr. Saper's research includes a pilot RCT of yoga for chronic low back pain in low-income minorities at a community health center setting.

Kim Tippens, ND, Lac is a post-doctoral research fellow at the Helfgott Research Institute at the National College of Natural Medicine (NCNM). She is a graduate of Bastyr University where she received her Doctorate in Naturopathic Medicine and Masters in Acupuncture and Oriental Medicine in 2003. Dr. Tippens post-doctoral research activities thus far have included studies of social and biological predictors of adherence to a weight loss program in obese metabolic syndrome patients at risk of type 2 diabetes and cardiovascular disease. Dr. Tippens' primary research interests are in evaluating the content, cost and outcomes of naturopathic care, particularly as it is being delivered to low-income, uninsured, and medically underserved communities. Her current research involves defining the content of naturopathic type 2 diabetes care, and characterizing the population seeking care in terms of individual and community characteristics which may influence access and utilization of services. Studies evaluating naturopathic care provided through teaching clinics are in foundational stages, and include the teaching institutions. As research faculty at NCNM, Dr. Tippens is also involved in developing curriculum in cultural competency for NCNM students preparing to begin clinical internships.

Dr. Tippens has been involved in community health throughout her academic career. As a student intern of both naturopathic and traditional Chinese medicine at Bastyr University, her medical rotations included working with low income and homeless teens and adults through many of the University's off-site clinics. Opportunities to work in these populations were expanded through her participation in the Alternative Healthcare Access Campaign' a non-profit organization founded by Bastyr students. Dr. Tippens sought out preceptorships in community health centers and was involved in advocating for the establishment of CHCs at Bastyr external clinics shift sites. As a student, Dr. Tippens received two Bastyr Venture Grants to study integrative medicine in the health care systems of Cuba and Kenya, and the Physicians for Social Responsibility Scholarship for clinical rotation and medical Spanish training in Oaxaca, Mexico.

Dr. Tippens completed a family practice residency program through NCNM, which was focused on community health. She rotated primarily amongst NCNM's seven naturopathic teaching community clinics. These clinics serve ethnically diverse populations of primarily low income and uninsured community members. Dr. Tippens completed a full year rotation in the primarily Spanish speaking East County Community Clinic site, serving roughly 85% Latino patients, and at the Outside-In which is a Federally Qualified Health Center, prioritizing homeless youth, in which naturopathic and allopathic physicians and interns work together to provide both acute and chronic primary care. Through this residency program, Dr. Tippens has become involved with the Oregon Coalition of Community Clinics and the Providers for the Underserved Network'; uniting physicians and care givers from various

disciplines who are committed to providing quality health care for Portland's medically underserved communities.

Jonathan N. Tobin, Ph.D. is President/CEO of Clinical Directors Network, Inc. (www.CDNetwork.org), a NYC-based practice-based research network (PBRN) dedicated to improving clinical outcomes for low income and medically underserved communities. Dr. Tobin, a board certified epidemiologist, is also Director of Education and Training for the Institute for Public Health Sciences (IPHS) of Yeshiva University (www.yu.edu/iphs), where he holds the rank of Professor of Health Psychology at Ferkauf Graduate School of Psychology and Associate Professor of Clinical Epidemiology and Population Health at Albert Einstein College of Medicine of Yeshiva University. He holds his M.A., M.Phil., and Ph.D. in from Columbia University. Dr. Tobin has served as Principal or Co-Principal Investigator on grants funded by NIMH, NHLBI, NCI, NIAID, EPA, CDC, and HRSA, in studies related to behavior, clinical preventive services, cardiovascular disease, cancer and HIV, all designed to study translating research into practice for the elimination of health disparities. His work has examined health disparities in primary and specialty care, and the translation of research into practice. He has served as the Principal Investigator of a series of NIMH and CDC-funded studies of mind-body techniques, including stress-management, for women living with HIV/AIDS. He has also served as an investigator in studies of acupuncture in HIV associated peripheral neuropathy, and served as the Chair of the NIAID-DATRI Protocol Development Team to design a factorial study of high-dose Vitamin C and Beta Carotene in AIDS, and a pilot study of the use of homeopathic remedies to treat pediatric diarrhea, funded by the Homeopathic Community Council. Dr. Tobin helped to develop CAM trainings for primary care clinicians in homeopathy with the National Center for Homeopathy, and a number of online CAM courses in collaboration with organizations including: CEDH (Paris France), University of Miami Department of Psychiatry and Behavioral Sciences (Miami, FL) Homeopathic Educational Services (Berkeley, CA), Boiron (Newton Square, PA), the Continuum Center for Health and Healing (NYC) and the WAVE Corporation (Miami, FL).

Thomas Trompeter, M.P.A. is the Chief Executive Officer for Community Health Centers of King County (CHCKC), a CHC in King County, Washington with seven medical clinics, four dental clinics and one school based clinic. Mr. Trompeter has been with CHCKC since 1996 and has served as its CEO since 1998. Prior to joining CHCKC, Mr. Trompeter was the Executive Director of the Northwest Regional Primary Care Association, an association of Community and Migrant Health Centers in Alaska, Idaho, Oregon and Washington. Mr. Trompeter was with NWRPCA from 1986 until 1996, and served as Executive Director from 1990 to 1996. Mr. Trompeter has worked with non-profit providers of health care and social services to underserved people for over 25 years. Mr. Trompeter received his Masters Degree in Public Administration from the University of Washington.

Rangashree Varadarajan, M.S. is a Program Specialist for Military Medical Research at the Samueli Institute with the responsibility of coordinating and managing various clinical trials at military and veteran medical treatment facilities in the Washington, DC area and nationwide. She has a background in Complementary and Alternative medicine and acts as a liaison with Institute grantees and the military Institutional Review Boards. Ms. Varadarajan received a Master of Science degree in Physiology and Biophysics, with a concentration in Complementary and Alternative Medicine from Georgetown University in 2007 and Bachelor of Science degree from University of California in 2006.

Alex York, M.S. is a Program Specialist for Military Medical Research at the Samueli Institute with the responsibility of coordinating and managing various clinical trials at military and veteran medical treatment facilities in the Washington, DC area and nationwide. She began her work at the Institute in

October after finishing an internship at the Federal Trade Commission working in their Division of Advertising Practices. Prior to her work at the FTC, she received a Master's of Science in Physiology and Biophysics with a focus in Complementary and Alternative Medicine from Georgetown University. She also has worked professionally for a number of nonprofits dealing with advocacy, education, and policy. Ms. York received a Bachelor of Arts degree from Goucher College in 1999.

Andru Ziwasiwon M.D. found his home in Albuquerque 9 years ago and completed his residency training at the University of New Mexico in 2002. He worked odd jobs as a family physician for a few years before joining as a founding member with the Topahkal Health Collaborative to help build a conventional medical clinic alongside the health and healing services of the Kalpulli Izkalli in 2004. He is currently the medical director of the Topahkal Family Medical Office. Andru is also a core trainer with the Anti-Racism Training Institute of the Southwest and works with various health-related groups who are seeking to "undo" racism in their organizational relationships or approaches to patient care.

Appendix 3: Abstracts of publications submitted by participants in the Scoping Meeting on Integrative Medicine and Health Disparities

Ahn, A. C., Q. Ngo-Metzger, et al. (2006). "Complementary and alternative medical therapy use among Chinese and Vietnamese Americans: prevalence, associated factors, and effects of patient-clinician communication." Am J Public Health **96**(4): 647-53.

OBJECTIVE: We examined the use of complementary and alternative medical (CAM) therapies among Chinese and Vietnamese Americans who had limited proficiency with the English language and explore the association between patient-clinician discussions about CAM therapy use and patient assessments of quality of care. METHODS: We surveyed Chinese and Vietnamese Americans who visited 11 community health centers in 8 major cities throughout the United States. RESULTS: Of the 4410 patients surveyed, 3258 (74%) returned completed questionnaires. Two thirds of respondents reported they had "ever used" some form of CAM therapy; however, only 7.6% of these patients had discussed their use of CAM therapies with clinicians. Among patients who had used CAM therapies during the week before their most recent visits, clinician-patient discussions about CAM therapy use were associated with better overall patient ratings of quality of care. CONCLUSION: Use of CAM therapies was common among Chinese and Vietnamese Americans who had limited proficiency with the English language. Although discussions about CAM therapy use with clinicians were uncommon, these discussions were associated with better ratings of quality of care.

Bodeker, G. and F. Kronenberg (2002). "A public health agenda for traditional, complementary, and alternative medicine." Am J Public Health **92**(10): 1582-91.

Traditional medicine (a term used here to denote the indigenous health traditions of the world) and complementary and alternative medicine (T/CAM) have, in the past 10 years, claimed an increasing share of the public's awareness and the agenda of medical researchers. Studies have documented that about half the population of many industrialized countries now use T/CAM, and the proportion is as high as 80% in many developing countries. Most research has focused on clinical and experimental medicine (safety, efficacy, and mechanism of action) and regulatory issues, to the general neglect of public health dimensions. Public health research must consider social, cultural, political, and economic contexts to maximize the contribution of T/CAM to health care systems globally.

Boon, H. S., D. C. Cherkin, et al. (2004). "Practice patterns of naturopathic physicians: results from a random survey of licensed practitioners in two US States." BMC Complement Altern Med **4**: 14.

BACKGROUND: Despite the growing use of complementary and alternative medicine (CAM) by consumers in the U.S., little is known about the practice of CAM providers. The objective of this study was to describe and compare the practice patterns of naturopathic physicians in Washington State and Connecticut. METHODS: Telephone interviews were conducted with state-wide random samples of licensed naturopathic physicians and data were collected on consecutive patient visits in 1998 and 1999. The main outcome measures were: Sociodemographic, training and practice characteristics of naturopathic physicians; and demographics, reasons for visit, types of treatments, payment source and visit duration for patients. RESULT: One hundred and seventy practitioners were interviewed and 99 recorded

data on a total of 1817 patient visits. Naturopathic physicians in Washington and Connecticut had similar demographic and practice characteristics. Both the practitioners and their patients were primarily White and female. Almost 75% of all naturopathic visits were for chronic complaints, most frequently fatigue, headache, and back symptoms. Complete blood counts, serum chemistries, lipids panels and stool analyses were ordered for 4% to 10% of visits. All other diagnostic tests were ordered less frequently. The most commonly prescribed naturopathic therapeutics were: botanical medicines (51% of visits in Connecticut, 43% in Washington), vitamins (41% and 43%), minerals (35% and 39%), homeopathy (29% and 19%) and allergy treatments (11% and 13%). The mean visit length was about 40 minutes. Approximately half the visits were paid directly by the patient. CONCLUSION: This study provides information that will help other health care providers, patients and policy makers better understand the nature of naturopathic care.

Chao, M. T., C. Wade, et al. (2006). "Women's reasons for complementary and alternative medicine use: racial/ethnic differences." *J Altern Complement Med* **12**(8): 719-20.

OBJECTIVES: Although racial/ethnic differences in the prevalence of complementary and alternative medicine (CAM) utilization have been documented, differences in the reasons for using CAM have not been empirically assessed. In an increasingly diverse society, understanding differences in rates of and reasons for CAM use could elucidate cultural and social factors of health behaviors and inform health care improvements. The current study examines reasons for CAM use among women in four racial/ethnic groups. DESIGN: A national telephone survey of 3172 women aged 18 years and older was conducted in four languages. Respondents were asked about their use of remedies or treatments not typically prescribed by a medical doctor. This study focuses on those women who used CAM in the previous year and their reasons for using CAM. RESULTS: Non-Hispanic white women were most likely to cite personal beliefs for CAM use. Cost of conventional medicine was most prevalent among Mexican-American women CAM users. Physician referral, family and friends, and media sources were all equally likely to lead to CAM use in non-Hispanic white women. In contrast, informal networks of family and friends were the most important social influences of CAM use among African-, Mexican-, and Chinese-American women. CONCLUSIONS: Racial/ethnic differences in reasons for CAM use highlight cultural and social factors that are important to consider in public evaluation of the risks and benefits of CAM remedies and treatments.

Coeytaux, R. R., H. M. Gillespie, et al. (2004). "Racial disparities in health between white and African American family practice patients: clinical implications." *N C Med J* **65**(6): 330-4.

OBJECTIVE: To identify differences in self-reported health status and prevalence of chronic disease between African American and white patients. STUDY DESIGN: A representative sample of African American and white adult patients from a stratified sample of family practices in North Carolina completed a questionnaire that included self-reported racial status, certain sociodemographic data, health risk factors, chronic conditions, and health status measures. DATA SOURCE: The North Carolina Health Project, a practice-based cohort of adult patients from a representative sample of family practice offices in North Carolina. PRINCIPAL FINDINGS: African Americans report poorer general health status than whites. Obesity insufficient exercise, high blood pressure, and diabetes are more prevalent among African American than white family practice patients, even after adjusting for age, gender, and educational attainment. CONCLUSIONS: This study complements previous evidence of disparities in chronic disease and health risk factors between African Americans and whites, and it highlights specific factors that may be important in the primary care setting. RELEVANCE: By focusing clinical attention on the

prevention or treatment of specific factors that are known to be more prevalent among certain racial groups, primary care providers may help to reduce racial differences in healthcare.

Cooper, L. A. (2004). "Health disparities. Toward a better understanding of primary care patient-physician relationships." *J Gen Intern Med* **19**(9): 985-6.

Cuellar, N., T. Aycocock, et al. (2003). "Complementary and alternative medicine (CAM) use by African American (AA) and Caucasian American (CA) older adults in a rural setting: a descriptive, comparative study." *BMC Complement Altern Med* **3**: 8.

BACKGROUND: The use of CAM is at an all time high. There is very little research that compares the use of CAM in elders by ethnicity in rural settings. The purpose of the study was to determine if there was a difference between African American and Caucasian American rural elders on use of CAM and self-reported satisfaction with CAM. **METHODS:** The design was a descriptive, comparative study of 183 elders who reported the number of CAM used and satisfaction with CAM. A convenience sample was recruited through community service organizations in the state of Mississippi. The availability of elders through the support groups, sampling bias, subject effect, and self-report were limitations of the study. **RESULTS:** The commonest examples of CAM used by rural elders were prayer, vitamins, exercise, meditation, herbs, chiropractic medicine, glucosamine, and music therapy. Significant findings on SES and marital status were calculated. Differences on ethnicity and demographic variables were significant for age, education, and the use of glucosamine. **CONCLUSIONS:** Health care providers must be aware that elders are using CAM and are satisfied with their use. Identifying different uses of CAM by ethnicity is important for health care practitioners, impacting how health care is provided.

Demattia, A., H. Moskowitz, et al. (2006). "Disparities in complementary and alternative medical therapy recommendations for children in two different socioeconomic communities." *Ambul Pediatr* **6**(6): 312-7.

OBJECTIVE: To compare the content, quality, and cost of recommendations for children made by complementary and alternative medicine (CAM) retailers within 2 New York City neighborhoods of divergent socioeconomic status (SES). **METHODS:** Posing as consumers, researchers sought recommendations from CAM retailers for 2 clinical scenarios: 1) a febrile 6-week-old and 2) a 4-year-old with an upper respiratory infection (URI). All retailers selling CAM therapies outside the direction of a licensed provider within East Harlem (EH) and the Upper East Side (UES) were eligible and mapped. The febrile infant scenario was posed at sites in business in March (n = 23) and the URI scenario at sites that remained in business in April (n = 20) of 2004. **RESULTS:** In response to the febrile infant scenario, 33% of UES retailers referred to a MD, 0% to the emergency department, and 47% made other recommendations-of which 43% were not indicated. In EH, 50% referred to a MD, 5% to the emergency department, and 37% made other recommendations. The mean price of UES recommendations was Dollars 9.66, whereas EH was Dollars 2.33 (P = .04). In response to the URI scenario, 93% of UES and 83% of EH retailers made recommendations. The mean price of UES recommendations was Dollars 10.55 while EH was Dollars 4.26 (P = .002). **CONCLUSIONS:** Complementary and alternative medicine retailers made numerous recommendations for children, including some that were contraindicated for age. East Harlem retailers tended to refer an infant with a potentially serious condition to the emergency department or to an MD and made less expensive recommendations than their UES counterparts.

Dessio, W., C. Wade, et al. (2004). "Religion, spirituality, and healthcare choices of African-American women: results of a national survey." *Ethn Dis* **14**(2): 189-97.

OBJECTIVE: This study describes the prevalence and patterns of use of religion and spirituality for health reasons among African-American women. **METHODS:** Respondents were asked about their use of religion/spirituality for health reasons as part of a larger study of the prevalence and correlates of complementary and alternative medicine (CAM) use among women. In 2001, a national survey of 3,172 women, aged 18 and older, was conducted in 4 languages, with over-sampling among African-, Mexican-, and Chinese-American participants. This paper focuses on the sub-sample of 812 African-American women. **RESULTS:** Overall, 43% of the African-American women reported using religion/spirituality for health reasons in the past year. Factors significantly associated with the use of religion/spirituality for health reasons included having an income of dollar 40,000-dollar 60,000, an education level of college graduate or more, or being 37-56 years of age; worse health status approached significance. African-American women utilized religion and spirituality most often for serious conditions such as cancer, heart disease, and depression. African-American women who had used religion/spirituality in the past year for health reasons were more than twice as likely to have used some form of CAM, and also more likely to have seen a medical doctor during the year prior to the interview, compared to their counterparts. **CONCLUSION:** Religion and spirituality are associated with health-seeking behaviors of African-American women. The use of religion and spirituality for health reasons warrants additional research, particularly its use for chronic and serious conditions, and its role in the health-seeking behavior of African-American women in conjunction with the utilization of conventional medicine and CAM.

Garrow, D. and L. E. Egede (2006). "Association between complementary and alternative medicine use, preventive care practices, and use of conventional medical services among adults with diabetes." *Diabetes Care* **29**(1): 15-9.

OBJECTIVE: To assess the association between complementary and alternative medicine (CAM) use, preventive care practices, and use of conventional medical services among adults with diabetes. **RESEARCH DESIGN AND METHODS:** We analyzed data on 2,474 adults with diabetes. We created an overall CAM-use category based on use of any of the following: diets, herbs, chiropractic care, yoga, relaxation, acupuncture, ayurveda, biofeedback, chelation, energy healing, Reiki therapy, hypnosis, massage, naturopathy, and homeopathy. We used multiple logistic regression to assess the effect of CAM use on preventive care practices (receipt of influenza and pneumonia vaccines) and use of conventional medical services (number of primary care and emergency department visits). STATA was used for statistical analysis to account for the complex survey design. **RESULTS:** A total of 48% of adults with diabetes used some form of CAM. CAM use was independently associated with receipt of pneumonia vaccination (odds ratio 1.56 [95% CI 1.26-1.94]) but not significantly associated with receipt of influenza vaccination (1.17 [0.92-1.48]). CAM use was independently associated with visiting the emergency department (1.34 [1.06-1.70]), having six or more primary care visits (1.44 [1.14-1.83]), and having eight or more primary care visits (1.66 [1.22-2.25]). **CONCLUSIONS:** In contrast to the findings of previous studies, CAM use appears to be associated with increased likelihood of receipt of preventive care services and increased emergency department and primary care visits. CAM use may not be a barrier to use of conventional medical services in adults with diabetes.

Goel, M. S., C. C. Wee, et al. (2003). "Racial and ethnic disparities in cancer screening: the importance of foreign birth as a barrier to care." J Gen Intern Med **18**(12): 1028-35.

CONTEXT: Racial/ethnic groups comprised largely of foreign-born individuals have lower rates of cancer screening than white Americans. Little is known about whether these disparities are related primarily to their race/ethnicity or birthplace. OBJECTIVE: To determine whether foreign birthplace explains some racial/ethnic disparities in cancer screening. DESIGN, SETTING, AND SUBJECTS: Cross-sectional study using 1998 data from the National Health Interview Survey. MAIN OUTCOME MEASURES: Completion of cervical, breast, or colorectal cancer screening. RESULTS: Of respondents, 15% were foreign born. In analyses adjusted for sociodemographic characteristics and illness burden, black respondents were as or more likely to report cancer screening than white respondents; however, Hispanic and Asian-American and Pacific Islander (AAPI) respondents were significantly less likely to report screening for most cancers. When race/ethnicity and birthplace were considered together, U.S.-born Hispanic and AAPI respondents were as likely to report cancer screening as U.S.-born whites; however, foreign-born white (adjusted odds ratio [AOR], 0.58; 95% confidence interval [CI], 0.41 to 0.82), Hispanic (AOR, 0.65; 95% CI, 0.53 to 0.79), and AAPI respondents (AOR, 0.28; 95% CI, 0.19 to 0.39) were less likely than U.S.-born whites to report Pap smears. Foreign-born Hispanic and AAPI respondents were also less likely to report fecal occult blood testing (FOBT); AORs, 0.72; 95% CI, 0.53 to 0.98; and 0.61; 95% CI, 0.39 to 0.96, respectively); and sigmoidoscopy (AORs, 0.70; 95% CI, 0.51 to 0.97; and 0.63; 95% CI, 0.40 to 0.99, respectively). Furthermore, foreign-born AAPI respondents were less likely to report mammography (AOR, 0.49; 95% CI, 0.28 to 0.86). Adjusting for access to care partially attenuated disparities among foreign-born respondents. CONCLUSION: Foreign birthplace may explain some disparities previously attributed to race or ethnicity, and is an important barrier to cancer screening, even after adjustment for other factors. Increasing access to health care may improve disparities among foreign-born persons to some degree, but further study is needed to understand other barriers to screening among the foreign-born.

Graham, R. E., A. C. Ahn, et al. (2005). "Use of complementary and alternative medical therapies among racial and ethnic minority adults: results from the 2002 National Health Interview Survey." J Natl Med Assoc **97**(4): 535-45.

PURPOSE: Complementary and alternative medicine (CAM) use among ethnic minority populations is poorly understood. We sought to examine CAM use in Hispanics, non-Hispanic blacks and non-Hispanic whites. METHODS: We analyzed data from the Alternative Health Supplement to the 2002 National Health Interview Survey (NHIS), including information on 19 different CAM therapies used in the past 12 months. RESULTS: An estimated 34% of Hispanic, non-Hispanic black and non-Hispanic white adults in the United States used at least one CAM therapy (excluding prayer) during the prior 12 months (2002). CAM use was highest for non-Hispanic whites (36%), followed by Hispanics (27%) and non-Hispanic blacks (26%). Non-Hispanic whites were more likely to use herbal medicine, relaxation techniques and chiropractic more frequently than Hispanics and non-Hispanic blacks. After controlling for other sociodemographic factors, Hispanic and non-Hispanic black races/ethnicities were associated with less CAM use, with adjusted odds ratios (95% confidence intervals) of 0.78 (0.70, 0.87) and 0.71 (0.65, 0.78), respectively. Hispanics cited using CAM because conventional medical treatments were too expensive more frequently than non-Hispanic blacks or whites. Hispanics had the highest provider nondisclosure rates (68.5%), followed by non-Hispanic blacks (65.1%) and non-Hispanic whites (58.1%). CONCLUSIONS: Excluding prayer, Hispanics and non-Hispanic blacks used CAM less frequently than non-Hispanic whites and were less likely to disclose their use to their

healthcare provider. Further research is needed to improve our understanding of the disparities in CAM use.

Green, C. R., K. O. Anderson, et al. (2003). "The unequal burden of pain: confronting racial and ethnic disparities in pain." *Pain Med* 4(3): 277-94.

CONTEXT: Pain has significant socioeconomic, health, and quality-of-life implications. Racial- and ethnic-based differences in the pain care experience have been described. Racial and ethnic minorities tend to be undertreated for pain when compared with non-Hispanic Whites.

OBJECTIVES: To provide health care providers, researchers, health care policy analysts, government officials, patients, and the general public with pertinent evidence regarding differences in pain perception, assessment, and treatment for racial and ethnic minorities.

Evidence is provided for racial- and ethnic-based differences in pain care across different types of pain (i.e., experimental pain, acute postoperative pain, cancer pain, chronic non-malignant pain) and settings (i.e., emergency department). Pertinent literature on patient, health care provider, and health care system factors that contribute to racial and ethnic disparities in pain treatment are provided. EVIDENCE: A selective literature review was performed by experts in pain. The experts developed abstracts with relevant citations on racial and ethnic disparities within their specific areas of expertise. Scientific evidence was given precedence over anecdotal experience. The abstracts were compiled for this manuscript. The draft manuscript was made available to the experts for comment and review prior to submission for publication.

CONCLUSIONS: Consistent with the Institute of Medicine's report on health care disparities, racial and ethnic disparities in pain perception, assessment, and treatment were found in all settings (i.e., postoperative, emergency room) and across all types of pain (i.e., acute, cancer, chronic nonmalignant, and experimental). The literature suggests that the sources of pain disparities among racial and ethnic minorities are complex, involving patient (e.g., patient/health care provider communication, attitudes), health care provider (e.g., decision making), and health care system (e.g., access to pain medication) factors. There is a need for improved training for health care providers and educational interventions for patients. A comprehensive pain research agenda is necessary to address pain disparities among racial and ethnic minorities.

Grumbach, K., L. G. Hart, et al. (2003). "Who is caring for the underserved? A comparison of primary care physicians and non-physician clinicians in California and Washington." *Ann Fam Med* 1(2): 97-104.

PURPOSE: Little is known about whether different types of physician and non-physician primary care clinicians vary in their propensity to care for underserved populations. The objective of this study was to compare the geographic distribution and patient populations of physician and non-physician primary care clinicians. METHODS: This study was a cross-sectional analysis of 1998 administrative and survey data on primary care clinicians (family physicians, general internists, general pediatricians, nurse practitioners, physician assistants, and certified nurse-midwives) in California and Washington. For geographic analysis, main outcome measures were practice in a rural area, a vulnerable population area (communities with high proportions of minorities or low-income residents), or a health professions shortage area (HPSA). For patient population analysis, outcomes were the proportions of Medicaid, uninsured, and minority patients in the practice. RESULTS: Physician assistants ranked first or second in each state in the proportion of their members practicing in rural areas and HPSAs, and in California physician assistants also had the greatest proportion of their members working in vulnerable populations areas ($P < .001$). Compared with primary care physicians overall, nurse practitioners and certified nurse-midwives also tended to have a greater proportion of their members in rural areas and HPSAs ($P < .001$).

Family physicians were much more likely than other primary care physicians to work in rural areas and HPSAs ($P < .001$). Compared with physicians, non-physician clinicians in California had a substantially greater proportion of Medicaid, uninsured, and minority patients ($P < .001$). CONCLUSIONS: Nonphysician primary care clinicians and family physicians have a greater propensity to care for underserved populations than do primary care physicians in other specialties. Achieving a more equitable pattern of service to needy populations will require ongoing, active commitment by policy makers, educational institutions, and the professions to a mission of public service and to incentives that support and promote care to the underserved.

Grzywacz, J. G., W. Lang, et al. (2005). "Age, race, and ethnicity in the use of complementary and alternative medicine for health self-management: evidence from the 2002 National Health Interview Survey." *J Aging Health* **17**(5): 547-72.

OBJECTIVES: Determine if complementary and alternative medicine (CAM) use for treating existing conditions and for health maintenance differs by age and ethnicity. METHODS: Data from the 2002 National Health Interview Survey were used to operationalize distinct types of CAM in terms of (a) no use, (b) use for treatment only, (c) use for prevention only, and (d) use for both treatment and prevention. Differences in CAM use by age and ethnicity were examined using SUDAAN to adjust for design effects. RESULTS: Associations of age with CAM use are curvilinear but differed by ethnicity. Some types of CAM are used primarily for treatment; others are used for health maintenance. DISCUSSION: CAM use is one component of adults' overall approach to health self-management. Patterns of CAM use by age and ethnicity likely reflect differences in CAM availability and prevailing public health policies when adults began making their own health-related decisions.

Grzywacz, J. G., C. K. Suerken, et al. (2007). "Age, ethnicity, and use of complementary and alternative medicine in health self-management." *J Health Soc Behav* **48**(1): 84-98.

Drawing on models of health self-management, we develop hypotheses that age and ethnicity will modify associations among indicators of poor health and use of complementary and alternative medicine. These hypotheses are evaluated using the 2002 National Health Interview Survey with the Alternative Health Supplement. Results produced partial support for hypotheses that the effects of ailments on use of complementary and alternative medicine differ by age. Results suggest that ailments such as bodily pain, chronic conditions, and functional impairment are associated with use of complementary and alternative medicine among midlife and younger adults, but these associations are generally attenuated among older adults. Hypothesized ethnic differences received weak support. These findings suggest that different interpretations of ailments and appropriate responses may explain why complementary and alternative medicine is used by fewer older adults. The results also highlight the significance of social and cultural factors in understanding patterns of complementary and alternative medicine use in the adult population.

Herman, P. M., B. M. Craig, et al. (2005). "Is complementary and alternative medicine (CAM) cost-effective? A systematic review." *BMC Complement Altern Med* **5**: 11.

BACKGROUND: Out-of-pocket expenditures of over 34 billion dollars per year in the US are an apparent testament to a widely held belief that complementary and alternative medicine (CAM) therapies have benefits that outweigh their costs. However, regardless of public opinion, there is often little more than anecdotal evidence on the health and economic implications of CAM therapies. The objectives of this study are to present an overview of economic evaluation and to expand upon a previous review to examine the current scope and quality of CAM economic

evaluations. METHODS: The data sources used were Medline, AMED, Alt-HealthWatch, and the Complementary and Alternative Medicine Citation Index; January 1999 to October 2004. Papers that reported original data on specific CAM therapies from any form of standard economic analysis were included. Full economic evaluations were subjected to two types of quality review. The first was a 35-item checklist for reporting quality, and the second was a set of four criteria for study quality (randomization, prospective collection of economic data, comparison to usual care, and no blinding). RESULTS: A total of 56 economic evaluations (39 full evaluations) of CAM were found covering a range of therapies applied to a variety of conditions. The reporting quality of the full evaluations was poor for certain items, but was comparable to the quality found by systematic reviews of economic evaluations in conventional medicine. Regarding study quality, 14 (36%) studies were found to meet all four criteria. These exemplary studies indicate CAM therapies that may be considered cost-effective compared to usual care for various conditions: acupuncture for migraine, manual therapy for neck pain, spa therapy for Parkinson's, self-administered stress management for cancer patients undergoing chemotherapy, pre- and post-operative oral nutritional supplementation for lower gastrointestinal tract surgery, biofeedback for patients with "functional" disorders (e.g., irritable bowel syndrome), and guided imagery, relaxation therapy, and potassium-rich diet for cardiac patients. CONCLUSION: Whereas the number and quality of economic evaluations of CAM have increased in recent years and more CAM therapies have been shown to be of good value, the majority of CAM therapies still remain to be evaluated.

Horowitz, C. R., A. Arniella, et al. (2004). "Using community-based participatory research to reduce health disparities in East and Central Harlem." Mt Sinai J Med **71**(6): 368-74.

OBJECTIVE: It is important to teach community members about the causes, magnitude and effects of health disparities that affect them, and to partner with them to develop, test and disseminate programs that they can sustain to improve health. East and Central Harlem are two underserved, predominantly minority, inner-city communities whose residents have disproportionately high morbidity and mortality from chronic conditions. We developed an approach to educate and work together with Harlem residents to study health disparities, and to use peer-led classes to improve chronic disease management and outcomes. METHODS: Researchers and community leaders formed a community-based research core ("Core") with funds from a large health disparities grant. We then assembled a community advisory board and partnered with them to start a community newsletter to explain the causes of local health disparities and suggest ways to eliminate them. Together, we also began to create a self-sustaining cadre of community-based peer educators to teach culturally acceptable chronic disease self-management skills. RESULTS: The recruited board consists of 33 leaders of community-based health and social service organizations, religious institutions, and tenant organizations, as well as local activists. We produced and distributed our first educational newsletter to more than 4,000 community leaders, members and community-based organizations. We also adapted an existing chronic disease self-management program for the Harlem population and developed strategies to recruit peer educators and sustain their efforts in the future. To help them attain expertise in teaching chronic disease self-management, the board selected four individuals to become master peer-education trainers. The board then helped recruit more than 60 community members and leaders for our first two peer-education courses. CONCLUSIONS: Researchers, clinicians and community leaders worked together to disseminate knowledge about health disparities and a peer-organized education program to address these disparities. This approach provides a foundation to attain a cadre of community-based experts to inform the community about ways to reduce health disparities. By pooling local

and academic expertise and resources, we hope to develop programs that are workable, effective and sustainable without outside control or funding.

Keith, V. M., J. J. Kronenfeld, et al. (2005). "Assessing the effects of race and ethnicity on use of complementary and alternative therapies in the USA." *Ethn Health* **10**(1): 19-32.

OBJECTIVE: To investigate the use of alternative therapies among different racial/ethnic groups in the USA. Specifically, we examined whether alternative medicine use differs for working aged whites, Asian Americans, African Americans, and Hispanics. **DESIGN:** Using the 1996 Medical Expenditure Panel Survey, racial differences in utilization were investigated at two levels: (1) the bivariate level with no controls for other factors and (2) at the multivariate level with controls for age, sex, region, marital status, education, income, health status, satisfaction with conventional healthcare, and access measures. **RESULTS:** Americans in this sample population used alternative and complementary therapies at a fairly low rate (6.5%). This 6.5%, however, was not consistent across all groups. African Americans and Hispanics were less likely than whites to utilize alternative therapies, whereas Asian Americans did not differ significantly from whites. **CONCLUSIONS:** The use of alternative and complementary therapies varied across racial/ethnic groups. Evidence showed that individuals who were dissatisfied with the availability of conventional healthcare, who were in poor health, but very satisfied with their conventional provider were more likely to use complementary and alternative medicine (CAM) therapies. The addition of these variables to a logistic regression model did not change the findings for differential use by ethnicity, the relative ranking of groups, or the overall strength of the relationship.

Kronenberg, F., L. F. Cushman, et al. (2006). "Race/ethnicity and women's use of complementary and alternative medicine in the United States: results of a national survey." *Am J Public Health* **96**(7): 1236-42.

OBJECTIVES: We studied the use of complementary and alternative medicine (CAM) among women in 4 racial/ethnic groups: non-Hispanic Whites, African Americans, Mexican Americans, and Chinese Americans. **METHODS:** We obtained a nationally representative sample of women aged 18 years and older living in the United States in 2001. Oversampling obtained 800 interviews in each group, resulting in a sample of 3068 women. **RESULTS:** Between one third and one half of the members of all groups reported using at least 1 CAM modality in the year preceding the survey. In bivariate analyses, overall CAM use among Whites surpassed that of other groups; however, when CAM use was adjusted for socioeconomic factors, use by Whites and Mexican Americans were equivalent. Despite the socioeconomic disadvantage of African American women, socioeconomic factors did not account for differences in CAM use between Whites and African Americans. **CONCLUSIONS:** CAM use among racial/ethnic groups is complex and nuanced. Patterns of CAM use domains differ among groups, and multivariate models of CAM use indicate that ethnicity plays an independent role in the use of CAM modalities, the use of CAM practitioners, and the health problems for which CAM is used.

Lafferty, W. E., P. T. Tyree, et al. (2006). "Insurance coverage and subsequent utilization of complementary and alternative medicine providers." *Am J Manag Care* **12**(7): 397-404.

BACKGROUND: Since 1996, Washington State law has required that private health insurance cover licensed complementary and alternative medicine (CAM) providers. **OBJECTIVE:** To evaluate how insured people used CAM providers and what role this played in healthcare utilization and expenditures. **STUDY DESIGN:** Cross-sectional analysis of insurance enrollees from western Washington in 2002. **METHODS:** Analysis of insurance demographic data, claims

files, benefit information, diagnoses, CAM and conventional provider utilization, and healthcare expenditures for 3 large health insurance companies. RESULTS: Among more than 600,000 enrollees, 13.7% made CAM claims. This included 1.3% of enrollees with claims for acupuncture, 1.6% for naturopathy, 2.4% for massage, and 10.9% for chiropractic. Patients enrolled in preferred provider organizations and point-of-service products were notably more likely to use CAM than those with health maintenance organization coverage. The use of CAM was greater among women and among persons 31 to 50 years of age. The use of chiropractic was more frequent in less populous counties. The CAM provider visits usually focused on musculoskeletal complaints except for naturopathic physicians, who treated a broader array of problems. The median per-visit expenditures were 39.00 dollars for CAM care and 74.40 dollars for conventional outpatient care. The total expenditures per enrollee were 2589 dollars, of which 75 dollars(2.9%) was spent on CAM. CONCLUSIONS: The number of people using CAM insurance benefits was substantial; the effect on insurance expenditures was modest. Because the long-term trajectory of CAM cost under third-party payment is unknown, utilization of these services should be followed.

Mackenzie, E. R., L. Taylor, et al. (2003). "Ethnic minority use of complementary and alternative medicine (CAM): a national probability survey of CAM utilizers." Altern Ther Health Med **9**(4): 50-6.

CONTEXT: US research results suggest that some sociodemographic characteristics predict use of complementary and alternative medicine (CAM). Specifically, use of CAM has been positively associated with persons from higher socioeconomic status groups and negatively associated with African-Americans. OBJECTIVE: To investigate the sociodemographic characteristics of CAM utilizers in a national probability sample, one containing an over-sampling of ethnic minorities. DESIGN: We tested the hypothesis that CAM use is prevalent among many different ethnic groups in the US. by analyzing a subset of data from The 1995 National Comparative Survey of Minority Health Care of The Commonwealth Fund, a national probability sample of 3,789 persons with an over-sampling of ethnic minorities. The survey was conducted by telephone in 6 languages. We analyzed use of CAM (defined by 5 items: herbal medicine, acupuncture, chiropractic, traditional healer, home remedy) within the last year. RESULTS: Use of 1 or more CAM modalities did not differ by ethnicity. Overall, 43.1% of the respondents reported using 1 or more CAM modality. Predictors of CAM use were female gender, being uninsured, and having a high school education or above. CONCLUSION: Use of CAM is equally prevalent among white, African-American/black, Latino, Asian, and Native American populations in the US, but characteristics of utilizers vary considerably by specific CAM modality.

Moadel, A. B., C. Shah, et al. (2007). "Randomized controlled trial of yoga among a multiethnic sample of breast cancer patients: effects on quality of life." J Clin Oncol **25**(28): 4387-95.

PURPOSE: This study examines the impact of yoga, including physical poses, breathing, and meditation exercises, on quality of life (QOL), fatigue, distressed mood, and spiritual well-being among a multiethnic sample of breast cancer patients. PATIENTS AND METHODS: One hundred twenty-eight patients (42% African American, 31% Hispanic) recruited from an urban cancer center were randomly assigned (2:1 ratio) to a 12-week yoga intervention (n = 84) or a 12-week waitlist control group (n = 44). Changes in QOL (e.g., Functional Assessment of Cancer Therapy) from before random assignment (T1) to the 3-month follow-up (T3) were examined; predictors of adherence were also assessed. Nearly half of all patients were receiving medical treatment. RESULTS: Regression analyses indicated that the control group had a greater decrease in social well-being compared with the intervention group after controlling for baseline social well-being and covariates (P < .0001). Secondary analyses of 71 patients not receiving chemotherapy during

the intervention period indicated favorable outcomes for the intervention group compared with the control group in overall QOL ($P < .008$), emotional well-being ($P < .015$), social well-being ($P < .004$), spiritual well-being ($P < .009$), and distressed mood ($P < .031$). Sixty-nine percent of intervention participants attended classes (mean number of classes attended by active class participants = 7.00 +/- 3.80), with lower adherence associated with increased fatigue ($P < .001$), radiotherapy ($P < .0001$), younger age ($P < .008$), and no antiestrogen therapy ($P < .02$).

CONCLUSION: Despite limited adherence, this intent-to-treat analysis suggests that yoga is associated with beneficial effects on social functioning among a medically diverse sample of breast cancer survivors. Among patients not receiving chemotherapy, yoga appears to enhance emotional well-being and mood and may serve to buffer deterioration in both overall and specific domains of QOL.

Najm, W., S. Reinsch, et al. (2003). "Use of complementary and alternative medicine among the ethnic elderly." *Altern Ther Health Med* **9**(3): 50-7.

OBJECTIVE: We sought to explore whether the elderly are high users of complementary and alternative medicine (CAM), and to determine which modalities they use. We also sought to describe patterns and positive predictors of CAM use among 3 ethnically diverse groups of community-residing elderly. DESIGN: A 7-page questionnaire was developed and translated into Spanish and Vietnamese. PARTICIPANTS: A population of 525 community-residing elderly completed personal interviews. RESULTS: Two hundred and fifty-one respondents (47.8%) reported using CAM over the past year. Dietary supplements (47.4%), chiropractic (16.3%), home remedies (15.9%), acupuncture (15.1%), and Oriental medicine (12.8%), were the most frequently cited therapies. The majority of CAM users (62.4%) did not inform their physicians that they were using it, but 58% consulted their physician for the same problem for which they used CAM. Family and friends were most relied upon for making the choice of therapy. Among the 3 ethnic groups studied, Asians were higher users of acupuncture (28%) and Oriental medicine (31%), Hispanics were higher users of dietary supplements (56%), home remedies (25%), and curanderos (8%), while white non-Hispanics were higher users of chiropractic (42%), massage (20%), vitamins (20%), diet (17%), and psychospiritual (15%) modalities. Pain was a higher indicator of CAM use among Asians, gastrointestinal problems and diabetes among Hispanics, and stress/fatigue and cardiovascular problems among white non-Hispanics. CONCLUSION: Findings indicated a high use of CAM among the elderly and emphasize the likelihood that elderly immigrants use those therapies with which they are familiar. Modalities and conditions varied with the ethnicity of respondents.

Ngo-Metzger, Q., R. S. Phillips, et al. (2008). "Ethnic disparities in hospice use among Asian-American and Pacific Islander patients dying with cancer." *J Am Geriatr Soc* **56**(1): 139-44.

Asian Americans and Pacific Islanders (AAPIs) are a rapidly growing population in the United States, yet little is known about hospice use and length of stay in hospice of older AAPIs dying with cancer. A retrospective study was conducted of the last year of life of AAPI and white Medicare beneficiaries registered in the Surveillance, Epidemiology, and End Results Program. White ($n=175,467$) and AAPI ($n=8,614$) patients aged 65 and older who were dying with lung, colorectal, breast, prostate, gastric, or liver cancer were studied. Cox proportional hazards models were used to examine hospice use and length of stay in hospice. All AAPI subgroups studied had lower rates of hospice use (Chinese (adjusted hazard ratio (HR)=0.62, 95% confidence interval (CI)=0.55-0.69), Japanese (adjusted HR=0.67, 95% CI=0.60-0.73), Filipino (adjusted HR=0.61, 95% CI=0.54-0.70), Hawaiian/Pacific Islanders (adjusted HR=0.78, 95% CI=0.67-0.91), and other Asians (adjusted HR=0.70), 95% CI=0.55-0.90) than white patients,

adjusting for patient demographic and clinical characteristics. Of those who enrolled in hospice (approximately 20% of the total sample), Japanese Americans had a shorter median length of stay (21 days), and Filipino Americans had a longer median length of stay (32 days) than white patients (26 days). Overall, approximately 20% of patients enrolled within 7 days of death, and only 6% had hospice stays that were longer than 2 months, with no significant differences across racial or ethnic groups. In conclusion, in every ethnic subgroup studied, AAPIs were less likely than whites to enroll in hospice. Further research is needed to understand these differences and eliminate potential barriers to hospice care.

Reinschmidt, K. M., J. B. Hunter, et al. (2006). "Understanding the success of promotoras in increasing chronic diseases screening." J Health Care Poor Underserved **17**(2): 256-64.

The purpose of this qualitative study was to elicit information on why a promotora (or, community health worker (CHW)) increased adherence to chronic disease screening among women along the U.S.-Mexico border. After completion of the intervention, women and clinic staff who participated in the promotora phase of a randomized, controlled study answered structured, open-ended questionnaires. Clinicians from two non-participating clinics were also interviewed. Content analysis found that the promotora's roles included health education and the facilitation of routine and follow-up care. Clients appreciated the promotora's socio-cultural characteristics, as well as her personal skills and qualities, and described her as a trained, natural helper whose personalized support removed barriers to health care and helped women to take care of themselves. Most clinicians recommended working with a CHW to increase adherence to chronic disease prevention practices. A CHW can play a crucial role on a health care team and interventions should tap into this resource.

Richert, M. L., A. J. Webb, et al. (2007). "Move More Diabetes: using Lay Health Educators to support physical activity in a community-based chronic disease self-management program." Diabetes Educ **33** Suppl 6: 179S-184S.

PURPOSE: The purpose of this article is to describe Move More Diabetes (MMD), which is used by Lay Health Educators (LHEs) to promote physical activity and improve diabetes self-management among individuals with type 2 diabetes. **METHODS:** Move More Diabetes used social marketing strategies to choose and segment the target audience, develop messages, and determine message delivery. Based on market research results, MMD chose natural peer support from LHEs as the main intervention strategy. **RESULTS:** Move More Diabetes built a sustainable volunteer network of 35 LHEs who recorded 1500 contacts with enrollees from 2004 to 2006. Participation improved when the program was not specific for diabetes. **CONCLUSION:** The MMD program demonstrated benefits of partnership and natural peer support and the utility of social marketing in planning and implementing a community-based chronic disease self-management and physical activity promotion program. This low-cost program can serve as a model for other rural communities interested in increasing physical activity to address chronic disease.

Wade, C., M. T. Chao, et al. (2007). "Medical pluralism of Chinese women living in the United States." J Immigr Minor Health **9**(4): 255-67.

This study provides national prevalence estimates for complementary and alternative (CAM) use, visits to doctors for health problems, and the effects of acculturation on health practices in Chinese women living in the United States. A national telephone survey of 3,172 women on their use of complementary and alternative medicine was conducted in 2001. This study focuses on a subsample of 804 Chinese-American women who were asked about health practices and

service utilization. Interviews were conducted in Mandarin, Cantonese and English. Forty-one percent of Chinese-American women used some form of CAM in 2001. Socio-economic status, a common predictor of CAM use in other studies of the general population in the United States, did not predict use in this sample. Traditional Chinese medicine (TCM) is used across acculturation levels. As Chinese women adapt to American culture they tend to use a greater variety of healthcare practices and to adopt mainstream CAM practices, but they also continue to use TCM.

Additional Publications by Kronenberg and colleagues

Wade C, Chao MT, Kronenberg F. (in press); Medical pluralism of American women: Results of a national survey. *J Women's Health*.

Chao MT, Wade C, Kronenberg F. (in Press). Disclosure of complementary and alternative medicine to conventional medical providers: Variation by race/ethnicity and type of CAM. *Journal of the National Medical Association*

Wade C., Chao M, Kronenberg F. 2007. Medical pluralism of Chinese women living in the United States. *J Immigrant Minority Health*, 9 (4): 255-267.

Bodeker G, Kronenberg F, Burford G. 2007. Policy and public health perspectives on traditional, complementary and alternative medicine: An Overview. In: *Traditional, complementary and alternative medicine: Policy and public health perspectives*. Bodeker, G and Burford G. (eds) Imperial College Press.

Reiff M, Kronenberg F, Balick M, Lohr P, Roble M, Cortez L, O'Connor B., Fugh-Berman A. 2003. Ethnomedicine in the urban environment: Latino healers in New York City. *Human Organization*, 62: 12-26.

Balick MJ, Kronenberg F, Ososki A, Reiff M, Fugh-Berman A, O'Connor B, Roble M, Lohr P, Atha D. 2000. Medicinal plants used by Latino healers for women's health conditions in New York City, *Journal of Economic Botany*, 54: 344-357.

Allen R, Cushman L, Feldman J, Morris S, Wade C, McMahon D, Moses M, Kronenberg F. 2000. Use of complementary and alternative medicine among Hispanic emergency department patients. *Am J Emergency Med*, 18:51-54.

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