

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
Coordinating Center for Health Information and Service
National Center for Health Marketing**



**Board of Scientific Counselors Meeting
December 8-9, 2008
Atlanta, Georgia**

FINAL Record of the Proceedings

TABLE OF CONTENTS

	<u>Page</u>
Attachment 1: List of Participants	A1.1
Attachment 2: Acronyms Used In These Meeting Minutes	A2.1
Meeting Minutes.....	1
December 8, 2008	
Opening Session.....	1
Overview of CDC’s Health Promotion Priorities	2
Overview of NCHM’s Research and Science Review Activities.....	5
NCHM Director’s Report	17
BSC Open Discussion: Session 1	21
December 9, 2008	
BSC Open Discussion: Session 2.....	23
Public Comment Session	26
BSC Business Session	26
Closing Session	29

ATTACHMENT 1

List of Participants

BSC Members

Dr. Kasisomayajula Viswanath, Chair
Dr. David Ahern
Dr. Marilyn Aquirre-Molina
Dr. Richard Bagozzi
Dr. Diana Cassady
Dr. Barbara DeBuono
Dr. Sonya Grier
Ms. Donna Nichols
Dr. William Smith

Designated Federal Official

Dr. Doğan Eroğlu,
Associate Director for Science, NCHM

CDC Representatives

Dr. Tanja Popovic,
CDC Chief Science Officer
Dr. Steven Solomon, CCHIS Director
Dr. Jay Bernhardt, NCHM Director
Dr. Katherine Lyon Daniel,
NCHM Deputy Director
John Anderton
Cynthia Baur
Joseph Bertulto
Diane Brodalski
Deron Burton
David Clark
Erin Edgerton
Emily Eisenberg
Fred Fridinger
Kimberly Gadsen-Knowles

Kate Galatas
Donna Garland
Dawn Griffin
Sabrina Harper
Wendy Holmes
Matthew Jennings
Valerie Johnson
Margaret Labre
Cheryl Lackey
Stephen Luce
Dionne Mason
Diane Manheim
Kathleen McDuffie
Jeffrey McKenna
Jane Mitchko
Georgia Moore
Janice Nall
William Pollard
Monica Ponder
Christine Prue
George Roberts
Robin Soler
Lynn Sokler
James Stephens
James Weaver

Guest Presenters [via conference call]

Vicki Freimuth, University of Georgia
Jeffrey Harris, University of Washington
Leslie Snyder, University of Connecticut

ATTACHMENT 2**Acronyms Used In These Meeting Minutes**

AHRQ	—	Agency for Healthcare Research and Quality
BSC	—	Board of Scientific Counselors
CBOs	—	Community-Based Organizations
CCHIS	—	Coordinating Center for Health Information and Service
CDC	—	Centers for Disease Control and Prevention
CHCM	—	Center for Health Communication and Marketing
COEs	—	Centers of Excellence
DFO	—	Designated Federal Official
DHCM	—	Division of Health Communication and Marketing
FACA	—	Federal Advisory Committee Act
FBOs	—	Faith-Based Organizations
FOAs	—	Funding Opportunity Announcements
HCSOs	—	Health Communication Science Offices
HHS	—	Department of Health and Human Services
HMRC	—	Health Marketing Research Center
NCHM	—	National Center for Health Marketing
NIH	—	National Institutes of Health
OCSO	—	Office of the Chief Science Officer
OMB	—	Office of Management and Budget
P.L.A.N.E.T.	—	Cancer Control “Plan, Link, Act Network with Evidence-Based Tools”
PSAs	—	Public Service Announcements
RCTs	—	Randomized Controlled Trials
SCCHP	—	Southern Center for Communication, Health and Poverty
SDH	—	Social Determinants of Health

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
Coordinating Center for Health Information and Service
National Center for Health Marketing**

**BOARD OF SCIENTIFIC COUNSELORS MEETING
December 8-9, 2008
Atlanta, Georgia**

DRAFT Minutes of the Meeting

The Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) Coordinating Center for Health Information and Service (CCHIS) National Center for Health Marketing (NCHM) convened the Board of Scientific Counselors (BSC) meetings. The proceedings were held on December 8-9, 2008 in Building 19 of the Tom Harkin Global Communications Center at the CDC Roybal Campus in Atlanta, Georgia.

Opening Session

Dr. Kasisomayajula Viswanath, Chair of the BSC, called the proceedings to order at 9:14 a.m. on December 8, 2008. He welcomed the attendees to the NCHM BSC meeting and opened the floor for introductions. The list of participants is appended to the minutes as [Attachment 1](#).

Dr. Viswanath noted that NCHM's activities are extremely critical to advancing public health at both domestic and global levels. To assist NCHM in achieving this goal, he explained that the BSC would develop a vision to strengthen CDC's health marketing portfolio. He thanked the BSC members for contributing their valuable time and expertise to this important effort.

Dr. Jay Bernhardt, Director of NCHM, officially recognized Dr. Doğan Eroğlu, Associate Director for Science in NCHM, in his new role as the Designated Federal Official (DFO) for the BSC. He reminded the BSC members that the role of the DFO is to coordinate all aspects of a federal advisory committee and serve as the point of contact between the government and committee members. Dr. Bernhardt also acknowledged Dr. Kathleen McDuffie, of NCHM, for her outstanding efforts and leadership in establishing the BSC and serving as the former DFO.

Dr. Bernhardt pointed out that at the agency level, CDC would continue to leverage the expertise and talent of its scientists, researchers and practitioners to make a public health impact in improving and protecting the lives of individuals, communities and populations. At the National Center level, NCHM would continue to apply solid science and evidence-based

research and practice as the cornerstone of its health marketing and health communications activities. He thanked the BSC members for providing NCHM with valuable recommendations and guidance to fulfill its mission, identify priorities and establish future directions.

Overview of CDC's Health Promotion Priorities

Dr. Steven Solomon, Director of CCHIS, explained that CDC is currently undergoing a transition in terms of a new Presidential Administration and a new role for public health at the federal level. Most notably, the new HHS Secretary will spend a considerable amount of time and effort focusing on reforming the healthcare delivery system. The new Administration's emphasis on healthcare delivery will provide extraordinary opportunities for CDC and its federal partners to make a strong case for the need to promote a different concept of managing health in the United States and better understand the role of public health, its interaction with the healthcare system, and its capacity to strengthen disease prevention and health promotion.

Expert advice and guidance by the BSC will assist NCHM in reframing CDC's health marketing and health communications portfolio to focus on individual empowerment and control of health. For example, the health marketing field has dramatically changed over the past four years with new digital devices and other technologies for persons to obtain necessary information in a transparent manner. Moreover, advancements have been made from a hierarchical model of health in which patients previously followed the instructions of physicians, public health departments or other providers to a more participatory model of health in which persons and communities now make informed decisions and exercise control over their individual health.

CDC is currently making efforts to determine whether adequately robust scientific evidence is now available or could be gathered in the future to demonstrate that empowering individuals and communities with the ability to control their health through information, knowledge and other tools would result in healthier lives. The BSC will play an important role in helping CDC to convey to the new Administration and the American public that science is now in a position to make society healthier as a whole regardless of the geographic location or size of the community.

An important component in achieving this goal will be for CDC to clearly define "communities" in the current environment. In addition to geographical location, "communities" also should be defined based on affiliations, peer relationships and other influences that play a significant role in individuals making choices about their personal behaviors. CDC acknowledges that the BSC and NCHM have a tremendous responsibility in promoting these new concepts within the public health system because the federal government is extremely conservative in nature and has no interest in taking risks.

CDC is interested in taking risks at this time by developing new evidence-based models and concepts to empower individuals and communities. CDC is aware that empowerment tools have not been created to date and previous efforts to engage and provide information to the public have been relatively unsuccessful in making measurable differences in individual health.

Despite the traditionally conservative nature of the federal government, CDC welcomes the opportunity to embrace “risky” and “cutting-edge” science.

Dr. Solomon concluded his overview by asking the BSC to assist CDC in identifying, collecting and appropriately disseminating solid scientific evidence to demonstrate that change, individual decision-making and empowerment could be effective in improving health. He also asked the BSC to encourage CDC to take risks without fear of failure. He was aware that some “risky” and “cutting-edge” programs would be unsuccessful in demonstrating a measurable health benefit. However, he emphasized that the United States would continue to regress rather than progress as a nation in improving health, longevity and quality of life if the same “safe” actions are repeated without taking risks to identify effective cutting-edge programs.

Dr. Tanja Popovic, CDC’s Chief Science Officer, explained that the role of the Office of the Chief Science Officer (OCSO) is to focus on scientific quality, relevance, integrity and accountability through internal and external collaboration and partnerships. OCSO primarily provides services to Institutional Review Boards, the Office of Management and Budget (OMB), Paperwork Reduction Act, and oversight of human and animal research.

CDC uses its nine BSCs and 15 other types of advisory committees to obtain external guidance and recommendations. CDC recently convened a meeting with the chairs and DFOs of all advisory committees to identify commonalities across groups and discuss the vision of CDC. For example, CDC’s advisory committees have traditionally focused on science, but these groups also must now emphasize the relevance of science to the priorities of CDC and the broader public health community to make a significant health impact.

CDC recognizes the need to create new knowledge by gathering evidence to demonstrate the importance of marketing and communication science. CDC also acknowledges the challenges associated with this change due to its historical focus on malaria, infectious diseases, food-borne outbreaks, epidemiology and laboratory research. However, CDC has broadened its public health portfolio over time to include autism, chronic diseases, environmental health and preparedness and emergency response.

NCHM is CDC’s focal point in terms of serving customers and collaborating with partners to empower persons to take control over their individual health. However, CDC has been challenged by establishing priorities due to 246 line items in its budget. To address this issue, CDC developed health protection goals in four areas and modified its organizational structure, including the development of NCHM. Efforts have been ongoing over the past four years to increase both internal and external knowledge, understanding and appreciation of NCHM’s valuable contributions to CDC and the broader public health community in the areas of science- and evidence-based health marketing and communication science.

The quality and excellence of CDC’s science, health marketing and communication science are critically important and serve as the foundation for all public health activities throughout the agency. CDC assures its scientific quality through mandatory peer reviews of extramural research, scientific programs, intramural research, communications materials, scientific papers and other documents. CDC also has developed the Excellence in Science Committee with

Associate Directors of Science who represent all parts of the agency. CDC allocates ~75% of its budget to >2,500 different grantees through cooperative agreements, grants and other funding mechanisms.

CDC has never developed an agency-wide research agenda due to the complexity of its organizational structure with a \$10 billion budget and a workforce of 15,000 staff. However, CDC recently drafted its first research agenda that is based on 14 action plans within the four health protection goals. The draft research agenda is only three pages due its focus on the most important public health issues, gaps in these areas, and barriers to accomplishing goals. In addition to creating knowledge, CDC also is attempting to translate science through translation plans. Efforts are underway to include translation language in CDC's extramural funding opportunity announcements (FOAs), intramural activities and guidance for BSCs.

CDC has established a number of indicators to document NCHM's success. NCHM's health marketing and communication scientists should publish papers in peer-reviewed scientific journals. NCHM's scientists should develop scientific manuscripts to be finalists or winners of the Shepard Scientific Award. This honor is awarded each year and is CDC's highest recognition of scientific excellence. NCHM should play a critical role in strengthening CDC's partnerships. NCHM's evidence-based health marketing and communication science and its important contributions to scientific discoveries, health impact and actual practice in the field should be featured on the CDC Web site and other venues. NCHM should be viewed as a critical need among CDC staff, clinicians and the broader public health community.

Dr. Popovic concluded her overview by emphasizing the importance of the United States developing a public health system that invests in healthy individuals and assures persons remain healthy. This goal could be achieved by incorporating social and behavioral sciences and broader societal issues, such as poverty and education, into the public health system. CDC will continue its ongoing effort to develop a strong evidence-based business case for health protection and health promotion or prevention.

The BSC members made a number of comments and suggestions on CDC's health promotion priorities.

- CDC should serve as the leader in effectively communicating and articulating public health issues to the public. For example, celebrities, web site bloggers and other persons with limited knowledge on the relationship between vaccines and autism and other public health issues continue to provide the public with inaccurate information or convey messages with no scientific evidence basis.
- CDC should take advantage of existing opportunities at this time to provide leadership in better defining the nexus between the public health system and healthcare delivery system.
- CDC should explore the opportunity of conducting randomized controlled trials (RCTs) with new scientific models and sufficient sample sizes to show the effect of health marketing and communication science.
- CDC should use its tremendous leadership and management in HIV community planning as a model to take steps toward engaging communities as true partners in participatory

research and other public health activities associated with health marketing and communication science.

CDC leadership made a number of remarks in response to the BSC's comments and suggestions on CDC's health promotion priorities. Dr. Bernhardt announced that NCHM is engaging new social media and social networks to improve communication on immunization. For example, NCHM produced a video that will be aired on the CDC-TV Web page featuring actual experiences of unvaccinated persons who were adversely affected by or died from influenza. The video serves as an excellent model of NCHM using new technologies, building a strong collaboration with another CDC National Center, and taking a science-based approach to dispel inaccurate public health information that was conveyed to the public from other sources.

Drs. Popovic and Solomon agreed with the BSC's comment that clinical trials could be conducted to gather scientific evidence on health marketing and communication science. However, models and strategies other than clinical trials have been developed to demonstrate the efficacy of public health issues, such as translation to evidence-based practice and the *Guide to Community Preventive Services*. CDC and the National Institutes of Health (NIH) are currently discussing the need to educate journal editors and members of editorial boards about different approaches to produce scientific evidence. Outcomes from these discussions will be particularly pertinent to NCHM's health marketing and communication science activities.

Dr. Viswanath described the BSC's next steps in addressing CDC's health promotion priorities. The BSC would devote a considerable amount of time during the meeting discussing the science of community engagement and information dissemination, scientific evidence to collect in this area, and appropriate goals to establish for this effort.

Overview of NCHM's Research and Science Review Activities

Dr. Katherine Lyon Daniel, Deputy Director of NCHM, explained that NCHM's mission is to develop high-quality research and science; communicate and deliver value to impact the lives of individuals; and protect and promote the health of diverse populations by tailoring and conveying health messages, interventions and products to multiple audiences. NCHM achieves its health marketing goals by using its four divisions to conduct audience and customer research and perform other activities. NCHM's four divisions also directly collaborate with partner groups, health professionals, customers and the general public.

NCHM broadened the traditional scientific model of health marketing by focusing on outcomes and expanding the definition of "customers." To strengthen health marketing science, NCHM developed materials for ~27 presentations in 2008 and also prepared 63 manuscripts for publication, including 50 journal articles and ten books.

NCHM's goals and strategic priorities are aligned with CDC's goal to increase the impact of its health marketing sciences. NCHM's two key strategic priorities are to enhance intramural research and strengthen health marketing activities to reduce health disparities and increase

health equity. To achieve these goals, NCHM uses various communication channels and data from research on approaches individuals take to obtain health and medical information. However, NCHM makes every effort to ensure that its health marketing activities are available to persons with no access to digital technologies.

NCHM is expanding its strategic and innovative health marketing approaches by adopting and diffusing customer-centric marketing throughout CDC and engaging diverse partners both inside and outside of CDC. NCHM's senior communications scientists are located in all of CDC's National Centers to provide health marketing consultation across the agency in a collaborative manner.

NCHM also is focusing on its goal to provide consistent and high-quality services and establish strong internal collaborations. The NCHM Director and Deputy Director recently completed a series of discussions with CDC leaders, division directors and senior scientists in other National Centers to describe NCHM's health marketing portfolio and its potential impact and role in CDC's other public health activities.

Dr. Lyon Daniel concluded her overview by yielding the floor to the NCHM divisions and Principal Investigators of NCHM-funded Centers of Excellence (COEs) to describe their ongoing health marketing and communication activities.

Division of Health Communication and Marketing (DHCM). Dr. Cynthia Bauer, Director of DHCM, explained that DHCM's organizational structure includes the Office of the Director, Community Guide Branch, Emergency Risk Communication Branch, and Marketing and Communication Strategies Branch. DHCM performs secondary data analysis of consumer marketing data and also conducts research on emergency response and pandemic influenza. DHCM's other activities include co-funding of the health literacy FOA in partnership with NIH and the Agency for Healthcare Research and Quality (AHRQ), leadership on the *Community Guide* marketing review, and program evaluation.

The extraordinary level of innovation and productivity of leadership and staff has resulted in DHCM conducting high-quality research, evaluating programs and developing a strong pandemic influenza communication practice portfolio in only two years. DHCM recently obtained OMB clearance on the revised "Health Message Testing System" that will allow concepts and messages to be tested with multiple questions and methods in a more efficient manner. To date, DHCM has completed >40 different data analyses of pandemic influenza projects for NCHM and Health Communication Science Offices (HCSOs) across CDC. DHCM uses data sets from a variety of sources to perform these data analyses.

DHCM is conducting international research on the applicability of Western-derived risk communication principles in other countries. The project is designed to answer two key questions: (1) Are Western-based risk communication principles relevant in China and effective with the Chinese public? (2) Do local health officials incorporate principles into health protection messages after receiving training in risk communication principles from draft guidelines?

In terms of emergency response research, DHCM conducts anticipatory activities related to pandemic influenza and is able to be deployed to the field within three to five days of a pending emergency. DHCM established a system to perform media monitoring of pandemic influenza and other emergency response efforts. DHCM also prepares after-action reports to determine the impact of media coverage on an emergency and identify potential revisions to make in this area in the future.

DHCM is conducting pandemic influenza formative research on preparedness messages and materials. The overarching goals of the study are to identify effective strategies to disseminate and target research to vulnerable populations and develop a new survey instrument on health protection variables. The key outcomes of the study will be to determine the potential role of social, cultural and environmental determinants in adhering to CDC guidelines and identify population-specific determinants that could actually be leveraged or augmented.

The pandemic influenza study has three major areas of focus: (1) public willingness to adopt and adhere to community mitigation strategies; (2) the disproportionate impact of natural disasters on economically, socially and politically vulnerable populations; (3) and the possibility of these populations taking action during a disaster in response to culturally-tailored health messages.

The seven populations included in the study were selected based on their distinctive perceptions of pandemic influenza, risk behaviors and preferences in communication sources and channels, and epidemiologically relevant factors associated with increased vulnerability. Participants from at least two distinct locations were chosen for each population group to reduce the potential for geographic bias.

The pandemic influenza study was designed with data from organizational interviews, individual in-depth interviews and town hall meetings. Pandemic influenza message research also was conducted with audience testing of informational and educational materials to determine the effectiveness of these materials in providing sufficient and usable information to multiple audiences to perform tasks. The study represents a new approach within CDC of conducting health literacy research to improve understanding in the field of various health literacy issues and the interaction of different factors.

Results of the pandemic influenza study will be compiled into a *Home Care Guide* for persons to care for sick individuals during a pandemic and take other actions based on information outlined in the brochure. DHCM will perform cognitive and in-home utility testing of the *Home Care Guide* with multiple at-risk populations, including medically underserved individuals, elderly persons, mothers with children <12 years of age, and ethnic/racial minority groups. DHCM will perform audience testing on nine one-minute videos, scripts for the videos, storyboards, and messages of early actions to take during a pandemic. DHCM also will test a child care toolkit for use by child care providers in private organizations, faith-based organizations (FBOs) and state facilities.

DHCM is disseminating and targeting information to state and local health departments and community-based organizations (CBOs). The project also will focus on the bi-directional flow of

information between these two groups and the extent to which CDC's health marketing and communication materials are tailored to meet specific needs at the local level. The project will be based on 14 case studies and will result in the development of concrete recommendations.

DHCM is developing an ambitious health protection survey to determine core communication variables that are relevant to pandemic influenza in particular and health protection in general. The national survey is based on the Maibach People and Places Framework and other risk communication components. DHCM is testing the survey on the telephone, Internet and in person in English, Spanish and one Asian language. The national health protection survey will be designed to support other modules related to any aspect of health promotion. DHCM hopes to be able to use pandemic influenza funding to administer the survey after the development phase is completed.

For the first time, CDC is participating in the HHS-wide FOA: "Understanding and Promoting Health Literacy." CDC will allocate funding of ~\$50,000 per year over a two-year project period. NCHM has received five applications to date and expects to award funds in the late spring of 2009. DHCM is conducting a marketing review of the *Community Guide*. This initiative is designed to determine the effectiveness of health marketing interventions to inform the agendas of both NCHM and its four divisions.

DHCM is participating in CDC's comprehensive evaluation of its pandemic influenza risk communication activities in both the preparedness and response phases. The evaluation is designed to assess messages and materials, partnership activities, use of technology, and exercises to test system readiness. The evaluation will provide CDC with information on the impact and effectiveness of its pandemic influenza risk communication activities, the breadth and quality of information dissemination, and consistency and coordination across CDC.

To date, CDC has established an agency-wide evaluation workgroup and gathered, reviewed and synthesized pandemic influenza risk communication activities and materials. Logic models, outlines and plans for each activity area are currently being developed. DHCM also is conducting a large-scale evaluation of its emergency response activities at the division level. The initial focus of the evaluation will be limited to partnerships and dissemination activities, but the project will ultimately lead to the development of risk communication response activities over multiple years.

DHCM was recently charged with leading a subcommittee to develop CDC's action plan on customer centricity based on the best available communication and marketing principles. DHCM will design the action plan to be appealing and relevant to all CDC staff both inside and outside of NCHM.

University of Georgia COE. Dr. Vicki Freimuth is the Director of the Southern Center for Communication, Health and Poverty (SCCHP) at the University of Georgia. She explained that SCCHP focuses on poor persons in the South and their response to health risks to better understand this population and develop and evaluate interventions to increase health protection behavior.

SCCHP undertook this effort because poverty rates and health disparities are among the highest in the Southern United States. SCCHP conducted four studies with cohorts of low-income persons and awarded two additional pilot studies on empathy, social media and the influence of these factors on socializing young children around health.

The “Lay Understanding of Genetics” study identified strategies to engage individuals in discussions about genetics and provide education on the relationship between genes and health behaviors. The study was conducted with in-depth individual interviews and focus groups. Key findings of the study are highlighted as follows. Individuals viewed genetics and behaviors as different tracks. Persons used their preferred tracks to process messages about genes and behavior. Fatalistic statements served as forms of uncertainty and stress management for low-income populations. Fatalism was not necessarily associated with inaction.

The “Processing of Anti-Smoking Messages” study was based on data that showed ~6,000 children <18 years of age start smoking each day. The study was designed to analyze the content of anti-smoking public service announcements (PSAs), evaluate mental models of smoking, and assess the extent to which adolescents actually process PSAs. Key findings of the study are highlighted as follows. Young teens with low socioeconomic status smoked to calm their nerves and cope; viewed personal testimony PSAs as least biased and most effective; and smoked if peer attitudes and norms were easily accessible. None of the PSAs analyzed in the study addressed specific reasons for smoking in this target audience.

The “Response to Multiple Health Risks” study examined patterns of response across multiple risks rather than a single health risk. The study was conducted with focus groups and a telephone survey of low-income persons in five Southern states. Key findings of the study are highlighted as follows. The participants understood linkages between diseases, but often responded to one risk at a time. Multiple risks were considered in terms of personal control. Risks that were most serious and those for which concrete actions could be taken were most frequently addressed. The participants were not necessarily motivated to address risks to which they were most vulnerable.

The “Message Bundling Study” focused on the efficacy of bundled versus single messages and the number and types of messages that could be bundled. A brochure was tested with bundled messages on pre-conception health. Key findings of the study are highlighted as follows. Pre-existing knowledge of target behaviors was minimal and recall of the brochure was poor. The participants recalled 1-4 behaviors per message equally well. Neither categorizing behaviors nor providing headings improved recall among the participants.

Dr. Freimuth concluded that NCHM funding has been extremely important for SCCHP to convene a talented group of researchers to focus on health risks in low-income populations, create strong synergies in the field, and provide health disparities training to graduate students. SCCHP intends to report the findings of these studies in a peer-reviewed journal for access by poverty experts.

University of Connecticut COE. Dr. Leslie Synder is the Director of the Center for Health Communication and Marketing (CHCM) at the University of Connecticut. She explained that the

mission of CHCM is two-fold: (1) conduct cutting-edge research to inform the design and diffusion of health communication and marketing interventions and practices and (2) identify the most effective types of interventions, communication strategies and messages for specific at-risk populations and health behaviors.

CHCM is creating a safer sex video game for young, urban and heterosexual men 18-25 years of age with particular emphasis on African Americans due to their extremely high risk for HIV, syphilis and gonorrhea. The video game will be tested in a RCT to determine the effectiveness of an innovative entertainment channel that is used daily for video games. The goal of the project will be to increase condom use in the target population by creating positive associations with condom use across different types of sexual relationships; making negative consequences of non-use more immediate; and rehearsing interpersonal strategies that will lead to condom use and other risk reduction behaviors.

CHCM's formative research showed that the target population expressed strong interest in playing the safer sex video game and had various attitudes toward condom use, self-efficacy and risky behaviors based on the type of relationship and familiarity of partners. The features of the PC-based adventure game include specific "missions," such as sexual encounters with an established partner, a "friend with benefits" or a one-night stand; trips to an STD clinic or a store to purchase condoms; and a music-related storyline to link all aspects of the video game.

CHCM conducted a project using social marketing tools to prevent drug use among urban youth 14-20 years of age during parties. Urban artists were trained to create original songs, spoken words and dances to convey messages about the risks of drug and alcohol use and support a substance-free culture. Peer groups and family members attended shows of these live performances and the artists recorded original CDs of their songs. The post-test surveys showed high levels of trust and belief in the messages and enjoyment of shows. Follow-up behavior results of the project are pending.

CHCM is conducting a meta-analysis of tailored interventions to collect data on individual demographics, beliefs, behaviors, needs and communication preferences. The information will be used to create tailored messages. Data have shown that tailored interventions perform better than traditional non-tailored interventions in both short- and long-terms periods. Data also have demonstrated that the effects of printed, interpersonal, computer and telephone interventions dissipate after three months.

CHCM is conducting a meta-analysis of nutrition interventions that use the media. Data have shown that fruit and vegetable campaigns are difficult to conduct and have been largely ineffective. Interventions to reduce fat consumption and increase intake of specific nutrients were found to be relatively more successful.

CHCM recently completed a meta-analysis of HIV interventions that use some form of media. Condom use was found to be greater when campaigns used both mass media and interpersonal channels, such as counseling, peer outreach and small groups, rather than a media campaign or interpersonal outreach alone. However, no difference in effectiveness was seen when the evaluation sample reflected a sexually active target population. HIV campaigns

in poor countries with a low health development index had a greater effect, particularly those with condom distribution programs. None of the campaigns analyzed were successful in decreasing the number of sexual partners.

CHCM is developing a searchable database as a dissemination tool for evidence-based interventions on a broad range of topics, including nutrition, exercise, mammography, screening and HIV/AIDS. The database will provide data on the comparative efficacy of interventions based on meta-analyses and also will serve as a solid tool for intervention designers, state and local community health organizations, funding agencies and researchers.

CHCM is monitoring all 50 state health departments by administering a survey to assess different types of health communication activities these agencies are conducting or sponsoring. The survey also is designed to identify needs and share examples of social marketing and communication campaigns.

CHCM is using an industry database to monitor PSAs and health-related advertising. The project is designed to help policymakers broadcast PSAs in sufficient quantity and at effective times; inform campaign decisions about allocating funds and placing PSAs; and provide an overview of issues that were or were not addressed in PSAs.

Data showed that PSAs represented ~2% of advertisements on national television in 2001-2006 and health was the most common topic. Of all PSAs broadcast, 30.5% were aired overnight. Sports programs had a smaller percentage of PSAs than other programs. The relative percentage of PSAs was found to be proportional to deaths from lung, breast, leukemia or lymphoma cancers, but PSAs were not proportional for ovarian, prostate or pancreatic cancers.

Dr. Snyder concluded that CHCM's meta-analyses, development of the searchable database, monitoring of state health departments and other core activities would not be possible without NCHM funding. The cooperative agreement also has allowed CHCM to create synergies and convene multidisciplinary researchers to focus on the important issue of health communication.

University of Washington COE. Dr. Jeffrey Harris is the Director of the Health Marketing Research Center (HMRC) at the University of Washington. He explained that HMRC collaborates with a strong network of community partners to disseminate evidence-based practices and reduce health disparities. HMRC established four specific aims to fulfill its mission.

Scientists and community partners are convened to increase marketing and communication research using novel methods and applications. New health promotion and chronic disease prevention marketing and communication strategies are tested to develop evidence-based interventions. Marketing and communication strategies are disseminated to both public and private partners. Faculty, students and community members are actively engaged in collaborative learning experiences.

HMRC is conducting the "Marketing and Tailoring Hypertension Control Via 911 Responders" RCT to evaluate the effectiveness of local fire stations in providing blood pressure screening.

The RCT includes testing of four communication strategies to motivate high-risk persons to present to a local fire station for a blood pressure check as well as testing of two marketing strategies to increase blood pressure monitoring among individuals who previously visited a fire station for a blood pressure check. A small cash incentive is offered to the study participants to determine its effect on behaviors in a low-income population.

To date, HRMC has enrolled 3,400 persons in the 911 responders RCT and randomized each participant to either a mailed intervention or control arm. Of 1,452 participants who completed follow-up interviews, 95 reported visiting a fire station in the past for a blood pressure check. These participants were randomized into two arms to receive a second mailed intervention.

HRMC is conducting the “Marketing Workplace Chronic Disease Prevention” RCT to increase adoption of best practices among employers. A pilot study with large employers in Washington State showed that the adoption of evidence-based practices for chronic disease prevention as recommended by the *Community Guide* increased from 40% at baseline to 60% at follow-up. Data from the pilot study with large employers will be replicated in the RCT with mid-sized employers who pay less than median wages.

The specific aims of the RCT are to test the association between employer characteristics and their willingness to participate and adopt 17 best practices. A survey of employee health behaviors will be piloted. HRMC partnered with the American Cancer Society to deliver the chronic disease prevention intervention from the pilot study to 700 companies across the country that employ 2.5-3.5 million persons.

HRMC reached its target of enrolling 48 companies in the workplace RTC or 24 companies per arm. All 24 companies in the program arm received the chronic disease intervention and two of these companies completed the RCT in its entirety. One company in the delayed program or control arm has begun the intervention.

HRMC is conducting a number of other activities under the NCHM cooperative agreement. HRMC developed and submitted the “Social Marketing for Dissemination Research” model for publication in a special issue of the *American Journal of Public Health*. HRMC will use the model to guide other research activities. HRMC submitted its renewal grant application to CDC for continued funding as an NCHM COE. HRMC also submitted grant proposals to other federal agencies to receive funding on translational research on aging, breast cancer research, and dissemination and implementation research in health.

HRMC conducted two pilot studies to complement its RCTs. This research focused on barriers to seniors seeking assistance from falls and health promotion decision-making among small to mid-sized employers. HRMC is consulting with CDC’s Preparedness and Emergency Response Research Center at the University of Washington. HRMC will continue to collaborate with its solid network of partners to conduct studies focusing on health disparities and chronic diseases.

Review of the Guide to Community Preventive Services. Dr. Robin Soler is a Coordinating Scientist for the *Community Guide*. She explained that CDC conducts systematic reviews of

public health interventions with an independent, non-federal task force of experts. The task force's findings and recommendations are used to inform policy practice and future research on interventions that are applicable to the United States.

To date, the task force has formulated and published >210 findings and recommendations in peer-reviewed journals and on the CDC Web site. CDC also tailors other products to target audiences and assists liaisons in developing materials related to the *Community Guide*. The *Community Guide* reflects various study designs, but CDC very carefully selects the research that is included in the document. For example, the efficacy of a recommended intervention must be demonstrated from multiple perspectives and its cost, barriers to usage, potential harms and unanticipated outcomes must be clearly described.

The *Community Guide* has various uses for diverse audiences. Practitioners use the findings to inform programs during the planning process. Policymakers use the findings to identify effective policy initiatives, such as the privatization of alcohol sales, blood alcohol concentration laws, and transfers of youth from youth to adult courts. Researchers use the findings to propose new studies and fill existing data gaps. Funding entities use the findings to support interventions and fill important research gaps. Local and state boards of health are primary users of the *Community Guide* as well.

CDC formed an internal workgroup to establish the focus of the *Community Guide* systematic review in health marketing. The review is designed to test systematic review methods in the field of health marketing. Expected outcomes from the systematic review include findings from the task force, peer-reviewed publications, documents that are tailored to target audiences, and interim informational pieces.

The workgroup considered several options to conduct the systematic review, including an intervention approach, campaign strategy, or focus on one or multiple target behaviors. The workgroup ultimately decided to take an intervention approach that could be applied to multiple topics. After reaching agreement on the methodology of the systematic review, the workgroup convened a review team and listed potential interventions.

The workgroup is now considering the development of an analytic framework for the intervention that will be selected. Additional consultants will be recruited to provide subject matter expertise on the selected intervention. The workgroup will conduct a full and formal literature search by January 2009. The intensive data abstraction process will include two to three experts reading each study that meets the review criteria.

A critical evaluation will be performed to grade the studies and exclude papers that do not meet a certain quality score. Studies that are included in the systematic review must have positive scores in at least five of nine areas. The workgroup anticipates that ~30-40 studies will meet the criteria for inclusion in the systematic review. This number will be sufficient for the studies to be stratified at the product level.

A coordination team was formed with NCHM and *Community Guide* staff and external experts. To determine the magnitude and scope of the health marketing field and identify existing

research gaps, previous reviews on health education, mass media, message effects and eHealth were reviewed. The coordination team will summarize the evidence using various methodological techniques and present its findings to the task force for formal approval. Although the task force will be unable to make recommendations on knowledge, intentions, motivations and other outcomes that are typically measured in health marketing, these factors will serve as important intermediate outcomes in the systematic review.

The systematic review of the *Community Guide* is being designed to answer a number of key research questions: (1) Does the intervention fall within the scope of health marketing and health communication? (2) What is the expected impact of the intervention on health? (3) Can the intervention be characterized as “community preventive service?” (4) Can the review help improve current practices? (5) Are the number of available studies sufficient to conduct the systematic review?

The coordination team has been challenged in fulfilling its charge due to the lack of operational definitions in the field of health marketing. However, the coordination team agreed to use the principles of social marketing and communication campaigns that include the distribution of products. For purposes of the systematic review, “products” are defined as a tangible physical object, such as a condom or car seat, that consumers can use directly without a health professional. The product also should facilitate changes in behaviors that must be repeated.

The immediate next steps in the systematic review are to clearly define “campaign,” consider additional inclusion and exclusion criteria for studies, determine outcomes of interest, initiate the formal literature search, assess and synthesize the literature, make an interim presentation to the task force in February 2009, and reach final conclusions based on results of the literature review.

Dr. Soler informed the BSC that the *Community Guide* is currently undergoing usability testing. Methods from this effort as well as partnerships with liaisons in ~25 organizations will be used to determine the extent to which constituents use the *Community Guide* and its Web site. In the future, CDC will consider whether to use the outcomes of the systematic review to evaluate the utility of the *Community Guide*.

Dr. Soler also announced that the comprehensive *Community Guide* Web site includes all published materials. However, the Web site is currently being updated with more recent reports, materials and other products and is expected to be completed in February 2009. The Web site can be accessed at www.thecommunityguide.org.

The BSC extensively discussed NCHM’s research and science review activities. Comments and suggestions the BSC members made for NCHM to consider in refining these activities are outlined below.

- NCHM should use the transition to a new Administration as a solid opportunity to mobilize and use its external advocates and primary end-users to widely publicize the value and strong contribution of health marketing to public health.

- The COE Principal Investigators should meet with NCHM staff to discuss the value that the COE health marketing projects, communication activities and other research has added to NCHM. These discussions also should be used as an opportunity to identify new methods and metrics that were developed as a result of the COE cooperative agreement, such as the number of journal articles published, graduate students trained, or grant proposals funded from sources other than CDC. These outcomes should be used to make a strong case for conducting health marketing and communication research at the National Center level rather than the individual investigator level.
- NCHM should make every effort to leverage funding to complete the development of and administer the national health protection survey. NCHM's leadership in creating and implementing the national survey will be critical in advancing health marketing and communication science. Moreover, NCHM's current approach of tailoring existing data sets and surveys is problematic in some areas. For example, the Health Information National Trends Surveys are primarily limited to cancer. Consumer marketing data that NCHM uses to inform its research provide an extremely broad view of the potential customer base. These data are proprietary and limit NCHM's ability to share or make information publicly accessible to partners, customers and other groups.
- NCHM should develop rigorous criteria to strike a balance between intramural research conducted internally by staff and extramural research conducted by outside researchers.
- The systematic review of the *Community Guide* should more heavily emphasize the role of price and cost-effectiveness components in health marketing along with product, communication, promotion and distribution elements. Price, cost-effectiveness and efficient services that will result in the most significant impact will become increasingly important as efforts are made at the federal level to reform and transform the healthcare system in the United States. NCHM should apply a cost-effectiveness methodology to all of its health marketing and communication science activities in the future. This approach should serve as a model for NCHM's social marketing research.
- The COE Principal Investigators should consider approaches other than meta-analyses to evaluate health marketing and communication science projects. Because a meta-analysis does not focus on dose effect, this methodology does not provide solid data on the extent to which individuals implement or execute health marketing campaigns.
- The systematic review of the *Community Guide* should include a comparison of communication campaigns that do and do not have products. This strategy would allow CDC to determine differences between marketing and communications approaches.

NCHM leadership provided additional details on its research and science review activities in response to specific questions the BSC members posed during the discussion. In terms of mobilizing external advocates and primary end-users, Dr. Bernhardt confirmed that NCHM has developed relationships with a number of individual and organizational advocates and collaborators from multiple sectors, including academia, state and local health departments, non-profit and for-profit organizations, and professional societies. Most notably, state and local health departments are a strong set of customers, collaborators and users and routinely partner with NCHM to disseminate and diffuse health marketing and communication science activities.

NCHM also established the "Health Marketing Leadership Roundtable" as a network of ~100 individuals, organizations, supporters and other partners. In the future, NCHM plans to mobilize

the Roundtable to widely publicize the importance of the science and practice of health communication, social marketing and related activities.

NCHM's 2nd Annual National Conference on Health Communication, Marketing and Media in August 2008 had representation from ~1,000 partners, including federal agencies, state and local health departments, private sector organizations and advocacy groups. However, NCHM is continuing its ongoing efforts to expand the list of external advocates, customers and collaborators. NCHM also recognizes the need to prioritize its existing list of partners to strengthen the dissemination, diffusion and translation of health marketing and communication science activities.

Dr. Bernhardt agreed with the BSC's observation that a tension exists among health marketing and communication science at the National Center and division levels, the alignment of this research with CDC's priorities, and the research interests of individual scientists. He confirmed that NCHM is continuing its efforts to strike a balance among these areas to minimize competing priorities at the agency, National Center and division levels.

In terms of NCHM leveraging funds to complete the development of and administer the national health protection survey, Dr. Bernhardt noted that NCHM undertook this ambitious effort in response to the BSC's previous recommendation. The BSC advised NCHM to create a representative population level survey or surveillance system that would serve as the driving force of CDC's health marketing and communication science portfolio. The BSC pointed out that this effort also could serve as NCHM's signature scientific initiative. Dr. Bernhardt confirmed that NCHM is actively pursuing the development and implementation of the national health protection survey.

Dr. Bauer explained that NCHM is attempting to use its pandemic influenza funds and the body of knowledge from these projects to support a number of activities, including the national health protection survey, the NCHM-wide priority of health literacy research, and the translation of Western-based risk communication models to other countries and contexts.

Drs. Bernhardt and Bauer confirmed that several mechanisms are available for NCHM to share information and publicize its health marketing and communication activities across CDC. At the division level, DHCM routinely makes scientific presentations, participates on the NCHM Scientific Series Group, and collaborates with all other CDC programs that focus on pandemic influenza risk communication. At the National Center level, the NCHM Leadership Group convenes meetings each week to discuss a variety of issues. Moreover, NCHM is moving forward to establish a center-wide Science Counsel and convenes monthly meetings with all of CDC's Associate Directors for Communication Sciences.

In terms of NCHM's evaluation capacity and collection of scientific evidence, Dr. Bernhardt recognized the challenges and difficulties in measuring impact in the area of health marketing and communication. To enhance NCHM's evaluation capacity, he raised the possibility of convening an expert panel that would provide guidance and recommendations to NCHM on developing an effective evaluation model for health marketing and communication. He also pointed out that enhanced evaluation capacity and a stronger focus on extramural research

would place NCHM in a better position to collect solid data on the economic impact, cost-benefit and cost-effectiveness of health marketing and communication science.

In terms of extramural research, Dr. Bernhardt confirmed that NCHM has made a commitment to expand and continue to support this effort. However, he clarified that NCHM does not have a sufficient level of staff and resources at this time to adequately support intramural and extramural research. Dr. Bernhardt asked the BSC to provide guidance on enhancing NCHM's evaluation capacity during its deliberations.

Dr. Bauer also asked the BSC to focus on a specific issue during its deliberations. Effective strategies are needed for NCHM to strike a balance between customer service and customer centricity. She noted that a stronger focus on customer centricity rather than customer service would facilitate advancements in new health marketing and communication research.

Dr. Bernhardt announced that NCHM is completing the "Health Marketing for a Healthier Nation and a Healthier World" report to highlight its major public health successes over the past year. The report is organized around CDC's strategic goals and health protection goals in four major categories. The report will serve as a tool to provide education, increase awareness and leverage support for the science and practice of health marketing. Dr. Bernhardt confirmed that the report would be distributed to the BSC members over the next few weeks.

NCHM Director's Report

Dr. Bernhardt covered the following areas in his update. The mission of NCHM is to protect and promote public health through collaborative and innovative health marketing programs, products and services that are customer-centered, science-based and high-impact. The vision of NCHM is to create a world where all persons actively use accessible, accurate, relevant and timely health information and interventions to protect and promote their health and the health of their families and communities. NCHM is housed in CCHIS and has an organizational structure of four divisions; the Business Services Office and seven teams that are located in the NCHM Office of the Director; and ten HCSOs.

NCHM's major successes from 2005-2008 include the *Guide to Community Preventive Services*, the National Conference on Health Communication, Marketing and Media, influenza vaccination campaigns, and the "CDC-INFO" Web site. Most recently, NCHM launched CDC-TV with a monthly series of extremely compelling, high-impact, high-emotion and high-quality videos that convey health messages to consumers and the general public. Users can transfer the CDC-TV videos to their personal YouTube or Facebook pages.

Dr. Bernhardt described the actions NCHM has taken in response to the recommendations the BSC made during the June 2008 meeting. The BSC advised NCHM to diversify its portfolio of state and local partners, create a solid foundation for advocacy, and strengthen its customer base.

In response, NCHM designated a Coordinator for State and Local Health Department Engagement to enhance collaboration with partners. In two state partnerships, NCHM collaborated with health officials in Arkansas to produce a high-quality video on the importance of water fluoridation and also collaborated with Ohio to make NCHM's science-based electronic health content more accessible to partners at the local level.

The BSC advised NCHM to play a key role in reaching and serving as a voice for underserved populations that are voiceless. The BSC made this recommendation to emphasize the critical need for NCHM to strongly focus on health equity, health disparities and social determinants of health (SDH).

In response, NCHM hired an Associate Director for Health Equity. NCHM also is establishing a center-wide Health Equity Council with representation from all divisions and HCSOs to focus on health equity, health disparities and SDH. Efforts are underway to develop an NCHM-specific plan that will link to broader strategic frameworks and activities within CDC and HHS around health equity promotion and the elimination of health disparities.

NCHM will launch a new "Seminar Series" in the near future and produce and distribute a *Health Equity Bulletin* to educate staff on these issues. NCHM will create a health marketing research agenda to focus on issues related to health equity and health disparities. NCHM will use the research agenda to inform its future activities.

The BSC made three key recommendations to NCHM in the area of program evaluation. First, NCHM should increase its focus on evaluation and be prepared to discontinue activities and products that have no demonstrated track record of effectiveness. Second, NCHM should develop metrics for the BSC to evaluate its progress in resolving challenging issues, such as branding and partnerships. Third, NCHM should identify a staff member with strong skills in measurement and metrics to coordinate data collection efforts.

In response, NCHM will establish a center-wide Science Council and Evaluation Committee to enhance evaluation capacity in all divisions and develop and implement evaluation plans. To support these two groups, an evaluation coordinator will be recruited and a data analyst will be retained to compile and manage information and report outcomes. The groups will meet on a regular basis to ensure that NCHM's activities are scientifically sound, evidence-based, and have the capacity to advance science both internally and externally.

The BSC made several recommendations on NCHM's pandemic influenza risk communication activities. NCHM should strengthen its understanding of the rationale for "pandemic influenza planning fatigue," particularly among businesses and consumers. NCHM should identify a maximum of four clear messages to convey to the public at the outset of a pandemic. NCHM should develop relationships with key persons in various federal sectors.

NCHM should take more aggressive steps at the community level in terms of pandemic influenza. NCHM should engage Health, Hollywood & Society as a key partner in developing pandemic influenza risk communication activities. NCHM should identify a single credible voice

to represent CDC in a pandemic influenza event. NCHM should engage the healthcare sector in dialogue on the need for media training for a pandemic influenza event.

In response, NCHM is making progress on the BSC's recommendations regarding pandemic influenza risk communication, but a number of issues still need to be addressed. However, NCHM hopes its ongoing pandemic influenza risk communication research, such as the national health protection survey, will inform these outstanding issues, particularly "pandemic influenza planning fatigue," limited media coverage in this area, and decreased funding that could place individuals at risk.

NCHM formed personal relationships with individuals in key sectors, awarded contracts and implemented new projects to strengthen networks in pandemic influenza risk communication research at state, local and organizational levels. For example, NCHM and the National Public Health Information Coalition are partnering to launch an online clearinghouse of pandemic influenza materials and messages that can be used at state and local levels to reduce duplicate and redundant efforts in this area.

The BSC advised NCHM to prioritize its health marketing and communication science activities due to the cross-cutting nature of these projects and the lack of resources. In response, NCHM is continuing to focus on and participate in CDC's most significant activities, including the Healthiest Nations Alliance and CDC's four agency-wide health protection goals. NCHM also is continuing to enhance its center-wide strategic plan with four program priorities, 20 broad priorities and 30 objectives that will be measured to determine effectiveness and success.

NCHM is currently implementing a budget and portfolio formulation process that will require all parts of the National Center to complete standardized proposals or templates to describe their respective activities. This process will allow NCHM to obtain an accurate account of all of its programs and activities, conduct more sophisticated program and portfolio reviews, ensure that the highest priorities are met, and justify difficult decisions in the face of limited resources. The BSC would be asked to provide NCHM with feedback on the budget and portfolio formulation process during its meetings.

NCHM established four strategic goals to guide its activities in 2007-2010: (1) increase the impact of CDC's health sciences; (2) achieve consistent high-quality service and collaboration; (3) expand the strategic and innovative application of health marketing; and (4) improve and sustain NCHM's systems, operations and resources. NCHM identified its four strategic goals and established its entire strategic plan in an inclusive process with input from both internal and external consultants.

NCHM established four program strategic goals to guide its focus on customer centricity in 2008-2010. The priorities focus on the dissemination of health information and interventions where, when and how people want and need them for better health. NCHM will take actions in four distinct areas to achieve its program priorities. CDC-TV will be used to increase CDC's use of direct-to-consumer health media and directly engage and empower consumers with health information.

The CDC.gov Web site will be used to extend the reach, management and syndication of >300,000 Web pages with exceptionally well-designed and scientifically-sound content. However, new communication, social media, social networks, mobile and other channels also will be used to support this effort. NCHM will focus on health literacy research and leadership as well as partner communication and engagement to enhance its program priority of customer centricity.

Dr. Bernhardt concluded his report by reiterating that several activities have been conducted since the June 2008 meeting to respond to the BSC's recommendations on the need for NCHM to take a more respectful and multi-directional approach in engaging partners, end-users and other customers. He thanked the BSC for providing valuable guidance that has helped NCHM to begin prioritizing the most important issues and identifying key gaps. He confirmed that NCHM would continue to seriously consider and react to the BSC's recommendations.

In general, the BSC commended NCHM on its extraordinary efforts and accomplishments in only six months of responding to the recommendations that were made during the June 2008 meeting. Several members believed the BSC should serve as a strong advocate and supporter of the need to continue, strengthen and advance NCHM's health marketing agenda regardless of changes in the new Administration or political environments. The BSC was pleased that NCHM seriously and thoughtfully considered its recommendations and took concrete steps to respond to this guidance.

A number of the members were in favor of the BSC formalizing its unwavering support of NCHM in a letter or official statement to the HHS Secretary, CDC Director and Administration Transition Team to emphasize the importance of health communications and describe NCHM's unique contribution in this area.

In particular, the BSC members made one key suggestion and several comments in response to the NCHM Director's report. The BSC advised NCHM to reconsider its aggressive and energetic health marketing portfolio with a broad range of activities. The BSC's position was that NCHM should solely focus on its "brand," recognized expertise and priorities at this time. The BSC noted that the ability to document successes and impact would be particularly important to a CDC National Center that is as young and new as NCHM.

The BSC further advised NCHM to demonstrate its significant accomplishments, deliverables and outcomes that have been achieved in an extremely short period of time. Most notably, NCHM created a solid body of health marketing and communication research; established a solid organizational structure; convened the BSC to obtain external guidance; and initiated a new health literacy project.

Dr. Popovic announced that efforts are underway to establish a process in which key discussion points and recommendations from all of CDC's BSCs would be posted on the CDC Web site in a timely manner for viewing by internal staff and the general public. This approach would allow BSCs to reference the CDC Web site in any written communications.

Dr. Popovic also provided clarification on the BSC's suggestion to formally express its support of NCHM in a letter or official statement to the HHS Secretary, CDC Director and Administration Transition Team. She explained that the BSC is chartered to provide advice and guidance to the CDC and NCHM Directors. Moreover, mechanisms have been established for federal agencies to collaborate and communicate with the Administration Transition Team. Most notably, the President's office gave a clear directive to CDC and all other federal agencies that communications with the transition team would need to be via the agency point of contact.

Dr. Viswanath concluded the discussion by confirming that on the following day, the BSC would revisit the suggestion of formalizing its support of NCHM in an official statement or letter. However, the BSC would ensure that appropriate protocols were followed based on Dr. Popovic's clarification.

BSC Open Discussion: Session 1

Dr. Viswanath opened the floor for the BSC to have its first broad discussion on three key issues: (1) guiding principles for NCHM to make decisions on its areas of focus; (2) research gaps in health marketing; and (3) potential areas for NCHM's research focus.

Dr. Eroğlu raised the possibility of the BSC forming workgroups to focus on these issues in more detail and make more concrete recommendations in terms of resources and funding that would be needed to implement activities suggested by the BSC.

In response to the BSC's question, Dr. Bernhardt clarified that no timeline has been established for the BSC to provide NCHM with guidance on these issues. He explained that the open discussion should serve as an opportunity for the BSC to provide its expertise in identifying areas where NCHM could have the greatest impact within CDC, the broader public health community and the general public.

Dr. Bernhardt also asked the BSC to use the open discussion to advise NCHM on the following areas: (1) an appropriate balance between focusing on all segments of the general public and health professionals; (2) the dilemma of direct-to-consumer versus business-to-business communication marketing or state and local partner engagement versus direct-to-consumer communication marketing; (3) intramural versus extramural research and programmatic activities versus basic research; (4) unintended consequences, such as increased disparities, of providing information to persons with access; and (5) the provision of information to Americans who have no access to the Internet, telephones or other communication channels.

Dr. Bernhardt noted that the BSC would not be expected to make formal recommendations during the open discussion. Instead, the BSC should consider NCHM's health marketing portfolio and determine whether its direction and focus are appropriately or inappropriately balanced to achieve science-based health impact.

The BSC's deliberations on these issues are summarized below.

Guiding Principles for Decision-Making

- NCHM should make decisions on its areas of focus based on answers to four important questions: (1) Is NCHM making any helpful changes? (2) Is NCHM changing health behavior on a large scale? (3) Is NCHM improving the use of health marketing across the federal government? (4) Is NCHM making a difference in the quality of activities conducted by others?
- NCHM should develop a formal process to systematically market its activities within CDC to gain more internal support. For example, NCHM's strategic goals should be linked to its intramural and extramural research. NCHM also should replicate the "Social Marketing for Dissemination Research" model developed by the University of Washington COE. The COE will use the model to guide its other research activities.
- NCHM should use its new budget and portfolio formulation process to identify new and emerging opportunities in healthcare reform.
- NCHM should conduct basic research to determine the rationale for effective versus ineffective interventions.
- NCHM should design its health marketing portfolio to be nimble and agile in the current environment of new technologies and the rapid change or movement of concepts and individuals.
- NCHM should serve as a leader in formulating new alternatives to traditional public health. Most notably, NCHM has made more progress in eHealth than any other federal agency at this point.

Research Gaps in Health Marketing

- NCHM should serve as a leader in health marketing research at the international level with the European Union or other countries that are conducting similar activities.
- NCHM should provide an alternative to RCTs by developing legitimate and acceptable evaluation methods that are most relevant to health marketing and communication science. This effort should include new models that are designed to aggregate data, analyze information, and enhance knowledge on measuring the impact of an intervention to a single individual. A new research design will play a critical role in more effectively engaging persons, patients and customers in using and sustaining the use of evidence-based tools in the future.
- NCHM should place less emphasis on meta-analyses in evaluating health marketing research because this methodology does not produce data to explain the success or failure of a particular intervention. Moreover, a meta-analysis primarily focuses on the quality of a research design or evaluation without clearly describing the intervention.
- NCHM should strengthen its knowledge of "public engagement" to develop effective strategies that motivate persons to take action in managing their individual health. To enhance its understanding of public engagement, NCHM should review data from public engagement surveys that have been administered by public relations firms. NCHM should then formulate a series of "visionary" research questions in this area.
- NCHM should conduct research to determine the rationale for changes in attitudes post-intervention without changes in behavior or intention. This research should guide the

development of strategies that transform or translate favorable attitudes, decisions or intentions into actual health behavior or action.

- NCHM should provide leadership in the *Healthy People 2010* initiative by implementing evidence-based practice, collaborating with partners, and contributing data from the *Community Guide* and other solid resources.
- NCHM should widely publicize its evidence-based programming and health marketing activities that directly affect health equity. Practitioners, non-profit organizations, and state and local health departments have no knowledge of the availability of these programs, but are extremely eager for this type of information.
- NCHM should establish partnerships for multiple and credible voices in the field to deliver messages about the importance of dosage. This approach would place more emphasis on prevention at the front end, provide a continuum throughout healthcare system reform efforts, and focus on practice-based evidence that makes an actual difference.
- NCHM should serve as the leader in establishing a minimum set of criteria, standards or guidelines for health marketing research. This approach would be extremely helpful in saving resources, eliminating duplicative efforts, and strengthening the credibility of the health marketing profession as a whole.
- NCHM should not attempt to link its health marketing research to disease outcomes. Instead, NCHM should use the existing health marketing literature and its relationship to risk for most chronic diseases as an intermediate outcome.
- NCHM should take leadership in advancing health marketing and communication science for the entire field by identifying areas where the greatest success and most tremendous impact can be achieved.
- NCHM should take leadership in bridging gaps, inequalities and disparities in health outcomes and communications. NCHM should use its existing resources to undertake this effort, including its strong credibility, expertise and commitment to health literacy.
- NCHM should address the tension of translating health marketing research into actual practice in both its service and scientific research components.
- NCHM should provide leadership on developing appropriate research designs to study, evaluate, measure and collect data from health marketing and communication science. NCHM's development of appropriate measures, metrics and research designs would play a significant role in informing the broader health marketing and communication science field.

With no further discussion or business brought before the BSC, Dr. Viswanath recessed the meeting at 5:08 p.m. on December 8, 2008.

BSC Open Discussion: Session 2

Dr. Viswanath reconvened the BSC meeting at 8:50 a.m. on December 9, 2008 and opened the floor for the BSC to have its second broad discussion on potential strategies for NCHM to develop and disseminate health marketing science.

Dr. Viswanath asked the BSC to focus on the following areas during the discussion: skills and competency in executing health marketing campaigns; appropriate models and research designs to study dissemination; a minimum set of standards for dissemination; assistance on dissemination to state and local health departments; and various platforms for dissemination, such as journals, meetings, conferences, magazines or the Internet.

Dr. Bernhardt provided the context for NCHM placing this item on the agenda. CDC recognizes the need to improve its efforts in disseminating and translating science into actual practice for state and local health departments, clinicians and other partners. However, CDC has not made aggressive or rapid advancements in this area over the past two years.

For example, CDC has not developed a standardized agency-wide model and uses multiple methods, approaches and platforms to disseminate findings and recommendations. Moreover, CDC's traditional practice is to develop "proprietary partnerships" that are considered to be sacrosanct and specific to an individual center or program. Dr. Bernhardt asked the BSC to consider these political realities during its discussion of NCHM's potential role, value and contributions to the dissemination of health marketing science.

Dr. Eroğlu encouraged the BSC to consider two distinct levels of dissemination during its discussion. The first level would be the extent to which health marketing and communications contribute to the dissemination of all programs, information and interventions across different disease areas. The second level would be the use of NCHM's agenda to disseminate its individual health marketing and communication knowledge.

The BSC's deliberations on potential strategies to disseminate health marketing science are summarized below.

- NCHM should provide leadership in advancing the dissemination of health marketing science by bridging gaps between discovery to delivery, bench to bedside, or bench to trench. NCHM also should partner with NIH to improve dissemination by identifying persons who implement health marketing campaigns and the capacity and skills of these individuals.
- NCHM should heavily engage state and local governments, academia and communities as key partners in developing, implementing and executing its health marketing science, survey instruments, FOAs and RO3s. For example, NCHM could require sub-grantees to partner with state and local health departments on the development of research and its translational components. NCHM should convene state and local health departments at this time during the transition to the new Administration. The meeting should be used as a platform for NCHM to describe its health marketing activities, vision and future direction and also for state and local partners to outline their dissemination needs at the local level. This proactive approach would assist NCHM in building a broad base of support.
- NCHM could use CDC's Healthiest Nations Alliance and data from the *Community Guide* to mobilize and organize communities around the concept of health.
- NCHM should serve as a leader in the following areas: providing generic knowledge on systematically and effectively disseminating information; collecting empirical evidence on

dissemination; developing solid dissemination models and platforms; and distributing information to practitioners to influence this group.

- NCHM should make efforts to change CDC's traditional practice of developing "center-specific" or "program-specific" partnerships to place more emphasis on the best interests of public health. At the external level, for example, NCHM could provide online or face-to-face training to state and local health departments to increase the competency of these agencies in message development and strengthen their roles as agency-wide partners in executing health marketing science. At the internal level, NCHM could develop strategies to improve internal relationships, facilitate an integrated approach, and minimize reluctance across CDC to fully partner with NCHM in its health marketing activities. NCHM should engage a number of CDC's existing partners, such as the Directors of Health Promotion and Education, Society for Public Health Education, and Association of State and Territorial Health Officers, to assist in removing silos associated with specific categorical diseases.
- NCHM should develop a marketing plan by systematically promoting its value both internally and externally and creating a portal that would provide links to all CDC Web sites and NCHM partners. This approach might serve as an initial step in integrating various relationships.
- NCHM should broadly emphasize the need for public health to make investments in effective interventions that are not drug-based. This message will be critical during efforts to reform the healthcare system.
- NCHM should make efforts to change the existing cultures of funded researchers and academic institutions that primarily focus on generating rather than disseminating knowledge. Consideration should be given to offering incentives to researchers and institutions to make cultural changes.
- NCHM should broadly publicize its successes in dissemination and translation of health marketing science into actual practice. For example, the NCHM cooperative agreement allowed the University of Washington COE to partner with the American Cancer Society to deliver a chronic disease prevention intervention from a pilot study to 700 companies across the country. NCHM funding also allowed the University of Connecticut COE to develop a searchable database as a dissemination tool for evidence-based interventions on a broad range of topics.
- NCHM should use the "Cancer Control Plan, Link, Act Network with Evidence-Based Tools" (P.L.A.N.E.T.) as a model in disseminating helpful products, bridging the gap between discovery and delivery, and facilitating the use of evidence-based tools in the field among state and local health departments, practitioners, community groups and other partners. Cancer Control P.L.A.N.E.T. is co-funded by CDC, AHRQ, the American Cancer Society and the National Cancer Institute and allows evidence-based cancer control interventions to be posted on a Web-based portal for access by community groups. The portal also describes interventions and programs that were effective for a particular audience. However, in replicating Cancer Control P.L.A.N.E.T. for the purpose of disseminating health marketing science, NCHM should first identify barriers to executing and implementing this tool.
- NCHM should develop guiding principles to observe the execution of dissemination models in the field due to the paucity of implementation data in the literature.

- NCHM should conduct scenario planning in preparation of anticipated changes in the healthcare delivery system. This exercise would provide NCHM with better knowledge and understanding of potential providers who could play a role in disseminating health marketing science, such as care managers, health educators, nurse practitioners, physician assistants or retail clinics. Scenario planning also would allow NCHM to consider tools and resources that will be necessary for the patient-centered medical home or other new provider models. NCHM should engage groups that are currently conducting similar projects to determine the needs of providers and patients.
- NCHM should convene a group of experts to provide a detailed description of successful implementation of health marketing activities in the past, develop critical case studies, and publish these findings in a peer-reviewed journal. NCHM should use CDC's internship programs, engage a local journalism school or provide incentives to facilitate the development of the health marketing case studies.
- NCHM should extensively engage community networks and other local groups that directly serve and have well-established relationships with constituents and other members of the target audience. Input from these organizations would allow NCHM to develop strategies that would be effective in disseminating health marketing science to hard-to-reach populations. NCHM should use existing mechanisms, such as its National Conference on Health Communication, Marketing and Media, the Health Marketing Leadership Roundtable, new partnership network and the CDC-wide Leaders-to-Leaders Conference, to convene community networks and a diverse group of other partners.
- NCHM should review and attempt to replicate successful dissemination models that were developed for HIV to deliver health marketing science to external audiences.
- NCHM should identify and use trusted stakeholders in CBOs, FBOs and other groups that can articulate health marketing messages and influence dissemination and execution at the local level.

Public Comment Session

Dr. Viswanath opened the floor for public comments; no participants responded.

BSC Business Session

A motion was properly placed on the floor and seconded by Drs. Smith and Aquirre-Molina, respectively, for the BSC to send a letter to appropriate CDC authorities expressing its formal support of NCHM. The letter would state that Federal Advisory Committee Act (FACA) rules provide the BSC with authority to express its collective sentiment on this issue. Dr. Viswanath would draft and circulate the letter to the BSC members for review and comment before finalizing and sending the letter to CDC. The BSC **unanimously approved** the motion with no further discussion.

Dr. Viswanath noted that the BSC had not addressed the development of basic health marketing and communication science and NCHM's role in contributing to this knowledge base. Dr. Eroğlu reiterated his previous suggestion for the BSC to form workgroups to focus on these issues in more detail. He explained that FACA rules require two members of the parent committee to serve as the chair and a member of a workgroup, but the remaining members could include external subject matter experts and consultants.

A workgroup is charged with focusing on a particular issue for a specified time, but is not authorized to make recommendations. A workgroup must report its findings to the parent committee for review, discussion and formal approval. Dr. Eroğlu confirmed that he would provide the BSC with more details on FACA rules regarding the structure of meetings and other aspects related to workgroups.

Dr. Viswanath's position was the BSC should form no more than two workgroups to focus on priority issues. He proposed four potential topics for the workgroups to address: (1) dissemination and translation of knowledge to practice; (2) development of NCHM's fundamental knowledge to legitimize and increase the usefulness of the science of health marketing and communication; (3) the contribution of health marketing and communication to health equity; and (4) appropriate metrics, measurements and research designs for health marketing and communication science. Dr. Viswanath emphasized that the new workgroups would be expected to present their first reports to the BSC during the next meeting.

The BSC extensively discussed the four topics Dr. Viswanath proposed for the new workgroups to address and made additional comments and suggestions.

- Health equity should serve as a common theme across all workgroups.
- Three additional issues should be considered as workgroup topics: (1) strategies to market health marketing and communication internally to CDC and externally to other audiences, (2) NCHM's brand, and (3) the role of customer centrality in public health.
- The concept of health marketing should be integrated in all CDC centers. Most notably, NCHM should influence both the perceptions and behaviors of CDC staff regarding customer centrality, health messaging and advocacy. This issue could be incorporated into the "Dissemination Workgroup" rather than creating a standalone workgroup.
- A workgroup should be formed to focus on NCHM's strategic priorities and identify ~3 "signature" products that are now being developed or are planned for the future. For example, NCHM could increase its public recognition by collecting surveillance data on health communications or expanding the national health protection survey on pandemic influenza to include communication variables on health protection.
- The workgroups should be charged with clearly distinguishing between CDC's important service function for state and local health departments and other partners and its responsibility to research and science.
- The BSC and NCHM should develop five or six specific and clearly defined research questions for each workgroup to address to guide its direction and activities.

Drs. Eroğlu and Viswanath concluded the discussion by describing the process and next steps in the formation of two new BSC workgroups. The "Discovery Workgroup" would focus on

NCHM's discovery of and contribution to the fundamental knowledge of health marketing and communication science through intramural or extramural research to better address public health interests. The "Delivery Workgroup" would focus on effective platforms to disseminate health marketing and communication products to internal and external audiences, strategies to translate scientific knowledge into practice, and appropriate partners to engage in this effort.

The workgroup members would consult with NCHM staff to develop specific research questions that would be practical and useful to both NCHM and the broader public health community. The workgroups would present their first reports to the BSC during the next meeting. At that time, the BSC would make a decision on the continued need for the two workgroups based on whether their respective charges had been met.

Drs. Eroğlu and Viswanath would send an e-mail message to the BSC members with a request to indicate their preferences in chairing or serving on either the Discovery or Delivery Workgroup. Dr. Viswanath would engage NCHM leadership in further discussions about appropriate CDC staff and external expertise that would be needed to support the workgroups.

Drs. Bernhardt and Eroğlu provided additional details on the workgroups. The end-products of the workgroups should be recommendations on specific actions or directions NCHM should take in the areas of discovery and delivery. The BSC could formalize the recommendations and findings of the workgroups in a white paper or another format. The BSC also should consider the possibility of forming a new subcommittee in the future to bridge the gap between discovery and delivery and ensure that health equity and other priority issues were common themes across the workgroups.

A motion was properly placed on the floor and seconded by Drs. DeBuono and Grier, respectively, for the BSC to form a new Discovery Workgroup and a new Delivery Workgroup based on the process Drs. Eroğlu and Viswanath outlined. The BSC **unanimously approved** the motion with no further discussion.

Dr. Eroğlu turned the BSC's discussion of its business items to the next meeting. He was aware that some BSC members were interested in holding the next meeting in conjunction with NCHM's 3rd Annual National Conference on Health Communication, Marketing and Media on August 11-13, 2009. However, he noted that convening the next BSC meeting to coincide with the fixed date for the conference would be difficult and also would add more time between meetings. As a solution to this issue, Dr. Eroğlu proposed convening the next BSC meeting in ~6 months in either June or July 2009. At that time, the BSC and NCHM would discuss the need to hold another meeting in conjunction with the conference.

Due to the busy schedules of the BSC members and NCHM leadership, Dr. Viswanath was in favor of scheduling meeting dates for the next two years. The approach of scheduling and confirming meeting dates in advance would help to ensure that the BSC members had no conflicts with future meetings.

Closing Session

Dr. Viswanath thanked the BSC members for providing valuable input and expertise over the course of the meeting that would be extremely helpful to both NCHM and the broader field of health marketing and communication science. He confirmed that he would continue to solicit the BSC's feedback on future agenda items, suggestions to improve the operation of meetings, and advice on any other aspects to enhance the BSC's external guidance to CDC.

Dr. Viswanath also thanked NCHM leadership and staff for their outstanding efforts in convening meetings and providing helpful information to guide the BSC's deliberations. He noted that all of the BSC members valued NCHM's impressive efforts in the field of health marketing.

Dr. Bernhardt thanked the BSC members for their solid contributions, active participation and valuable input to NCHM. The participants joined Dr. Bernhardt in applauding Dr. Viswanath for his exceptional leadership in facilitating discussions on extremely complex issues.

With no further discussion or business brought before the BSC, Dr. Viswanath adjourned the meeting at 11:48 a.m. on December 9, 2008.

I hereby certify that to the best of my knowledge, the foregoing Minutes of the proceedings are accurate and complete.

02/26/09
Date

Kasisomayajula Viswanath, Ph.D.
Chair, Board of Scientific Counselors
National Center for Health Marketing