

MINUTES
NIOSH Board of Scientific Counselors
Washington, DC
October 11, 2007

Introductions, Announcements, and Approval of Minutes

Dr. Sarah Felknor, Chair, called the 50th meeting of the NIOSH Board of Scientific Counselors to order. Other attending Board members were: Mr. Scott Schneider and Mr. Eric Lamar, and Drs. Benjamin Amick, William Bunn, Catherine Heaney, Joel Haight, Mei-Li Lin, Linda McCauley, John Mulhausen, Gurumurthy Ramachandran, Robert Reville, and David Warheit. The NIOSH Director, Division Directors, NIOSH staff, and members of the public also attended. The minutes from the 49th meeting on May 7, 2007, were reviewed and approved.

Director's Remarks

John Howard, Director, NIOSH, provided opening remarks.

Personnel Changes: Dr. Margaret Kitt was appointed Associate Director for Emergency Response and Dr. Christine Branch was appointed as Principal Associate Director, charged with coordinating all Associate Director activities in the Office of the Director, NIOSH. Dr. Anita Schill was appointed as Associate Director for Science (ADS). Dr. Howard requested a presentation on the strategic plan for the ADS Office at a future meeting of the Board. Dr. Gregory Lotz was appointed as Interim Director of the Division of Applied Research and Technology following the recent retirement of Dr. Mary Lynn Wuebkenberg.

Status of the Board: Ms. Diane Porter, Deputy Director, NIOSH, reported that several advisory boards were being created or restructured around CDC to report directly to Dr. Julie Gerberding, Director, CDC. The NIOSH Board of Scientific Counselors, however, will retain its current charter to advise the Director, NIOSH.

Budget: Ms. Porter gave a brief update of some budget issues, noting that the NIOSH information 800 number has been discontinued with information requests now being directed to a central CDC information number. In addition, library, writer/editor, and statistical assistance functions have been consolidated CDC-wide. The overall budget for fiscal year 2008 has not yet been finalized.

NORA Update: Dr. Howard noted that we are 17 months into the second decade of NORA with all eight sectors councils active. Dr. Howard encouraged website visits to view the logic models for each of the programs. Dr. Sid Soderholm provided additional information, stating that each council is on track to have a draft strategic plan posted on web for public comment. The cross-sector council also met to discuss common issues among all of the councils (e.g., vulnerable populations, safety culture, work organization). Dr. Soderholm also stated that a NORA one-day symposium to be held in next year in Denver, Colorado, is in the planning stages. The symposium will focus on opportunities for researchers and practitioners to set collaborations

and partnerships to drive research to practice. A specific date has not been determined. The Board asked how grants are organized under the second decade of NORA. Dr. Soderholm stated that internal and extramural funding is being organized around sector priorities as much as possible given that the priorities are not finalized.

Program Portfolio: Dr. Howard noted that Nanotechnology and Prevention Through Design are now officially included in the program portfolio in order to track resource allocations efficiently.

Program Evaluation: Dr. Ray Sinclair gave a brief update on the program reviews by the National Academies of Science (NAS), noting that the eight programs under review also cover other programs because of the matrix nature of the program portfolio. Dr. Howard stated that NIOSH will pause after the first eight reviews to evaluate the return from the reviews and look into phase two of review. The Board asked whether there will be an overall look at prioritization after the eight reviews are completed. Dr. Howard requested assistance from the Board in this endeavor.

Initiatives and Emphasis Areas: Dr. Howard noted the success of the Prevention through Design Workshop held in July, 2007, which combined a variety of disciplines and partners, many confronting occupational safety and health for the first time. Proceedings from the meeting will be published in the Journal of Safety Research next spring. Dr. Paul Schulte, Director, Education and Information Division, noted that the initiative will work through the NORA process to identify areas where design will be effective in specific sectors.

On November 8-9, 2007, a meeting will be held at the Washington Court to obtain public comment on updating the NIOSH Sampling Strategies manual. The plan is to create an electronic manual accessible through the website.

Dr. David Weissman, Director, Division of Respiratory Disease Studies, is leading a direct reading initiative, highlighting devices such as the personal dust monitor, an explosivity meter, and a colorimetric method for mold detection.

Dr. Howard solicited Board volunteers to participate in a work group to review the nanotechnology strategic plan. Dr. Warheit and Dr. Ramachandran volunteered.

Dr. Howard noted that the white paper entitled *Asbestos and Other Mineral Fibers: A Roadmap for Scientific Research* has undergone public comment and peer review. Those comments are now being collated for NIOSH response.

Communications: Dr. Howard noted NIOSH progress moving into the “social media” domain, using vehicles such as Wikipedia. Dr. Max Lum, Associate Director for Health Communications, stated that NIOSH is examining all NIOSH topic pages for potential migration to Wikipedia. Introductory information will be placed in Wikipedia with links to NIOSH for additional details. Safety videos will be sent to YouTube for greater exposure. A NIOSH blog also is in development. An update on social media progress will be presented at a future meeting of the Board.

Publications: Dr. Howard highlighted publication of a new NIOSH Alert entitled *Preventing Fire Fighter Fatalities Due to Heart Attacks and Other Sudden Cardiovascular Events*, noting the physical demands of firefighting and the overlap with health recommendations from the NIOSH WorkLife initiative.

World Trade Center Activities: Dr. Howard stated that 40000 responders and volunteers are enrolled in World Trade Center programs, mostly in medical monitoring. Eight thousand are receiving physical treatment and another 5000 are receiving mental health treatment. Dr. Howard highlighted publication of a scientific publication on the prevalence of post-traumatic stress disorder in WTC responders with a reported range of 6% in professional responders to over 20% in volunteer responders. Long-term monitoring protocols are in development for use in future disasters.

Discussion: The Board asked whether there is evidence that WTC exposures have led to chronic lung disease. Dr. Howard stated that rigorous studies have not been accomplished and funds are not currently available for such studies. Dr. Howard stated his hope that clinical entities will be able to compile information on those issues. Currently, the best evidence has been obtained from fire fighters where some loss of pulmonary function has been observed.

Collaboration with the American Society of Safety Engineers (ASSE): Dr. Joel Haight, who is an active member of the ASSE, stated that the ASSE is interested in enhancing collaborations with NIOSH and industry through the ASSE foundation that funds research. Dr. Haight stated that companies are most often interested in short-term, very applied studies where they could be involved directly. He requested NIOSH collaboration to help get companies involved. Dr. Howard suggested that Dr. Nancy Stout, Director, Division of Safety Research, would be a logical contact for this activity and also suggested the CDC Foundation as a potential mechanism for distributing collaborative funding.

Enhancing the Utility of NIOSH Information Products: Work Group Report

Mr. Scott Schneider presented the report, noting early NIOSH efforts on “authoritative recommendations” to assist establishment of regulatory standards and more recent concentration on other types of communications using a variety of media. Among the popular NIOSH products are the *Pocket Guide to Chemical Hazards* and health care alerts. Popular web pages include the Pocket Guide, the Spanish language page, fire fighter fatality investigations, analytic methods, and mining. From a survey on use of communication products, NIOSH received recommendations on packaging products around common themes, using more CDs, and making more practical guides and booklets that include case studies.

To begin the discussion on social marketing and technology transfer efforts, the following questions were posed, aimed at increasing the impact of the information:

- Who is target audience?
- Who has ability to make changes?
- What are their concerns?

- How do they get information?
- What messages motivate them?
- How to deliver the message?
- Who should deliver it?
- How will product impact be measured?

Mr. Schneider stated that the responsibility for technology transfer is often unclear and that scientists usually have little training in technology transfer. Mr. Schneider noted a need to for partnerships between researchers with communicators. Mr. Schneider also noted the arduous review process for new communication products and hoped to explore ways to expedite the process.

The following draft work group recommendations were presented:

- Consider health communications up front, work with NORA sector councils as projects align with goals
- Develop incentives for researchers to do more research-to-practice/health communications and make Division Directors accountable
- Develop a system between the Education and Information Division and the Office of Health Communications to coordinate effort, researchers partnering with HC in each Division
- Focus more attention on products targeted towards practitioners, general public, package existing information in new more accessible forms, use the mining program as a model
- Provide more resources for health communications efforts
- Expedite publications review process, revisit requirement for approval before external review
- Explore/exploit more social media, technologies
- Perform more research on effective messages, strategies and vehicles, (e.g. what works)
- Partnering with private sector and extramural partners for research translation and dissemination
- Develop public health campaigns on specific issues and to raise general awareness
- Focus more on small business needs and untapped audiences
- Develop more training products from research to multiply the effect

Discussion: The Board suggested charging a nominal fee for publications, noting this practice at RAND and the National Safety Council. The Board commended the research translation efforts and suggested that extramural grant solicitations include a translation component. The Board also suggested more marketing of professional training in occupational safety and health on the NIOSH website. An assistance model for occupational safety and health that is similar to the Agricultural Extension Service was proposed to help distribute information around the country. The Board also suggested developing an electronic archive of technical reports, especially the negative findings, that do not appear in peer review journals. Partnering with non-government and private organizations was proposed to broaden distribution. It was noted that NIOSH is preparing another survey on communication products to supplement the 2004 survey. The Board

suggested a process review of “time to publication” and benchmarking. To shorten the time to final review, it was suggested that Divisions be responsible for extramural review rather than Office of the Director. The Board also suggested more commercialization of inventions as an incentive for research translation. Dr. Delon Hull noted that CDC has processes in place to help obtain patents but that market for occupational safety and health products often is quite small, making them difficult to market.

Occupational Safety and Health Training Recommendations: Work Group Report

Dr. John Mulhausen presented for the work group. It was suggested that the Board endorse the following recommendations from the draft report “as is”:

- Continue to support four core academic programs (Occupational Medicine, Occupational Health Nursing, Industrial Hygiene and Occupational Safety) in a flexible model that is responsive to national trends.
- Continue to support non-core, allied disciplines based on national and regional needs.
- Continue to support undergraduate training.
- Provide no support, outside of ERC outreach activities, to certificate programs, but recognize these programs play a role in helping meet the national needs for training practitioners
- Continue to provide funding support for Occupational Medicine training in the form of traditional Residencies Training programs, but provide no funding support for physician certificate programs, or beyond residency.
- Continue to provide direct funding support of research training activities related to NORA priorities as an essential part of the ERC research training program. This funding should be independent of traditional research project funding.
- Focus and streamline the current tables used to assess program outputs to assure that tracking of trainees and graduates over time is better facilitated.
- Continue to support distance learning as an important element of grantees’ training programs
- Evaluate programs undergoing grant renewal based on requirements and evaluation criteria in the NIOSH program announcement, as well as grantee accomplishments during the previous project period.
- Conduct site visits of all institutions submitting new ERC grant applications.
- Evaluate, periodically, the entire training grant program supported by NIOSH to determine continued program effectiveness. Using the Logic Model as a guide, this evaluation should include a longitudinal evaluation of the employment of graduates in the OSH fields and of both institutional and graduate accomplishments.

The work group suggested the Board endorse the following recommendations with modifications:

- Instead of mandating a formal relationship among the ERCs and TPGs, especially within designated DHHS regions, require a collaborative relationship among the ERCs and TPGs, especially within designated DHHS Regions

- Instead of *considering* commissioning a formal national workforce needs assessment, NIOSH should commission a formal national workforce needs assessment to help determine funding priorities in the face of diminishing federal funding

The following additional questions were posed by the work group but not addressed in recommendations:

- Should there be a priority for funding training programs with a geographic diversity?
- Should there be an effort to increase the number of Occupational Safety professionals with terminal degrees?
- Should Core programs be accredited?
- Should continuing education continue as an ERC requirement?
- Should a short term practicum for practicing professionals be included in core training programs?
- How are we to define qualified at the present time?
- Should there be a priority for funding training programs with a geographic diversity? (Need to have the data: Where is specific expertise needed?)
- Results of national workforce needs assessment should provide insight
- Should there be an effort to increase the number of Occupational Safety professionals with terminal degrees? (Decision should be driven by results of national workforce needs assessment.)
- Should Core programs be accredited? (Continue practice of encouraging but not mandating accreditation except for Occupational Medicine)
- Should continuing education continue as an ERC requirement? (Yes)
- Should a short term practicum for practicing professionals be included in core training programs? (Important to continue including in core programs)
- How are we to define qualified at the present time? (Logic Model outcomes will help. Better data on graduates will help. Could track number of graduates that go on to pass requirements for professional certification)

The following recommendations were posed for further discussion by the full Board:

- No support for post-doctoral training for non-physicians.
- Discontinue requiring funded programs to maintain a specified minimum number of trainees.
- Establish a policy that allows for greater NIOSH discretion in determining if and when a grantee should be site-visited and limit the composition of the peer-review team to those individuals needed to address specific problem areas.
- Actively promote occupational safety and health careers.

Discussion: The Board supported the recommendation to limit post-doctoral training but recommended a needs assessment to assure that researchers and instructors are available in the future to train new practitioners and researchers. The Board suggested that NIOSH take the lead in identifying training needs and emergent issues. The Board also supported discontinuation of a required minimum number of trainees in a program and clarified the site visit recommendation,

stating that abbreviated site visits would be acceptable for continuation review of programs that are performing well. The Chair requested a revised document from the work group to submit to the Board for final consensus vote.

NIOSH Response to the National Academies of Science Program Reviews: Work Group Report

Dr. Benjamin Amick presented for the work group, beginning with a proposed charge to the group and timeline. A standing work group was suggested that would review several program reports, adding and subtracting members as needed. Dr. Howard suggested that the first work group could establish the process to be followed by other work groups for other program reviews in future years with specific expertise of various Board members added as needed. The process would include a preview of NIOSH response by the work group before entire Board review. A time limit of 8 months from NIOSH response to NAS report, to submission to the Board, to a Board recommendation was proposed.

Discussion: The full Board suggested the time to review was rather long and would be affected by members retiring from the Board before completion of the task. Dr. Howard suggested a streamlined Board review and endorsement of the NIOSH draft response and then a posting of the near final draft on the NIOSH website for public comment. Dr. Howard noted that a robust discussion of a NIOSH response at a public meeting of the Board is helpful, whether or not the full Board endorses the response. In summary, the Board agreed that the sequence of steps would be: NIOSH prepares the response; the Board reviews the response but does not solicit additional extramural reviews; the Board discusses the response in a public meeting; the Board votes on whether or not to endorse the response.

NIOSH WorkLife Initiative Update

Dr. Gregory Wagner, Office of the Director Coordinator of the WorkLife Initiative, presented the update stating that the vision of the program is workplaces free of recognized hazards with policies, programs, and practices that sustain and improve health, and employees with ready access to effective programs and services that protect their health, safety, and wellbeing. The program aims to:

- Encourage and support rigorous evaluation of integrative approaches to work and health.
- Identify proven & promising programs, policies, and practices and promote adoption.
- Motivate trans-disciplinary collaboration among investigators focused on sustaining and improving the health of people who work
- Overcome the traditional separation of the occupational health and health promotion professional communities

Among the reasons for coordinating occupational safety and health (OSH) with health promotion (HP) are:

- Workers' risk of disease is increased by exposure to both occupational hazards (organizational and environmental) and individual risk related behaviors.

- Workers at highest risk for exposures to hazardous working conditions are often most likely to engage in risk-related health behaviors and live in higher risk communities.
- Integrating OSH with HP may increase program participation and effectiveness for high-risk workers.
- Integrated OSH and HP may benefit broader work organization and environment.

From the recent national symposium on WorkLife, the following conclusions were drawn:

- Employers, workers, their families, and communities all benefit from prevention of disease & injury & from sustained health.
- Workplaces create excellent opportunities to deliver useful programs & services
- Evaluation research is critical—What works? Why?
- Both the work environment (organizational and physical) and individual choices & behaviors impact worker health.
- Small and medium-sized enterprises have the greatest needs for information & assistance
- The aging workforce requires particular attention.

Among the next steps are:

- Refine and communicate “Essential Elements of Effective Worksite Programs, Policies, and Practices.”
- Develop and support sector-based research agenda.
- Maintain partnership engagement and develop new partnerships.

Discussion: The Board noted that employees are more willing to work on improving personal health if they recognize that workplace protections are being addressed. Dr. Wagner noted that OSH protections are a good mechanism for engaging people on safety and health issues in general. Dr. Mei-Li Lin offered to share case studies from the National Safety Council. The Board observed that significant resources already are applied to health promotion and recommended that OSH money not be diverted disproportionately to health promotion activities. The Board also noted that higher incomes correlate with more demands for a healthy environment, both at work and at home, and asked whether low-income populations would be targeted as well as aging populations. Dr. Wagner stated that NIOSH is sensitive to low-income populations and will make efforts to include them. There also are efforts to engage small and medium sized establishments.

Future Meetings and Final Remarks

A meeting was proposed for December 13, 2007, to further discuss the National Academies review and response. A final report from the training work group was scheduled for the spring Board meeting. An update on NIOSH risk assessment activities at the spring meeting also was suggested.

The Board requested that NIOSH be assured representation on the CDC Council of Advisory

Boards.

I certify that, to the best of my knowledge, the foregoing summary of minutes is accurate and complete.

Sarah A. Felknor, Dr.P.H., M.S., Chair

Date