

MINUTES
NIOSH Board of Scientific Counselors
Webcast and Phone Meeting
Sixty-Third Meeting

November 7, 2014

Roll Call and Logistics

The November 7, 2014 NIOSH Board of Scientific Counselors (BSC) meeting was held by webcast and telephone (no in-person attendees). Mr. John Decker, the Designated Federal Official and Executive Secretary for the NIOSH BSC, conducted a roll call of BSC members and asked that members declare conflicts of interest. He also provided a brief overview of the BSC operating procedures under the Federal Advisory Committee Act. BSC members present via phone and/or the webcast included Mr. Byrd, Dr. Evanoff, Mr. Frederick, Dr. Gelberg, Dr. Greenberg, Dr. Hill, Dr. Johnson, Dr. Larranaga, Dr. Mendeloff, Dr. Peek-Asa, Dr. Platner, Dr. Ramsay, Dr. Rice, and Dr. Rogers. The full roster of all BSC members can be found in Appendix A. It was determined that a quorum was present to allow the meeting to proceed. None of the attending members declared conflicts of interest.

Introductions, Announcements, and Approval of Minutes

Dr. Bonnie Rogers, Chair, called the sixty-third meeting of the NIOSH Board of Scientific Counselors (BSC) to order at 1:05 pm ET. The agenda was briefly reviewed (see Appendix B). The NIOSH Director (Dr. John Howard) and other NIOSH staff were present, including several of the managers of programs being evaluated (Dr. Christine Branche, Dr. Maryann D'Alessandro, Ms. Dawn Castillo). No members of public were noted, although the public attendees were not required to identify themselves. The minutes from the sixtieth-second meeting, convened on September 5, 2014, were reviewed and approved by the Board with corrections to reflect attendance of Dr. Peek-Asa and Dr. Ramsey. Additionally, the minutes were edited to reflect a comment from Dr. Piacentino that the NIOSH IRB would be recruiting for a non-affiliated NIOSH IRB member, which could potentially include BSC members with expiring terms.

NIOSH Director Remarks

The Director's remarks included talking points provided in Appendix C. The main discussion items included the Ebola response, the hazardous drug list, a new publication on temporary workers, science blogs on electronic scrap recycling and electronic health records, coal workers health surveillance regulations, green tobacco illness topic page, and the 6th National Occupational Injury Research Symposium. Following the overview, the BSC members had several comments and questions, primarily centered around the Ebola response. Dr. Larranaga noted that in military programs, most chem/bio contamination occurs when doffing, with the implication that this would be true for Ebola as well. Dr. Howard agreed that the doffing process is one of the most risky activities for workers. Training is being conducted in Ebola clinics, and NIOSH/NPPTL has been evaluating various ensembles, most recently for heat stress issues. Dr. Ramsay asked if there is an initiative for pandemic planning for businesses. Dr. Howard noted that much of what CDC/NIOSH has been doing in this and previous responses has application for other pathogens. Specific to the business sector, CDC's international traveler's advice is well done, but less clear is the advice for essential travelers or business travelers. NIOSH has interest in developing guidance on this issue. Dr. Platner commented on the large amounts of medical waste generated (in the context of Ebola waste) and the issue of workers being involved in all steps, including building trades. Dr. Rogers commented on the issue of landfills receipt of incinerated waste, where landfills have expressed reluctance to accept such waste because of reputational concerns. Dr. Rogers noted the importance of donning and doffing in relationship to potential for exposure, but also noted that healthcare worker fatigue and heat stress was

an issue. Dr. Rogers and Dr. John Williams of NIOSH/NPPTL then noted the loss of cognitive awareness when workers are subjected to heat stress, thus potentially increasing inadvertent exposure when working or doffing personal protective equipment. Dr. Larranaga noted that these issues provide an opportunity to highlight healthcare worker training. He noted that in hospital emergency departments, the workers, in his experience, are almost never trained appropriately. Dr. Rice noted the importance of using checklists to decrease errors, especially when workers are under such stress. Mr. Frederick noted that a survey of their union members in the healthcare sector found training was often not conducted or the quality of the training was in question. In the context of the overall Ebola response, Dr. Gelberg indicated the potential for mixed messages from multiple federal agencies, and also noted that NIOSH's weekly calls with OSHA and other parts of CDC have helped ensure consistency.

Implementation of the National Academies' Recommendations: Overview and Charge to BSC

Ms. Elizabeth Hofer, NIOSH Office of Planning and Performance, presented a slide set describing the charge to the BSC and a description of the process for scoring NIOSH programs. The BSC has been assessing the continued progress on select recommendations for six NIOSH programs that were reviewed previously by the BSC in 2011/2012. At this meeting, the BSC work groups for the Respiratory Disease Research Program (RDRP), Construction Program, and the Traumatic Injury program will report their scores and recommendations.

Work Group Presentation and Vote: NIOSH Implementation of the NIOSH RDRP National Academies' Recommendations

Dr. Larranaga presented the RDRP Workgroup's score report to the BSC. The final work group report can be found in Appendix D. Overall, the workgroup was impressed with the RDRP's efforts during this evaluation period. Michael recited the workgroup's brief justifications for each score element in the report. For recommendation #1, the workgroup found the program has made significant progress in providing resources for engaging in high-priority occupational respiratory disease research. The workgroup scored the recommendation with a 5 for both Progress and Impact. For recommendation #2, the workgroup felt there was a logical and strategic progression of research and implementation activities to substitute digital chest imaging for film-based images in pneumoconiosis surveillance. The work so far has been foundational, and the preliminary results show high likelihood of success for these activities. The workgroup scored the recommendation with a 5 for Progress and a 4.5 for Impact. For recommendation #3, the workgroup noted that the program is conducting cutting edge basic toxicology and field research in flavoring related lung disease. The publication of the final criteria document and recommended exposure limits will be a major accomplishment. The workgroup scored the recommendation with a 5 for both Progress and Impact. For recommendation #4, the workgroup congratulated the program on their progress in facilitating the collection of spirometry data on the NHANES and adding industry/occupation questions to NHANES. They suggested the program outline a longer-term strategy to satisfy the recommendation. The workgroup scored the recommendation with a 4.5 for both Progress and Impact. For recommendation #5, the workgroup noted the program has done an excellent job pursuing efforts to collaborate with health care providers and the health care system. They've made progress in identifying, documenting and characterizing the emerging causes of work-related asthma as well. The foundation has been set for significant future impact on worker safety and health, the impact has yet to be fully realized. The workgroup scored the recommendation with a 5 for Progress and a 4.5 for Impact.

To wrap up his report, Dr. Larranaga noted that again, the program's work was extremely impressive, and the workgroup fully expected the program to continue expanding this progress following this review. Dr. Rogers opened the floor for questions and feedback from the rest of the Board in regards to the RDRP score report. Hearing no responses, Bonnie asked for motions to vote to approve the score

report. A motion to vote was heard, as well as a second. The Board voted unanimously to approve the score report.

Work Group Presentation and Vote: NIOSH Implementation of Construction Program National Academies' Recommendations

Dr. Mendeloff presented the score report for the Construction Program Workgroup. The final work group report can be found in Appendix E. He stated that the program did very well, with all evaluation elements scoring a 4.5 or 5 out of a possible 5. He proceeded to review the Workgroup's impression of each of the program's recommendations. For recommendation #1, the workgroup felt the progress made was quite good, particularly with the recent hiring completed to support this recommendation. The workgroup gave the program a 5 for Progress, and a 4.5 for Impact. For recommendation #2, the workgroup noted that progress has been good with this recommendation. The workgroup's only concern was with the seemingly large amount of interaction within groups funded by the National Construction Center, compared to the far less open communication that appeared to be occurring between the internal NIOSH researchers and external grantees of NIOSH. More could be done on this front. The workgroup scored this recommendation a 5 for Progress and a 4.5 for Impact. For recommendation #4, the workgroup was impressed with the program's progress. The workgroup scored this recommendation a 5 for Maintenance and a 4.5 for Impact. For recommendation #5, again the workgroup was very impressed with the program's progress. The workgroup scored this recommendation a 5 for Progress and a 4.5 for Impact. For recommendation #6, the workgroup felt the program had increased the extent of their cooperative activities with OSHA, and effectively worked with OSHA to jointly disseminate information about guidance documents and campaigns. However, it appears both agencies still remain wary about broader cooperation on research. The workgroup scored the recommendation with a 4.5 for both Progress and Impact.

Overall the workgroup was impressed with how the Construction program was transformed from the National Academies report. The program is on a clear improvement trajectory. Substantial progress has been made over the last few years and the impact of these recommendations has been impressive. The workgroup expects it will continue to be impressive into the future. Dr. Rogers opened the floor for questions and feedback from the rest of the Board in regards to the Construction Program score report. Hearing no responses, Dr. Rogers asked for motions to vote to approve the score report. A motion to vote was heard, as well as a second. The Board voted unanimously to approve the score report.

Work Group Presentation and Vote: NIOSH Implementation of the Traumatic Injury Program National Academies' Recommendations

Dr. Gelberg presented the Traumatic Injury Program Workgroup's score report. The final work group report can be found in Appendix F. The workgroup was very appreciative of the Traumatic Injury Program's responsiveness to the BSC's feedback provided at the 2011/2012 progress review. Kitty reviewed the brief justifications provided by the workgroup for each of the score elements. For recommendation #1, the workgroup felt the program had a strong, well thought out approach to reviewing, revising and prioritizing goals. The program's strategic planning was very well done, and the workgroup's only recommendation was that it would be helpful to have a description of the criteria used for determining when a goal was ready for retirement. The workgroup scored the recommendation with 5s for both Progress and Impact. For recommendation #2, the workgroup saw that goals were clearly established with performance measures planned to monitor the progress of each goal. They felt it would be important for the program to make sure the plans for each goal continue to serve as a guidepost in the future. The workgroup scored the recommendation a 5 for Progress and a 4 for Impact. For recommendation #3, the workgroup noted the program showed a mindful approach to the goals of working with each federal agency included in their report. The program's work with other agencies has allowed for broader dissemination and acceptance of information, but this is difficult to measure for impact. The workgroup scored the recommendation a 5 for Progress and a 4.5 for Impact. For

recommendation #6, the workgroup noted that this goal in general is larger than just the program, and extends to the whole agency. The program is doing excellent work on this goal though, and other NIOSH programs could learn from their efforts. Again, they felt it was too early to fully measure the impact of these activities, and it was not clear how the guiding principles organize and identify the collaborations the program chose to undertake. The workgroup scored the recommendation a 5 for Progress and a 4 for Impact. For recommendation #9, the workgroup felt the program had identified a number of new initiatives focusing on high risk populations, new technologies, personal behaviors, safety cultures and climate change. The workgroup scored the recommendation a 5 for Progress and a 4.5 for Impact.

Dr. Rogers opened the floor for questions and feedback from the rest of the Board in regards to the Traumatic Injury Program score report. Hearing no responses, Dr. Rogers asked for motions to vote to approve the score report. A motion to vote was heard, as well as a second. The Board voted unanimously to approve the score report.

Summary and Wrap-Up

Dr. Rogers provided a brief summary. For future meeting topics, Dr. Peek-Asa suggested having a legislative update on the agenda. It was also noted that individuals who might have interest in serving on the NIOSH Institutional Review Board should contact John Decker. The meeting concluded at 2:40 pm.

Appendix A – Roster of NIOSH Board of Scientific Counselors Members

**Department of Health and Human Services
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
Board of Scientific Counselors
September 2014**

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Appendix B – Agenda, November 7, 2014

**Department of Health and Human Services
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
Board of Scientific Counselors
Sixty-Third Meeting
November 7, 2014
*Teleconference and Webcast Only***



1:00 p.m.	Roll Call and Logistics	Mr. John Decker
1:10 p.m.	Agenda, Announcements, and Approval of Minutes	Dr. Bonnie Rogers
1:20 p.m.	Director's Opening Remarks	Dr. John Howard
1:40 pm	Implementation of the National Academies' Recommendations: Overview and Charge to BSC	Ms. Elizabeth Hofer
1:50 p.m.	Work Group Presentation and Vote: National Academies Implementation of the NIOSH Respiratory Disease Research Program	Dr. Michael Larranaga Dr. Carol Rice
2:20 p.m.	Work Group Presentation and Vote: National Academies Implementation of the NIOSH Construction Research Program	Dr. Bradley Evanoff Dr. Darryl Hill Dr. John Mendeloff
2:50 p.m.	Work Group Presentation and Vote: National Academies Implementation of the NIOSH Traumatic Injuries Research Program	Dr. Kitty Gelberg Dr. Corinne Peek-Asa Dr. James Platner
3:20 p.m.	Summary & Wrap-up, Future Agenda Items, Meeting Dates, Closing Remarks	Dr. Bonnie Rogers
3:30 p.m.	Adjourn	

***** Teleconference Number: 888-397-9578 Passcode: 63257516**

Appendix C – Director’s Talking Points

**Board of Scientific Counselors
395 Patriots Plaza, SW
Washington, DC 20201
November 7, 2014**

Retiring Members of the Board of Scientific Counselors:

NIOSH recognizes and thanks Kitty Gelberg, Clarion Johnson, Jim Ramsay, and Carol Rice for their exceptional service to NIOSH on the Board of Scientific Counselors. Their expert advice has been invaluable in helping advance high quality science at NIOSH. Their terms will be ending on 12/31/2014.

Ebola Response

- NIOSH staff have been deployed domestically and to West Africa as part of the larger CDC field response.
- A new topic page on the NIOSH web, “Ebola and Other Emerging Infectious Diseases,” provides a concise, well-organized portal to the relevant NIOSH resources, saving readers time and effort in finding needed information and guidance. For more information, see <http://www.cdc.gov/niosh/topics/EmergInfectDiseases/>
- NIOSH has been coordinating with CDC, OSHA, and other partners to monitor concerns by workers and employers, and to develop meaningful communication products for these stakeholders. NIOSH helped develop updated guidance for personal protective equipment: <http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>
- NIOSH is conducting studies to better understand the burden of heat stress from personal protective clothing and equipment worn by health care workers in the equatorial heat of West Africa, and to use that knowledge to help develop products and practices that provide better comfort while maintaining integrity against risks of infection.
- NIOSH staff have been helping to staff the CDC Emergency Operations Center where planning, administration, and communication of Ebola response are coordinated.

NIOSH Releases Updated Hazardous Drug List

A new document, *NIOSH List of Antineoplastic and other Hazardous Drugs in Healthcare Settings, 2014*, has been released. This is the latest version of the hazardous drug list first published by NIOSH in 2004 as an appendix to the document, *NIOSH Alert: Preventing Occupational Exposure to Antineoplastic and Other Hazardous Drugs in Health Care Settings*. Hazardous drugs on the list include those used for cancer chemotherapy, antiviral drugs, hormones, some bioengineered drugs, and other miscellaneous drugs. Learn more at <http://www.cdc.gov/niosh/updates/upd-9-8-14.html> or view the document at <http://www.cdc.gov/niosh/docs/2014-138/>.

Journal Paper Finds Lack of Adherence to Safe Handling Guidelines for Hazardous Drugs

A new article from NIOSH found that recommended safe handling practices for workers who administer antineoplastic drugs in healthcare settings are not always followed. This study has been published in the November issue of the Journal of Occupational and Environmental Hygiene. To access the paper online, visit: <http://dx.doi.org/10.1080/15459624.2014.916809>

OSHA-NIOSH Publication: Recommended Practices, Protecting Temporary Workers

OSHA and NIOSH published a joint document describing recommended practices for staffing agencies and host employers so that they may better protect temporary workers through mutual cooperation and collaboration. These include evaluating the host employer's worksite, training agency staff to recognize safety and health hazards, ensuring the employer meets or exceeds the other employer's standards, and assigning occupational safety and health responsibilities and define the scope of work in the contract. For additional information, see [Recommended Practices, Protecting Temporary Workers](#) 

Blog: Occupational Exposures at Electronic Scrap Recycling Facilities

Through the Health Hazard Evaluation (HHE) Program NIOSH has measured employee exposures to lead, cadmium, chromium, and noise in e-scrap recycling facilities. We found that employees in facilities that process cathode ray tube (CRT) glass, including employees in areas away from where the CRT glass is processed, can be overexposed to lead and cadmium. At some facilities, we have found lead, cadmium, and other toxic metals on surfaces outside of production areas, ineffective engineering controls, and poor employee work practices such as dry sweeping (causes dust laden with toxic metals to be swept back into the air). To read more, see <http://blogs.cdc.gov/niosh-science-blog/2014/09/30/escrap/>

NIOSH is planning to evaluate occupational exposures to metals and flame retardants in e-scrap recycling facilities and to recommend controls to reduce employee exposures. The HHE Program is looking for five facilities that would like to participate.

Blogs: Electronic Health Records

NIOSH has produced three blogs highlighting current efforts:

- *Work Information in Electronic Health Records* <http://blogs.cdc.gov/niosh-science-blog/2014/08/15/ehr2/>
- *Connecting Occupational Public Health and Patient Care Through Electronic Health Records (EHRs)* <http://blogs.cdc.gov/niosh-science-blog/2014/09/17/ehr3/>
- *Health IT Buzz: Health Centers Are Leading Efforts to Incorporate Patient Work Information into Electronic Health Records*, Co-written with staff from the Office of the National Coordinator for Health IT (ONC), <http://www.healthit.gov/buzzblog/electronic-health-and-medical-records/health-centers-leading-efforts-incorporate-patient-work-information-electronic-health-records/>

Also, in conjunction with cross-Institute electronic health records group, continued work on the project "Using Electronic Health Records and Clinical Decision Support to Enhance Worker Health." Held a face to face meeting of work groups tasked with developing the knowledge

base as the basis for three separate clinical decision support tools for electronic health records in three different topic areas: return-to-work, diabetes management, and adult asthma.

Coal Workers Health Surveillance Regulations

NIOSH has continued to implement the new coal workers' health surveillance regulations, which now provide surveillance to surface miners and add respiratory symptoms questionnaires and spirometry to health screening. As of October 30, over 1100 surface operators and contractors had submitted plans for radiographic surveillance, with almost 400 reviewed and approved. In addition, 10 medical facilities have been approved in 5 states to provide radiographic screening, including a mobile unit from the state of Texas. The mobile unit may also provide services to other states. Also, 12 medical facilities have submitted applications to become providers of spirometry.

Green Tobacco Illness Topic Page

NIOSH posted a new topic page to help employers, workers, and health professionals identify and reduce risks for green tobacco sickness in the tobacco-growing industry. Green tobacco sickness is a type of nicotine poisoning that occurs while handling tobacco plants, particularly those that are wet from rain or morning dew, or perspiration. Symptoms include nausea, vomiting, dizziness, and headaches. Symptoms may be similar to those of heat illness and pesticide poisoning, which can make it difficult to diagnose. The New York Times reported in September that this remains an occupational risk in states such as North Carolina, which alone has roughly 1,800 tobacco farms employing 30,000 workers picking 400 million pounds of the crop annually. Many workers are immigrants or migrant workers. See <http://www.cdc.gov/niosh/topics/GreenTobaccoSickness/>

6th National Occupational Injury Research Symposium

NIOSH is sponsoring the 6th National Occupational Injury Research Symposium (May 19-21, 2015) in Kingwood, WV. The deadline for abstract submission is December 1. Opening plenary speakers will be Dr. John Howard, Dr. David Michaels (OSHA), Deborah Hersman (President/CEO National Safety Council, former Chair NTSB), and Tom Cecich (Senior VP American Society of Safety Engineers, Chair Center for Safety and Health Sustainability).

Total Worker Health

- 1st International Symposium to Advance Total Worker Health was held October 6–8, 2014, Natcher Conference Center, NIH, Bethesda.
- This symposium explored research, practices, programs and policies that advance the overall safety, health, and well-being of workers through the integration of health protection and health promotion.
- A proposed national Total Worker Health™ agenda has been released: [Draft: Proposed National Total Worker Health™ Agenda for Public Comment](#)  Stakeholders are invited to provide input on the top priority issues to be included in the Proposed National Total Worker Health Agenda.
- Comments will be accepted until December 22, 2014.

Memorandum of Understanding with SUNY Polytechnic Institute

On Oct. 2, NIOSH signed a memorandum of understanding (MOU) with the Colleges of Nanoscale Science and Engineering (CNSE) at SUNY Polytechnic Institute in Albany, New York. NIOSH and CNSE will partner to advance research and guidance for occupational safety and health in the nanoelectronics industry and other settings where workers are potentially exposed to engineered nanomaterials. For more information, see <http://www.cdc.gov/niosh/updates/upd-10-2-14.html>

Appendix D – Work Group Report for the Respiratory Disease Research Program

**Review of Progress Implementation Report for
NIOSH Respiratory Disease Research Program**

Submitted by Board of Scientific Counselors

November 17, 2014

BSC Working Group Members

**David Bonauto
Carol Rice
Michael Larranaga**

Recommendations In Progress:

Recommendation

Systems for Surveillance: NIOSH should provide appropriate resources for and engage in high-priority occupational [respiratory] disease surveillance.

Progress: 1 2 3 4 5

Brief Justification: The RDRP has made significant progress for providing appropriate resources for engaging in high-priority occupational respiratory disease surveillance. The RDRP’s involvement was instrumental in MSHA’s promulgation and implementation of the respirable coal dust rule. The Government Accounting Office (GAO) conducted two investigations of the rule’s scientific basis and found that the proposed respirable coal dust Permissible Exposure Limit (PEL) would reduce miners’ risk of disease. RDRP was extensively engaged and expended significant effort on both reviews. The GAO found the PEL proposed by MSHA was appropriately based on epidemiological data (much of that data was from the NIOSH-RDRP) and allowed the evaluation of exposure-response relationships. In addition, because of the new MSHA rule, RDRP has prepared for the expansion of health surveillance services for both underground and surface miners. The RDRP has taken an initiative for innovation in approaches to work-related respiratory disease surveillance, including the use of information from the healthcare system.

Impact: 1 2 3 4 5

Brief Justification: The impact of the RDRP’s work on occupational health has been substantial. For example, eWoRLD and NORMS have helped to shape public policy; MSHA has cited the RDRP mortality data as an important motivator in promulgating the new respirable coal mine dust rule. Interestingly, NIOSH data was used by proponents and opponents alike of OSHA’s proposed silica rule. This highlights the relevance of the RDRP’s work.

RDRP assisted with coding and submitting of data that facilitated participation in the new occupational health indicator (OHI) by states with NIOSH funding. OSHA’s recently announced National Emphasis Program for occupational exposure to isocyanates was motivated in part by interaction with RDRP surveillance investigators. The RDRP has contributed to a cross-Institute effort to further include occupational health information in electronic health records that could be used to improve clinical care, but also to improve our ability to obtain morbidity and mortality surveillance data from healthcare systems. MSHA chose to announce the respirable coal dust rule at NIOSH’s Morgantown facility to honor the contributions of the RDRP.

We applaud NIOSH efforts to meet this recommendation and hope that RDRP continues to have the resources to progress strategically to maximize impact in workplace respiratory disease surveillance.

Recommendation

The committee recommends that the effectiveness of digital radiography in CWP surveillance should be an important continuing research priority, which will extend to all interstitial lung diseases.

Progress: 1 2 3 4 5

Brief Justification:

There has been a logical and strategic progression of research and implementation activities to substitute digital chest imaging for film-based images in pneumoconiosis surveillance. In the recent review period, NIOSH has conducted validation studies on the use of the new ILO digitized standard images for classification of small pneumoconiotic opacities. NIOSH with partners are creating a chest image repository (CIR) for training, education, and research efforts.

RDRP is implementing the use of digital chest imaging in the Coal Workers Health Surveillance Program. NIOSH’s anticipation and development of a safe and secure system for electronic submission and review of digital chest images is highly commendable. Likewise the provision of hardware and software support to B-Readers is an important example of government facilitating both clinical services and research efforts.

NIOSH has laid the foundation for B-reader training, certification and re-certification examinations using digital formats, which will likely be implemented during the next review period.

Impact: 1 2 3 4 4.5 5

Brief Justification: The progress thus far in the program has been foundational – building a system for submission, review and storage of electronic chest images. Additionally, efforts are underway to train and certify B-Readers using electronic format.

Preliminary results support the very high likelihood of success for this program – the high proportion of chest images submitted to the CWHSP in digital format (72%) in the first year bodes well for the future success of this program.

We ask the RDRP to consider if this recommendation should be retired at the next review cycle. This program has been successful. If RDRP agrees, we suggest that RDRP provide a new recommendation for review in the next cycle.

Recommendation

In the flavoring industry, the RDRP response to the identification of diacetyl-induced bronchiolitis obliterans has led to surveillance efforts in multiple locations in an effort to detect and prevent disease. The evaluation committee agrees that continued surveillance, prevention of exposures, and mechanistic research to better understand this disease should continue to be a high priority for the RDRP.

Progress: 1 2 3 4 **5**

Brief Justification: NIOSH is conducting cutting edge basic toxicology and field research in flavoring related lung disease. Significant outputs are peer-reviewed journal articles and the impending release of NIOSH criteria document for diacetyl and 2,3-pentanedione. The contributions of the HHE program are notable in conducting field work to support recognition of a broader spectrum of respiratory disease from flavorings.

Impact: 1 2 3 4 **5**

Brief Justification: Publication of the final NIOSH criteria document and recommended exposure limits will be a major accomplishment. The interest of the stakeholder community and usage of NIOSH web information on this topic demonstrate meaningful impact. The basic toxicology research has fostered expanded work by other research groups or organizations. It may be valuable to evaluate the use of the NIOSH criteria document.

Recommendation

In terms of chronic obstructive pulmonary disease (COPD), understanding the contribution of occupational exposures is difficult. To understand this issue, the evaluation committee strongly recommends that, for planning preventive strategies, the RDRP continue to support population-based studies of associations between occupational exposures and COPD to better define groups of workers at greatest risk.

Progress: 1 2 3 4 4.5 5

Brief Justification: Progress has been made in facilitating the collection of spirometry data on the NHANES and adding industry and occupation questions to the NHANES. We congratulate NIOSH on expanding the I/O questions to include data on the longest held occupation and industry. Peer-reviewed publications from the NIOSH supplement to NHIS have been published.

There have been a variety of studies focusing on the relationship between work settings and COPD, including those related to the World Trade Center. NIOSH continues efforts to improve spirometry quality through training program sponsorship.

Impact: 1 2 3 4 4.5 5

Brief Justification: The new MSHA Respirable Coal Dust Rule requires health screening for COPD symptoms and spirometry. The OSHA proposed silica rule mandates baseline and periodic spirometry for secondary prevention of COPD in silica-exposed workers.

NIOSH's spirometry poster is widely disseminated by spirometry manufacturers (~90,000 posters). A reference guide for clinicians has been developed with 13,000 copies of the guide being disseminated. SPIROLA software for evaluation of longitudinal spirometry data is publicly available, with the web-based version in development.

We applaud NIOSH efforts to meet this recommendation, but suggest that RDRP outline a longer-term strategy to satisfy this recommendation or propose an alternative recommendation on which to focus. Efforts to identify and prevent respiratory diseases in specific working populations regardless of the specific disease (COPD or not) may be a reasonable substitute.

Recommendation: Because the contribution of occupational exposures to the burden of adult asthma is high, work in pursuit of the four WRA subgoals can have a potentially large impact on improved occupational safety and health among the U.S. workforce.

Progress: 1 2 3 4 5

Brief Justification: RDRP has pursued efforts to collaborate with health care providers and the health care system. An important initiative is the NORA project to develop clinical decision support capabilities in the Electronic Health Records. This project includes the development of prompts for clinicians to collect and consider occupational information. RDRP has been able to incorporate questions about assessment and management of adult asthma in the work survey. RDRP has leveraged several large studies to assess the extent, severity, burden, and risk factors for WRA and WRA prevention across a broad range of industries and occupations. The RDRP added questions about WRA to the Behavioral Risk Factor Surveillance System (BRFSS) Asthma Call-back Survey, which collects information from adults who report an asthma diagnosis.

The RDRP has made progress in identifying, documenting, and characterizing emerging causes of WRA. Studies have evaluated WRA in healthcare workers and NIOSH is evaluating relationships to exposures such as cleaning agents, disinfectants, and other known asthmagens in healthcare. Studies addressed WRA in wildland firefighting and restoration work after flooding. The RDRP has also evaluated the impact of IAQ on WRA and the effectiveness of building remediation in preventing WRA associated with poor indoor air quality. RDRP partnered with the American Chemistry Council and participating facilities to demonstrate a medical monitoring program evaluating workers at toluene diisocyanate production facilities in the U.S.

Impact: 1 2 3 4 4.5 5

Brief Justification: RDRP has leveraged its existing capabilities with those of other organizations (American Chemistry Council, NIH, EPA, OSHA, CPSC, NIST, etc.) to carry out research and other activities to prevent the onset of WRA. NIOSH's work on IEQ and its website have been influential, specifically with regards to indoor dampness and mold. RDRP work has led to an increased recognition of hazards associated with a variety of agents and has been instrumental in assigning asthmagen designations to substances included in the Association of Occupational and Environmental Clinics Exposure Code List.

RDRP has leveraged large national surveys to address WRA and occupational health indicators (OHIs) for asthma. Additionally, RDRP work was instrumental in motivating OSHA to implement a National Emphasis Program on occupational exposure to isocyanates. These activities have set the foundation for a significant future impact on worker safety and health, and specifically WRA.

We applaud NIOSH efforts to meet this recommendation and hope that RDRP continues to progress strategically to maximize impact in correctly diagnosing and documenting the impact of prevention strategies for WRA.

Appendix E – Work Group Report for the NIOSH Construction Program

**Review of Progress Implementation Report for
NIOSH Construction Program**

Submitted by Board of Scientific Counselors

November 17, 2014

BSC Working Group Members

**Bradley Evanoff
Darryl Hill
John Mendeloff**

Recommendation #1

Efforts to influence practice based on research (“research-to-practice” or r2p) efforts should involve individuals with training or with the experience and skills to create strategic diffusion and social marketing plans for the National Institute for Occupational Safety and Health research and evaluate such plans’ effectiveness.

Progress: 1 2 3 4 **5**

Brief Justification:

The Office of Construction Safety and Health has strengthened its r2p and communications internally by better-defining its relationship with the NIOSH Communications and Research Translation Office (CRTO). NIOSH has ensured that construction social marketing and diffusion efforts are continuously supported by staff trained in health communications.

CPWR has hired R2P director with extensive expertise and experience.

All National Construction Center projects, including all consortium and small studies projects, have been examined using its Dissemination Planning and Tracking Tools.

The Communications and Research Translation Office is critically assessing NIOSH’s r2p needs and how it might address them, with a plan to prepare solutions during 2014.

Impact: 1 2 3 4 **4.5** 5

Brief Justification:

Standing meetings among the National Construction Center, the OSHA Directorate of Construction (DoC) and the NIOSH Office of Construction Safety and Health (CSH) continue. Outputs and outcomes include improved and coordinated dissemination of information and tools in several areas, including falls, nail guns, electrical hazards, and noise abatement. National campaigns on falls have been visible.

More coordination of NIOSH research and information with OSHA compliance efforts is still desirable. We noted that an earlier evaluation of the falls campaign was conducted, which indicated low awareness. There is no mention of any further follow-up or of evaluations of other r2p activities. It would be good to remedy this.

Recommendation #2

Consideration should be given to having the majority of research-to-practice efforts of the Construction Research Program conducted through the National Construction Center.

Progress: 1 2 3 4 5

Brief Justification:

NIOSH has executed steps that shift r2p activities to the National Construction Center. A continuing challenge will be to coordinate both the research and the dissemination of research funded by the National Construction Center with the activities funded by NIOSH extramural grants and with intramural research. These three groups of projects and investigators interact more within the groups than outside their groups.

Impact: 1 2 3 4 4.5 5

Brief Justification:

Many excellent outputs that are reaching the intended audiences since ramping up of R2P activities occurred in the past several years. However, although the impact on grantees appears to be substantial, it is not as clear that the impact has been as large on in-house researchers.

Recommendation #5

The National Construction Center should continue to be used as an important component in the Construction Research Program.

Progress: 1 2 3 4 5

Brief Justification:

As noted, the NCC has continued to be used as an important component, probably an increasingly important one.

Impact: 1 2 3 4 4.5 5

Brief Justification:

The National Construction Center continues to play a key role in R2P activities, and serves as a focus for researchers, unions, and contractor groups. They serve as a key liaison between NIOSH and external partners, and have led productive stakeholder events leading to useful outputs, such as the 2013 stakeholder meeting leading to the 2014 publication on safety culture and safety climate in construction.

Recommendation #6

The Program should establish a closer connection with the Occupational Safety and Health Administration and other regulatory or consensus standards organizations to help ensure that the Program's research is applied effectively in rule-making efforts.

Progress: 1 2 3 4 4.5 5

Brief Justification:

The extent of cooperative activities appears to have increased considerably. Outside of standards, however, NIOSH research has rarely focused on issues of concern to OSHA. Although some efforts to change this have been made, both agencies remain wary about broader cooperation on research.

Impact: 1 2 3 4 4.5 5

Brief Justification:

Joint dissemination efforts for the Nail Gun Guide and the construction falls prevention campaign have amplified NIOSH outreach. For example, by including the Directorate of Construction and OSHA's Office of the Administrator, the Department of Labor Secretary became involved in the launch of the construction falls prevention campaign, thus greatly elevating the profile.

The NIOSH Construction Program has expanded its active participation on the American National Standards Institute (ANSI) Committee on Safety Requirements for Construction and Demolition Operations (ANSI A10), and its affiliated workgroups. This provides an important mechanism for ensuring research to practice. NIOSH participates on standards work groups and provides comments on draft standards.

Recommendations Completed:

Recommendation #4

The Construction Program Coordinator and the Construction Program Manager should both be devoted full-time to the Construction Research Program.

Maintenance: 1 2 3 4 5

Brief Justification:

Appropriate succession planning; Dr. Branche’s close engagement with construction research gives additional top level attention to this important area.

Impact: 1 2 3 4 4.5 5

Brief Justification:

The previous addition of coordinator and manager FTE has helped the construction program continue to be well organized and productive. Construction is a large, dynamic, and complex industry with many workers, varied hazards, and a large number of fatalities and injuries. Devoting sufficient NIOSH leadership, program management, and program coordination resources will be important to future efforts to reduce exposures, injuries, and fatalities in this large sector.

Appendix F – Work Group Report for the NIOSH Traumatic Injury Program

**Review of Progress Implementation Report for
NIOSH Traumatic Injury Program**

Submitted by Board of Scientific Counselors

November 17, 2014

BSC Working Group Members

**Kitty Gelberg
Corinne Peek-Asa
James Platner**

Recommendations In Progress:

Recommendation #1: Continue setting goals that are within the TI Research Program’s scope and resources.

Progress: 1 2 3 4 5

Brief Justification:

A strong thought out approach was used in reviewing, revising and prioritizing goals. Input was received both internally and from the external stakeholders. Priorities were selected using data, ability of existing staff, and potential impact.

They have done a great job of strategic planning. As a very interdisciplinary team it is so important for them to stay focused and the strategic plan is essential in helping the program avoid becoming unwieldy. While the strategic plan seems to be working well for the TI, the document did not discuss protocols for retiring goals, what the criteria are for doing that – more description would be useful. It would also be useful if new goals could be so designated in the report in a manner complimentary to the way that retired goals were designated.

Researchers in TI should also consider output goals related to improved public policy and data collection. Many of the data sets used by TI have the potential for improvement. As data users, NIOSH TI, working with BLS or other agencies, can improve data collection and should plan for and take credit for resultant improvements. Some of the priority initiatives at OSHA, such as temporary workers, would benefit from more consistent definitions and data collection methods that few outside of TI are able to contribute to.

Impact: 1 2 3 4 5

Brief Justification:

Solid impacts were demonstrated for each subgoal. We applaud how they came up with these plans and staying focused. Action framework can help them benchmark and measure their progress.

Recommendation #2: Develop an explicit plan for each subgoal..

Progress: 1 2 3 4 5

Brief Justification:

Clear goals were established, with performance measures added to each goal. The Motor Vehicle Safety program published a 5 year strategic plan. Applaud on how they came up with these plans and staying focused. Action framework can help them benchmark and measure their progress.

Impact: 1 2 3 4 5

Brief Justification:

Because the performance measures were recently written, there has not been enough time to measure impact. The process established will allow the TI program to quickly evaluate the potential impact and make appropriate adjustments as needed. The document mentions quite a few different elements in the plan, such as Intermediate Goals and Activity/Output goals – a very complicated plan. It will be important to make sure in the next steps that the plan continues to be a good guidepost for the team.

Recommendation #3: Work with other federal agencies that support injury prevention and control research.

Progress: 1 2 3 4 5

Brief Justification:

This document showed a mindful approach to the goals of working with each agency. The continuation and frequency of meetings with other agencies will assist in providing sustainability. In addition, incorporating other agencies as partners and reviewers in projects helps to keep them engaged and may also work to sustain these relationships since they are often time consuming to maintain. This also provides good training to staff and further ability to distribute resources.

Impact: 1 2 3 4 4.5 5

Brief Justification:

Reaching out to other agencies has allowed for broader dissemination and acceptance of information. For example, having other agencies review drafts of developed products will increase the willingness of these programs to share or even use the information. Cost savings have been demonstrated. Very focused on reasons for working with each agency, including data quality and process issues. Is difficult to show the impact of communication. Work on improving methods and data collection are also broadly helpful for the field.

Recommendation #6: Ensure collaboration among NIOSH-funded researchers.

Progress: 1 2 3 4 5

Brief Justification:

This goal is larger than just the TI program, but they are doing an excellent job of identifying areas for integration within and outside of NIOSH. They continue to work with other programs, sharing and using data obtained from extramural funding, acting as technical advisors for cooperative agreements, and scientific advisors for the ERCs and Ag Centers. They have also identified shared goals with other NIOSH programs to allow for internal collaboration.

There is the question of how does the strategic plan guide the reaching out to both external partners and internal researchers? What is it that helps guide and keep it manageable? There are interesting tools and data available in the TI program, and they are good at reaching throughout the agency to figure out where cross-over occurs.

Impact: 1 2 3 4 5

Brief Justification:

They have demonstrated increased awareness of NIOSH programs. It is expected that coordination of messages and expanded outreach through known sources will lead to improved worker safety; however, it is too early to show whether this is working. They have also demonstrated knowledge gained from hosting NOIRS and a webinar on workplace violence. It is not clear how the guiding principles organize and identify these collaborations.

Recommendation #9: Research prevention strategies for traumatic injuries in a changing workplace.

Progress: 1 2 3 4 5

Brief Justification:

The TI program has identified a number of new initiatives including focusing on high risk populations, new technologies, personal behaviors, safety cultures and climate change. These initiatives have been incorporated into their strategic plan and reviewed by partners both internally and externally for increased approval and recognition.

They have some unique things such as safety culture, automated vehicles, and health disparities. Issues such as safety culture cross over other areas of NIOSH; so again, there are questions as to how collaboration is approached.

It may be useful to address possible collaborative goals that enhance the opportunities to work with other agencies. For example, Dept of Labor goals related to temporary workers, electronic reporting mechanisms and under-reporting of injuries.

Impact: 1 2 3 4 4.5 5

Brief Justification:

While mechanisms are in place to measure the impact of this, research takes a while to complete and then to have an impact. It is too early to rate the impact of this work.

Are they thinking about different work organizations? Other areas in NIOSH are thinking about this and there may be the potential for collaboration.

Certification Statement

I hereby certify that, to the best of my knowledge and ability, the foregoing minutes of the September 5, 2014, meeting of the NIOSH Board of Scientific Counselors, CDC are accurate and complete.

January 12, 2015

Date



M.E. Bonnie Rogers, MPH, DrPH, COHN-S
Chair, NIOSH Board of Scientific Counselors