Welcome and introductions

A total of 51 participants were in attendance representing states, academic partners and NIOSH staff.

15 of 19 invited states were present (AZ, CA, CO, KA, MT, ND, NE, NM, NV, OK, OR, TX, UT, WA, WY - missing AK, HI, ID, SD). New states that have sent occupational epidemiologists include NE, KA and WY. Six ERCs (Iowa, UW, CO, Texas, MN, Utah) and three Agricultural Centers (Texas, UCD, Texas) were in attendance, along with two CSTE fellows, two PHPS fellows, and one representative from the OSHA Denver office. Fourteen NIOSH staff attended from several divisions including

Appreciation and thanks were expressed to the planning committee (John Beckman, Dave Bonauto, Yvonne Boudreau, Robert Harrison, James Helmcamp, and Karen Mulloy) with special kudos to Erin Simms of CSTE.

The NIOSH deputy director Margaret Kitt emphasized the importance of the NIOSH Western regional office and indicated continued support for this activity.

Robert Harrison from the California Department of Public Health thanked NIOSH for their support with a new 3-year conference grant, and encouraged collaborations between states and academic partners

Lew Newman from the Mountain and Plains Education and Research Center (MAP ERC) continued his support for this meeting and thanked NIOSH for the recent funding of the MAP ERC for another 5 years

Innovative state activities
Moderator: Yvonne Boudreau, NIOSH

Building occupational health capacity in Wyoming – a success story
Judge Gary Hartman, special assistant to the Governor, Wyoming

Judge Hartman presented his personal experience with the oil field industry and the process by which he worked with stakeholders in his State. Judge Hartman was charged by the governor's office and convened a large task force composed of safety and health experts. The NIOSH AK office was instrumental in gathering data and helping WY committees form recommendations to raise general OSHA and seat belt fines, and hire a fulltime state OH epidemiologist (Dr. Tim Ryan). Priorities for
future work are increasing seat belt usage (50% of all fatalities), and pushing down programs to small businesses.

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<th>Outcomes</th>
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<tr>
<td>· Oil and gas industry formed OSHA alliance to improve OSHA program</td>
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<td>· First OH epidemiologist hired in WY</td>
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<td>· Collaborative ties between State and NIOSH office</td>
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**Challenges and opportunities**

| · Apply this concept to construction and other industries |
| · Identify funding to sustain program beyond 2-3 years |

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**OHI collection and occupational health surveillance in Montana**

**Dave Elenbaas and Kristine Shields, Montana Workers' Compensation Claims Assistance Bureau**

The MT program is placed within the Dept of Labor and Industry, and is funded by workers comp assessments. The MT program is in their data management unit, working with insurance companies who are mandated to report and perform workers compensation research. For the first time, MT has compiled the OHIs and found some significant issues: highest rates for non-fatal (6.4 v 3.9); highest fatality rate (10.7 v 3.6); 17.8% in risk occupations and industries; declining rate of hospitalizations; MSDs for DAFW was twice national average (8.8 v 3.3); CTS dropped dramatically; and amputations jumped from 20 to 90 in 2008, much greater than national rate. MT has a wide range of successful outreach and education activities – notably the Worksafe MT advertising campaign.

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<tr>
<td>· MT has developed and published OHIs</td>
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<td>· Additional workers compensation research derived from OHIs</td>
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**Challenges and opportunities**

| · Promote use of hospital discharge data |
| · Continue OHIs with web page |
| · Improve interagency coordination |
| · Develop collaborations with stakeholders |

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**NIOSH updates and activities**

**Introduction to Ning - Liz Dalsey, NIOSH**

There are several existing mechanisms for communication (Listserve, NIOSH eNews, and Science blog). The Ning social networking site was proposed as a way to share information and offers greater capacity for interchange and document sharing. Other options were discussed such as Facebook (but several agencies block participation and it is open to everyone), Twitter (but limited characters), Listserve (can't post documents), Blog (one way), Googledocs (file sharing). Feedback to Liz
Occupational health and working with underserved populations in the West
Moderator: Marc Schenker, Western Center for Agricultural Health and Safety

Overview of the issues/National Agricultural Workers Survey
John Myers, NIOSH

The National Agricultural Workers Survey (NAWS) is a survey of hired crop workers in the US, including work histories, economic data, and family and extended family since 1989. This is a multiple stage personal interview, with a core questionnaire and supplemental questionnaire. In 1999 through 2004, the survey included an occupational health module focusing on injury, musculoskeletal disorders, dermatitis, and other health conditions. Some key findings of NAWS were presented, including data on the demographics and health outcomes of agricultural workers.

**Outcomes**
- NAWS data is a useful tool for identifying interventions

**Challenges and opportunities**
- analyze findings from NAWS and identify opportunities for State-based interventions

Community academic linkages to build a national network for farm worker research
Sharon Cooper, SW Center for Occupational and Environmental Health

A study team was developed to learn more about farm worker health on a national basis and develop sustainable activities after funding ends. There was a three-phase implementation with a steering committee and MOUs with migrant health centers; a national farm worker clinical research database with IRB approval; and a specific plan for sustainability. A pilot study was conducted of 200 women attending a prenatal clinic; they were asked a brief questionnaire to identify risk factors and birth outcomes to demonstrate potential uses of data including an occupational questionnaire as a supplement to the medical record. Future data collection will include encounter data from 2010 to 2011 including demographic, diagnosis, and CPT information.

**Outcomes**
- successful project on targeted population within NIOSH-funded ERC

**Challenges and opportunities**
- develop collaborative research with State partners
The "T3" of clinical and translational research - opportunities for collaboration with communities
Deborah Helitzer, University of New Mexico

The community can be the site of all 3 types of translational research, with three areas as defined by NIH: applying discoveries generated from research from the lab to clinical trials; enhancing adoption of best practices; and understanding of disease by linking basic science and population based science. NIOSH defines translational research as a collaborative process between NIOSH and partners that combines germination and adoption of knowledge in the workplace with a goal to reduce workplace injuries fatalities (Research to Practice or R2P). Prerequisites to successful community work include trust, respect, shared ownership of problems and solutions, and fostering of long-term relationships. Several keys to community based research were presented, including responding to requests from community; helping the community address pressing needs; building capacity so the community can address their own problems; developing and maintaining relationships; utilizing rigorous design and implementation; and bringing results back to the community.

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<td>· translational research can be a model for State-based activities</td>
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<tr>
<td>· apply concepts of translational research to high-risk worker populations</td>
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Developing occupational epidemiology skills at a state health department
Stella Beckman, CDC/CSTE Applied Epidemiology Fellow

The value of the CSTE fellowship was highlighted by presentation of three projects: hospital survey of respirator use, PBDE exposure among flights attendants, and multisource surveillance of workplace injuries and illnesses. The fellowship program has provided opportunities to learn about survey design, IRB application, data collection and analysis, and presentation. Ideas for promotion of the CSTE fellowship was presented, and strategies for states to recruit CSTE fellows.

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<tr>
<td>· Recruitment of new scientists and potential leaders in OH</td>
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<td>· Assistance to states for OH epidemiology capacity</td>
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<tr>
<td>· Promote CSTE OH fellow recruitment from epidemiology programs</td>
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<td>· Develop host “billets” with attractive projects</td>
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Occupational health practice that makes a difference
Moderator: Dave Bonauto, Washington State Department of Labor and Industries

The NIOSH fire fighter fatality investigation program
Paul Moore, NIOSH

NIOSH has had this program in place since 1998, and is non-regulatory. Three units (DSR, DSHEFS and NPPTL) implement the program. The program uses the FACE model, especially the concept developed by Haddon 1968, with multiple source contacts. A case example of two firefighters who died in a motor vehicle incident was used to illustrate the FACE methodology. There have been a total of 1,241 FF Line of Duty fatalities; NIOSH has investigated 481 of these. In these reports, there is no blame or finger pointing. They are mailed to FDs, union, and posted on the NIOSH web site. NIOSH has developed safety advisory series to get out more quickly – especially on equipment issues. The new prototype of the fatality map was shown and should be “live” by January or February 2011. Paul demonstrated the use of this innovative Google map technology.

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<td>• Investigation and dissemination of numerous FF fatalities</td>
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<td>• Use of new technologies such as mapping</td>
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Challenges and opportunities

• Develop use of database for intervention identification and trials
• Enhance collaboration with stakeholders to prevent further fatalities

Severe lung disease among flavorings workers
Robert Harrison, California Department of Public Health

The case of bronchiolitis obliterans (BO) due to diacetyl in California was presented as an example of sentinel case reporting and follow-up investigations. Two cases had been reported to CDPH of severe lung disease, and a large industry-wide study was conducted of 27 plants. Eighteen more cases of lung disease were found, including 4 cases of BO. The surveillance and investigation of BO at the same level has led to the first standard to protect workers against food flavorings.

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<td>• Sentinel case reporting led to large public health investigation</td>
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<td>• Diacetyl has been eliminated from use in California</td>
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<td>• OSHA standard has been enacted in California</td>
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Challenges and opportunities

• Improve medical surveillance for respiratory disease
• Develop strategies for prevention of other lung diseases from flavors

Vietnamese shrimp fishermen of the Gulf Coast
Jeff Levin, Texas

Commercial fishing fatalities are responsible for many deaths each year in the US, with 55 deaths in shrimp fisherman in Gulf. 46% of these deaths are due to falls
overboard. Less is known about nonfatal injuries – so need to develop community-based collaborations, focus groups and educational materials. The long-term objectives were to characterize selective workplace factors and lifestyle behaviors which may contribute to morbidity and mortality among fishermen. The project used a community-based approach to planning, implementing, and evaluating prevention and education measures directed at priority workplace factors and lifestyle behaviors as identified by stakeholders. There are several barriers, including language, views of compulsory training and authority. Thus project used experienced mariners with training in their own language (Vietnamese).

**Outcomes**
- Interventions identified through focus groups and “opinion leaders”
  - Safety materials developed with easily recognizable images

**Challenges and opportunities**
- Evaluate results to determine implementation and injury reduction

**NIOSH activities in the Deepwater Horizon Response**
Margaret Kitt and Max Kiefer, NIOSH

The magnitude and scope of NIOSH response to the DWH spill was probably the largest ever. There were many occupational safety and health hazards, including sprains and strains, chemical exposures, heat stress, and mental health/fatigue. Over 46,000 workers were deployed. NIOSH was determined that every response worker should be counted, and to prevent injury and illness in real time during the event. NIOSH was able to roster over 52,000 response workers. This occurred primarily in training and staging areas, and was paper based with mostly demographic data. OMB approval was secured in one day. In addition, the HHE teams focused on work categories on shore (beach cleanup, wildlife rehabilitation, equipment decontamination) offshore (in-situ burning, dispersant apps, booms). Technical and communication between NIOSH and OSHA produced an interim guidance on June 25, 2010, with updated web pages including sampling strategies. Health surveillance has relied on BP/UIC health data, State surveillance data (LA), Poison Control Centers, and BioSense. Initially there were numerous hand and finger injuries; the most common illness was heat stress. Oil and dispersant exposure was linked to 13 cases - all first aid. Heat stress was reported primarily in beach cleanup workers (laborers). Acute animal toxicity testing is underway for Nalco Corexit 9500A, crude oil from source, and dispersant/crude oil mix.

**Outcomes**
- Rostering of response workers
- Collaboration with OSHA and NIEHS

**Challenges and opportunities**
- Pre-placement examinations not feasible
- Long-term surveillance with longitudinal follow-up of workers and community, including focus on psychological follow-up
Meeting summary and feedback

The consensus of the attendees was enthusiastic and supportive of the 2010 meeting agenda and process, and supported the continuation of WestON in future years.

Meeting successes

- Excellent turnout with mix of new/old states, different perspectives and areas of expertise, including students and trainees
- New state OH epidemiology capacity, in WY, MT and NE
- Two ERCs attended WestON for the first time
- Size and atmosphere right, with excellent good room and setup
- Length of meeting and presentations were at right level, with appropriate content, data, tone and style. New and interesting information was presented.
- Non-competitive and supportive environment, with open attitude towards sharing

Meeting challenges

- Several states did not allow representatives to travel, based on restrictions on out of state travel and/or lack of OH program commitment (AK, HI, ID, SD)
- Two ERCs were unable to attend (UC Berkeley and UC Irvine) but have expressed interest and commitment in attending next year
- It is important to learn from infectious disease experience
- WestON should provided additional training opportunities for students

Suggested topics and ideas for WestON IV
September 22 and 23, 2011

- Possible topic/overarching theme for next year: interventions
- Follow-up from the states – Montana, Wyoming, and CO
- Additional invitees: other regions (Northeast, South), students (PHPS, CSTE, ERC and Ag centers), IPRCs, BLS, OSHA, cross-border, IHS
- Suggested topics: social media, international OH, electronic health records, emergency response, mental health
- Record presentations for webcast and continuing education