

## Western States Occupational Network (WestON) - Eighth Annual Meeting NIOSH/CSTE/MAPERC | September 17-18, 2015 | Denver, Colorado

### Thursday September 17<sup>th</sup>

Great round of introductions

Updates from NIOSH

- John Howard spoke to us, hooray! There is a new Western States Division. The West has a specific desire to develop and collaborate together, emphasizing issues that are especially relevant to the West and to respond to demographic trends. The west and NIOSH itself are also geographically dispersed which inhibits connections within NIOSH. To counter dispersion, NIOSH has created Centers of Excellence, including the new Center for Productive Aging (also for Workers' Comp, Nanotechnology, Motor Vehicles). The Center for Productive Aging, which centers around the idea that workers shouldn't be disabled through work and they should be able to enjoy their retirement, arose from TWH program. There was exciting discussion about this. Questions of interest include what aspects of work impact QOL in later life, how to capture those people whose QOL is affected but don't show up in stats.
- John suggested that NIOSH needed to be a "whole-ocracy" that works together and has a social presence. NIOSH had a good budget last year, but he also talked to us about why the federal government may shut down. He suggested that rather than think of ourselves as epis or biostatisticians, that we should think of ourselves as 'data scientists'. The field of data science is congealing and very intriguing.
- The House budget proposed \$57m, which is greater than the President's (which defunds the ERCs and Ag Centers but includes \$6m extra). NIOSH does its own reallocation usually through the NORA process.
  - o NORA sector councils are large and growing, and he encourages everyone to join. They are working on making them virtual.
- John is staying on for 6 more years. He talked about running the World Trade Center health plan and NORA entering its 3<sup>rd</sup> decade, which is a critical time. He also wants to make NIOSH more functional as an organization for staff, workers, and employers. The new app development center will allow NIOSH to have a social presence.
- In response to a question about how close we are to EMR, John said he didn't know. He mentioned interoperability issues, and deciding what's of value to clinicians being a grassroots issue. They are keeping up the work, but said it's not going to be the next thing.
- In response to a question about when occ health will be funded for each state (like STDs, infection disease) and recognized by the feds, John said that it needs a lobby and organizing efforts. NIOSH cannot lobby, but individual states can lobby. It's up to people in the field to figure out a channel to say these things and crafting the message and making the argument about its value to society.

- There was a question about BLS, the tracking of occupation fatalities & the timely release of data. States are sometimes late in reporting fatalities to BLS, so it's often a state-level issue.
- Max Kiefer gave us an update on the new Western States Division, which includes Spokane (headquarters), Denver, and Alaska offices. The Division will keep a focus on Western occupational safety and health issues. There is also the Spokane Mining Research Division that is in Spokane as well.
- Max gave an overview of the evolution of each of the offices & organizational changes over time leading to the creation of the new Division.
- Rationale include better serving people in the West by coordinating the western presence, optimize the strengths of the 3 offices, improve fiscal effectiveness, respond to Census & employment data/patterns, address higher occupational injury & fatality rates in the west (non-union, oil & gas, other high risk industries), support state capacity building.
- WSD activities include surveillance & epi, state capacity building (Yvonne Boudreau), oil & gas exposures (Eric Esswein), oil and gas OSH surveillance (Kyla Retzer/Sophie Ridl) commercial fishing (Jennifer Lincoln), aviation (Mary O'Connor), AI/AN initiative (Liz Dalsey – conducted through epi centers, getting OSH on agendas of tribes, Navajo nation has done the most work), climate change (Jo Watson), wildland firefighting (Corey Butler), miner health, mineral fibers (Max Kiefer), & more.
- Opportunities for research include climatic extremes, long distance motor vehicle travel, emerging industries, and expanding IH and engineering capacity within the mining sector.
- New Mexico representative stressed the importance of establishing occupational safety and health programs with tribes.
- Meredith gave an update on the Oil and Gas Symposium in June 2015, which turned out great (40 attendees from CA, CO, NM, SD, and WY). The challenges of working with oil and gas include high risk jobs, getting complete data, latency, employment that has peaks and valleys (based on price of oil & gas), who the responsible parties in employment situations are, and a dynamic & transient workforce, and latency periods of illness. One great success of the meeting was that there were a variety of participants – industry, NPR, coroners. There were two themes that came out of the meeting. 1. The need for data and reports, especially non-fatal reporting and 2. Interventions. From this there is a new CSTE workgroup about oil and gas. Presentations posted on CSTE library.

Keynote Speaker – Daniel Zwerdling, NPR journalist

- Wow this was good! Scientists need to make our work more interesting. Statistics need real people and stories behind them. To get the stories of workers injured, Dan calls lawyers, unions, immigrant groups, and puts a call on Facebook. Anyone who participated needed to have medical documents to prove they were injured. Lots of people responded, but to really believe a person is affected you have to look them in the eye. Talking to family members can really help elucidate the pain the worker went through. Have to include what really happens when people get injured. Research studies don't do this and it frustrates him – he's interested in the minutiae of what workers do – the million tasks they do. To tell the story, what really mattered was the story of the worker and the spine injury story – statistics and stories together. You have to help them visualize

what happens – when he asks people to describe their experience, he tells them to “make me a movie” and helps them along.

- His 5-part series on nursing injuries influenced OSHA to take action. His question – why aren't people in power doing anything? This is an investigative story even though the information is public because no one knows. VA has done more than any other system with lift systems – and reduced rate of injury by 40% (and up to 80%). Why aren't other hospital execs doing more? Nurses' status low on the totem pole.
- David Michaels said that NPR stories helped motivate OSHA – hearing the stories and how it changed people's lives, and the story about the science and the spine institute and understanding how it's done convinced the lawyers.
- Suggests that we have videos on our websites of worker stories to bring the work alive (though websites can't be all things to all people – who are the audiences?), and develop elevator pitches for our work. Government workers such as those at health departments should respond to questions from the media with answers on point, and invite media to discuss questions in further detail as needed.

#### Quick Takes – Out in the Weeds

- Kevin Walker presented on the Cannabis industry. Medical marijuana is a growing industry with no history of worker health evaluation. He did an examination of the industry and found that most workers are young males making less than \$35K per year. Participants in the study were asked to rank work-place hazards and cited pesticide inhaled while smoking marijuana, robbery, mental health concerns, and lack of job training.
- Alice White discussed the prevention of zoonosis through surveillance. There are 450K cases nationally involving zoonosis annually. Some occupations, such as farming, can increase exposure. There are 36,000 farms in Colorado. Conducted a survey of workers and asked for industry and occupation, job tasks, and animal contact over the last 7 days.
- Danielle Buttke talked about zoonotic disease among National Park Service workers. NPS resources have decreased over the last 20 years. 40% of NPS workers report working outdoors, 81% report insect bites, 56% report animal contact, 7% test positive for zoonotic disease. And, NPS has had success in reaching some workers, but has difficulties with reaching safety officers, who are all-purpose workers who often work really remotely. NPS includes law enforcement officers – how to reach them? Suggestion – training & authority.

#### Quick Takes – Hard Rock, Heavy Metal and Road Tunes

- Catherine Karr talked about working to build capacity to combat lead poisoning in craft villages in Vietnam, often from battery recycling.
- Visit from the Toxic Avenger who talked about the known hazards of fake granite counter tops & idea of “product stewardship” to establish responsibility for industries that produce products that

put workers at risk. Very fun and well-received. Can encourage creativity in future QT presentations.

- Derry Stover discussed transportation and warehouse industries, Total Worker Health “wellness” is not something employers say that workers want. All in all, these were interesting takes on topics we’ve known about and been working on.

## Construction Safety and Health

- Christine Branche gave overview of NIOSH’s construction programs, including intramural and extramural research and its National Construction Center at CPWR – the Center for Construction Research and Training.
- She highlighted research to practice (r2p) activities and tools, including a ladder safety app, the work through the National Construction Program (e.g., dissemination roadmap, safety culture and climate initiatives, a joint guidance document on nail guns with OSHA, and the National Falls Campaign).
- Christine also highlighted prevention through design (PtD) initiatives and efforts and described an exciting new LEED pilot credit focused on PtD. Safety and health problems in “green construction” challenge common definitions of sustainability that have excluded workers. The credit is the first worker safety and health-focused credit included in the LEED designation process. The pilot credit was the result of years of work from NIOSH introducing how safety and health should be integrated into the LEED process. Safety is not part of the LEED vernacular.
- Natalie Schwatka presented on early work in a construction safety leadership training project that is developing an OSHA-30 elective for supervisor leadership training. Safety leadership is a central part of safety culture & climate.
- While conducting the research, Natalie’s team has drafted an initial dissemination plan through CPWR’s r2p roadmap detailing the audiences and stakeholders that are essential to bringing into the process.
- Natalie described the training that includes a variety of materials and formats including videos; their curriculum development team with critical stakeholders from industry & OSHA, and safety and health professionals; and their plans to evaluate the pilot.
- Natalie answered a question about the role of champions in the workplace and confirmed that it is an idea that is getting around and the principle they are operating under with their project is that anyone can be a leader or a champion.
- Difficult question from the audience—how do you measure the effectiveness of worker training initiatives?

## The Wise World of Workers’ Compensation

- Workers Compensation may be the most effective way of reaching employers and forcing behavior change. The overall message of this session was that workers’ compensation carriers are having way more conversations with employers than any of us health department folks. But the incentive

is different. Insurers can price bad behavior, they can charge for bad behavior, but they don't want to change it. There is an increasing focus though on using loss control for preventing injuries through its price structure, and in developing leading (not lagging) indicators.

- In CA, Len Welsh talked about the prospect of predicting losses from employer safety process evaluation. The CA State Fund is the largest insurer in CA (13% of the market). He talked about a major paradigm shift from loss control services primarily being a marketing tool to being a tool to prevent injuries (they've renamed loss control to loss prevention). They are starting a program to target the worst actors with 3 visits a year to score them with a detailed checklist (they are figuring out the assessment now). The potential is for immediate bargaining power with clients if the scoring system is actually predictive. They are also looking at a focused pilot program in roofing involving phased premium rebates.
- In Oregon, SAIF (quasi-governmental, not for profit, state-chartered) is committed to total worker health, including sleep and avoiding stress. They showed an amazing safety culture matrix that they give to people to self-identify where they fall on the model (Reactive, Compliant, Managed, Integrated). Includes using safer exposure limits than PELs where it is appropriate. "Compliant" with safety requirements is a bare legal minimum, and there is a continuum of safety leadership. Can prevention methods be disseminated through Workers Comp carriers?
- Pinacol (similar in set up to SAIF) insures 65% of the market, including the riskiest segments (35% construction). Insurance brokers are like a trusted neighbor – they've been engaging business owners for a long time and have built relationships. Brokers own their business, and are a way to get prevention messages out. They can help connect to right people.
- Risk evaluation happens through underwriting, gap analysis, and account selection – a policyholder ranking tool which provides direction on which accounts to focus on.
- Jim noted that with small businesses, in most cases they are just trying to make payroll from week to week, and are less focused on risk management. Their loss reduction initiatives have included:
  - o Safety On Call – a kind of hotline
  - o Follow up on recommendations provided
  - o Risk Management Alliance Program – if client is in top 1000 ranking, they will determine whether they will provide subsidies to help make changes (looking for management commitment)
  - o Service plans for premium accounts
  - o Realignment to Centers of Excellence (Construction & Natural Resources, Public Sector...)
  - o Worksite wellness – health risk management, partnering with health insurers (regular doctors follow up and coordinate with WC doctors)
- The WC agent may be a barrier to successful change. It is difficult to assure that prevention messaging actually gets to the decision makers for a business when an agent acts as the go-between.
- Insurance agents have 2 primary interests – don't lose the relationship with clients, and financial interest from commission through insurer
- Lauren Mayfield, SCIF, CA: "We can disseminate" information & materials

## Quick Takes – Getting a Big Bang Out of Your WC Bucks

- Meredith Towle presented WY's Safety Fund which is a \$500K fund that can be used by employers to develop health and safety interventions. The most common industries using the money are construction, manufacturing, and healthcare. Meredith gave an example of a construction company using fund money to purchase a trailer which they use for safety training. Injury rates in WY went from 14.0 before the fund was made available to 8.7 after the fund was implemented. Employers have responded favorably to the fund and all of the money is used each year.
- Rebecca Jackson talked about using workers' compensation data to do occupational health research. Workers' compensation data contains information we can use such as ICD9, occupation and industry of worker, lost work time, part of body injured, and nature of injury. In California the workers' compensation is an electronic system that undergoes 4.4 million transactions each year. Every state has workers' compensation and the data can be useful for public health research.
- Christine Dobson presented on using California workers' compensation data to track work related amputations and hospitalizations. Christine wrote a case definition to extract cases from the dataset and looked at data from 2010-2013. The overall number of cases declined during the study period, the fatality rate has not changed, and injury rates are 3 to 4 times higher for men. Data quality and completeness are both issues.
- Dr. Buttke used her Quick Takes presentation to pose a question to the audience about how to better engage law enforcement for preventing zoonotic diseases, and received helpful suggestions. This might be a good strategy for Quick Takes presenters.
- All presenters agreed that improving NAICS coding is crucial for WC-based surveillance.

## Friday September 18<sup>th</sup>

### Teamwork in the West

- Steve Whitaker & Steve Ahrenholz. Partnership between Health Hazard Evaluation Program & King County Local Hazardous Waste Program was successful on dry cleaning shop evaluation. Need for a more holistic view of exposures in dry cleaning.
  - o LHWMP – funding from fees from residential utility bills & business haz waste disposal fees. Multijurisdictional.
- OSHA programs typically don't have jurisdiction over dry cleaners because there are no employees. Issues with dry cleaning businesses include limited English skills among owners
- 85% of cleaners in state are Korean, 20% report using alternative solvents which we knew little to nothing about. The newest is SolvenK4. Employees were complaining about the smell.
- HHE objectives – assess occ exposures, workplace conditions & practices, routes of exposure, ID how to reduce exposures. No sampling or analytic method existed for SolvenK4, no estimated limits.
- Languages spoken in the shops included Korean, Cantonese, Spanish. SolvenK4 is a suite of products to use in different ways, no PPE was used.

- Maybe SolvenK4 isn't as bad as a dry cleaning product. Also dry cleaning machines are expensive.
- Recommended PPE.
- Michael Kosnett: Do REACH/TSCA offer any opportunities to access toxicological data?
  - o Nope. The product is 'not hazardous' under REACH, but it's unclear whether there is actually data to make that assertion. Company may just be "creative."
- David Valiente: Could shops be using other acidic materials interact?
  - o HHE included extensive chemical analyses of all the products offered with Solvon4K
- Matthew Roach - Arizona's occupational health indicators project was built from the ground up by someone who is interested in climate change and approaches it through that lens. Arizona has a lot of diverse climate zones. Participation in WestON has allowed him to connect with researchers at University of Arizona.
- Has run into some barriers (e.g. Lack of demographic data from poison center data, workers migrate and face documentation challenges, workers comp data from private company created access issues, used hospital discharge data.)
- Formed lots of strong partnerships, and director of health department disseminated OHI report through blog.
- Extreme heat is a big concern in Arizona. Included claim cost data in report. E.g., \$23K median claim cost for inpatient admission for work-related heat illness. YouTube video has been promoted by farm bureau and others.
- How can OHI's be actionable? WC data as motivation - dollars could show how preventive action can save money.
- Big diagnoses: cardiac, psych, back injuries. Thinking about primary vs. secondary diagnoses. Coding probably doesn't capture cardiac impacts of heat related illness. Hospital discharge database was missing ind/occ coding.
- David Valiente: is the new occ health program a strategy to counter (for example) AZ's attempt to pass a less protective fall protection standard? Maybe could prevent poor standards from passing. Showing data could be first step.
- What types of occupations are in Arizona? Business, hospital/health care
- Ihsan: how do you tease apart occupational heat deaths from recreational? - It's tough. A lot of heat related deaths occur indoors. Working to improve the approach.
  
- Steve Reynolds & Dave Douphrate - Dairy owners are still mainly small businesses who have been in the dairy business for a long time. Deaths in dairy are an issue (47 nationwide last year), MSDs in workers from physically burdensome work – high loads, repetitive, awkward postures.
- They are big operations, sometimes up to 100K cattle. Seeing global trend toward huge dairies (eg 2000-50000 cows or even >100K); more demand globally for protein. This shifts everything in the workplace - demographics, design, mechanization, robots, (some changes are good, some aren't). There is still high turnover in the dairy business because it is hard work.
- 51% of dairy workers are immigrants; most are young men from Mexico/Central America (isolated from families); haven't worked with animals before (susceptible to injury and infectious diseases).

Employers are still primarily family operations and owners are going from small to large, managing cows to managing people and they don't have the skills.

- Research challenges include language issues, dairies are sometimes located remotely, and dairies operate 24 hours a day.
- Steve's approach: LISTEN to stakeholders and RESPOND to needs and concerns with sound and relevant research and outreach. This is a story about relationships and key people.
- Steve was approached by two CSU animal science professors to improve employee retention in dairy and neighbor/CAFO relationships to great effect. Dairy work seen as stepping stone to other work, like construction.
- International Dairy Research Consortium is continually growing.
- Focus is mostly on interventions now. New milking robots are being built, and they have an opportunity to partner to build ergo robots. Milking station design
- Susan Harwood Grant safety training with mobile technology (no need for internet access)
- Speaking at dairy producer conferences about OSH (testament to partnership building because once viewed as outsiders who were not trusted)
- Progressive Dairyman monthly article to get the word out
- Working across ag centers, state extensions, equipment manufacturers, dairies
- You gotta get your boots dirty!
- Partnerships are key to what we do with producers, partnership and trust building, allows us to address farmers' real needs.
- Charlotte's suggestion: social network analysis to track partnership growth and dissemination.
- How do you evaluate interventions? It depends on the level: administrative, tasks, host factors (fatigue?), etc.
- Bob Harrison's question: what is the workforce like?
  - o HICAHS hired a medical anthropologist to live on farms to explore divide between owners and workers. Complex – 32 Guatemalan dialects
  - o They're not migrants but they often transition into construction
  - o \$14/hr on average
  - o ~20% turnover
- Owners think the immigration system is broken, starting to bring in teenagers
- Some owners are working to help workers settle in to US, reduce isolation.

#### Quick Takes – The Young and the Listless

- Dan Cain presented O[yes] which is an all-volunteer non-profit organization trying to help young workers in Oregon. Described what young workers in Oregon do, and they have an awesome video contest every year. Coalition became a non-profit to secure stable funding, gave them the ability to apply for grants.
- Janessa Graves talked about the WA Health Youth Survey (like YBRFSS). Adolescents who work smoke more pot. Is this because they need jobs to buy pot or because they have more money to buy it after they have a job? They also report lower quality of life and less sleep. Exposure to

adults and adult behavior at work may influence these trends among the youth. QOL was measured with the validated Youth QOL survey scale.

- Ken Scott presented on physical inactivity. Occupational physical inactivity research has a LONG history – going back to Jerry Morris and bus drivers in England where it was found that drivers have more cardiovascular disease than conductors who were more active. In a pilot study, 33 healthcare workers were given fitbits to track their physical activity. Found that people want to walk more at work, mostly by taking more walks, but they just don't get around to it. Occupational Physical Activity (OPA) should be measured. Fitbits can be used to explore the concept even though there may be accelerometer measurement issues.

#### Quick Takes – New from NIOSH

- Liz Dalsey is engaging American Indian and Alaskan Natives through AI/AN Partnership Workshop that took place in Aug 2015 with M&P ERC.
- NIOSH launched AI/AN Worker safety and health initiative Population accounts for .08% of workforce; there is limited OSH research and organization for AI/AN. Employers are mostly tribal employers.
- Challenges were identified, but also a positive experience & ideas emerged for addressing challenges. Next: further build network, develop steering committee, conduct site visits – asking for people interested.
- Question– For the Navajo tribe, what is the major occupational health issue in NM or other places? What's the plan in trying to take care of that issue?
  - o The Navajo are pretty advanced, they have a Navajo Nation Occupational Safety and Health Administration (NNOSHA). One area is indoor air quality and mold. They also have a tribal epi center.
- Sophie Ridl - OSHA is like Batman. The STEPs network – safety & health network for oil & gas industry has members from OSHA and NIOSH. Oil Tank Hazard Alert was produced and reached 100,000 individuals. 7 deaths in 2014 from hydrocarbon vapors & gases. None identified in 2015.
- Question – clear that it was important to have industry connection. What is penetration into industry based on STEPS? Sophie – They have a lot of different members; drilling contract association, contract management groups. Benefit was that all those organizations have email listserves. OSHA and NIOSH otherwise wouldn't have the reach.
- Josh Scott - There is a new searchable PPE database (NIOSH Products and Standards Database) that includes information for Ebola responders. Help connect Ebola response health care workers to relevant PPE
  - o Any info for radiation? - Yes, hoping to expand database for all PP technologies, right now just wearable equipment.
  - o Any plans to teach users how to put on and take off PPE? Especially with Ebola where infections happened in that process. Standards on using equipment as well using equipment.

- Josh - We are linking to those recommendations, but not providing it in the database itself.

#### Wrap-up discussion:

- Challenges remain in participation from several western states. Largest attendance this year.
- Was this the right mix of Quick Takes and longer presentations?
- Bob asked people to share the connections they made while here.
  - Ihsan – re: environmental issues in NV – draw on UC Berkeley’s expertise (with Charlotte). “WestON growing like an embryo, to a baby, to a body builder.” AZ OHI as an example – has become a resource for everyone.
  - WestON presentations are an occupational safety and health “library” that should be made accessible to people now entering the public health workforce.
- Meredith - Popular media should be seen as a partner, and occupational health needs to get better at disseminating messages. This group all takes the work really seriously, but not ourselves.
- Beki – everyone is getting better; only time it keeps getting better. A lot of talk about how we’re getting messages out there which is different, newer, and from a lot of different people. WC, Oregon. Coming here makes me happy.
- NM DPH rep – Liz & Yvonne for making my day. Conversation about AI/AN program. Started feeling better. References to back up program plans in grant writing.
- Max Kiefer – WestON objective was to get OSH as core component of public health. Successful. Hearing about so many projects. Climate change and American Indians.
- Steve Inserra – 30 related OSH surveillance grants. 8 grantees at WestON.
- Sophie – appreciated having WC folks here – how to capture small guys & bring into fold. Will take to NORA sector.
- David Valiante – OSHA standards coming out. In doing work – comments & responding & arguments, started seeing value of all the work, using all of it. Makes our job easier and fun.
- Lily – seeing the evolution of new upcoming leaders in field. Unique opportunity for new professionals – thanks for giving us the opportunity. Light & humorous. TWH – new and scary for all of us, exciting to see conversation continue. QuickTakes – highlight of conference.
- Liz – AI/AN initiative – great opportunities to connect.
- Karen Mulloy – in our government or state or academic centers – we’re all in silos. To have all of us together, percolates new ideas to put into various institutions.
- Ihsan – appreciate work of planning committee; transfusion of knowledge in a day and a half. Most cost-effective and efficient.
- Yvonne – when first came up with WestON – 1st year or two, would talk about at CSTE meetings with skepticism. Now almost need to start turning people away. It’s been fun.