ASSP RESEARCH PROGRAM

Advancing the OSH Practitioner Workshop

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PURPOSE OF THE WORKSHOP

ASSP is committed to expanding our efforts to advance OSH research to help fill the gaps in our body of knowledge, bring cutting-edge research to the forefront of decision making, and bring evidence-based practices into day-to-day operations.

Toward those ends, on November 1, 2017, ASSP held a workshop bringing together key stakeholders from business, professional organizations, academia and government to test and validate the ASSP research-to-practice agenda, create national alliances to sponsor and advance evidence-based practices, and coordinate resources to produce the research needed to make businesses more successful in preventing and reducing workplace injuries and illnesses.

WORKSHOP OVERVIEW

The workshop consisted of a series of presentations and several breakout group sessions.

PRESENTATIONS:

- *State of OSH research and the ASSP research agenda*
  Joel Haight (Associate Professor and Director of the Safety Engineering Program, the University of Pittsburg)

- *OSH research in Europe*
  Mary Ogungbeje (Research and Development Coordinator, IOSH)

- *Health and Safety Management System Effectiveness Measurement*
  Joel Haight (Associate Professor and Director of the Safety Engineering Program, the University of Pittsburg)

- *Occupational Safety and Health Interventions*
  Michael Belcher (DS Services, Vice-President, Risk & Safety)

- *More Effective Integration of Health and Wellness into Occupational Safety*
  Jim Ramsay (Professor of Security Studies, University of New Hampshire)

- *OSH research in the U.S.*
  Dawn Castillo (Director of Safety Research, NIOSH)

- *Research methodologies and building blocks of research*
  John Rabovsky (Managing Director of Technical Services, Liberty Mutual)

- *ASSP member survey*
  Information was shared regarding an ASSP member survey that identified topics practitioners would prioritize for more research, but also showed they're often not aware of existing research on these high-priority topics.

BREAKOUT SESSIONS:

Breakout groups were provided with 6 questions designed to facilitate highly interactive, critical discussions and shared learnings within tables and within the larger group.

GOALS:

- Identify gaps in knowledge (focusing on practitioner needs)
- Share existing knowledge (solving for dissemination issues)
- Start building collaborative and sustainable effort with an emphasis on solving for above two issues

ATTENDEES:

The workshop included 45 registered participants, with approximately half from industry and the rest a mix of academia, government, and NGOs. Participants represented:

- The insurance, construction, oil & gas, manufacturing, transportation, healthcare, and technology industries.
- Agencies/not-for-profits, including CPWR, OSHA, NIOSH, IOSH, NSC, AIHA, and BCSP.
- Universities, including University of Pittsburgh, University of Alabama-Birmingham, University of New Brunswick, Arizona State University, and Oakland University.

OUTCOMES – BREAKOUT GROUP FEEDBACK

BREAKOUT Q1: *Did anything about the state of OSH research surprise you?*

Themes:

Among the major themes on comments reported back was surprise at the number of organizations conducting or sponsoring OSH research, the lack of coordination or collaboration on OSH research efforts, and the lack of an effective means to distribute the research to practitioners.

Comments:

- Extent and number of European Union organizations doing OSH research and level of collaboration among them, especially compared to the United States
- Lack of a data clearinghouse in the US for searching existing OSH research
- Lots of OSH research being conducted or data being gathered, but it is not easily accessible to practitioners
- Distribution of OSH research across groups or geographic boundaries is limited
- Lack of willingness to share OSH data due to liability/bad PR concerns
- Lack of collaboration among organizations performing OSH research
- Number of organizations conducting OSH research
- Lack of "big" OSH research projects relevant to OSH practitioners
- Lack of OSH research focusing on small or medium sized businesses
- The extent of the European OSH community's involvement in health, particularly mental health and stress

MOST/LEAST CRITICAL

Themes:

Tables were split evenly in terms of which was the most important. Quality of safety interventions and Total Worker Health could each be seen as a component of OSHMS effectiveness. There should also be considerations for variations in organizational size. Smaller organizations may be solely focused on interventions before graduating to OSHMS and TWH may be more applicable to large corporation.

Comments:

- Identifying the metrics for evaluating the effectiveness of OSHMS is key, for example how indirect costs are measured and factored into the evaluation
- Need to better understand how to effectively tailor OSHMS for organizations
- TWH is an important part of interventions
- TWH will only be on the radar of fairly large corporations that actually see their employees as valuable human capital.
- Small employers are focused on intervention, rather than larger safety management systems
- All are intertwined and cannot be reasonably separated
- TWH needs a business case, more than touchy feely
- Interplay between safety/wellness/lifestyle obvious but getting employers to manage at work hard enough, at home much harder. And what about HR/safety ownership? What should the organization blueprint look like in terms of integrating TWH?
- TWH should include mindfulness, stress 50/40/10
- TWH/mindfulness needs more robust and longitudinal research

MISSING

Themes:

Recommended topic areas to consider for the research agenda included the impact of technology on the workplace, the role of the OSH professional in psycho/social and other health-related issues, the integration of OSH with other management systems or operations, better understanding of risks, and improvement of human behavior.

Comments:

- Human-technology interface
- Lack of safety interventions/tools developed from research
- Better understanding of risk management/risk to tolerance
- Human behavior improvement
- The OSH professional's role in psycho/social issues in the workplace
- Better understanding of integration of OSH (improving synergy, collaboration, communication)
- Impact of the provision of primary healthcare on location on OSH outcomes
- Worker population/industrial surveys to identify risks
- Case studies within mining / energy
- Occupational health screening
- Fatality database-lessons learned

- Translation of OSH into organizational performance
- Connection between OSH and organizational resilience
- Risk Prioritization
- Quality of incident investigations
- Identifying leading indicators
- Safety and health permeates every part of organization; need to reimagine and redefine what safety profession is
- The perspective of the worker, who may see corporate efforts toward mindfulness and situational awareness as a "blaming the worker" approach to safety and too close to the behavioral safety approach (especially in high risk industries like construction)

BREAKOUT Q3: *Which of ASSP's top three research priorities connects best with your corporate OSH needs/could potentially impact your business? Which of ASSP's top three research priorities would have the greatest impact on the OSH profession? The least?*

Themes:

The OSH management systems topic was listed as most important for corporate OSH needs. The effectiveness of safety interventions was named as the topic most important to the profession.

Comments:

- Data that shows connection between OSH performance and business performance
- Increasing quality of safety interventions improves OSH outcomes and company performance
- Depends on the size and maturity of the organization

BREAKOUT Q4: *Have you participated in or seen examples of any of these types of research that proved particularly useful or helpful?*

Themes: Case studies, surveys, and real-world assessments were cited as the most useful research.

Comments:

- Lean six sigma statistical research
- Qualitative research methodologies
- Case studies/compendium of case studies organized by topic
- Case studies have had a narrow focus regarding benefits, not broad applications
- Behavior based safety research
- Industry benchmarking
- Internal Surveys
- Safety Alerts
- Minerva (Canada) case study aggregation, public data
- Minute Surveys-NAEM/ORC
- Insurance Carrier Surveys, Zurich
- Control vs. experimental
- Literature synthesis and using weight of evidence approach
- Lab to field to prove causality
- Safety climate/survey/evaluation/assessments
- Swing falls-NIOSH-Z359
- Shiftwork-practices
- Face program-evaluations/lessons (Z117)
- Liberty mutual ROI studies-to invest in OSH
- Success stories

BREAKOUT Q5: *Had you heard of those research examples? If yes, how did you hear? If not, how might the OSH community better share these kinds of learnings? What are your main sources now for keeping up with OSH Research?*

HOW TO SHARE

Themes:

A searchable database, dedicated updates at conferences or journals, and via social media were the suggested ways to share information.

Comments:

- Add research to ASSP's weekly email or society update
- Body of knowledge or another repository database searchable by topic
- Via short videos
- Social media
- INSHPO
- Research tracks at conference
- Dedicated section in PSJ or special edition
- JSHER
- Forum for colleagues to share information
- Brief research summaries citing key takeaways
- YouTube

MAIN SOURCES OF RESEARCH

Themes:

Relevant websites, professional journals, and conferences were the main sources of research identified.

Comments:

- Industry periodicals (like professional safety)
- Internet search
- References in articles
- NIOSH and CDC websites
- Campbell institute
- IOSH
- OSH conferences
- Industry associations
- ASSPF Research reports
- Google Scholar
- Research databases (e.g. pub med)
- Word of mouth
- Blogs
- Peer to peer networking
- Trade journals
- BLS
- OSHA website and publications
- ELCOSH
- OSHA
- Consensus standards
- Social media sites such as LinkedIn
- Wikipedia
- University publications and websites
- Literature reviews

BREAKOUT Q6: *Do you have any ideas or proposals for using any of these methodologies to begin solving for some of the bigger research questions we've discussed?*

Themes:

More cooperation and coordination of research efforts, additional training for OSH professionals on the availability and use of research, and developing a tool/clearinghouse to facilitate greater access to research were the major themes.

Comments:

- Searchable clearinghouse
- Greater involvement with NIOSH and its research agenda
- More collaboration across organizations
- Organizing research agenda items to foster collaboration
- More competency around research and use of research
- Dissemination to small and mid-size employers
- Proactive repository for information
- Regular events focusing on research skills for practitioners
- Solve communication gaps
- Connect the silos of info databases
- Something like AM Best in insurance industry
- Increase collaboration to identify and fund gaps
- Meta-analysis
- Identify university partners and challenge them to conduct research
- Bring back research as a track at the PDC

WORKSHOP WRAP UP: *What were the top takeaways from the workshop?*

Themes:

The need to develop and share more practical research and related tools and improve communications among researchers and between researchers and practitioners were the top takeaways.

Comments:

- Needs a repository for OSH research
- Research must be more applicable and user friendly to practitioners
- Enhance communication between OSH community and the research community
- Overall OSH community needs to become better at keeping up with research
- Lot of work to do to connect all these elements cohesively
- OSH professionals really do value research they can use
- Recognition that "we can do better" and that research can help
- Way to track current research to avoid duplication
- Need a comprehensive literature review of the 3 research initiatives
- There are groups of companies harnessing the power of aggregated data
- Need to proactively share research ideas with employer groups
- Lots of research is relevant to safety but not driven by safety
- Even a relatively niche area has a lot of potential research topics
- Need more guidance, practical tools, case studies

Themes:

- Identify how industry, academia, government and NGOs can collaborate moving forward.
    - Liberty Mutual/other insurance companies, CPWR, google, UPS and NIOSH are contacts that we should develop a deeper relationship if we want to be a real player/participant in the OSH research space.
- Form a leadership or sub-group of the workshop participants to:
    - Discuss how to build collaborations with other organizations (IOSH, health groups, industry, foundations, etc) to fund research directions that were confirmed in this meeting (total worker health, safety interventions and SMSs….)
    - Determine one specific problem the coalition needs to focus on/solve
    - Use existing resources to determine existing research and how to present it to practitioners for wider use; for example, starting with Liberty Mutual's Workplace Safety Index.

Comments:

- It was clear that many of these major players in safety research (including me) weren't aware of all the resources that others in the group had developed. Some way to increase networking and resource sharing among the participants seem like a critical first step. Facilitating communication among the group would help.
    - To have a comprehensive discussion as to how to create a repository of scholarship, evidence and tools that serves the membership, and which does not duplicate NIOSH's new "research reports" which translates research into lay terms, as well as small to mid-level businesses who do not have full time OSH practitioners on staff.
    - Develop a way to very easily share the various research that was discussed. Perhaps it is a subsection of the ASSP website for members only in the short term. We will need to be aware that depending on industry or cause there could be several vantage points of how/why/when/what to share. Perhaps using an objective pure data source such as the LMI Workplace Safety Index could be a start.
- Keep in mind how this effort will be folded into the new Council on Academic Affairs and Research… and how it will be integrated with the existing structure and timeline of ASSPF (worthy notes: it'll be critical to begin developing relationships with non-ASSP folks at this point).
- Perhaps establish a way to test using the newly discovered research information on a broader way with the various organizations who attended the meeting. Let's see how applicable some of the research is in real life and what other ideas using that research more as a coalition effort might have on the greater good.
- Expand the ASSP research agenda by identifying specific areas of study using the feedback from the workshop.
- ASSP digests the information obtained from the group work, suggests a go forward strategy, and reconvenes the group to finalize.
- Solicit volunteers to work on each topic area and possibly convene again to discuss efforts towards those goals/needs.
- ASSP review the comments, etc. and put together what research will be proposed to advance the OSH practitioner, and provide that everyone for comment on.

- Bringing in a group this large is an expensive and time-consuming proposition, although an essential first step. Going forward a very focused, electronic Delphi process would be a better approach. The questions should drill down into the 3 broad areas we tackled at the meeting.
  - The UC Center for Lab Safety have done a similar symposium in the past that has a great format with the goal of identifying specific questions that research is needed. Their next symposium will be hosted by Northwestern and I think that ASSP should look to participate in that.
- It would be interesting to hear everyone's thoughts on who we were missing, and we thought would have value to the workshop?
- Develop a web based platform available to ASSP members that tracks the relevant research in our three priority areas across the various relevant scientific communities, provides synopses/abstracts, links to full text when available, and access to resources to aid members who want to do their own research. Additional features such as chat room to share best practices in doing, a blog or newsletter, occasional webinars on select topics of interest could also be included. Possibly add a recurrent session at the annual conference; some sort of annual highlights/state of the research would add value and draw more attention to this resource.
- Increase research grant offerings. The real issue is NOT a shortage of research, or knowledge on research methods, but a gap between the research that is being done and knowledge of methods of doing research, and those that need to use this information to further the practice of safety.
- Do a Literature Review for each of the focus areas to determine what outstanding questions need to be researched.
- Utilize INSHPO and our relationships to explore global research opportunities.
- Start discussions with a professional grant "gatherer" to help gather money and the proper grants.
- Work closely with NIOSH on their research to practice (r2p) initiative. This may be a great opportunity for our academic forum to get actively engaged in this process?
- Leverage the workshop attendees to create a plan for the development of a repository for OSH research
- Tell ASSP members about these efforts
- Follow up meeting
- Educate researchers that research must be practical and keep end users in mind
- Get labor, researchers and business in same room
- ASSP should publicize information on where to find global OSH research
- In next 6 months publish 2 RFPs based on this meeting
- Survey ASSP members to assess how they use NIOSH research and research from other sources
- Make research results digitally accessible (free) repository
- Start with mapping what's out there
- Prioritize research
- Develop dissemination strategies
- Need to keep the collaborative effort going
- Need to develop a communication process to minimize duplication of research efforts
- Need training to assist practitioners in finding and utilizing relevant research
- I can't say that I agree with the three focus areas for OSH research.
  - OSH management systems... management systems are on the bottom of the hierarchy; every company will have its own style based on what works for them. OSH management systems are suitable for large organizations; I don't see how it can be effective in small to medium size organizations... that is where the injuries and fatalities occur, in small and medium companies. I would like to see the effort put into developing/cataloging safety interventions, demonstrating

the quality of safety interventions. The problem I see here is that you need a long-term study (10 years) after an intervention has been implemented to see if it really works. Most of the time, I think, it can be reasonably concluded, for example, NIOSH came out with a new process for putting down asphalt so that workers are not exposed to noxious fumes (or at least not as much). You can see from the before and after pictures that the fumes are greatly reduced. It can be reasonably concluded that this intervention works. We don't need to do a follow up study which could take years. NIOSH face reports. OSHA tip sheets, NIOSH research, etc. provide a lot of safety interventions. Maybe go through those, catalog the one that it can be reasonably concluded will work (like the paving example).

- o Better understanding of overall worker wellness.... I guess I don't see where the line is between TWH and "healthcare". It is a good thing that workers are "well". But wellness as a return on investment or used to measure safety I don't see. I asked that of someone in our group. They said if employees are well, there is less sick time, etc. so, employers save money, improves the company bottom line. I asked, "well what about incident rates?" the response I got was if the company saves money at the end of the year. Someone else in the group said a lot more people die of heart disease than machine accidents, so if you can prevent heart disease.... you save more lives. I don't have a problem will making "wellness pamphlets" available or having "wellness talks" at lunch, but I don't think you need research for that.

- o That gets into the area of "healthcare". (this was one of the reasons I found the break out groups frustrating) In my experience.... injuries and fatalities occur because that foreman, supervisor, or worker doesn't have safety interventions in place. Doesn't know what to do, even when there is supposedly a good safety management system in place.

- o I would like to see ASSP put together a compendium of safety interventions, like Mike presented in the morning... there are a lot already out there NIOSH face reports, OSHA, etc. and try and figure out how to get them to foreman, workers, supervisors, the people on the floor. I think that would go a longer way to reducing injuries and fatalities than research into management systems and TWH, but that is just my opinion. State of Massachusetts was able to get fall protection info out to small contractors, and did a very good job, by providing pamphlets with building inspection.... when a contractor went to get a permit. He was given a pamphlet. Perhaps the compendium of safety interventions could be disseminated through insurance companies I would like ASSP to concentrate research efforts in areas more like... the aging workforce... fatigue. Current safety topics. I am coming from this as a practitioner, not a researcher.