

**Southeast Mine H&S Conference**  
**NIOSH Preconference Workshop November 1, 2022**

***Research to Practice Health Interventions, Technologies, and Trainings***

TOPIC	DISCUSSION POINTS	PRESENTERS	TIME
<b>Introduction</b>	Introduction of presenters and attendees	All	8:00–8:30 am
<b>Proactive prevention of musculoskeletal disorders, slips, trips, and falls in mining</b>	This session will discuss: <ul style="list-style-type: none"> <li>• Musculoskeletal disorders (MSDs) and risk factors associated with them</li> <li>• NIOSH tools that are available to help mine workers identify and reduce risk factors for MSDs</li> <li>• Slip, trip, and fall (STF) hazards commonly found at surface mines</li> <li>• Resources and tools NIOSH developed to identify and remediate STF hazards</li> <li>• Updates in manual material handling research</li> </ul>	Mahiyar Nasarwanji	8:30 am–9:45 am
<b>Break</b>			<b>9:45 – 10:00 am</b>
<b>Keeping cool: Protecting miners from heat-related illness</b>	This session will introduce: <ul style="list-style-type: none"> <li>• A module that includes guidance materials for instructor-led training around heat-related illness</li> <li>• A train-the-trainer segment will prepare participants to conduct training for workers who are potentially at risk</li> <li>• Training delivery tips and explain how to tailor materials to meet the needs of specific workers</li> </ul>	Brianna Eiter	10:00 – 11:15 am
<b>Lunch, open Q&amp;A</b>			<b>11:15 am–12:30 pm</b>
<b>Monitoring strategies for crystalline silica</b>	This session will discuss: <ul style="list-style-type: none"> <li>• Health effects of respirable crystalline silica/quartz</li> <li>• Exposure monitoring tools to identify and reduce sources of exposure, including emerging technologies being researched and developed at NIOSH</li> <li>• Example scenarios for using different types of monitoring technologies</li> </ul>	Lauren Chubb	12:30 – 1:30 pm
<b>Break</b>			<b>1:30 – 1:45 pm</b>
<b>Fatigue management: What we do and don't know</b>	This session will introduce: <ul style="list-style-type: none"> <li>• What we do and don't know about fatigue in mining</li> <li>• The development of mineworker fatigue toolkits</li> <li>• Tips to reduce fatigue prevalence in mining</li> <li>• Job-related activities that are associated with the incidence of fatigue and potential strategies to minimize the magnitude of fatigue</li> </ul>	Tim Bauerle	1:45 – 3:00 pm

<b>EXAMiner in the workplace to address health hazards</b>	This session will discuss: <ul style="list-style-type: none"> <li>• Updates to EXAMiner, a NIOSH-developed software tool that allows companies create hazard recognition materials</li> <li>• Health hazards and potential strategies to address mine worker health hazard recognition</li> </ul>	Brianna Eiter	3:00 – 4:00 pm
<b>Wrap-up</b>		<b>4:00 pm</b>	

### Presenter Bios

**Tim Bauerle, PhD** is a research behavioral scientist in the Spokane Mining Research Division (SMRD) with the National Institute for Occupational Safety and Health (NIOSH). He holds a doctorate in Industrial and Organizational Psychology from the University of Connecticut, with concentrations in Occupational Health Psychology and Quantitative Research Methodology. Currently he serves as the Principal Investigator of the “Rise and Mine” project, the goal of which is to develop resources that will better support the mining industry in effectively managing work-related fatigue risk.

**Lauren Chubb DrPH** Lauren Chubb is a Physical Scientist at the Pittsburgh Mining Research Division (PMRD) of the National Institute for Occupational Safety and Health (NIOSH) in Pittsburgh Pennsylvania. She has over 10 years of experience in the measurement and characterization of respirable dust. Since joining NIOSH in 2013, Lauren has worked on the development of a field-based method for monitoring respirable crystalline silica; she now leads a project to enhance the method, called Rapid Quartz Analysis. Throughout her career, Lauren has conducted both laboratory and field research, including helping industry partners in various mining sectors to implement Rapid Quartz Analysis at their own work sites. Lauren holds both MPH and DrPH degrees in Environment and Occupational Health and a BS in chemistry from the University of Pittsburgh.

**Brianna Eiter, Ph.D.** Dr. Eiter is a Cognitive Psychologist with the National Institute for Occupational Safety and Health (NIOSH) Spokane Mining Research Division (SMRD). In the eleven years that Brianna has worked at NIOSH, she has been involved in research projects focusing on hazard recognition and risk perception, informational needs of the underground coal miner, and fatigue risk management for small surface mines. Her recent work has involved creating VR work environments and developing training tools to address hazard recognition and risk assessment abilities. Brianna has 20 years of experience in her research area of expertise which is human cognition and the use of eye-tracking to measure human behavior. Brianna graduated with a Bachelor’s degree from Lehigh University and then went to Binghamton University where she earned both her Master’s and Doctoral degrees in Cognitive Psychology.

**Mahiyar Nasarwanji, Ph.D.** Mahiyar is a Senior Service Fellow in the Workplace Health Team at the National Institute for Occupational Safety and Health (NIOSH) Pittsburgh Mining Research Division (PMRD). Mahiyar has over 10 years of experience in human factors and ergonomics research and focusses on improving the work environment to make it safe and usable by all. In the past few years Mahiyar’s research has focused on the prevention of musculoskeletal disorders, slips, trips, and falls in mining. Mahiyar graduated with a Bachelor of Engineering degree in mechanical engineering from the University of Mumbai and then went to the University of Buffalo where he earned both his Master’s and Doctoral degrees in Industrial and Systems Engineering.