

NIOSH Miner Health Partnership Meeting

March 26, 2024



Agenda

- Greetings + introduction
- Update on opioids working group collaboration with MSHA
- Building a sustainable Miner Health Program
- Partnership focus areas: Results from Fall 2023
- Open Q&A



Webpage Updates

- New (free!) training available to download
 - [Keeping cool](#): Training to reduce heat stress incidents
- Suicide rates by industry and occupation
- NIOSH hearing loss prevention program for mining
- Occupational safety and health of women in mining
- Self-reported health conditions among male mine workers
- Hazardous silica exposures in metal and nonmetal mines
- Are fatigue and sleepiness the same?

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People™

The National Institute for Occupational Safety and Health (NIOSH)

CDC > NIOSH > Mining

NIOSH MINER HEALTH PROGRAM

Transforming research into practice to improve the health and well-being of miners

The Miner Health Program (MHP) exists to understand and improve the health and well-being of all mine workers through research, workplace interventions, evaluation, and community engagement. To support these goals and activities, the MHP aims to collaborate with the mining community (i.e., all individuals and groups contributing to mine worker well-being) to create a workplace that prioritizes worker longevity, physical and mental health, and a place where mine workers can thrive. [The MHP Strategic Agenda](#)

What's New

- [Suicide rates by industry and occupation \(MMWR\)](#)
- [NIOSH hearing loss prevention program for mining \(Seminars in Hearing Journal\)](#)
- [Occupational safety and health of women in mining \(Journal of Women's Health\)](#)
- [Self-reported health conditions among male mine workers \(American Journal of Industrial Medicine\)](#)
- [Hazardous silica exposures in metal and nonmetal mines \(NIOSH Science Blog\)](#)
- [Are fatigue and sleepiness the same? \(Mining, Metallurgy & Exploration\)](#)
- New (free) training available to download
 - [Keeping cool: Training to reduce heat stress incidents](#)
 - [Tech News report on free heat stress training](#)

Previous updates More NIOSH Mining news

Miner Health Partnership

- Partnership Charge
- Meeting Agendas and Presentations
- Meeting Summaries
- Opportunities to collaborate

Stay informed with the latest Miner Health updates

Get Email Updates

<https://www.cdc.gov/niosh/mining/content/minerhealth>



Opioids in the Workplace

An update on the working group collaboration with MSHA

Capt. Kristin Yeoman, MD, MPH

Update on Opioid Employer Guide

Kristin Yeoman, MD, MPH

Spokane Mining Research Division, NIOSH

Background

MSHA requested NIOSH collaboration in developing opioid prevention resources

NIOSH conducted working sessions with Miner Health Partnership to understand needs and challenges

Takeaways of opioid working sessions

Opioid misuse is likely underestimated in many mine sites

Opioid awareness training is rarely provided by employers

Occupational Safety & Health (OSH) managers need help in making the business case for opioid prevention

Managers are not aware of information sources that they can use to understand problems related to opioid use and mental health

Takeaways of opioid working sessions

Managers did not have specific processes for health prevention planning and implementation

Prevention programs and health-related policies were generally administered by different departments in “silos” and were not coordinated between departments

Development of employer guide for opioid prevention based on...

Feedback received during working sessions

Review of other opioid prevention guides (e.g., construction, non-profit and government organizations)

Workplace prevention research

Approach of guide

Evidence-based

Steps to
systematically
implement
strategies

Resources

Modular

Not one-size-fits-
all

Components of the guide



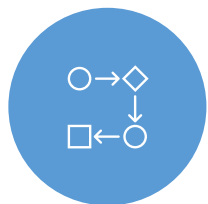
Burden of opioid use
on mine workers



Business case for
opioid prevention



Overview of
workplace prevention



Model to implement
prevention strategies



Components of an opioid
prevention program

The business case for workplace opioid prevention

Miners are prescribed opioids more often, at higher doses, and for longer durations than most other workers.

Miners have among the highest rates of illicit opioid use compared with other workers.

Mine Worker Fatalities

Incident



Suicide



Overdose



TOTAL COST: \$145,133



Lost Time

COST:

\$41,070



Job Turnover & Re-training

COST:

\$59,325

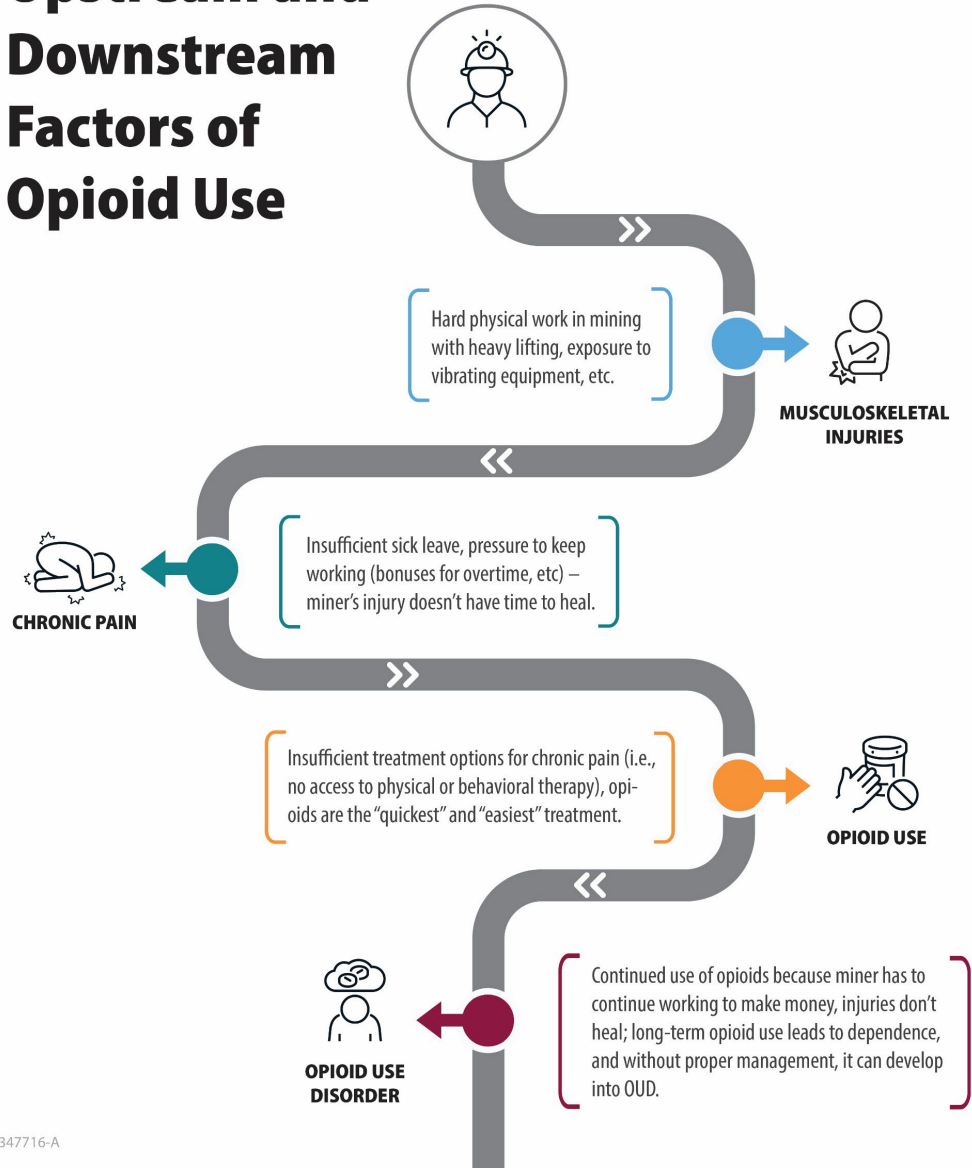


Health Care

COST:

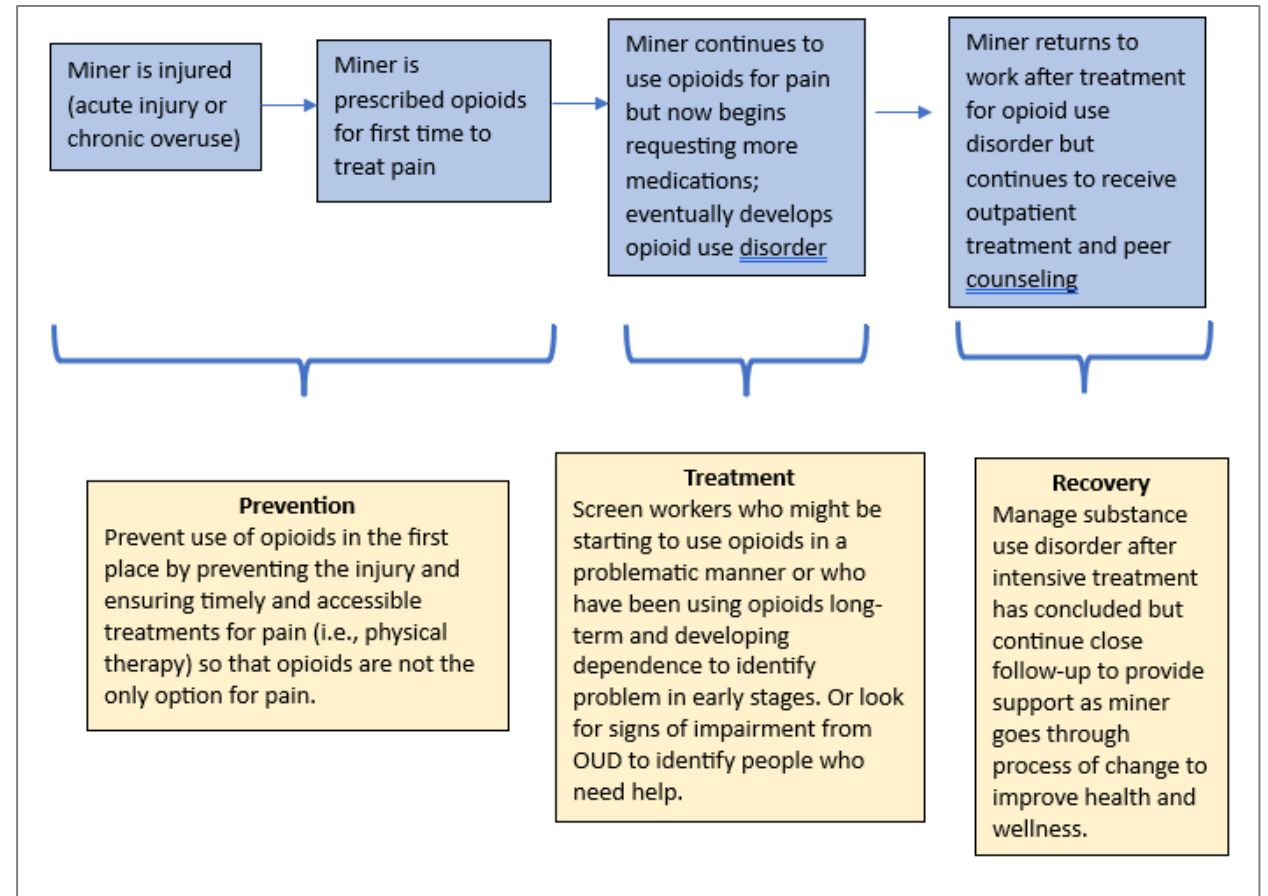
\$44,738

Upstream and Downstream Factors of Opioid Use



CS 347716-A

Workplace prevention is essential



Workplace Health Prevention Model

A systematic approach to program development

Workplace Health Prevention Model

1 ASSESSMENT

COLLECT DATA ACROSS LEVELS

- **EMPLOYEE**
(e.g., demographics, health risks, attitudes, health status)
- **ORGANIZATIONAL**
(e.g., culture, work design, current practices, leadership buy-in, service use, health costs)
- **COMMUNITY**
(e.g., health resources, potential partners, transportation, geography)

IDENTIFY RISKS THAT LEAD TO POOR HEALTH
To mitigate through prevention

IDENTIFY PREVENTION STRATEGIES
To strengthen existing policies and practices to improve worker health

4 EVALUATION

TRACK BASELINE DATA
Collected during assessment phase to assess trends

MONITOR MEASURES OF SUCCESS
(e.g., worker and organizational outcomes)

IMPROVE PREVENTION ACTIVITIES
Based on results and feedback

APPLY LESSONS LEARNED
In ongoing and future health prevention efforts

2 PLANNING & MANAGEMENT

ESTABLISH LEADERSHIP
Executive champions and empowered middle managers

ENGAGE WORKERS
As partners in identifying problems and solutions

COLLABORATE AND COORDINATE
To align strategies across functional departments (e.g., operations, safety and health, human resources)

DEVELOP HEALTH IMPROVEMENT PLAN
With goals, strategies, activities, capacity building for implementation, timeline, communications

DEDICATE RESOURCES
Including staffing, vendors, and materials

DEVELOP PARTNERSHIPS
With labor, local health providers, national organizations

DEFINE EVALUATION MEASURES
To determine whether goals are achieved

3 IMPLEMENTATION

COMMUNICATE GOALS, RATIONALE, & PROGRESS
Prepare and engage workforce for change

IMPLEMENT PLAN
(i.e., prevention policy, program, practice)

MONITOR PROGRESS & ADJUST
(e.g., identify challenges, collect participant feedback, track outcomes, make needed adjustments)



Components of an opioid prevention program

COMPONENTS OF COMPREHENSIVE WORKPLACE PREVENTION

Workplace
Health
Promotion



Injury
Prevention
Programs



Created by Liza Hancock
from Hour1 Project

Workplace
Policies



policy
Created by dDara

Employee
Education
and Training



Created by Max Hancock
from the Noon Project

Drug
Testing
Program



Created by Liza Hancock
from Hour1 Project

Medical,
Behavioral, &
Pharmacy
Coverage



Created by Dude Design

Employee
Assistance
Program



Created by Liza Hancock
from Hour1 Project

Peer
Programs



Created by Andrew Cramer
from Hour1 Project

Consistent presentation for each component

Background on importance and tips on improving or developing the component



Steps on how to get started, using the Workplace Health Prevention Model



Resources



An example strategy section: employee education

Employee Education and Training



Created by Max Hancock from the House Project

Importance of Employee Education

Education and training are important tools to ensure that all employees (employers, managers, supervisors, workers) have the knowledge and skills to identify and prevent health and safety concerns related to opioids. Training helps to get everyone on the same page and facilitate buy-in and commitment to solutions.

There are multiple goals for employee training on opioids including to:

- Identify and reduce risk factors for misuse and addiction.
- Decrease inappropriate use of opioids.
- Empower workers to get help for themselves.
- Recognize impairment and help needed for a co-worker.
- Respond appropriately to a potential overdose event.
- Reduce stigma through open discussion and increased knowledge.



Be strategic and intentional in the design and delivery of training. Maximize the benefits of training by using the following [Apply the principles of adult education to maximize the benefits of training.](#)

Clearly communicate why the training is important and relevant. Sharing personal stories is very helpful in engaging workers about opioid addiction, overdose, and suicide. Peers who are willing to share their stories are very effective champions of opioid prevention efforts.

Incorporate visual, auditory, and hands-on elements to cater to different learning styles. Whenever possible, promote interactive, small-group discussions and active problem solving and minimize lecture. Active learning strategies promote positive attitudes and behavior change and reduce stigma.

Tailor training to workers' roles and responsibilities. Workers with safety sensitive jobs may need additional training. Supervisors and managers need additional training to support their leadership responsibilities.

Provide training to managers and supervisors before workers. If supervisors aren't committed to the need and value of prevention or aren't adequately prepared to provide leadership and support, your educational efforts may fail.

Employee education workplace health prevention model

How to Get Started

Using the Workplace Prevention Model to guide planning and implementation of employee education, the following sections illustrate steps employers can take during each of the model's four phases.

1 ASSESSMENT

Ask workers about their perspectives

Consider conducting site visit discussions, focus groups, or surveys with workers to understand their perspectives on opioids. For example, ask workers for feedback on workplace stressors, challenges, and perceived risks of opioid use. Ask workers to identify barriers to opioid prevention goals (e.g., using non-opioid pain management). Make sure to use this information to tailor training to your workforce needs.

Identify gaps in addressing educational needs

Document what training is currently provided for each group of employees (e.g., mine workers, supervisors, managers) and when the training occurs.

Anticipate challenges upfront

Define challenges providing training such as limited resources, less than optimal management support, competing priorities for worker time, and worker distrust. Be sure to consider creative solutions to these challenges and engage these solutions in planning and prior to implementation.

2 PLANNING & MANAGEMENT

Define goals, objectives, and timeline for training

Plan to repeat training regularly to reinforce and update workers' knowledge. Do not depend on a one-and-done approach to training. Workers usually do not retain much content from new hire training. Make sure training raises awareness about opioid risk factors and workplace policies and procedures.

Use a variety of instructional methods and formats

Maximize group discussion to promote learning. Consider providing a comprehensive training to larger groups and then following up to reinforce key messages using toolbox talks, EAP presentations, posters in breakrooms, virtual content, and wallet cards.

Select relevant training materials and personnel

Select relevant training materials and personnel

Review and identify educational materials for mine workers and supervisors. Adapt training materials, posters, and fact sheets from other organizations as needed. Consider what personnel are best positioned to support training (e.g., obtain training approvals, adapt materials, conduct training) and in partners (e.g., labor, health and benefit providers) can deliver training or reinforcing health messages.

Reinforce key messages within a training and over time

Repeat key messages using a variety of formats, across settings, and delivered by different messengers. Adults retain more information when messages are repeated and personalized.

Build capacity among trainers

Ensure trainers receive the education and resources they need to feel comfortable. Make sure trainers are instructed on incorporating small group discussions within their training programs.

3 IMPLEMENTATION

Collect employee feedback in real-time to support improvements

Collect feedback from attendees at the end of the training using a variety of strategies (e.g., anonymous surveys, email, observation). Assess what went well and what can be improved. Make suggestions to facilitate worker engagement and active participation.

Share training progress often

Build support and buy-in by communicating progress, feedback, and related training improvements with management and workers at a regular time interval (i.e., quarterly).

4 EVALUATION

Evaluate impacts of training

Establish measures of success during the planning phase, including qualitative and quantitative data. For example:

- Document the numbers of trainings provided and employees who attended.
- Use brief post-training surveys to assess worker knowledge, attitudes, and satisfaction.
- Use periodic employee surveys to examine changes in attitudes and workplace culture.

Employee Education *resources*

Resources for Employee Education

LEADERSHIP & SUPERVISOR TRAINING

[Impairment Recognition and Response Training for Supervisors](#), National Safety Council
This is a one-hour eLearning course designed to prepare supervisors to recognize and address impairment in the workplace and support worker safety and well-being.

[Opioids & the Workplace: Leadership Training](#), NIEHS, Worker Training Program
This course is intended for leaders from organizations who have influence on organizational policy, procedures, and culture. The course focuses on identifying gaps and opportunities for system improvements at the organizational level to prevent and respond to opioid misuse.

FACT SHEETS & TIP CARDS

[Injured on the Job or at Home? Ask Your Health Care Provider These Questions Before Accepting Opioids](#), NIEHS Worker Training Program

[Preventing an Opioid Overdose: Know the Signs. Save a Life](#), Tip Card, Centers for Disease Control and Prevention

[Conversation Starters: If You Are Prescribed Opioids](#), Centers for Disease Control and Prevention
[Conversation Starters: If You Have Chronic Pain](#), Centers for Disease Control and Prevention

TOOLBOX TALKS

[Contractor Resources](#), Associated General Contractors of America (AGC)
Includes toolbox talks, podcast, videos, practice guides, and others. The [12-pack of toolbox talks](#) spans a variety of topics including mental health, reducing stigma, stress, how to get help, opioids and other pain killers, suicide awareness, and feeling fatigued, among others.

WORKER EDUCATION

[Opioid Hazard Awareness for Stone, Sand and Gravel Miners MSHA Refresher Training](#), Center for the Promotion of Health in the New England Workplace (CPH-NEW)
This 45-minute training was designed for sand and gravel workers and meets the requirements of the health section of MSHA's Part 46 Health and Safety Refresher Training. This module is also available as a fully narrated, video training.

[Opioid Awareness Training Program](#), The Center for Construction Research and Training
This one-hour training is designed to promote awareness of risks, support workplace prevention, and promote help seeking. The module is intended for experienced instructors and includes presentation slides, a facilitator's guide, and a participant handout.

Additional information



Recovery Ready
Workplace Programs



Naloxone



Legal
considerations

Next steps and future plans

Current review and drafting by MSHA

NIOSH formal review

Hope to publish ~
September 2024

Future evaluation research
make improvements



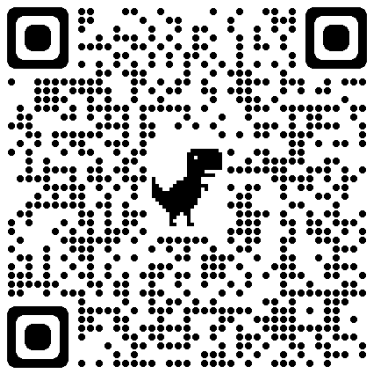
Questions?

A photograph of two miners in a coal mine. They are wearing white hard hats and orange safety vests over grey work clothes. They are standing in the foreground, looking towards a large yellow mining machine in the background. The woman on the left is pointing towards the machine. The background is filled with dark coal and the complex structure of the mining equipment.

Building a Sustainable Miner Health Program

~Jerry Poplin

Creating a sustainable program



From the MHP strategic agenda

To be successful, the Miner Health Program cannot be solely dependent on any singular function, individual, or group.

Sustainability is dependent on identifying and enabling multiple leaders from each community group, across functions, to fully engage and inform the work we do.

There is a need to foster leadership from both our internal and external partners.

Communications & Engagement



Increasing value of communications

- Virtual meeting twice a year–Spring/Fall virtual meet
 - 3rd week of March and October
 - *Partnership-driven*
- 1-2 email touchpoints (not a newsletter) during the year
- Potential webinar or lunch & learn highlighting NIOSH health research

Partner-led examples from first 4 meetings

Laurentian University
Presentation on Mental
Health and Wellbeing
Among Canadian Miners

Opioid Hazard Prevention in
Stone, Sand, and Gravel
Sector

Hecla Suicide
Awareness/Prevention
Campaign

Mental Health among US
Coal Miners

MSHA's Miner Health
Matters Initiative

Updates from Total Worker
Health®

Facilitated Discussion on
Partners' Greatest
Challenges in Behavioral
Health and Psychosocial
Risk Factors

Developing a methodology
for strategic standardization
of mining industry
operational best practices
for miner health

Enabling Multiple Leaders

NIOSH roles and
responsibilities



Coordinator x2



Evaluation



Communication

Enabling Multiple Leaders

External partner
roles and
responsibilities



Partnership Liaisons x 3



Members at Large

External partner roles and responsibilities



Partnership Liaisons x 3

- Serve as the main point of contact between NIOSH and partners
 - Share leadership roles as competing schedules may necessitate
 - Coordinate and facilitate partnership-initiated activities
 - Work closely with NIOSH to ensure that collaborative endeavors are aligned with the overall strategic goals of the Miner Health Program
-
- Preferably a 3-year commitment, assuming one's organizational support

External partner roles and responsibilities



Members at Large

- Act as subject matter experts, providing invaluable support across various functions
- Offer guidance to internal groups activities
- Actively provide feedback and participate in partnership initiatives, ensuring a diversity of thoughts and experiences
- Volunteer new roles, shadow liaison to rotate roles, serve on various subgroups

A photograph of two construction workers from behind, wearing white hard hats and high-visibility orange safety vests with reflective stripes. They are standing in a dark tunnel, looking towards a red light source in the distance. The background is dimly lit with some overhead lights.

Partnership Focus Areas

Results from Fall 2023 Partnership Poll

~Eric Lutz

Rank order the topics that you want to hear more about in our next MHP meeting, with #1 being your highest priority and #8 your lowest

October 2023

Topics ranked

MHP/NIOSH/MSHA opioids collaboration project status update

Respirable Crystalline Silica (RCS): Review of pending MSHA changes associated with reducing the Permissible Exposure Limit (PEL) and related mine-site exposure mitigation best practices

Establishing health metrics for mining

Mine worker mental health

Noise exposure mitigation: promising practices for high-risk jobs, accurate assessment, and effective controls

Changing occupational exposure profiles related to automation and electrification of mobile equipment and machinery

Miner fatigue

Miner heat stress: training, mitigation, response

Something else...

50 responses

	Rank Order	1	2	3	4	5	6	7	8	9	
	Points	9	8	7	6	5	4	3	2	1	Total
Respirable Crystalline Silica (RCS): Review of pending MSHA changes associated with reducing the Permissible Exposure Limit (PEL) and related mine-site exposure mitigation best practices	15	7	5	6	5	2	5	0	0		310
Establishing health metrics for mining	14	10	3	5	5	1	5	2	0		305
Mine worker mental health	4	4	13	8	5	8	3	0	0		273
Miner fatigue	4	6	4	6	7	9	5	4	0		242
MHP/NIOSH/MSHA opioids collaboration project status update	4	8	3	4	3	7	5	10	1		224
Noise exposure mitigation: promising practices for high-risk jobs, accurate assessment, and effective controls	0	3	8	8	5	7	11	3	0		220
Miner heat stress: training, mitigation, response	3	3	5	2	10	7	8	7	0		214
Changing occupational exposure profiles related to automation and electrification of mobile equipment and machinery	1	4	4	6	5	4	3	17	1		190
Something else	0	0	0	0	0	0	0	2	43		47

Top 3 Priority Topics

Partnership-identified

- Respirable Crystalline Silica (RCS): Review of pending MSHA changes associated with reducing the Permissible Exposure Limit (PEL) and related mine-site exposure mitigation best practices.
- Establishing health metrics for mining
- Mine worker mental health

Establishing new groups and activities...

RCS: Review of pending MSHA changes associated with reducing the PEL and related mine-site exposure mitigation best practices

Establishing health metrics for mining

Mine worker mental health

If interested in participating in any or all of these, reach out to Jerry (gpoplin@cdc.gov) or Eric (ealutz@arizona.edu)

- Each group will form its own goals, objectives, timelines
- The partnership is not restricted to only these activities and groups - other emerging needs will be addressed as appropriate

Partnership Charter Reminder

- Provide a forum for:
 - discussing health and safety concerns, research gaps, and direction with respect to chronic and emerging health, well-being and exposure issues
 - industry, manufacturers, academia, and others to present their research, system development, testing, and implementation activities
 - review, evaluation and discussion of specific technical and scientific questions and methodologies
 - the exchange of scientific findings on the implementation of control strategies and best practices
- The purpose is *not to carry out negotiated rulemaking, nor to function as a federal advisory committee.*
- We operate with the following principles:
 - Use the latest and best available scientific methods
 - Work closely, openly, and in a spirit of cooperation with all

Next Steps

- Jerry and Eric will follow-up with summary of meeting and to seek individual interest in...
 - Participating in working groups
 - Taking on a more formal role within the partnership
- Attempt to form groups before next partnership meeting on **October 15th**... save the date

Open form Q&A

October 15, 2024: Next Miner Health Partnership Meeting