



HEALTHIER WORKPLACES | A HEALTHIER WORLD

UPDATE: GRAND CHALLENGES

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WHAT ARE GRAND CHALLENGES?

- Aspirational!
 - BIG, important, and compelling initiatives geared to solving critical world needs
 - Expected progress in 5-10 years in solving the need
 - Defined, measurable outcome(s)
 - Interdisciplinary and inter-organizational collaboration
 - Significant innovations
 - Long-term sustained commitments

AIHA Grand Challenges for Worker Health, Safety, and Well-Being

And what is the grandest challenge of all?



AIHA GRAND CHALLENGES FOR WORKER HEALTH, SAFETY, AND WELL-BEING

- Idea first floated to the AIHA Fellows in May 2018
- Leadership Team assembled, and AIHA BOD approved in 2019
- IRAT proposal from Fellows SIG submitted to AIHA BOD in Fall 2020
- Survey conducted in Spring 2021
- Based on survey results, 4 topic areas agreed
 - *Climate Change*
 - *Changing Work Environment*
 - *Occupational Health Inequities*
 - *Exposure Assessment*
- Concept paper teams assembled in 2022
- Papers completed 2025 / Board approved

AIHA Grand Challenges for Worker Health, Safety, and Well-Being

1. Climate Change
 2. Changing Work Environment
 3. Occupational Health Inequities
 4. Exposure Assessment
- Concept Papers approved by the AIHA Board of Directors in February 2025!
 - AIHA President's Award 2025!



CLIMATE CHANGE

- **Minimize worker exposure to direct impacts of climate change**
 - Heat, UVR, O₃
- **Minimize worker exposure to indirect impacts of climate change**
 - Severe weather, infectious diseases, air pollution, climate migration, psychosocial
- **Minimize OEHS hazards resulting from spin-off technologies**
 - Batteries, recycling, geoengineering

CHANGING WORK ENVIRONMENT

- **Ensure HSWB of Workers with non-standard work arrangements**
 - Provide clear definitions; improve data and action plans; implement a continual improvement process.
- **Minimize the impacts of shift work, long hours of work, and sleep deficiency on the HSWB of workers**
 - Data collection systems; modify work schedules; continual improvement process.
- **Advance HSWB affected by rapidly advancing technology**
 - Impact of advancements in sensor technology, advancing technologies, automation, AI, robotics.
 - Assess the impact of increasing number of global Occupational Exposure Limits (OEL's).
- **Improve work design and organizational practices to advance the HSWB of workers**
 - Modify organizational practices; implement feedback and early reporting systems; inclusive review procedures.
- **Optimize education, training, and skill-building needs approaches to improve HSWB of workers**
 - Accessible and effective for all workers; develop a skilled workforce; ID training barriers for OEHS professionals.

PROMOTING OCCUPATIONAL HEALTH EQUITY AND ELIMINATING PRECARIETY IN THE WORKPLACE

- **Reduce inequities in the workplace**, including those due to gender, race, age, class, and social determinants of health, and establish work and workplaces as determinants of health.
- **Improve community health** through innovative, cross-sectoral partnerships.
- **Minimize precarious work** by supporting a public health goal of work that promotes HSWB for all, including children.
- **Issue a global call to action** for worldwide worker HSWB, including workers, worker organizations, professional associations, and other advocates for workers.

IMPROVING EXPOSURE ASSESSMENT

- Improve Decision-Making When Exposure Monitoring Data Are **Not** Available
- Improve Decision-Making When Exposure Monitoring Data Are Available
- Improve the Use of Data Resulting from Real-time Detection Systems
- Improve Dermal Exposure Assessments
- Embrace and Influence TSCA Risk Evaluations



NEXT STEPS—ACTION TO CONCEPT

- Expand the leadership team globally to take advantage of broader perspectives and needs
- Strive for actionable deliverables now that position papers completed and available
- Research and identify external partnering organizations with bandwidth and capacity to help us amplify our messaging and implementation partnerships.
- Partnering Opportunities
 - **Workplace EHS Coalition** partner associations (e.g., APHA, ASSP, NSC, ACOEM, AAOHN)
 - TWH Centers of Excellence (e.g., CO, UIC)
 - *The Synergist*, Grand Challenges book, presentations at other associations (APHA)
 - Training modules for inclusion in TWH and other OEHS training
 - Presentations at AIHA Connect and other allied associations' conferences, both domestic and global (IOHA)
 - Trade Associations

GRATEFUL THANKS

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 - *Exposure Assessment*
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