



HEALTHIER WORKPLACES | A HEALTHIER WORLD

AIHA NATIONAL UPDATE

2024 CIHC 33rd Annual Professional Development Seminar
December 3, 2024

Lawrence Sloan, MBA, FASAE, CAE
Chief Executive Officer, AIHA

AIHA DIFFERENTIATORS

UNIQUE VALUE PROPOSITION:

AIHA members are scientists and occupational and environmental health and safety (OEHS) professionals who protect the health and safety of workers and communities by reducing risks and safeguarding operations to help organizations operate efficiently and without interruption.



HOW AIHA UNIQUELY SUPPORTS THE OEHS PROFESSION

- **Advocacy:** We safeguard our profession's interests across a broad range of issues, including natural disasters, workforce development, Certified Industrial Hygiene (CIH) title protection, indoor environmental quality, and more — at all levels of government.
- **Public Awareness of the Profession:** We develop timely, consumer-friendly resources that help educate and support the needs of workers and the general public.
- **Lab Accreditation and Proficiency Testing:** AIHA's Lab Accreditation and Proficiency Analytical Testing programs support the competency and global recognition of labs — critical to the integrity of OEHS and allied professional practice.
- **Community-Based Exposure Limits:** AIHA's Emergency Response Planning Guidelines protect communities dealing with exposure to hazardous chemicals caused by man-made or natural disasters.

HOW AIHA UNIQUELY SUPPORTS OEHS PROFESSIONALS

- **Premier Provider of Applied Scientific Education:** We develop and maintain an extensive library of educational offerings, technical resources (including Body of Knowledge frameworks), e-tools, and publications in the applied science of occupational and environmental health and safety.
- **Career Development:** We offer financial support to students and provide professional development resources to help students and those entering the profession mid-career. AIHA Local Sections foster a sense of community and creation of professional development networks, as well as leadership opportunities.
- **Processes and e-Tools to Ensure High Quality Exposure Risk Decisions:** AIHA has developed a proven methodology and suite of e-tools to ensure high-quality exposure modeling, dermal exposure assessment, qualitative judgment accuracy, and the statistical analysis of quantitative exposure data.

HOW AIHA UNIQUELY SUPPORTS OEHS PROFESSIONALS

- **Foresight Leadership:** We scan the environment for emerging topics and trends and develop strategic, educational, and informational resources to enlighten and inform OEHS professionals about these future opportunities and threats that may impact the profession.
- **OEHS Professional Credentialing:** Our Registry Programs recognize best-in-class asbestos analysts, safety data sheet authors, and exposure decision analysts.
- **Product Stewardship Society:** We serve as the association management company for a distinct society of professionals responsible for reducing the environmental life-cycle impacts of products.
- **Global Outreach:** We offer training, resources, and financial support to OEHS students and professionals living in emerging economies.

AIHA Strategic Plan (2025-27)					
Mission –Empowering professionals to protect all workers and their communities from occupational and environmental hazards through the application of scientific knowledge.					
Vision –A world where all workers and their communities are healthy and safe.					
Values	Prevent	Empower	Advocate	Collaborate	Respect
	We strive to prevent workplace illnesses and injuries.	We believe everyone is empowered to prevent workplace illnesses and injuries.	We advocate and develop science-based policy and practice.	We work with each other and external partners to help prevent workplace illnesses and injuries.	We respect and honor our diverse communities.
Domain	A. Pursuit of Knowledge	B. Advancing the Profession	C. Member and Volunteer Engagement	D. Impact and Awareness	E. Organizational Excellence
Goals	AIHA will develop and disseminate cutting edge educational and career enrichment resources to support OEHS professionals.	AIHA will identify, develop, improve, and promote excellence in OEHS practices, research and applied science.	AIHA will nurture and empower the OEHS community through strategic growth, enhanced member value, and fulfilling volunteer opportunities.	AIHA will promote the practice of OEHS.	AIHA will maintain organizational excellence by living our staff core values and operating ethically, efficiently, responsibly, and inclusively.
Objectives	1. Research and identify educational needs of OEHS professionals.	1. Identify, develop, and improve recommended practices with support from members, allied organizations, and federal agencies.	1. Expand AIHA's value proposition to attract, grow, and retain a diverse and inclusive community of OEHS professionals as members.	1. Build a sustained pipeline of potential members and future OEHS professionals.	1. Consistently maintain strong financial performance and internal controls.
	2. Develop educational materials using evolving adult learning styles for improved accessibility.	2. Advance competency in specialty areas (e.g., laboratory accreditation, proficiency programs, registry programs, and Product Stewardship Society).	2. Improve volunteer and member experiences through understanding and overcoming barriers to engagement.	2. Work with policymakers and allied organizations to advance public policies that protect workers and their communities.	2. Attract, nurture, and invest in the professional development of top-quality staff who are aligned with our organizational culture.
	3. Provide a breadth of educational and informational resources for OEHS professionals and their communities.	3. Build OEHS capacity in regions globally where there is an identified need.	3. Expand opportunities for non-members to participate in AIHA activities and events that can serve as a pathway to membership.	3. Increase awareness of the value and impact of the profession.	3. Invest in IT systems that create and sustain positive member support experiences.



- **New Apps** – Heat Stress App*, IH Calculator App*
- **Continuous Improvement Plan** – Building upon our Improving Exposure Judgment*, Principles of Good Practice, State of the Art v Practice* initiatives
- **Education** – Exploring a new Waterborne Pathogens multi-module online training program; licensing agreement with American Mgt Association and 360Media; updated OEA e-Certificate course
- **CDC/NIOSH Grant** – New free resources to be developed in year 5 (AIHA has received \$800k since its inception)
- **Health Action Alliance's *Commission on Climate & Workforce Health*** – CEO serves as Commissioner
- **LAP** – Sensor technology accreditation study*; new training program evaluation*; sampling accreditation program*
- **PAT** – Airborne particulates* and cold vapor mercury* tests added
- **AIHA Content Priorities** – Updated to reflect importance of AI *
- **ASHRAE MOU** -- Executed in mid-2024 with detailed work plan
- **EPA TSCA** – Direct engagement and sharing best practices
- **WEELs** -- Returning to AIHA Guideline Foundation under new name (AIHA OELs)
- **New Lab/Sampling Flyer** – Importance of securing qualified IH professionals to collect samples

PURSUIT OF KNOWLEDGE

AIHA will develop and disseminate cutting edge educational and career enrichment resources to support OEHS professionals

IH CALCULATOR APP

COMING Q1 2025



 **Basic Sciences** ▼

 **Heat Stress** ▼

 **Noise** ▼

 **Statistics** ▼

 **Ventilation** ▼

 **Radiation** ▼

 **Conversions** ▼

Ventilation ▲

Average Duct VP

Balancing Flow Rate

Canopy Flow Rate

Coefficient of Entry

Concentration Buildup No Initial

Duct Velocity and VP

Effective Volumetric Flow Rate Q'

Fan Static Pressure

Flanged Multiple Slot Flow Rate

Flanged Opening Flow Rate (Q)

Generation Rate

Hood Airflow Determination
Equation

Hood Entry Loss

Noise ▲

Adding Sound Pressure Levels

Allowable Exposure Time NIOSH

Allowable Exposure Time OSHA

Blade Passing Frequency

Daily Noise Dose

Directivity Index

Equivalent Sound Pressure Level

Half Octave Bands

Octave Bands - Center

Octave Bands – UL Edge

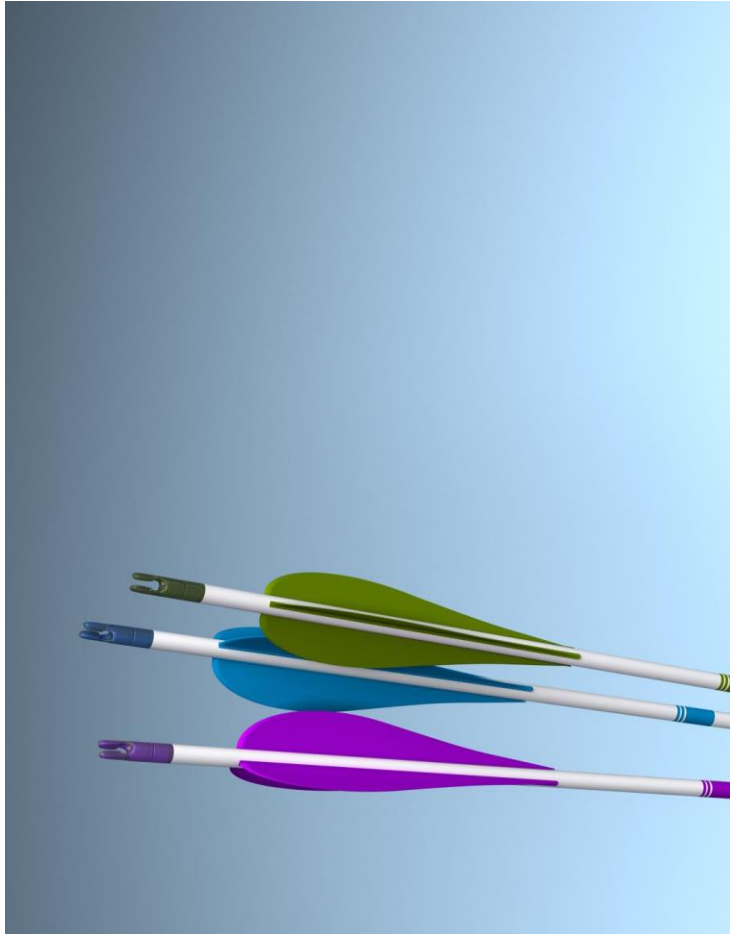
Octave Band - Third

Percent Dose

Sound Intensity Level

Sound Pressure Level

WHAT IS A “CONTENT PRIORITY”?



The **Content Portfolio Advisory Group (CPAG)** helps advance AIHA’s mission and values by providing input and advice to the AIHA Board and staff regarding the content AIHA provides to members and other stakeholders. Content may include documents, articles, white papers, fact sheets, publications and more.

- **Content.** Offering produced in conjunction with AIHA (e.g., publications, webinars, PDCs, conference presentations, *JOEH/Synergist* articles).
- **Content Priority.** Concepts or themes which impact on the relevancy and value of AIHA content, and the AIHA profession in general.
- **A “Win/Win”.** Promotes AIHA’s organizational success. Informs individual strategies for career success and relevancy in the marketplace of tomorrow.

CURRENT CONTENT PRIORITIES

Big Data, AI & Sensor Technologies

Total Worker Health®

Changing Work Dynamics

Enhancing OEHS Communication Skills

Total Worker Health® is a registered trademark of the U.S. Department of Health and Human Services (HHS). Participation by AIHA does not imply endorsement by HHS, the Centers for Disease Control and Prevention, or the National Institute of Occupational Safety and Health.



Resources for Academics

FREE for Everyone



**Improving Exposure
Judgment**



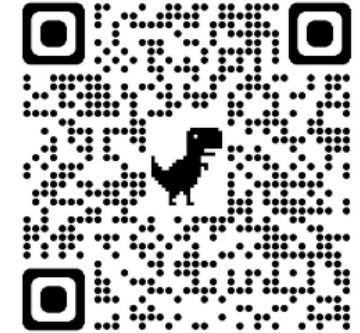
**Occupational
Exposure Banding**



**Control of Silica
Exposure**



**OHTA
Online Courses**



Toxicology Basics



**ABSA Biosafety,
Biosecurity, and
Biohazards Courses**



**EHS Business Case
e-Tool**



**Industrial Hygiene
Hazard
Identification and
Exposure Risk
Assessment by
Market Segment**



AIHA CONNECT 2025

- Approx. 4,000 US and international OEHS Attendees
- Record number of proposals submitted for 2025 content selection
- Registrants can add PDCs pre- and post-conference
- Advancing Knowledge through Education Sessions, Innovation Stations, Nexus Lounge for Students and ECPs, Education Pop-Ups, Student Posters, Expo, Tech Tours
- Important Dates
 - Early Registration Opens: **Mid-December**
 - Education Pop-Up Session Proposal Deadline: **January 15, 2025**
 - Student Poster Proposal Deadline: **March 12, 2025**

ADVANCING THE PROFESSION

AIHA will identify, develop, improve, and promote excellence in OEHS practices, research and applied science.

MOUs and Coalitions

AIHA maintains an extensive network of allied associations (60+) with whom we may have MOUs in place or informal commitments to collaborate.



Coalitions: Build America's School Infrastructure • Capitals • Committee for Education Funding • Council for Accreditation in Occupational Hearing Conservation • Friends of NIEHS • Friends of NIOSH • Intersociety Forum • Road to Zero • Scientific Liaison Coalition • TSCA Improvement Coalition



**Defining
the Science**



**Principles
of Good
Practice**



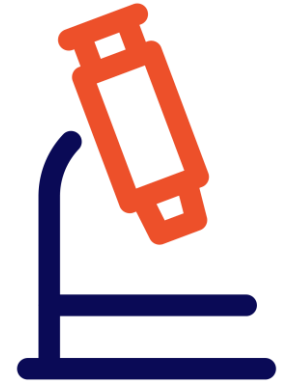
**State of
the Art vs.
Practice**



**Improving
Exposure
Judgments**

AIHA / ACGIH DEFINING THE SCIENCE

Identify the needs associated with critical issues in OEHS, create the research agenda, and facilitate information sharing, partnerships, dissemination, and implementation of evidence-based practices.

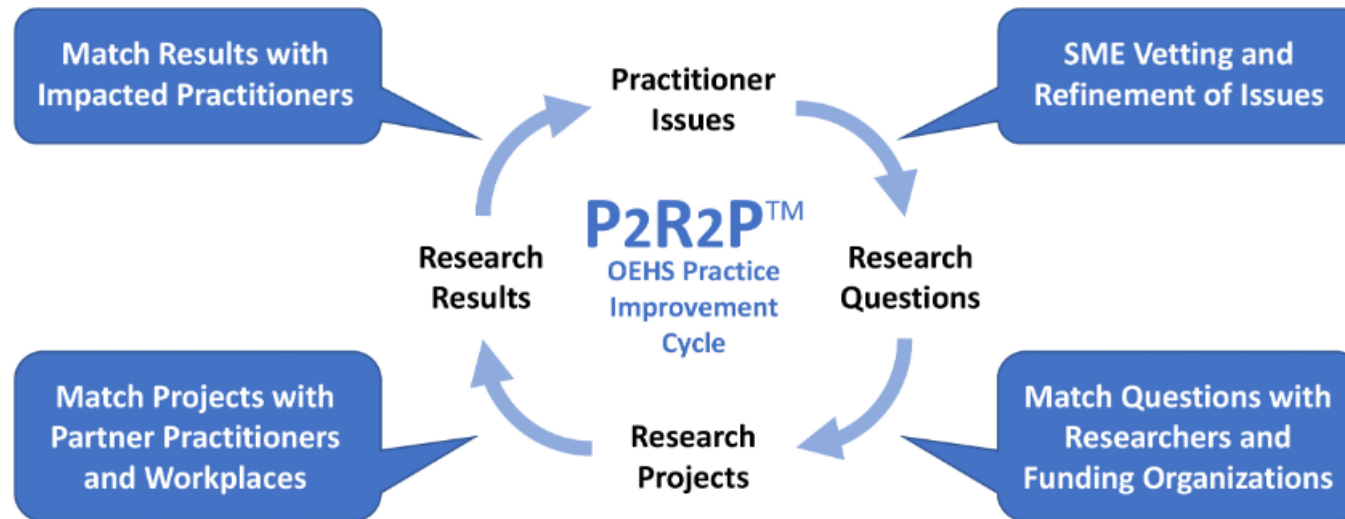


MILESTONES 2023-2024

- **Research Agenda Ver 2.0** by year-end 2024
- **New ideas** submitted to the DTS portal
 - ❖ Use of 3-D Printing in Construction
 - ❖ Absorption of long-term lead fume deposits on tile laboratory flooring
 - ❖ OEL Pipeline
 - ❖ Exposure Assessment Methods for Bone Conducting Headphones
- **Brainstorming Sessions**
 - ❖ Completed Area and Personal Sensor Report
 - ❖ Dermal and Surface Sampling Sessions held in Nov 2024
- **Success Stories**
 - ❖ Heat Stress App
 - ❖ IEJ Communications Campaign

AIHA / ACGIH DEFINING THE SCIENCE

Practice-To-Research-To-Practice™ AIHA/ACGIH DTS Value Add



Discover the many benefits of Improving Exposure Judgments (IEJ)



For Occupational Health and Safety Professionals, the accuracy of exposure judgments is critical to the health and safety of workers. By taking steps to improve your own risk assessments, you'll discover a wide range of benefits for workers, for workplaces, and for your own professional development.

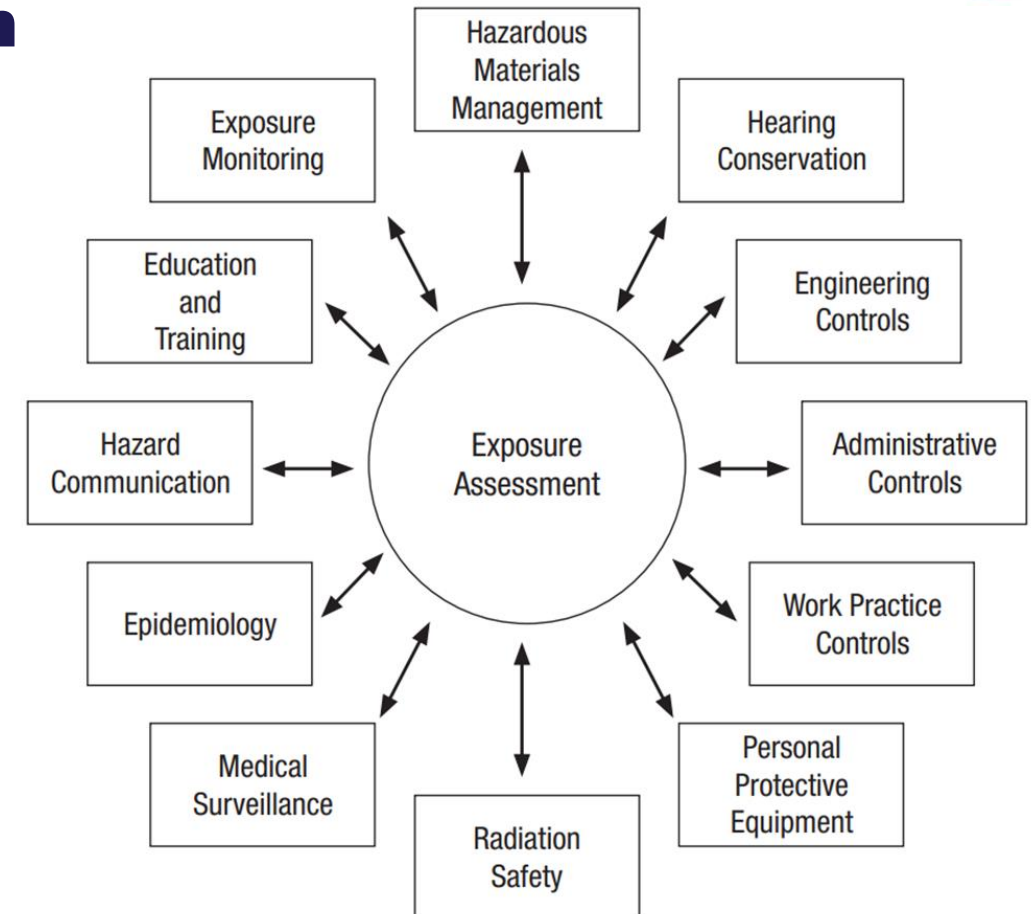
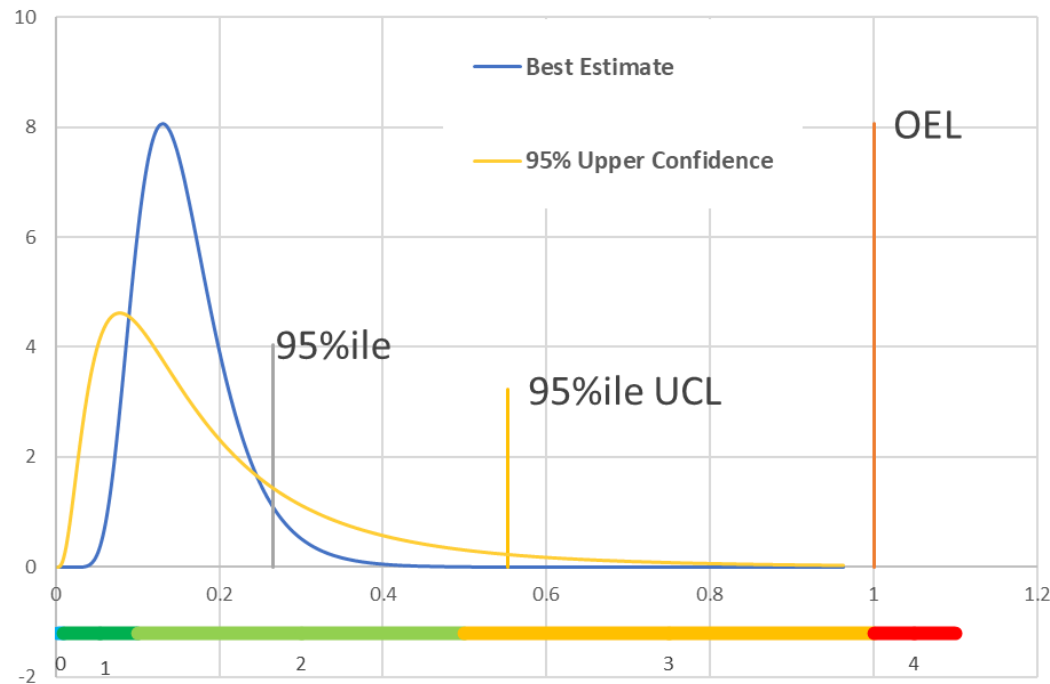
AIHA and ACGIH have launched a long-term initiative to elevate the risk-assessment abilities of our colleagues by providing FREE access to the education, tools, and resources needed to improve the accuracy of their own exposure judgments.

For workers. For workplaces. For you.

IMPROVING EXPOSURE JUDGMENT



Hazard Risk Management Depends on Accurate Exposure Decisions



IMPROVING EXPOSURE JUDGMENT (IEJ)

MILESTONES 2023-2024



FREE WEBINAR ON STATISTICAL ANALYSIS TOOLS

Making Accurate Exposure Risk Decisions **FREE!**

Taught by Leading Experts

9x Contact Hours !!

Paul Hewett Ph.D., MS, CH, FAHA
Developed IH Data Analyst (IHDA) for Bayesian statistical analysis of monitoring data

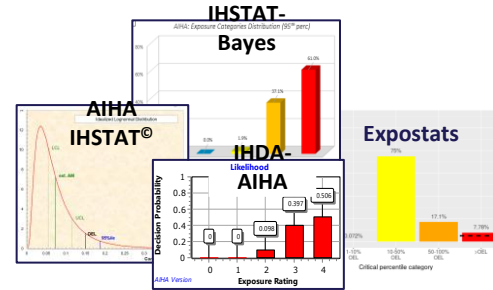
Jérôme Lavoué Ph.D., MS
Led the development of Expostats for Bayesian statistical analysis of monitoring data

John Mulhausen Ph.D., MS, CH, CSP, FAHA
Authored the initial version of IHSTAT® for traditional statistical analysis of monitoring data

Andrew D. Perkins MS, CH, CSP, COHC
Experienced in the application of statistical tools in accordance with the AIHA Exposure Assessment Strategy

<https://www.aiha.org/education/elearning/online-courses/making-accurate-exposure-risk-decisions>

TRAINING



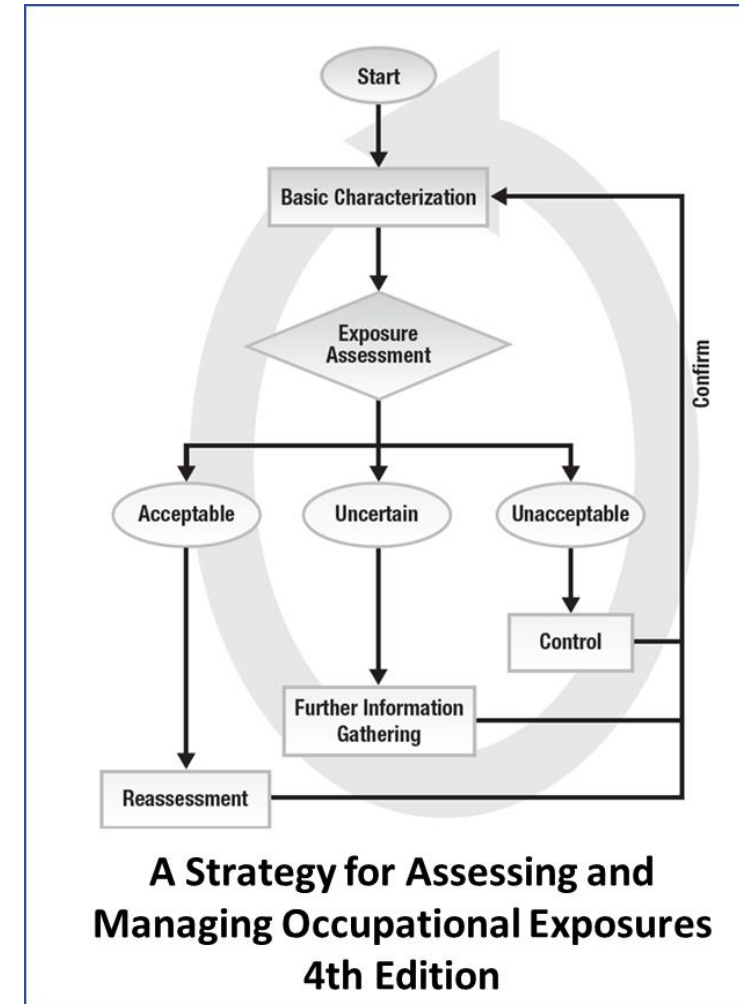
TOOLS



**Registered Specialist
Exposure Decision Analysis**

AIHA Registry Programs®

ASSESSMENT OF COMPETENCY



Discover the many benefits of

IMPROVED EXPOSURE JUDGMENTS

For workers. For workplaces. For you.

When you take steps to strengthen your own exposure risk decisions—by bringing statistical tools and other approaches into your daily practice—you'll discover a wide range of benefits.

BETTER PROTECTION OF WORKERS AND COMMUNITIES, through improved judgments that lead to safer workplaces.

INCREASED CONFIDENCE in your own judgments, with verifiable data analysis to inform and validate your assessments.

STRONGER COMMUNICATION with your colleagues and clients.

GREATER EFFICIENCIES in assessing risk that require less time and money, and fewer samples than you might think.

The truth is current approaches to exposure judgments tend to underestimate the risk to workers. That's why AIHA is committed to helping you elevate your risk-assessment abilities by offering FREE access to the education, software and resources you need to improve the accuracy of your exposure judgments.

By learning about these approaches and applying them in your own work setting, you'll take important steps toward protecting workers and strengthening your skill set as an OEHS professional.



Access your FREE suite of resources:

Visit our online portal at [AIHA.ORG/IEJ](https://aiha.org/iej)

Video Courses you can take on your own schedule to acquire and apply new skills.

Software Tools you can download and use to accurately evaluate exposure profiles.

Real Case Examples, Exercises, and More.

Three ways

IMPROVED EXPOSURE JUDGMENTS can save you time.

We all strive to improve our performance as OEHS professionals, but who has the time?

The everyday demands of our careers make it challenging to learn new skills and put them into practice. That's why AIHA has launched a long-term initiative to help make improving exposure judgments attainable and a big time saver, too.

Studies show that using statistical tools to characterize exposures, rather than relying on our professional judgment alone, greatly improves the accuracy of our risk decisions. So, don't let time constraints keep you from learning about these approaches and applying them in your own work setting.

Visit the Improving Exposure Judgments Portal at [AIHA.org/iej](https://aiha.org/iej) to learn about the FREE suite of courses and tools available to every OEHS professional.

Discover the many benefits **IMPROVED EXPOSURE JUDGMENTS** can create for workers, for workplaces, and for you.



TIME SAVER #1: You can quickly learn how to use statistical tools to improve judgments with our FREE online course, Making Accurate Exposure Risk Decisions. In just nine hours, you'll gain a basic understanding of lognormally distributed exposure profiles and the knowledge you need to put traditional and Bayesian statistical analysis tools into practice.

TIME SAVER #2: You also have FREE access to the software tools you can use to characterize exposures. It takes just a few minutes to enter the data points and get the output you need to make informed risk decisions.

TIME SAVER #3: Because your risk decisions are backed by verifiable data, you'll save time and communicate more efficiently when sharing results with your colleagues.

Access your FREE suite of resources:

Visit our online portal at [AIHA.ORG/IEJ](https://aiha.org/iej)

Video Courses you can take on your own schedule to acquire and apply new skills.

Software Tools you can download and use to accurately evaluate exposure profiles.

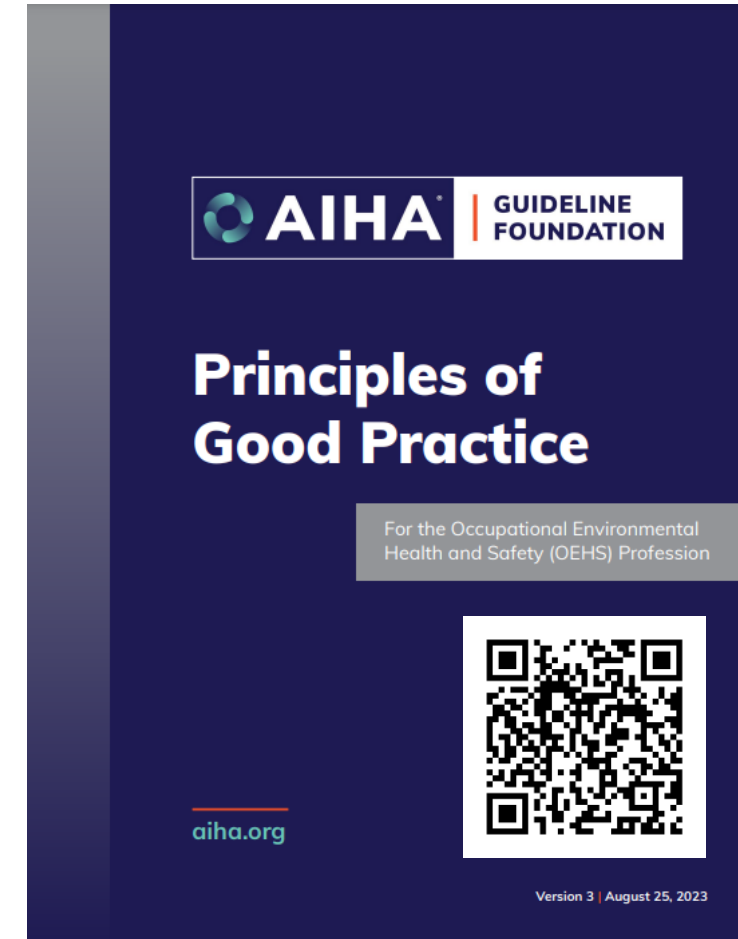
Real Case Examples, Exercises, and More.

PRINCIPLES OF GOOD PRACTICE



Document vital OEHS professional practices that reliably and effectively protect workers and communities from unacceptable risks.

- Provide a common vision of effective risk management practices for all OEHS professionals.
- Elevate the performance of all OEHS programs by providing a set of uniform program and performance targets that can be used in continuous improvement activities.
- **COMING SOON:** Next edition includes Noise and Respiratory Protection rubrics



PRINCIPLES OF GOOD PRACTICE



AIHA PRINCIPLES OF GOOD PRACTICE for OCCUPATIONAL EXPOSURE ASSESSMENT - Sample

OEHS Process / Program	Risk-Critical Practices	Good Practice	Enhanced Practice	References
Scope and Objectives	The AIHA Principles of Good Practice for Occupational Exposure Assessment is directed at preventing work-related illness and disease. This is achieved through comprehensively assessing and managing all chemical, physical, and biological exposures for all workers across all workdays. Note: The PGP does not address workplace psychosocial risks, risks to the community, risks to the environment, product safety, and the management of safety hazards for the prevention of accidents and injuries.	X		Chapter 2: Establishing the Exposure Assessment Strategy. A Strategy for Assessing and Managing Occupational Exposures. 4th Edition. AIHA 2015.
Program Management	The organization maintains a written Occupational Exposure Assessment and Control program. The program identifies scope and objectives, roles and responsibilities, selection of occupational exposure limits (OELs), criteria for differentiating acceptable from unacceptable exposures including decision statistics, information gathering, similar exposure groups (SEGs), sampling strategies, statistical data interpretation, measures of certainty, exposure judgments, control of unacceptable exposures, prioritization and planning schemes for monitoring and health hazard controls, ongoing reassessments, management of change, communication of findings, training, medical surveillance, and recordkeeping.	X		Chapter 2: Establishing the Exposure Assessment Strategy. A Strategy for Assessing and Managing Occupational Exposures. 4th Edition. AIHA 2015.
	Occupational exposure assessments are performed by or under the supervision of an experienced industrial hygienist who has been trained and has demonstrated competence in exposure assessment methodology (e.g., AIHA's comprehensive exposure assessment strategy). The training includes decision statistics; exposure categories; formation of SEGs; selection, use and limitation of assessment techniques and tools; selection of traditional and Bayesian control strategies.	X		Chapter 2: Establishing the Exposure Assessment Strategy. A Strategy for Assessing and Managing Occupational Exposures. 4th Edition. AIHA 2015.
	Occupational exposure assessments are performed by or under the supervision of a Certified Industrial Hygienist or equivalent.		X	Board for Global EHS Credentialing.
	Occupational exposure assessments are performed by or under the supervision of an industrial hygienist who maintains AIHA Exposure Decision Analysis registration.		X	AIHA Exposure Decision Analysis Registry Program.

Area of Practice Process / Program

Risk-Critical Practices Within Area of Practice

Good or Enhanced Practice

Key References for Specific Risk-Critical Practices

PRINCIPLES OF GOOD PRACTICE

MILESTONES 2023-2024

- **Occupational Exposure Assessment** – Published (Ver 2)
- **Noise and Hearing Loss Prevention** – Completed (Ver 1)
- **Respiratory Protection** – Completed (Ver 1)
- **Indoor Environmental Quality** – In progress
- **Heat Stress** – In progress
- **Leadership and Management** – In progress
- **Personal Protective Clothing and Equipment** - Future
- **Control Banding** – Future
- **Sampling and Laboratory Analysis** – Future

Interest in preparing a PGP?

Contact: Michele Twilley, DrPH, CIH, AIHA Chief Science Officer, mtwilley@aiha.org

STATE OF THE ART v PRACTICE



Implement a continuous improvement strategy to identify and address gaps between current and state-of-the-art (best in class) OEHS practice.

1. Survey practitioners globally
 - ❖ Airborne chemical exposure assessment (2023)
 - ❖ Noise/hearing loss prevention and respiratory protection **(OUT NOW!)**
2. Identify existing barriers that impede ability to achieve best practice performance
3. Define and implement plans to address these barriers, empower practitioners to close practice gaps so they can achieve best-in-class performance.

STATE OF THE ART v PRACTICE



American Industrial Hygiene Association (AIHA)
2023 State-of-the-Art / Continuous Improvement:
Airborne Chemical Exposure Assessment Survey

Final Report

Prepared by:
Shen Jacobs, FASAE, CAE, President & CEO
Trevor Schluessmann, CIPPE, CPM, Vice President, Market Research and Analytics
Nick Fernandes, Senior Director, Marketing Research
Matt Cavers, Senior Director, Research and Consulting
Emily Thomas, Senior Director, Research and Consulting
Greer Faber, Senior Consultant, Market Research
Taryn Damodanis, Market Research Consultant

Airborne Chemical Exposure Assessment Survey (conducted in 2023)

Key Findings:

- **Criteria for Unacceptable Exposures Vary Widely Among Practitioners –** Reinforcing the Importance of the New Improving Exposure Judgments and Principles of Good Practice Initiatives
- **Statistical Tool Use and Understanding Among Practitioners is Low –** Reinforcing the Importance of the New Improving Exposure Judgments and Principles of Good Practice Initiatives
- **Practitioners are Highly Variable in Their Selection and Use of OELs –** Reinforcing the Importance of the Principles of Good Practice Initiative and the Need to Continue Promoting Occupational Exposure Banding (OEB).
- **Only About Half of Practitioners Use a Systematic Planning Process for Advancing Up the Hierarchy of Controls –** Reinforcing the Need for Promoting the Importance of the Systematic Planning Approach

TYING IT ALL TOGETHER: CONTINUOUS IMPROVEMENT STRATEGY

Implement a continuous improvement strategy to identify and address gaps between current and state-of-the-art (best in class) OEHS practice.

Drawing from the Occupational Exposure Assessment Example



**Occupational
Exposure
Assessment (OEA)
Domain**



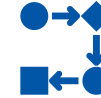
**Develop a Principles
of Good Practice
(PGP) Document**

Establish the framework
for good practice and
enhanced practice



**Conduct State of Art v
Practice Survey**

Identify gaps between current and
state of the art practice (First time
AIHA looked at what we do
instead of what we know)



**Develop Continuous
Improvement
Strategy**



**Repeat Survey for
OEA in 5-10 years**



CONTINUOUS IMPROVEMENT PLAN (CIP)

Selected Elements

Key Objectives and Results

Problem statement: Criteria for unacceptable exposures vary widely among practitioners.
Evidence: 26% of practitioners judge an exposure as unacceptable if the 95th percentile > OEL (SOTA v P Survey Result)

Five Year Goal (YE 2029): >70% practitioners supporting

Entitlement (best in class) >95th percentile

Actions:
Promote a common vision for acceptable exposures.
Teach practitioners to sell the 95th percentile approach
Create the “aha” experience

By: IRAT Culture Shift Campaign, IEJ-AG, EASC-PGP

Metric and YE Goal: Percent project completion for each YE time period
Quarterly Goals with Traffic Light Visual

Comments: Success is measured by follow-up State of Art v Practice survey

ADVANCING OEHS SCIENCE & PRACTICE

Elevating our
performance **today.**
Strengthening our
profession for **tomorrow.**

AIHA's initiatives for continuous improvement.
For healthier workplaces and a healthier world.

AIHA GUIDELINE FOUNDATION

Formed in 2009, the AIHA Guideline Foundation is a 501(c)(3) non-profit organization that oversees various program areas. These include:

- Development of community exposure guidelines for chemical agents (also known as **Emergency Response Planning Guidelines**)
- Oversight of AIHA's involvement in consensus-based standards development
- Leading research to advance the profession (including our **Principles of Good Practice** initiative).

*In 2025 we are launching the **AIHA OEL program** (formerly known as WEELs)



The AIHA Guideline Foundation is a proud sponsor of TRANSCAER, which serves as a resource for free hazmat and emergency response training.



Current Programs

- Industrial Hygiene Laboratory Accreditation Program (IHLAP)
- Environmental Lead Laboratory Accreditation Program (ELLAP)
- Environmental Microbiology Laboratory Accreditation Program (EMLAP)
- Food Laboratory Accreditation Program (FoodLAP)
- Beryllium Field/Mobile Accreditation Program (BeFAP)

What's New

- Projects to Explore
 - ☐ Standalone Sampling Accreditation
 - ☐ Sensor Testing Accreditation
 - ☐ LAP Training Programs

Current Programs

- Bulk Asbestos Proficiency Analytical Testing (BAPAT) Program
- Beryllium Proficiency Analytical Testing (BePAT) Program
- Environmental Lead Proficiency Analytical Testing (ELPAT) Program
- Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program
- Industrial Hygiene Proficiency Analytical Testing (IHPAT) Program

What's New

- Launched New IHPAT Programs:
 - Airborne Particulates by NIOSH 0500, NIOSH 0600, NIOSH 5000, etc.
 - Mercury by NIOSH 6009, OSHA ID-140, etc.



- Asbestos Analysts Registry
 - ❑ For Organizations with Analysts that analyze asbestos in the field
- SDS & Label Authoring Registry
 - ❑ For individuals that author Safety Data Sheets under the GHS
- Exposure Decision Analysis Registry (free)
 - ❑ Designed as a steppingstone for those who have not yet earned their CIH; valuable add-on credential for those who have!

INTERNATIONAL AFFAIRS

The [International Affairs Committee](#) promotes the advancement of occupational hygiene practice throughout the world by acting as a central point of contact for international organizations on issues of professional, technical and educational development.

- Building awareness and capacity in emerging economies; supporting training programs
- Exchanging knowledge with our “sister” associations
- Supporting IOHA sponsored initiatives
- Growing our membership base



AIHA Ambassadors Program

- Support the development of a cooperative infrastructure of OEHS professionals in other countries
- Identify the need for OEHS capacity building and work to assist the host country in achieving this objective
- Identify needed education, products, and services within the international community that AIHA technical and professional development committees can develop and market
- Promote the profession and the Association's products and services to the international community; and, secondarily,
- Recruit AIHA members



EMERGING ECONOMIES MICROGRANTS

The AIHA Emerging Economies Microgrant Advisory Group's (AG) mission is to provide a fair, structured, transparent, and consistent mechanism for funding education and research projects that promote occupational hygiene in economically developing nations.

The vision of the AG is to expand occupational hygiene awareness and capacity globally to reduce the risk of injury, illness, and fatality to workers in nations with the fewest resources.

Sponsored by



PARTNERSHIP TO HELP THOSE WORKING IN EMERGING ECONOMIES EARN THE CIH

OHTA helps those working in emerging economies earn the ICertOHTA technologist level certificate by offering free exams.

Qualified candidates apply to BGC for the CIH. WHWB-US will provide mentors to help candidates through the application process.

AIHA will now offer these candidates a reduced fee for the CIH Crash Course. AIHA AND discounted membership rate for OEHS professionals working in emerging economies. Additional grants to cover part or all the remaining course fees may be available from WHWB-US and OHTA.

WHWB-US will provide a seminar to candidates on what it takes to successfully pass the CIH and assign a mentor who will follow the candidate through class completion.

WHWB-US will continue to work with the candidate during the application process and exam preparation. WHWB-US and OHTA may offer grants to well qualified students to pay for the CIH exam fees.

MEMBER & VOLUNTEER ENGAGEMENT

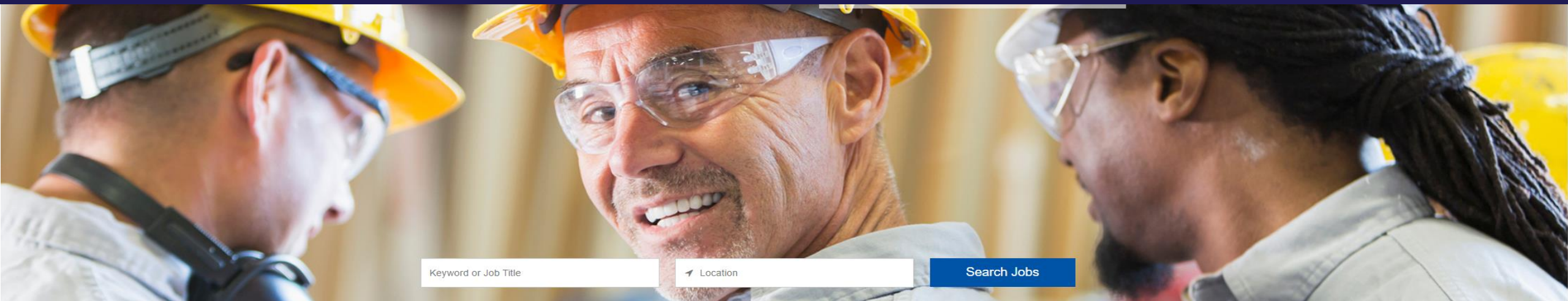
AIHA will nurture and empower the OEHS community through strategic growth, enhanced member value, and fulfilling volunteer opportunities.

MENTORING INSTITUTE

- Hassle-free and user-friendly enrollment
- Smart matching of mentors and mentees
- Mobile friendly
- Calendar syncing, meeting scheduling, chat, and video calls all on one platform
- Earn badges to showcase your accomplishments



CAREER ADVANTAGE



[Search Jobs](#)

Featured OEHS Jobs

[Safety and Training Coordinator](#)
City of Scottsdale
Scottsdale, AZ


[GPS/Machine Control Specialist](#)
Zenith Tech Inc. a Walbec Group Company
Verona, WI

[Asphalt Plant Supervisor](#)
Zenith Tech Inc. a Walbec Group Company
Waukesha, WI

[Manager, Industrial Hygiene](#)
BNSF Railway
Chicago, IL


[View All Jobs](#)

Get Hired with expert resume, cover letter, LinkedIn, and interview prep guidance with **Candidate Premium Services.**




Get started!


AIHA CareerAdvantage



YM Career Resources



Become a Member





TYPES OF VOLUNTEER GROUPS

- Technical Committees
- Professional Development Committees
- Special Interest Groups (SIG)
- Working Groups
- Task Forces
- Advisory Groups
- National Level Standing Committees

FEATURED EDUCATION FOR “NON-CORE” IH/OH PROFESSIONALS

- [Core Competencies for the Practice of Industrial/Occupational Hygiene, 2018 ed.](#)

This framework outlines the essential knowledge, skills, and abilities that OEHS professionals working at different levels of practice should possess. **New edition coming in Q1 2025.**

- [Basic Principles of Occupational Hygiene eLearning Course](#)

Specifically designed for those venturing into OEHS for the first time, this online course introduces the principles at the core of the OEHS profession: that is, the anticipation, recognition, evaluation, and control of hazards found in the workplace.

- [Use of Direct Reading Instruments Certificate Program](#)

If you use direct-reading instruments (DRI) in your job, this certificate program will show you are a DRI subject matter expert—regardless of whether you use DRIs for data collection, maintain them as specialty tools, or consult them regularly for compliance testing.

- [Occupational Exposure Assessment Certificate Program](#)

This certificate program builds on the fundamentals of industrial hygiene. Learn to make reliable exposure judgments through understanding how to gather, document, and report monitoring data more effectively.

- [Fundamentals of Industrial Hygiene Road Course](#)

AIHA University offers courses that provide an intensive, hands-on introduction to the profession, hosted in person in Westerville, Ohio. These courses let you fully immerse yourself in basic OEHS principles with instruction from leading experts in the field.

AIH FOUNDATION



- The mission of the American Industrial Hygiene Foundation (AIHF) is to advance the profession by awarding scholarships for funding education and professional development in industrial hygiene and related disciplines.
- Over the past 40 years, AIHF has awarded more than 1,030 scholarships totaling nearly \$2.9 million to students studying IH and/or OEHS.
- In 2024, AIHF awarded \$230,060 in scholarships to 60 students.
- AIHF is governed by a Board of Trustees.



IMPACT & AWARENESS

AIHA will promote the practice of OEHS.

MULTI-DISCIPLINARY VOLUNTEER GROUPS*



The Frank R. Lautenberg Chemical Safety for the 21st Century Act

TSCA Task Force

WBGT / RISK	IMPACTS	ACTIONS
80-85 F / Low	Body stressed after 45 minutes	Take at least 15 minutes of breaks each hour if working or exercising in direct sunlight. Stay hydrated.
85-88 F / Moderate	Body stressed after 30 minutes. HEAT CRAMPS likely (painful contraction of muscles, weakness)	Take at least 30 minutes of breaks each hour if working or exercising in direct sunlight. Drink ½ to 1 quart of water per hour.
88-90 F / High	Body stressed after 20 minutes. HEAT EXHAUSTION likely (dizziness, nausea, vomiting, headache, fainting, disorientation, weakness)	Take at least 40 minutes of breaks each hour if working or exercising in direct sunlight. Reduce work, exercise intensity. Drink up to 1 quart of water per hour.
> 90 F / Extreme	Body stressed after 15 minutes. HEAT STROKE likely (extremely high body temp, confusion, convulsions, unconsciousness, death)	Take at least 45 minutes of breaks each hour if working or exercising in direct sunlight. Suspend all strenuous outdoor activities. Drink at least 1 quart of water per hour.

Adapted from U.S Army and OSHA guidelines and recommendations

Thermal Stress Working Group



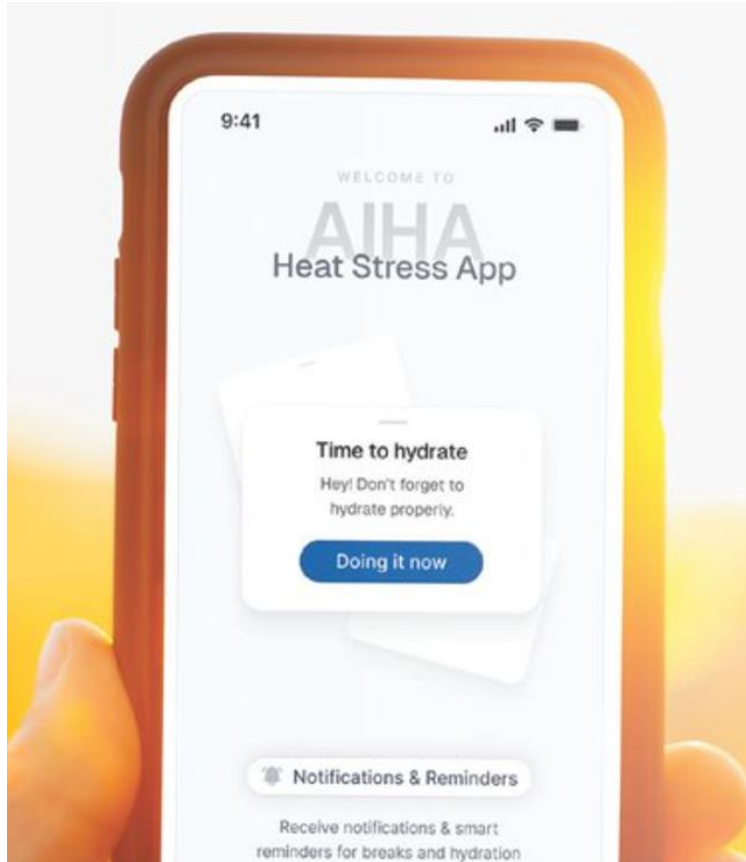
IAQ FOR HEALTHY FACILITY

IAQ Task Force

* AIHA Working Groups & Task Forces are open to anyone



AIHA's HEAT STRESS APP



- Proposed by the AIHA Thermal Stress Working Group (*open to anyone*)
- Partnership between **East Carolina University** and **Dualboot Partners**
- A reference tool – it carries NO regulatory authority; references federal guidelines published by US OSHA and CDC/NIOSH
- **FREE** app compatible with both iOS and Android platforms
- **Ver. 1.0 of this app currently designed for outdoor workers only ***
- No pop-up ads
- Available in English, Spanish, Portuguese, and French
- Can be used globally
- Calculates **Adjusted WBGT** that informs heat stress risk level w/ health recommendations
- NO interface with physiological monitors; NO personal data are collected
- Includes quick reads on related topics
- Not a replacement of the current **OSHA/NIOSH Heat Safety Tool**
- Designed for both **Employers** and **Employees**

* Ver. 2.0 is planned for indoor workers in non-acclimatized indoor settings (2025).

ACCESS THE APP

Apple and Android Links
available on our site



Total Unique Users (7/1/24 to present): ~4600
Total Users: ~5300

APP FUNCTIONALITIES

- **User inputs:**
 - Location (one or more) -> pulls current weather data from your local National Weather Service
 - Workload intensity
 - Type of clothing
 - Cloud cover
- **Calculation of adjusted WBGT, Heat Stress Risk Level** (color coded), and **Health Recommendations**
- **Heat alerts** (based on current location risk, assuming notifications are turned on)
- **Share Feedback / Customer Service**
- **Latest enhancements**
 - **Improved Location Search:** Finding locations is now easier with more search results.
 - **Customized Locations:** You can now customize the configuration (user inputs) by location.
 - **Clearer Location Names:** Your current location will now display the city or more specific name for better clarity.
 - **Enhanced Forecast View:** The first hour of today's forecast now shows "Now" to keep you updated in real-time.
 - **Manual Location Sorting & Renaming:** You can now manually sort and rename your saved locations for a more personalized experience (good for when you have multiple worksites in one geographic area)
 - **Detailed WBGT Index:** The selected workload, clothing, and cloud coverage are now displayed above the WBGT index, giving you more context at a glance.

TOXIC SUBSTANCES CONTROL ACT (TSCA) TASK FORCE*



Mission: To ensure that AIHA is speaking with one voice / one message with respect to how the OEHS profession is the right partner to support US EPA in their occupational risk assessments and management, as mandated by TSCA

Goals

1. Influence EPA to more closely align with how OEHS professionals conduct occupational exposure assessments.
2. Show evidence of AIHA's ability to positively influence how EPA conducts its risk assessments (i.e., anecdotally).

Strategic Objectives

1. Serve in a strategic oversight capacity that helps direct, prioritize, and coordinate AIHA activities being undertaken at the AIHA Volunteer Group level to influence the EPA.
2. Build closer relationships with trade associations, such as the American Chemistry Council.
3. Provide messaging to EPA staff to educate them on the fundamentals of how occupational exposure assessments are conducted.

Two Sub-Groups

- Organization Peer to Peer
- Technical Best Practices Alignment

* Open to anyone

IAQ TASK FORCE*

Mission: To serve in a liaison capacity between AIHA's Volunteer Group network and ASHRAE; strengthen communication and coordination of activities that foster enhancing IAQ

Goal: AIHA and the OEHS profession are viewed as critical stakeholders vis-à-vis ASHRAE and other standards setting organizations that focus on IAQ.

Strategic Objectives

- Serve in a strategic oversight capacity that helps direct, prioritize, and coordinate IAQ activities being undertaken at the Volunteer Group level and how these are perceived and valued by ASHRAE and other organizations.
- Build a closer relationship with ASHRAE.
- Provide messaging to ASHRAE to educate them on the key role OEHS professionals provide in promoting healthy IAQ.

Two Sub-Groups

- Communications between AIHA and ASHRAE
- Role of Sensors in IAQ

* Open to anyone

The Advantages of Hiring an Industrial/Occupational Hygienist (IH/OH) for Air Monitoring

So, you need air monitoring to assess workplace exposures.

Sure, it looks easy: just hang a pump or badge on an employee. But evaluating employee exposures to occupational hazards is much more complex. The best approach to air monitoring is to consult an occupational and environmental health and safety professional with an extensive industrial/occupational hygiene background. These professionals have the training and technical expertise to identify potential hazards, develop a sampling strategy, assess the hazards and recommend solutions to reduce employee exposures to occupational hazards.

These professionals practice the science of anticipating, recognizing, evaluating, controlling, and confirming protection from hazardous workplace conditions that may cause employee injury or illness. Through a continuous improvement cycle of planning, performing, checking, and acting, these professionals make sure workplaces are healthy and safe.

An experienced IH/OH is trained to manage/oversee or be involved in any air monitoring project. A Certified Industrial Hygienist (CIH) has passed a rigorous

exam and is required to meet continuing education requirements to maintain the certification. As such, a CIH understands the nuances around conducting a high-quality, defensible assessment of potential occupational exposures (chemical, biological, or physical).



HEALTHIER WORKPLACES | A HEALTHIER WORLD

Need help finding a CIH or an IH/OH professional?
Check out the AIHA Consultants Listing at aiha.org/consultants-directory. It is a quick and simple web-based tool to help you find a CIH and/or an IH/OH near you. For more information about how CIHs and IH/OH professionals can help you, please go to the AIHA website at www.aiha.org.

To conduct sampling, an IH/OH follows these steps:

1. IDENTIFY POTENTIAL HAZARDS

Assessing the contaminants, work practices, controls and other factors that impact employee exposures to occupational hazards.

This process includes:

- Observing work processes and tasks.
- Interviewing employees and management.
- Reviewing Safety Data Sheets (SDSs).
- Reviewing previous exposure monitoring results.
- Understanding engineering controls.

2. DEVELOP A SAMPLING STRATEGY

A sampling strategy involves the following:

- Considering appropriate occupational exposure limits (OELs).
- Determining the correct contaminants to be monitored.
- Verifying the best sampling and analytical method available to evaluate the exposure.
- Selecting the correct sampling media for the contaminant.
- Calibrating sampling equipment prior to, during and after the sampling period.
- Determining the appropriate timeframe to sample based on the chemical and relevant OELs (15-minute short term, ceiling, or 8-hour work shift).
- Deciding the number of samples needed to provide sufficient data while being budget conscious.

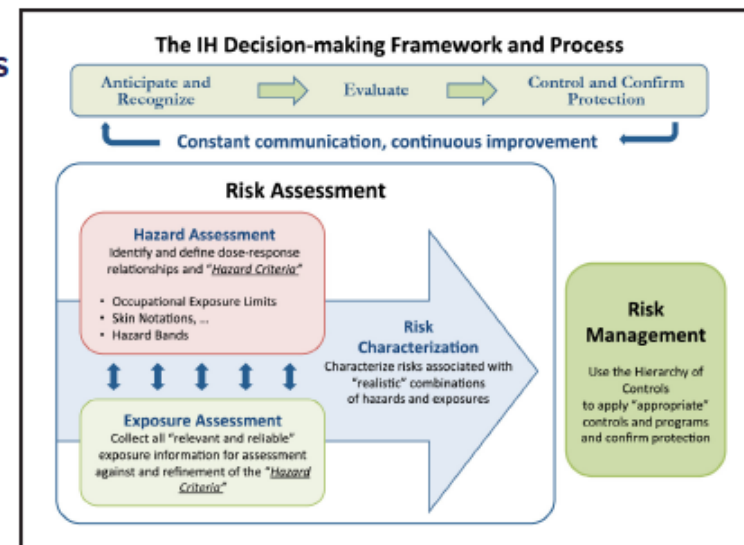
3. EVALUATE RESULTS AND PROPOSE SOLUTIONS

Upon completion of air monitoring, it is important to submit the samples to an accredited industrial hygiene laboratory for the appropriate fields of testing and methods for the monitored contaminants. This accreditation is obtained from AIHA Laboratory Accreditation Programs (aihaaccreditedlabs.org).

After interpreting air monitoring results received from the lab using appropriate statistical tools, the IH/OH will propose engineering or administrative controls to reduce employee exposures that exceed recommended OELs or best practices. For those exposures that cannot be reduced, the IH/OH recommends the correct personal protective equipment to ensure adequate protection against the hazards.

Possible controls may include, but are not limited to:

- Substituting with less hazardous chemicals.
- Improving ventilation in key areas of the workspace.
- Worker rotation.



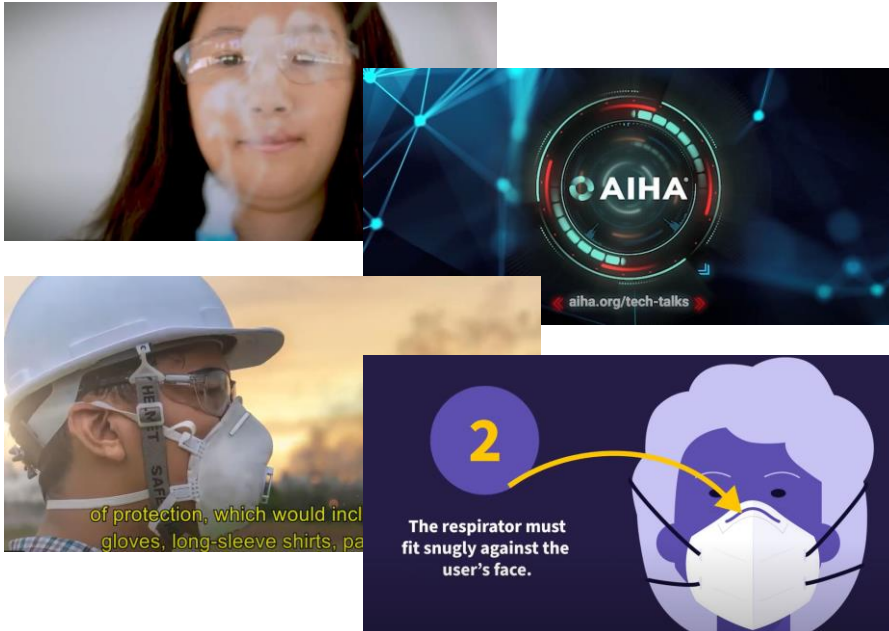
From A Strategy for Assessing and Managing Occupational Exposures, 4th ed.

AIHA NETWORK TV

WHAT IT IS

AIHA Network TV is our YouTube channel, spotlighting topics and stories important to members, the profession, and the public.

[Click to Learn More](#)



PUBLIC RESOURCES

HealthierWorkplaces.org

WHAT IT IS

People face many health and safety risks at home and work as we navigate everyday life, including infectious diseases and the threat of natural disasters like wildfires and floods. Our online resource center, combined with AIHA Network TV, provides public guidance and information for many kinds of global workplace hazards:

- Airborne transmitted disease
- Disaster preparedness/response
- Formaldehyde
- Indoor air quality/legionella
- Mold
- MSD
- Noise
- Heat stress
- Wildfires
- Young worker safety training

[Click to Learn More](#)



CDC/NIOSH GRANT (2021-PRESENT)

IMPROVING CLINICAL AND PUBLIC HEALTH OUTCOMES THROUGH NATIONAL PARTNERSHIPS TO PREVENT AND CONTROL EMERGING AND RE-EMERGING INFECTIOUS DISEASE THREATS:

Knowledge Product Development

- 20 Micro-training Animated Videos targeting Small Businesses, Education, and Healthcare
- Supporting Worksheets, Tip Sheets, Infographics, Etc.
- Accessibility: Color Blind, Closed Captioning, Translations into 8 Languages
- Ongoing *Lessons Learned* Webinars

Knowledge Product Dissemination

- 4 Step Online Interactive Risk Assessment Tool
- Commit to CARE Pledge: Organization Outreach
- New quarterly e-newsletter and monthly blog series
- [Healthier Workplaces & Schools eBook](#) (English & Spanish)

\$800K IN GRANT FUNDING SINCE ITS INCEPTION



Ver 1.0 Released!

(updated version coming in Q1 2025)

Table of Contents

Disclaimer	2
Introduction	4
General Office Settings	7
Service Sector Businesses	11
Healthcare Facilities	15
Educational Facilities	20
Manufacturing and Warehouses.....	25
Large Venues	29
Outdoor Activities	35
Transit Systems (Buses, Subways, and Light Rails)	39
Conclusion	44

ALL PROJECTS: RESOURCES FOR SMALL BUSINESSES & CONSUMERS

Evolution of Commit 2 C.A.R.E. Campaign



Community. Awareness. Responsibility. Equity.

A public awareness campaign with a mission to level the playing field of understanding of environmental strategies to combat COVID-19 and other airborne infectious diseases like measles and tuberculosis:

- Debunks myths about the spread of airborne viruses, such as COVID-19.
- Makes the complexities of the science easier to understand through various engaging multimedia tools
- Encourages businesses to pledge their commitment to C.A.R.E. for the health and well-being of their employees, clients, and customers.
- Leverages our no-fee partners to amplify our messaging

www.commit2care.org/

Together, we can make our workplaces and communities safer from infectious diseases

Knowledge is power. Get informed, take control, and commit to doing more to protect your co-workers, families, and friends from the infectious diseases of today and tomorrow.

SHARE YOUR EXCITEMENT ABOUT YOUR PROFESSION

Here you'll find resources to help you represent the occupational and environmental health and safety (OEHS) profession. You'll find tips for successful live or virtual presentations, videos that showcase disciplines within the profession, and resources to share with students and professionals looking for an exciting, rewarding career in OEHS.



GOVERNMENT AFFAIRS: 2024 PRIORITIES

1. Protecting Workers and the Public from Hazardous Noise Exposure
2. Protecting Workers and the Public from Thermal Stress
3. Strengthening the OEHS Professional Pathway and Improving the Learning and Working Conditions of Schools



RECENT ADVOCACY ACCOMPLISHMENTS

Examples of comments AIHA submitted to government entities:

- **US EPA**

- Proposed Lead Pipes Rule
- Proposed Rule on NMP Under TSCA
- Proposed Revisions to Standards for the Open Burning/Open Detonation of Waste Explosives
- Proposed Rule on Unpublished Health and Safety Data Under TSCA

- **OSHA**

- Proposed Emergency Response Standard
- Proposed Heat Stress Standard

- **CDC/NIOSH**

- RFI on Outdoor Workers Exposed to Wildland Fire Smoke
- RFI on Human Factors and Considerations for the Fire Fighter Fatality Investigation and Prevention Program
- Updating CDC's Guidance on the Aerosol Transmission of Infectious Diseases

AIHA FELLOWS SPONSORED... **GRAND CHALLENGES**

Eliminate preventable workplace illness, death, and disability by:

- 1. Improving Exposure Assessment in the Workplace**
- 2. Improving Equity in Workplaces, Minimizing Precarious Work Situations, and Protecting Vulnerable Workers** (e.g., gig workers, undocumented persons, migrant labor)
- 3. Addressing the Impacts of a Changing Work Environment** (e.g., remote work)
- 4. Mitigating the Impacts of Climate Change on Workers** (e.g., heat stress)



CONNECT NOW!



Look for exclusive AIHA information, updates, and offers



Follow us for important industry news and happenings



Join the discussion with other like-minded professionals



Check out *AIHA Network TV* video series, and view popular uploads



Get more Information at aiha.org



Check out great offers and product specials.

THANKS FOR LISTENING!

Our Vision: A world where all workers and their communities are healthy and safe.



HEALTHIER WORKPLACES

A HEALTHIER WORLD

ADDITIONAL INFORMATION

2023-24 ENVIRONMENTAL SCAN AND CONTENT PRIORITIES

FINDINGS FROM 2023-24 AIHA ENVIRONMENTAL SCAN

FUTURE TRENDS IMPACTING THE PROFESSION



Information Flows – Information is changing rapidly, with an accelerated role for AI. Like in other fields, OEHS will contend with AI-driven changes in how information is acquired and used.

AI replaces search – AI is being integrated into search functions or developed as a wholesale replacement.

A machine-readable world – More environments and the information in them will be optimized for the use of automated systems & sensors rather than humans.

Domain-specific AI models – Open-source AI models can be trained on targeted data sources, enabling chatbot interfaces for the analysis of proprietary or curated datasets.

IH data standardization – The growth in AI & big data analytics will demand greater standardization in the collection & reporting of IH data.

Social media as a news source – Social Media is a growing source of news for many Americans, with TikTok overtaking print media for some demographics.

AI tools for chemistry – AI tools for chemistry are advancing, with large language models integrated with other software tools for chemical synthesis.

Nano & micro influencers – Niche influencers are becoming increasingly important for outreach to narrow online audiences.

FUTURE TRENDS IMPACTING THE PROFESSION



Evolving Science – AI is poised to spark a new scientific revolution through the rapid identification of patterns in vast amounts of data & the ability to generate answers in the absence of theoretical models. Mastery of the new digital tools of science will become an increasingly critical skill for OEHS professionals.

Accelerating synthetic biology – The pace of synthetic biology is rapidly accelerating due to advances in computational analytics, data storage & processing, & new genetic modification technologies.

A machine-readable world – The world will increasingly be optimized for the comprehension of automated systems.

Science without theory – AI has begun to produce scientific answers without underlying causal theory.

Automation of science – AI is transforming scientific research, giving researchers new capabilities to use computational insight & stimulations to tackle the complex scientific problems.

IH data standardization – Aggregation of information into standardized data is necessary for unlocking AI analysis.

AI tools for chemistry – Specialized Large Language Models (LLMs) perform materials design, drug discovery, & the synthesis of organic chemicals.

AI devising dangerous chemicals – AI systems are demonstrating the potential to make dangerous substances.

FUTURE TRENDS IMPACTING THE PROFESSION



Workforce Shifts – Demographic & cultural changes are driving changing expectations in the workforce, in ways that will increasingly impact OEHS. Growth in underrepresented groups & generational shifts will require OEHS professionals to adopt to a workforce with different needs & priorities.

Widespread remote work – Remote work will remain widespread, with workers resisting efforts to return to the office.

Forever labor shortages – The retirement of the Baby Boomers & low fertility rates will lead to slower growth in the American workforce for as long as 2 decades.

“Practical” college degrees – Undergraduate degrees are shifting toward STEM & health.

Women in STEM – The female percentage of the U.S. STEM workforce is growing slowly, but women only make up 34% of the STEM workers.

Declining U.S. college enrollments – Enrollment in higher education in the U.S. has fallen since 2010, despite a growing population. This is contributing to a constrained workforce growth.

Women in education – American women are outperforming men in standardized tests & high school graduation rates, & they make up most students at all levels of tertiary education.

Gen Z mental health focus – Gen Z members place a high value on mental health in their professional goals & workplace requirements.

FUTURE TRENDS IMPACTING THE PROFESSION



21st Century Health – New threats to workplace health are emerging from broad societal trends. OEHS professionals face a growing challenge in the external health threats that are encroaching on the 21st century workplace.

Deaths of despair – Fatal drug overdoses & suicides are increasing and especially common among people without a college degree, among whom life expectancy peaked in 1990 & has been declining ever since.

Climate change-driven heat at work – Heat protection is becoming a labor issue & OSHA is formulating new standards for workplace heat safety.

Mental health in remote work – Remote work can have mental health impacts, such as social isolation.

Rising attention to “forever chemicals” – Ongoing concerns about human effects of PFAS have increased in recent years.

Wellness and work schedules – Unstable work schedules can be a major contributor to workplace stress.

Workplace violence against women – The rate of job injury caused by interpersonal attacks is rising & the increase is occurring primarily in professions dominated by women.

Overdoses on the job – The opioid epidemic is leading to a growing rate of on-the-job drug overdoses.

FUTURE TRENDS IMPACTING THE PROFESSION



Politics & Society – As in all areas of American life, issues of polarization & trust are impinging on OEHS. Views of science, safety & regulation are all being affected. IH professionals will have to navigate growing doubts about the credibility of experts & the potential for myriad issues to become politicized.

Public doubts about science – Trust in science & medicine in the U.S. fell in the early 2020s.

America's polarized politics – This polarization is shaping people's basic impressions of society & becoming multidimensional, with political polarization correlating with patterns of race, geography, lifestyle, and education.

Social media as news source – Social media is a growing source of news for many Americans, especially among younger generations.

Curtailing federal regulatory power – A multidecade effort to reduce the powers of federal agencies is gathering steam, potentially reshaping regulations of all kinds, including health & safety regulations.

Credentialing as a political target – Credentialing is becoming a point of conflict in America.

Oscillating climate policies – Americans are divided over approaches to climate change, with splits coinciding with other political fissures.

FUTURE TRENDS IMPACTING THE PROFESSION



IH in an AI World – AI & other factors are changing the systems in which IH operates. OEHS, like all fields, will have to work out its relationship with AI in the coming years. OEHS professionals will need to integrate the capabilities of AI into the practice of IH but ensure that AI assists human judgement rather than replacing it.

Domain-specific AI models – Trained on targeted data sources, enabling chatbot interfaces for the analysis of proprietary or targeted datasets.

Enterprise-scale LLMs – New designs for LLM training systems enable them to be used on desktop PCs, reducing the need to access extensive cloud computing resources.

The circular economy – Companies are changing their product designs to improve the recoverability of materials & taking a more proactive approach to minimizing the waste generated at the end of the product cycle.

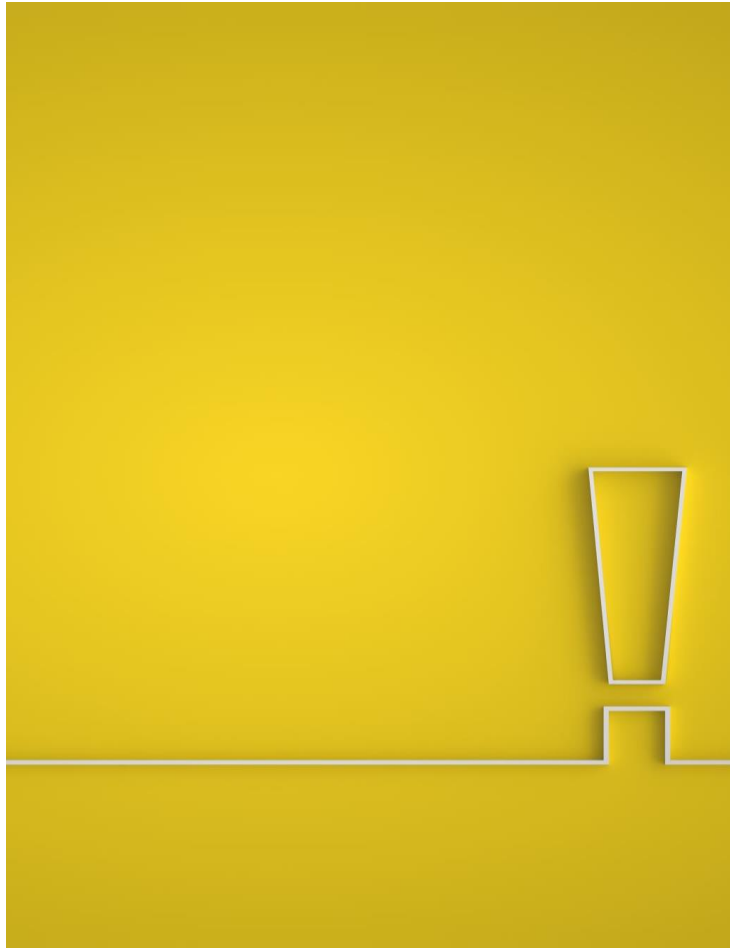
Automation anxiety – AI innovations are increasing worker anxiety about being replaced by automation.

AI & responsibility – Pinning AI mistakes & problems on users rather than decisionmakers or designers may muddle or misdirect responsibility.

Chief health officers (CHO) – A growing presence in the corporate C-suite, with responsibility for oversight of workforce health & wellness, though the CHO role is still being defined.

AI devising dangerous materials – AI systems are demonstrating the potential to make dangerous chemicals & biomaterials.

HOW ARE CONTENT PRIORITIES USED?



- **Boost Content.** Promoted to help volunteer groups enhance the impact of content around any subject matter.
- **Boost Members.** Education around content priority areas to help IH's understand how to adapt and respond to global trends and changes.
- **Boost Decisions.** Help guide AIHA resource allocations toward content.

CURRENT CONTENT PRIORITIES

Big Data, AI & Sensor Technologies

Total Worker Health®

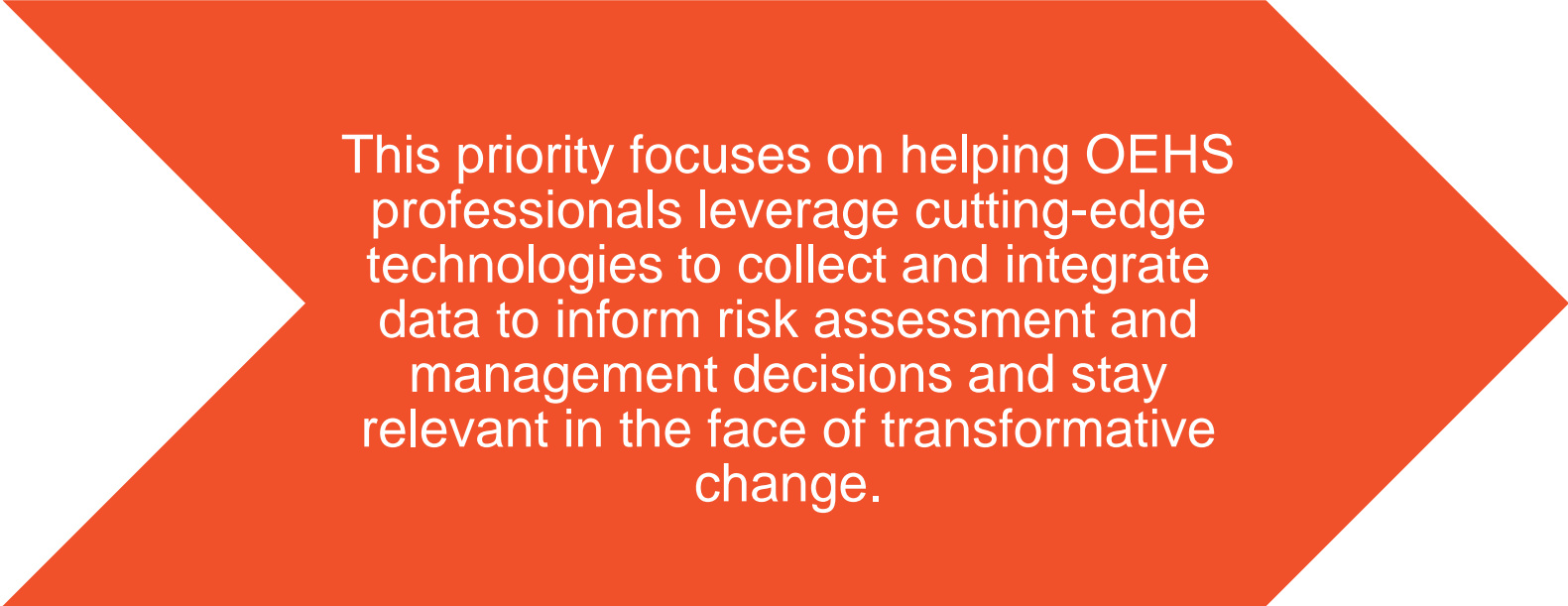
Changing Work Dynamics

Enhancing OEHS Communication Skills

Total Worker Health® is a registered trademark of the U.S. Department of Health and Human Services (HHS). Participation by AIHA does not imply endorsement by HHS, the Centers for Disease Control and Prevention, or the National Institute of Occupational Safety and Health.

BIG DATA, AI & SENSOR TECHNOLOGIES

CONTENT PRIORITY



This priority focuses on helping OEHS professionals leverage cutting-edge technologies to collect and integrate data to inform risk assessment and management decisions and stay relevant in the face of transformative change.

BIG DATA, AI & SENSOR TECHNOLOGIES

Vision Statements:

- OEHS professionals are leveraging cutting-edge sensor technologies, AI tools, and data management functions to inform risk assessment and management decisions.
- OEHS professionals understand and possess competencies in the applying sensor technologies and big data analytics to provide integrated profiles of hazards and exposures.
- OEHS professionals use software platforms that apply standardized data criteria and software tools to facilitate the transfer, analysis, and aggregation of data.
- OEHS professionals adhere to the responsible and ethical use of sensor technologies, AI tools, and data software to protect data privacy and avoid negative outcomes, such as bias, discrimination, plagiarism, and false or misleading results.

APPLICATION



Big Data, AI & Sensor Technologies


What have we accomplished?

- Spencer Pizzani and Taylor Shockey authored an article in the June/July issue of *The Synergist* on [Modernizing the AIHA Exposure Monitoring Data Structure](#).
- [AIHA University Webinar: Keeping Pace with the AI Revolution: The Role of the OSH Professional](#).

What's on the Horizon?

- Taylor Shockey (NIOSH) is leading a project team to develop a white paper on IH Data Standardization which will be completed by the end 2024.
- Several members of the Big Data & Sensor Technology Working Group are developing a white paper on data analytics to be published later in 2024.

TOTAL WORKER HEALTH® **CONTENT PRIORITY**



This priority focuses on ensuring OEHS professionals are positioned to be leaders and valued participants in preventing harm and promoting worker well-being, including mental health, using tools such as *Total Worker Health®*, Exposomics, Total Exposure Health.

They are recognized as the preeminent experts in the anticipation, recognition, evaluation, and control of exposures to environmental and physical agents and psychological stressors in the workplace, home, and community.

Total Worker Health® is a registered trademark of the U.S. Department of Health and Human Services (HHS). Participation by AIHA does not imply endorsement by HHS, the Centers for Disease Control and Prevention, or the National Institute of Occupational Safety and Health.

TOTAL WORKER HEALTH[®]

Vision Statements:

- OEHS professionals understand how occupational and non-occupational exposures combine or interact to affect worker well-being.
- OEHS professionals use their skills and resources to identify and address stressors impacting worker well-being, including health and psychosocial hazards.
- OEHS professionals are seen as leaders and valued partners who collaborate with other professionals, such as occupational nurses, doctors, and human resource professionals, on TWH initiatives.

Total Worker Health[®] is a registered trademark of the U.S. Department of Health and Human Services (HHS). Participation by AIHA does not imply endorsement by HHS, the Centers for Disease Control and Prevention, or the National Institute of Occupational Safety and Health.

APPLICATION



Total Worker Health[®]

What have we accomplished?

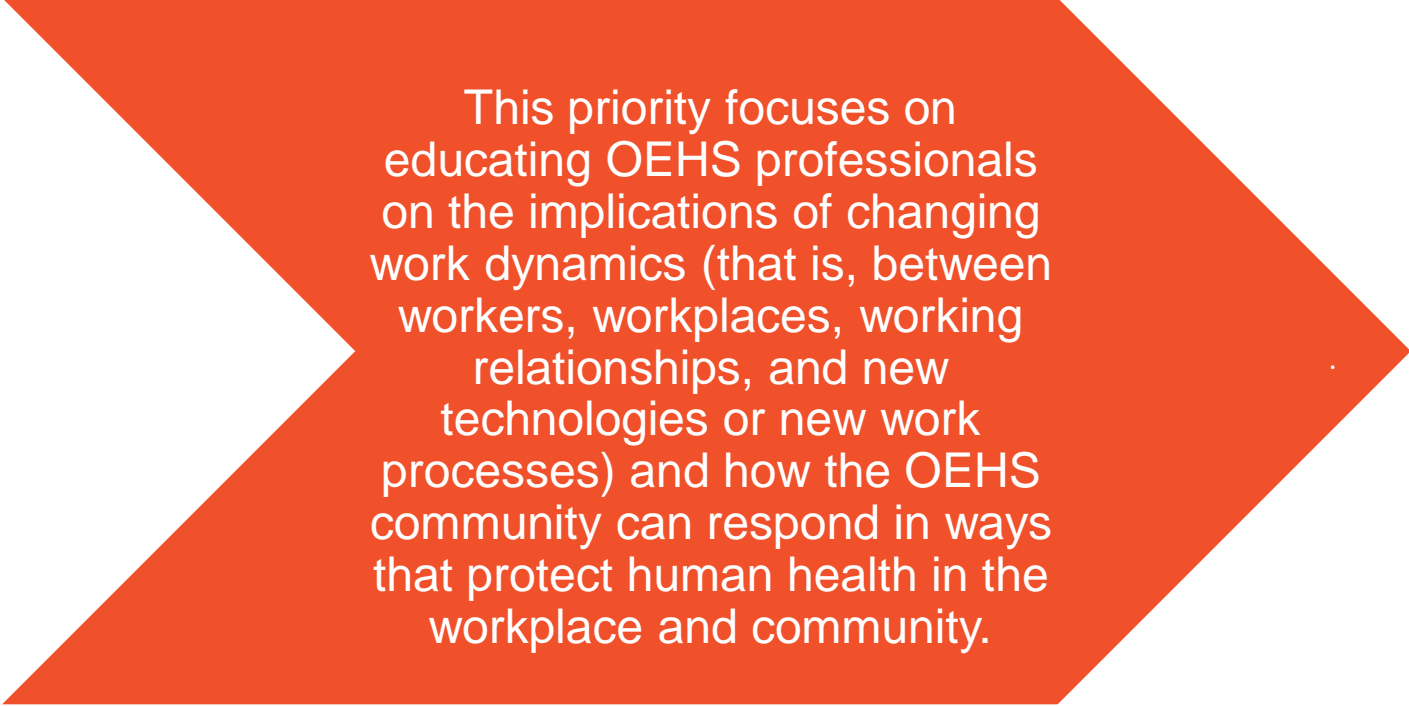
- [Odor Thresholds for Chemicals with Established Occupational Health Standards, 4th edition](#) was recently published.
- *Total Worker Health[®]* conference sessions available [OnDemand](#).

What's on the Horizon?

- TWH-AG members are working with volunteers to develop talking points focused on topics from the NIOSH TWH graphic that Industrial Hygienists can share with their workers. Talking Points for [psychosocial hazards](#), [sensors](#), and [ergonomics](#) have already been published.
- TWH-AG members are developing a guidance document explaining the distinctions between the “Totals” (i.e., *Total Worker Health[®]*, Total Exposure Health, Total Worker Exposure).

Total Worker Health[®] is a registered trademark of the U.S. Department of Health and Human Services (HHS). Participation by AIHA does not imply endorsement by HHS, the Centers for Disease Control and Prevention, or the National Institute for Occupational Safety and Health.

CHANGING WORK DYNAMICS CONTENT PRIORITY



This priority focuses on educating OEHS professionals on the implications of changing work dynamics (that is, between workers, workplaces, working relationships, and new technologies or new work processes) and how the OEHS community can respond in ways that protect human health in the workplace and community.

CHANGING WORK DYNAMICS

Vision Statements:

- OEHS professionals have the skills and tools to identify and address the implications of a changing workforce, **such as the wider age span, increased prevalence of chronic diseases, and increased diversity of workers**, that can impact the implementation and effectiveness of OEHS programs and training.
- OEHS professionals have the skills and tools to identify and address new and emerging challenges and risks arising from new and diverse workplaces, **such as working from home or co-working spaces and flexible arrangements**.
- OEHS professionals have the skills and tools to identify and address the implications of exposure profiles driven by new trends in the relationships between workers and their work, **such as multiple employers or contractors, gig work, and telecommuting**.
- OEHS professionals have the skills and tools to identify and address new technologies and industrial processes, such as nanotechnology, robotics, synthetic biology, and AI, that introduce hazards to the workplace, as well as external hazards that have impacts on the workplace, **such as climate change and pandemics**.

APPLICATION



Changing Work Dynamics

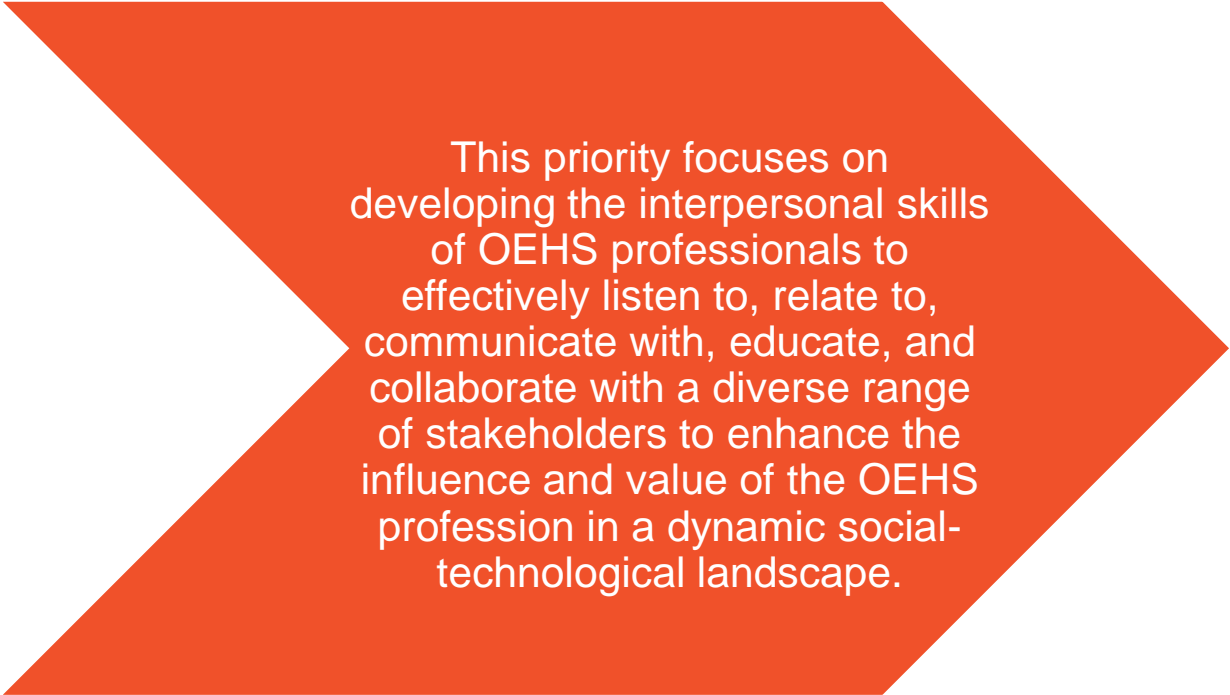
What have we accomplished?

- AIHA University hosted a virtual conference in October 2023 on [Diversity, Equity, & Inclusion for OEHS Professionals](#).
- The [Technical Framework: A One-of-a-Kind Resource for All IAQ/IEQ Practitioners](#) was recently updated.

What's on the horizon?

- Volunteers are developing a white paper that will explore the causes and potential controls to prevent injuries to care givers arising from care recipient handling and mobility which is slated for completion by the end of 2024.
- Volunteers are developing a white paper on child labor in the U.S. which is slated for completion in 2025.

ENHANCING OEHS COMMUNICATION SKILLS CONTENT PRIORITY



This priority focuses on developing the interpersonal skills of OEHS professionals to effectively listen to, relate to, communicate with, educate, and collaborate with a diverse range of stakeholders to enhance the influence and value of the OEHS profession in a dynamic social-technological landscape.

ENHANCING OEHS COMMUNICATION SKILLS

Vision Statements:

- AIHA is a champion for generating awareness and promoting the OEHS profession's value in the U.S. business sector and the general public.
- AIHA equips OEHS professionals with the interpersonal skills needed to communicate effectively to stakeholders with varying levels of understanding and perspectives.
- AIHA develops guidance and tools to support OEHS professionals in communicating OEHS concepts to diverse audiences and communities with varying levels of understanding and perspectives.

APPLICATION



Enhancing OEHS Communication Skills

What have we accomplished?

- A white paper on the [Hierarchy of Controls](#) was recently published.
- The [Hazardous Drug Surface Contamination Guidance Document](#) was recently published.



What's on the Horizon?

- A book on *What It's Like to Protect Worker Health* is being developed and should be completed by fall 2024.
- Volunteers from AIHA's Communicating OEHS Concepts Working Group are in the process of submitting short self-recorded videos talking about a critical lesson in communication that they learned during their career. These videos will be added to the AIHA website as part of an effort to provide resources to help enhance the communication skills of professionals in the OEHS field.

ADDITIONAL INFORMATION **STRATEGIC FRAMEWORKS**

Strategic Framework

A *Strategic Framework* is a logical model that sets a strategic goal and direction, shapes the collective identity of resources working towards this goal, and provides a map to guide decision-making and problem-solving relative to the OHS profession.



Strategic Framework

Enterprise Risk Management

aiha.org

Enterprise Risk Management for IH/OEHS Professionals

This essential body of knowledge establishes a baseline for all OHS professionals on what enterprise risk management means within the sphere of safety and environmental health.

Member: \$19.95 | Non-member: \$29.95

[LEARN MORE](#)

Competency Frameworks

A *Competency Framework* is a structure that sets out and defines the core knowledge and skills required by an individual for effective performance in a specific area of expertise. These competency frameworks can be linked to either an assessment-based certificate program or an online self-study course.



Auditing Occupational Health & Safety Management Systems

[ABOUT THIS](#)



SDS and Label Authoring Registry

[ABOUT THIS](#)



Understanding and Applying ARECC to Occupational and Environmental Health and Safety

[ABOUT THIS](#)

Technical Frameworks

A *Technical Framework* defines an individual's core knowledge and skills for effective performance in a specific practice or expertise. These frameworks are widely used as a resource for individuals looking to expand or refresh their knowledge or skills or develop a new training program within an organization.



**A One of a Kind
Resource for All
IAQ IEQ
Practitioners**

[ABOUT THIS](#)



**A Resource for
Respiratory
Protection
Programs**

[ABOUT THIS](#)



Big Data

[ABOUT THIS](#)



**Climate Change
Adaptation for
the OEHS
Professional**

[ABOUT THIS](#)



**Emergency
Preparedness
and Response
for the Industrial
Hygienist**

[ABOUT THIS](#)



**Guidance on
Use of Direct-
Reading
Instruments**

[ABOUT THIS](#)



**Guiding
Principles for
Exposure Risk
Assessment and
Management**

[ABOUT THIS](#)



Legionella

[ABOUT THIS](#)



**Occupational
Exposure
Banding Process**

[ABOUT THIS](#)



**Role of the OEHS
Professional in
Continuity
Planning**

[ABOUT THIS](#)



**Role of the OEHS
Professional in
Emergency
Planning**

[ABOUT THIS](#)



**Susceptible
Worker
Protection**

[ABOUT THIS](#)



**The Keys to
Effective
Presentation of
Your Business
Case**

[ABOUT THIS](#)

ADDITIONAL INFORMATION

GROWING OUR PIPELINE MATERIALS

FREE RESOURCES FOR AGES 12–18



Preparing for a Career Fair Presentation

Ready to help spread the word about OEHS? Check out this video to help you get started!

bit.ly/GetReadyPresentation

Click to Learn More



OEHS Career High School Presentation

You've planned a presentation about AIHA and OEHS, now what? This ready-to-use PowerPoint was designed with teenagers in mind. Feel free to add your own flair to the template!

bit.ly/HighSchoolPPT

Click to Learn More



Impact of OEHS in Communities Video

Follow the odyssey of how Stacy and her family overcame an environmental health nightmare and how an OEHS professional positively impacted their lives.

bit.ly/VideoOEHSimpact

Click to Learn More



Safety Matters Center

NIOSH and AIHA teamed up to present Safety Matters, a program to raise awareness among young people about workplace safety and health. Help get this critical toolkit of information in front of teens before they enter the workforce.

aihasafetymatters.org

Click to Learn More



EVEN MORE FREE RESOURCES FOR AGES 12-18



IH Heroes™ Social Media Pre-Written Posts

These graphic files are ready for you to upload to Instagram, LinkedIn, or wherever you socialize online. They tell stories of IH Heroes™ in bite-sized pieces for sharing with kids and your OEHS colleagues alike.

bit.ly/IHHeroesSocialPosts

Click to Learn More



IH Heroes™ Biography Cards

Like baseball cards, these biography cards profile the IH Heroes™ featured in our comic series. Besides being a fun way to learn more about the profession, students can qualify to win all 15 cards by going to OEHSCareers.org to learn more.

bit.ly/IHHeroesCards

Click to Learn More



IH Heroes™ Comics

Meet the IH Heroes: Unsung Heroes, Uncommon Pathways. These hand-drawn comic books showcase IH Heroes' impact on worker health. Download the digital copies for free.

bit.ly/ComicsIHHeroes

Click to Learn More



IH Heroes™ Game

For ages 12-18, this game simulates a scenario often faced by OEHS professionals to teach the profession's five core tenets: Anticipate, Recognize, Evaluate, Control, and Confirm (ARECC). Download for free.

bit.ly/HeroesVideoGame

Click to Learn More

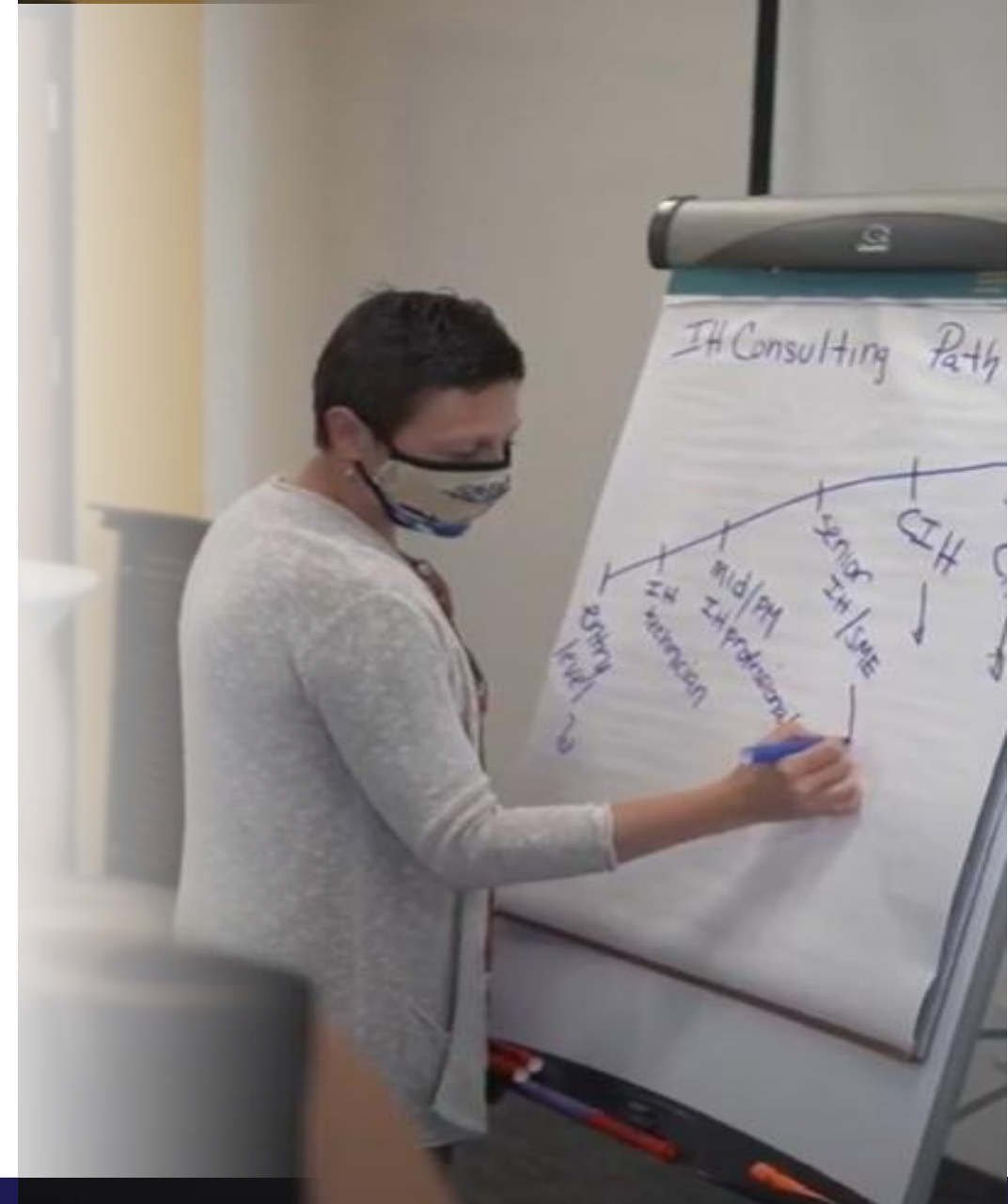


**New Developments
Coming
in 2025!**

IS THE OEHS PROFESSIONAL PATHWAY FOR YOU?

Where are you in your career right now, and where do you want to go?

Whether you are still in school, a recent graduate, or have been in the OEHS field for years and want to grow your management and leadership skills, AIHA's [Professional Pathways Program](#) provides resources and tools to help you reach the next stage of your career, through the lenses of Technical, Management, and Leadership.



RESOURCES FOR UNDERGRADUATES OR PEOPLE CHANGING CAREERS



OEHS Careers and Salaries

What's possible in this growing field? How much do today's OEHS professionals make? Find these answers and more.

bit.ly/aihasalary

Click to Learn More



OEHS Career Levels

Each stage of an OEHS professional's career can be defined by his or her knowledge area, career level, and stage of progression.

bit.ly/IHCareerLevels

Click to Learn More



Core Competencies

The Core Competencies outline the essential knowledge, skills, and abilities that every OEHS professional needs.

bit.ly/IHCoreCompetencies

Click to Learn More



EVEN MORE RESOURCES FOR UNDERGRADUATES OR PEOPLE CHANGING CAREERS



eGuide

This detailed eGuide links to hundreds of resources that help you explore what you want to do and how to get there.

bit.ly/OEHSeGuide



Your Roadmap

A simple infographic will be your map as you walk through the technical, management, and leadership aspects of your OEHS career.

bit.ly/ProPathway



EHS Generalist

Do you have the right skills and credentials to land your first or next job? See what hiring managers are looking for in an EHS Generalist.

bit.ly/EHSGeneralist



I Am IH Video Series

What is OEHS? What careers are available in this profession? Hear from over a dozen different OEHS scientists and professionals about how this career path has rewarded them and what a day in their lives look like.

bit.ly/IAmIH-Webseries

Click to Learn More



Click to Learn More



Click to Learn More



Click to Learn More

