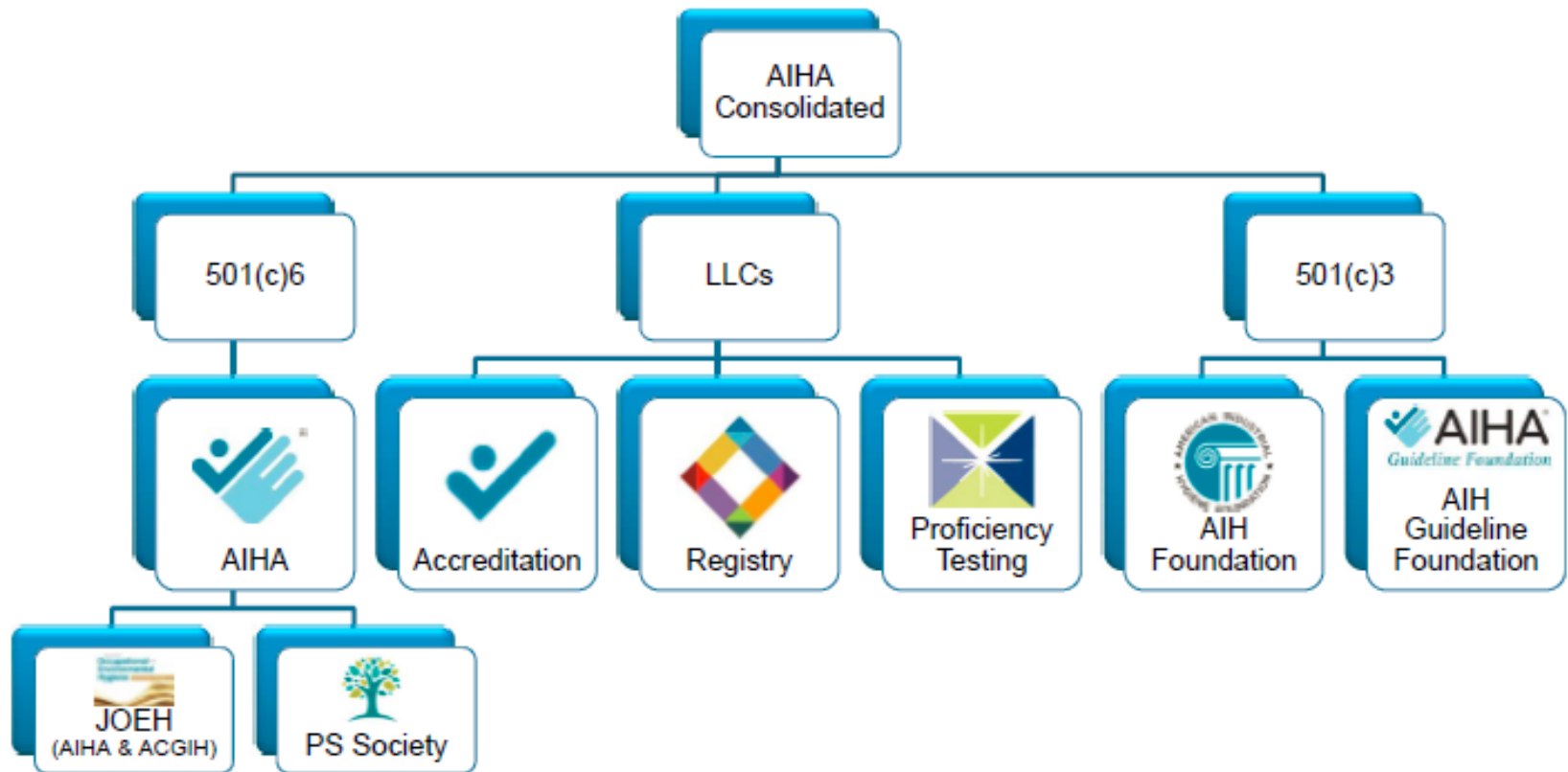


# AIHA: Leading the Charge to Protect Worker Health & Safety

**March 2, 2020**

**Kathy Murphy, CIH  
President, AIHA**

# AIHA Organization Structure



# 2019-21 AIHA Strategic Plan

**Our Mission** - Empowering those who apply scientific knowledge to protect all workers from occupational hazards

**Our Vision** – A world where all workers are healthy and safe

# 2019-21 AIHA Strategic Plan

1. Community
2. Awareness
3. Advancement / Dissemination of Knowledge
4. Integrity of IH Practice
5. Advocacy

# Content Portfolio Advisory Group (CPAG)

## New Project Ideas: **Evaluation Process**

**Recommend  
Content Priorities  
to the Board &  
facilitate their  
implementation.**

**Ensure projects  
align with content  
priorities or fill gaps.**

## Existing Materials: **Portfolio Analysis**

**Review existing  
content & make  
product lifecycle  
recommendations.**

**Solicit proposals  
for new products  
to fill identified  
portfolio gaps.**

## Environmental Scanning: **New Content**

**Shepherd content  
development in  
existing priority  
areas.**

**Scan IH profession  
& develop new  
content based on  
future trends &  
challenges.**

# Future Trends Impacting I.H. (2019 Environmental Scan)

## Rejection of Expertise

- Growing skepticism of expertise (including scientific)

## Anticipatory Intelligence

- Predictive analytics will be used to anticipate needs, opportunities and threats in the environment

## Dark Data

- Rapidly accumulated data that is rarely used (IBM estimates that 90% of sensor data accumulated is never used)

## Fast Data

- Emphasis on real time decision; processing and acting on the data with speed creates value

## Personalized AI

- Increasing proliferation of sensor technology, wearables and human-machine hybrid work

## More Human Humans

- Accelerating speed of change and continual needs for retraining, adapting to new technologies, relating to people

# CPAG

## Current Content Priorities (2020–2025)

1. Exposure Banding
2. Big Data and Sensor Technology
3. Total Exposure Health
4. Serving the Changing Workforce
5. Communicating IH Concepts

# 1. Exposure Banding

## Why?

The continued addition of chemicals & other exposure hazards impacting the community & workplace far exceeds the capacity of the environmental health community to develop exposure level guidelines.



# Exposure Banding

## How does it impact the IH profession?

IH's are often left with few resources to help evaluate exposures & make appropriate risk management decisions using current/traditional methods.

## Focus of Content Priority

This priority focuses on educating IH's on how to apply banding concepts in evaluating exposures & controls across environments, & on exploring how they relate to technological advancements involving integrated decision-making.

# Exposure Banding

## Vision Statements

- AIHA in partnership with NIOSH is educating, training, & creating tools for OHS professionals to excel & understand the importance of utilizing Exposure Banding (EB) in their exposure risk assessments.
- IH & allied professionals (e.g., Product Stewards, Occupational Health Nurses & Doctors) develop & actively use practical guidance for application of EB in their professional practice.

# 2. Big Data and Sensor Technology

## Why?

New applications of sensor technologies are allowing for the faster collection & communication of data across a broader set of agents. In addition, advancements in data analysis & Artificial Intelligence (AI) are combining formerly disparate data sets and automating decision-making.

# Big Data & Sensor Technology

## **How does it impact the IH profession?**

Technological advancements & developments will fundamentally alter the role of health & safety professionals

## **Focus of Content Priority.**

This priority focuses on helping IH professionals leverage cutting-edge technologies for collecting & integrating data to inform risk assessment & management decisions, & to stay relevant in the face of transformative change.

# Big Data & Sensor Technology

## Vision Statements:

- AIHA members are leveraging cutting edge sensor technologies & data management functions to inform risk assessment & management decisions.
- AIHA members understand & possess competencies in the application of sensor technologies & "big data" analytics to provide an integrated profile for hazards and exposures.

# Big Data & Sensor Technology

## Vision Statements (cont'd):

- AIHA members have software platforms that use standardized data criteria & tools that facilitate the transfer of data & use of data repositories.
- AIHA members have a collaborative Data Dictionary & Database with NIOSH to collaboratively upload & share data.

# 3. Total Exposure Health

## Why?

Human health outcomes are being recognized as the result of complex interaction of factors including exposure to environmental agents, socioeconomic stressors, personal behaviors, & individual genomics.

# Total Exposure Health

## **How does it impact the IH profession?**

Advancements in science & technology are allowing for more robust collection & integration of exposure to environmental agents, socioeconomic stressors, personal behaviors, & individual genomics to inform interventions & decision-making.

## **Focus of Content Priority.**

This priority focuses on ensuring IH professionals are positioned to be valued participants in this discourse (e.g., Total Worker Health, Exposomics, Total Exposure Health). We are recognized as pre-eminent experts in the anticipation, recognition, evaluation, & control of exposures to environmental agents in the workplace, home & community.



# Total Exposure Health

## Vision Statements:

- IH Professionals understand how occupational & non-occupational exposures combine to affect health outcomes & are engaging IH skill-sets in assessing all exposures & their integration for overall exposure.
- IH Professionals are recognized as exposure science experts that anticipate, recognize, evaluate, & control all exposures that combine to impact human health.
- IH Professionals are valued partners collaborating with other scientific communicates on initiatives involving integration of exposure data with other determinants of human health (e.g. Total Worker Health, Exposome, Total Exposure Health).

# 4. Serving the Changing Workforce

## Why?

People are increasingly engaging in non-traditional work arrangements such as gig work, contract work, telecommuting & working for multiple employers. In addition, the workforce is aging, raising issues around health, chronic disease, & information processing; coupled with global economic shifts & migration.

# Serving the Changing Workforce

## **How does it impact the IH profession?**

Changes in the engagement in non-traditional work arrangements shows that these changes will significantly impact the evolution of occupational & environmental health concerns & how they are managed.

## **Focus of Content Priority.**

This priority focuses on educating IH's on the circumstances driving these changes, the implications they will have, & how the IH community can respond to protect human health in the workplace & community.

# Serving the Changing Workforce

## Vision Statements:

- IH Professionals are aware of the importance of non-traditional exposure profiles (i.e., multiple employers, gig work, telecommuting).
- IH Professionals are aware of the changing workforce (i.e., aging, chronic disease).
- IH Professionals are aware of the causes that are shaping changes in the workforce (global economic shifts, migration) to better understand implications of the changes.

# 5. Communicating IH Concepts

## Why?

There is an increasing growth & diversification in information sources & communication channels is continuing to dilute the influence of science-based expertise.

At the same time, public skepticism toward traditional experts is growing in the face of unresolved concerns & perceived biases as various advocacy groups leverage scientific systems for their benefit.

# Communicating IH Concepts

## **How does it impact the IH profession?**

Trends coupled with technological advances around data analysis & Artificial Intelligence in the IH profession where the challenge is to further diminish the reliance on scientific expertise.

## **Focus of Content Priority.**

This priority focuses on developing the “soft skills” of IHS to listen, relate, communicate & collaborate effectively with a broad spectrum of stakeholders in order to promote the influence & value of the IH profession in the modern social-technological landscape.

# Communicating IH Concepts

## Vision Statements:

- AIHA develops education and content to support the value of IH professionals in communication with Management, the C-suite, & the community.
- AIHA products strive to reflect consideration of the content priorities.
- AIHA identifies how IH Skills in Enterprise Risk Management demonstrate value of the profession.



# Technology Initiatives

AIHA is in process of surveying its members to identify technology-based tools, as well as explore new education on technology-based topics:

- New mobile device apps for IH/OH professionals
- Embedding IH/OH information into digital assistants (e.g. Siri, Alexa)
- Awareness, acceptance, and use of technological tools related to Big Data, Machine Learning, and Artificial Intelligence
- New, more efficient/effective ways to deliver AIHA created content to IH/OH professionals



# Attn: All CIHA Attendees

## AIHA's Virtual Section

- It offers you an opportunity to network and boost your professional growth no matter where you are located
  - Trustworthy advice and feedback
  - Diversity, inclusion, and innovation
  - Latest trends and industry-related news
- You are eligible to join the [virtual section](#) without AIHA national membership for only \$10 per year.

# Benefits of Virtual Section

- Digital *Synergist* magazine, the *Synergist Weekly* and *Synergist Newswire* e-newsletters, and *SynergistNOW*
- Three (3) professional development educational offerings per year with access to archived offerings
- A dedicated community section on *Catalyst*, AIHA's online community
- Coffee talks and opportunities to network with other occupational health and safety professionals
- Mentoring and personal one-on-one interaction with industry thought leaders



**Thank You for  
Listening!**