

# THE SCIENTIST AS A COMMUNICATOR

LESSONS LEARNED POST-PANDEMIC

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Yuma Pacific Southwest Section

January 20, 2023

# THE INDUSTRIAL HYGIENIST AS A COMMUNICATOR

LESSONS LEARNED ALONG THE WAY  
(PRE-, MID- AND POST- PANDEMIC)


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- A short history
  - Why 'Communication'?
  - Evolution of the theme
  - Current State of Work
  - Future Work
- 

# Content Portfolio Advisory Group



# AIHA Looking to the Future (Back Then)

- Foresight Alliance scan: 2014
  - McKinley Advisors: 2019
- 

# FUTURE TRENDS IMPACTING THE OEHS INDUSTRY

## 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

# FUTURE TRENDS IMPACTING THE OEHS INDUSTRY

## Aging

- Implications of an aging workforce

## 21<sup>st</sup> Century Guilds

- Growing advocacy needs for an increasingly independent workforce

## Bifurcated Workforce

- Differentiation between mission-critical employees and task-oriented workers

## New Forms of Work

- Ever changing workplace environment

## Human – machine Cooperation

- Increasing need for soft skills, mentoring, experiential learning






AIHA Content Strategy Portfolio  
Recommendation FY2015  
2014 Content Portfolio Management Team Report

6/25/2014

American Industrial Hygiene Association





Update and Refine  
the Foresight Scan



AIHA's  
2020  
Environmental  
Scan  
Report

[aiha.org](https://www.aiha.org)

American Industrial  
Hygiene Association

3141 Fairview Park Drive  
Suite 777  
Falls Church  
Virginia 22042

The cover features a woman with curly hair wearing a maroon dress, standing against a blue background. The title 'AIHA's 2020 Environmental Scan Report' is written in white text on the right side. The AIHA logo, a stylized hand holding a person, is visible in the bottom right corner.





# 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.

# WHAT IS A “CONTENT PRIORITY”?

- **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 and  
Sensor Technology**

**Total Worker  
Health**

**Serving the Changing  
Workforce/Workplace**

**Communicating  
OEHS Concepts**

# CPAG Rubrics in Communicating OEHS Concepts

- Soft Skills
  - Business Communication (C Suite Talks)
  - Risk Communication
  - Communication Skills
  - Marketing and Selling the Profession
- 

# Communicating OEHS Concepts – A Challenge

Communicating technical information has always been difficult

As IHs, we think we are good at it

Hazard versus Risk: Have they become the same?

Technical language a barrier

Communication skills dealing with hazard and risk have evolved,  
but humans are still humans.





# Risk Communication Identified as a Priority

“Risk” – difficult concept to describe and even more difficult to communicate

Assessment  
Analysis  
Characterization  
Management  
Cost/Benefit  
Communication



# Risk Communication Identified as a Priority

The 'Sandman Workgroup': Created Oct. 2021

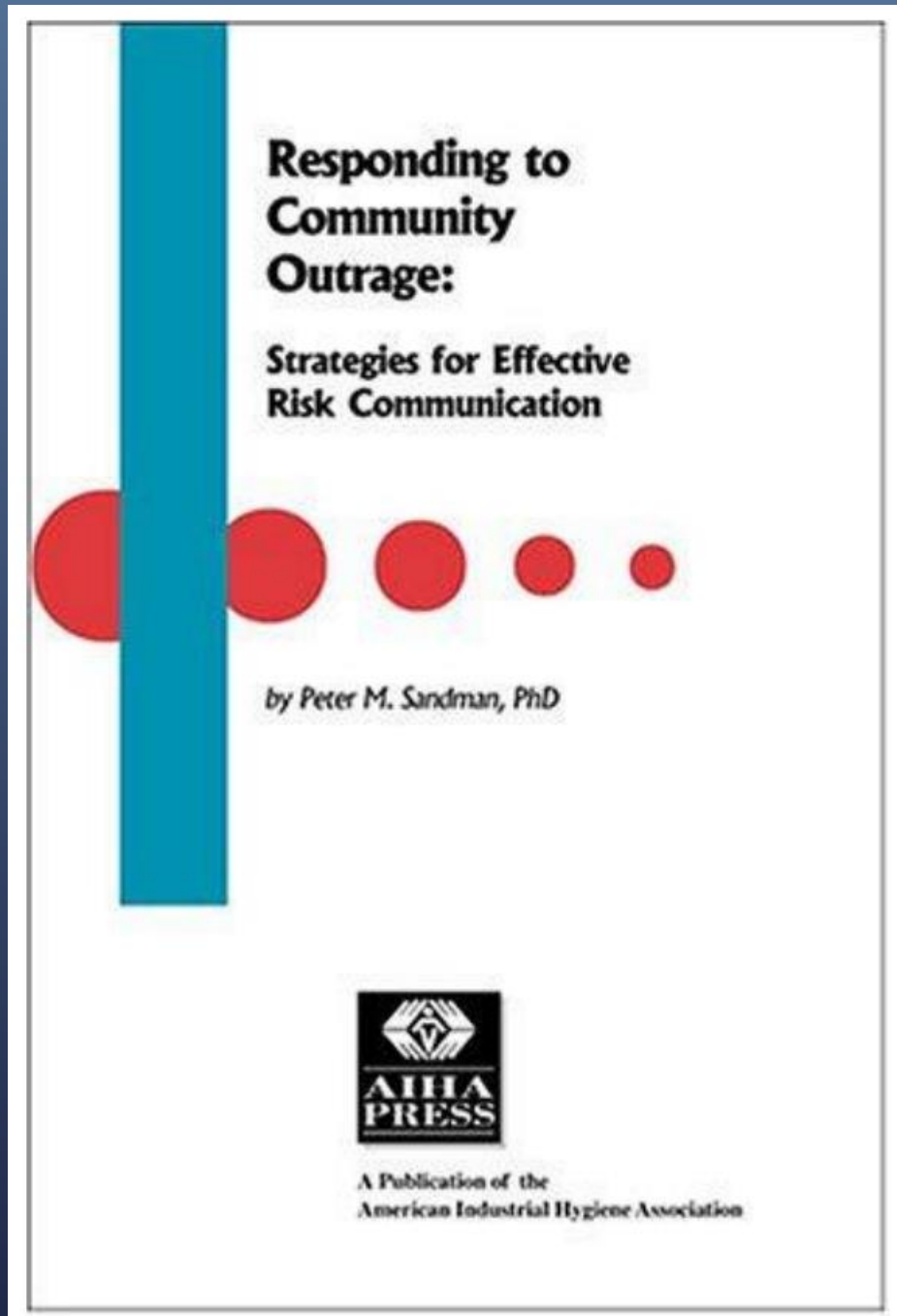
Risk Communication PDCs 2022 and 2023

Risk Communication Webinars 2023


Ethics in Risk Communication AIHce 2023

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First published  
in 1993



# Sandman Workgroup Key Objectives

- Review the body of work
  - Key concepts of Risk Communication
  - Capture effective communication techniques
- 

# Key Thoughts from Sandman and a Few Others

Know your audience and involve as a partner

Identify common concerns and listen

Involve experts

Build trust and credibility

Be honest, frank, and open

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# Key Thoughts from Sandman and a Few Others

Keep key messages short, simple, charismatic

Tell a story

Be empathetic, have compassion

Develop communication skills

Science versus value judgments



# Simple?

You have limited access to this content. Upgrade to use all features.

File Automation Forms

Communicating OEHS Concepts - Linked

	AIHA-NIOSH Initiative	Number	Activity	Status	AIHA POC	AIHA Volunteer POC	NIOSH POC	Participating Volunteer Group(s)	Start Date	End Date	Priority	At Risk?	CPAG Comments/Next Steps	NIOSH Comments/Next Steps	Date Updated
		1,3	Hierarchy of Controls White Paper	Progress	TL Tara Laptew	J Johnson	/	Concerns Committee	11/30/21	05/23/22	1	⚠	12/8/22: Document targeting mid-December for section drafts.		12/08/22 2:28 PM
21	AIHA-NIOSH Initiative	Vision #	Initiatives Completed	Status	AIHA POC	AIHA Volunteer POC	NIOSH POC	Participat Volunteer Group(s)	Start Date	End Date	Priority	At Risk?	CPAG Comments/Next Steps	NIOSH Comments/Next Steps	10/21/19 12:24 I
22		1,2,3,4	Form working group for this content priority	Complete	TL Tara Laptew	BB Billy Bullock C Chuck Geraci				TBD	1	⚠	9/22/22: Targeted outreach. 12/8/22: Recruited 6 volunteers. Introductory call scheduled in January 2023.		12/08/22 1:38 PM
23			Modify content priority vision statements	Complete	TL Tara Laptew	BB Billy Bullock C Chuck Geraci					1	⚠	9/22/22: Tara, Chuck & Billy modified vision statements & sent to CPAG members to review. 10/24/22: CPAG members reviewed vision statements & the final version has been posted on dashboard and website.		10/24/22 9:00 AM
24		2,4	Peter Sandman Project, Phase I	Complete	TL Tara Laptew	BB Billy Bullock C Chuck Geraci	/		11/02/21	TBD	1	⚠	Assembled a project team to audit Peter Sandman's website & put together education materials based on his content. Focusing on submitting PDC on risk communication & 2-part education session on ethics through the lens of Peter Sandman for AIHoe 2023 9/13/22: Celia Booth submitting an abstract for an 8-hour PDC on "Risk Communication for OEHS Professionals". Fred submitting a 2-part education session for "Ethics of Risk". Celia will write about what project team has done in Risk Discourse column of Synergist. Project team will reconvene after AIHoe 2023 for follow up/feedback on the sessions & PDC.		09/13/22 8:25 AM
25		1,2,3	Business Case Tool	Complete	TL Tara Laptew	Georgi Popov				05/12/22	2	⚠	This Business Case Tool answers the question "What's in it for the company?" 5/12/22: Tool was peer reviewed & added to the AIHA website <a href="https://www.aiha.org/public-resources/consumer-resources/apps-and-tools-resou">https://www.aiha.org/public-resources/consumer-resources/apps-and-tools-resou</a>		05/12/22 2:50 PM
26		2,3	Emerging Risks Survey	Complete	TL Tara Laptew	DB David Breeding		Communicat and Training Methods Committee		03/31/22	2	⚠	Survey distributed to members asking to identify 3-5 emerging risks in the OEHS profession and why they are issues. Survey to close at end of March. Results to be reviewed and analyzed by project team led by David Breeding (Communication & Training Methods Cmte). Survey closed on March 15. Tara sent survey results to project team.		04/19/22 3:22 PM
27		1,2,3,4	Communicating OEHS Concepts 2022 PDC	Complete	AO Alla Orlova		/			05/31/22	1	⚠	Scope 2 of IRAT: a webinar series aimed at training AIHA members to become better communicators in the workplace. Webinar topics outlined in IRAT. 7/15/21: Alla working with Jonathan Klane on a 2022 PDC, "Communicating Science & Technical Concepts" - volunteers can take it & deliver it on the road. Will be held on Sunday, 5/22 <a href="https://ww2.aievolution.com/aih2201/index.cfm?do=ev.pubSearchEvents&amp;event">https://ww2.aievolution.com/aih2201/index.cfm?do=ev.pubSearchEvents&amp;event</a>		03/21/22 12:59 PM
28		1,2,3	Role of the OEHS Professional in Emergency Planning Technical Framework	Complete	SC Stacy Calhoun	LW Laura Weems	/	Incident Preparedne: & Response WG	11/01/20	12/31/21	1	⚠	9/30: Proposal officially approved by CPAG & the Board. Stacy & Connor are working with project team led by Laura Weems 1/4/22: 3rd revision being reviewed by authors. 1/14/22: Published on website. <a href="https://www.aiha.org/education/frameworks/technical-framework-role-oehs-profe">https://www.aiha.org/education/frameworks/technical-framework-role-oehs-profe</a>		01/14/22 3:39 PM
29		1	Communicating OEHS Concepts IRAT -Webinar Series	Complete	TL Tara Laptew		/	/			1	⚠	IRAT Approved: Johnathon Klane will be developing and teaching PDC at AIHoe 2021; Rene Rodriguez will teach a webinar on 9/10/2020. 9/23: IRAT put on hold. 7/30: Build out high level strategy for cp. 1/29: In the process of developing 1st webinar in series to be broadcast in spring 2021. 2/17: 1st webinar focused on soft skills will be broadcast on April 6 Jonathan Klane presenting webinar on soft skills- scheduled for April 6, 2021. 2nd webinar scheduled. 5/21: Jeff Dalto to present a webinar on Sept. 2, "IP for IH: Instructional Principles for Industrial Hygienists." 10/12: Webinar portion of the IRAT has been completed. Jonathan Klane working on 2022 PDC, "Communicating Science & Technical Concepts" - 10/20: Fall PDC, "Ethical Influence: The Art & Science of Inspiring Change" <a href="https://www.aiha.org/education/elearning/virtual-pdc-week-fall-2021/ethical-in-%E">https://www.aiha.org/education/elearning/virtual-pdc-week-fall-2021/ethical-in-%E</a>		01/14/22 3:18 PM
30		2	Industrial Hygiene Hazard Identification and Exposure Risk Assessment by Market Segment Project	Complete	TL Tara Laptew	BL Bernard L. Fontaine, Jr., CH CSP	/	Exposure Assessment Strategy	08/01/20	09/30/21	1	⚠	Bernie Fontaine is team lead for developing a fact sheet for AIHA membership. The team has monthly calls and are scheduled to complete document by September 30, 2021. 10/11/21: All but 3 profiles are completed. Webpages are currently being built		12/07/21 8:00 AM

# Sandman Workgroup Activities

Review each major section of the Sandman website (started 2021)

Identify and describe content most relevant to IH/OEHS (finalized late 2022)

- Description of major content

- Comments on usefulness to IH/OEHS

Develop a summary of webinar handouts (64 handouts, 20 summarized)

- Reviewed from the perspective of the IH

- Links to the handouts

- Handouts have links to supplemental information

Create a searchable, linked summary index (active)

Promote additional content development






# What did we learn?

Between Outrage, Crisis, and Precaution; IHs spend a lot of time promoting Precaution Advocacy.

Change has been happening for a long time, COVID has accelerated the process

Multi-talented professionals who can communicate and garner trust are needed.

The Industrial Hygienist is very well suited to meet the need.

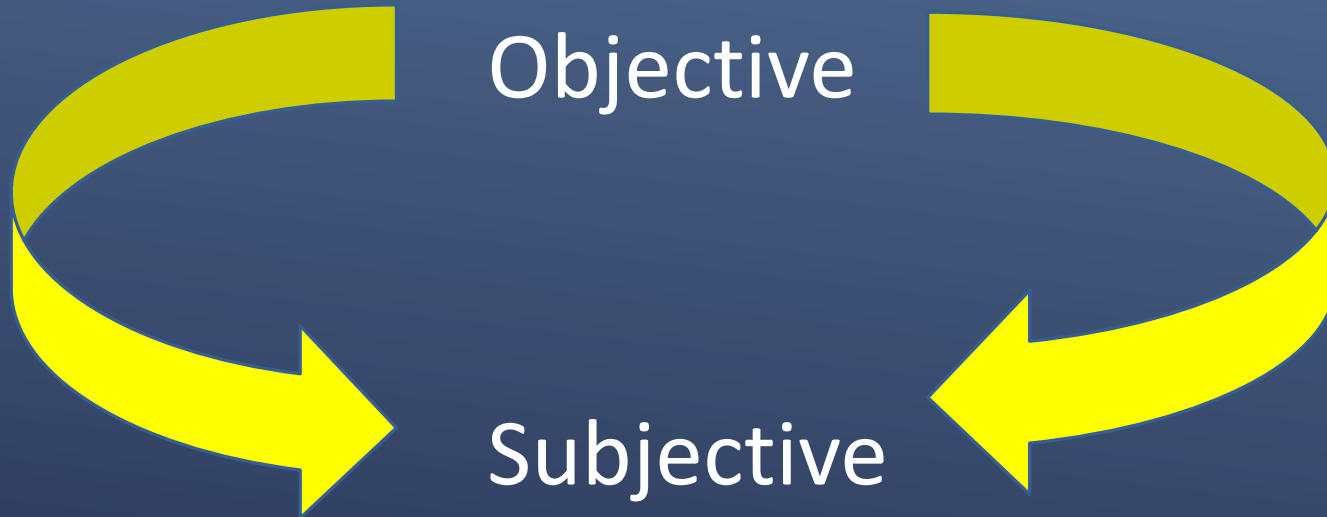


# Communicating what the IH offers in a 'Coronormal World'\*

\*Credit to John Howard: 2022 YPSW



Questions we get?



Room for the Scientific Method ?

# Barriers, Challenges, Future Work

- Most IHs think they are great communicators
- Most Non-IHs don't understand what we are saying
- Schools of IH, Public Health claim to teach 'health communication'
- Introducing interpersonal communication skills (ongoing)
- Capture success stories: When the CEO finally 'got it'

# CHALLENGE

Effective Communication of OEHS Concepts

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