

OELs

Is There a Future?

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2009 PCIH

Vancouver, BC

Presentation Highlights

- Historical Evolution
- OEL Setting Processes Today
- Challenges
- Is There a Remedy?

Global Evolution

- Pre 1900
- Early 1900s
- 1940s-1970s
- Post 1970s



Today's OEL Processes

- US Environment
- European Union Environment

Today's OEL Processes

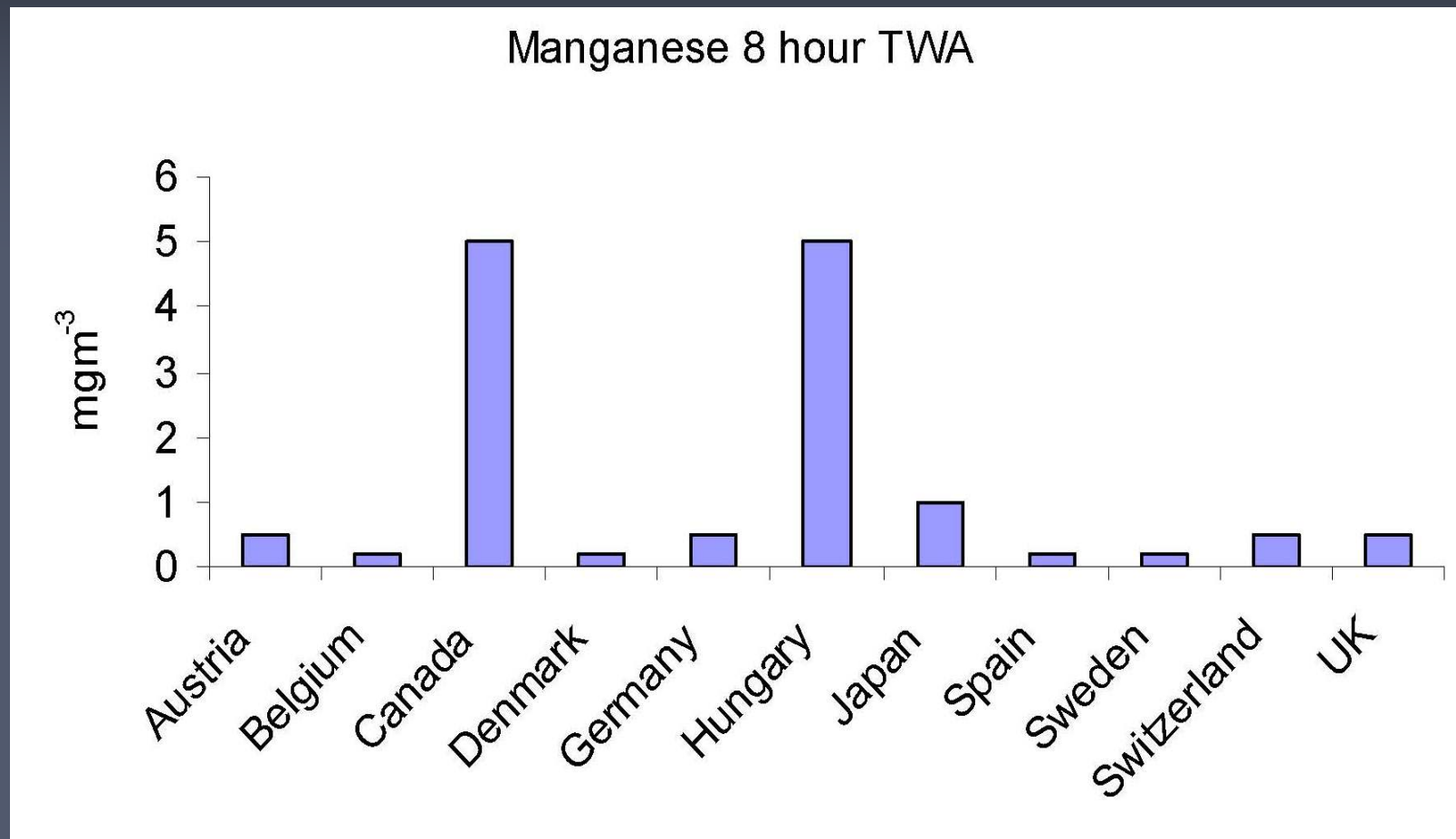
■ US Environment

- 1927 Walsh Healey Act
- 1946 ACGIH
- 1971 OSHA
- 1971 NIOSH
- 1984 AIHA
- State Level Efforts

Today's OEL Processes

- European Union
 - ACGIH TLVs a starting point
 - Individual country efforts
 - 2005 Control of Substances Hazardous to Health Regulations (COSHH)
 - 2007 REACH

Various OELs for Manganese

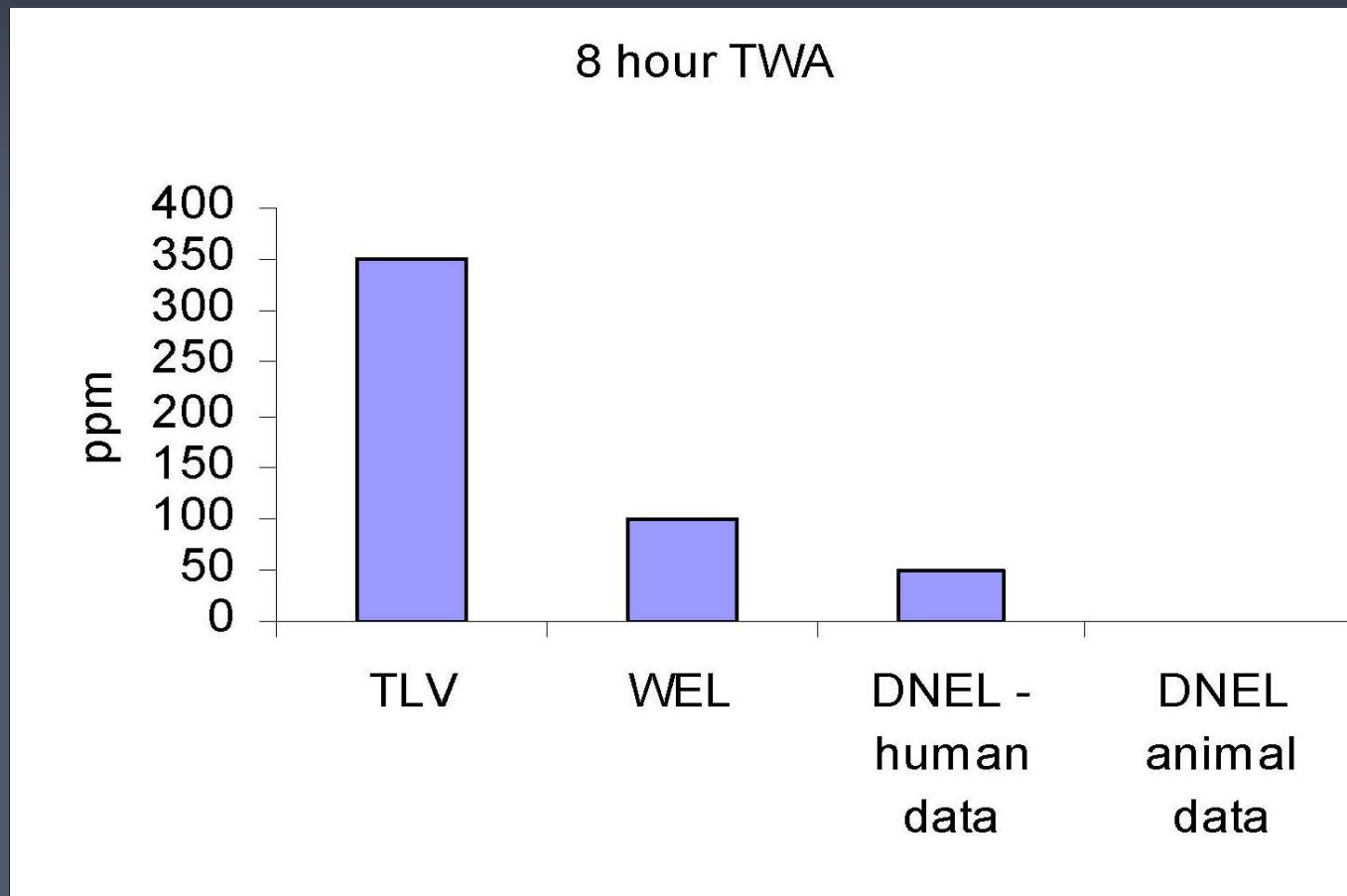


Source: Alison Searl, PhD, Director of Analytical Services, IOM Consulting, *Some Current Approaches to OEL Setting in the EU*, BOHS, Occupational Hygiene Conference, Thistle Hotel, Bristol, 2008.

REACH

- EU effort
- 2007 Regulation on Registration Evaluation & Control of Chemicals
- Prescribed DNELs
- Include health, environmental and physical safety risks
- Lower than traditional OELs

Derivation of DNEs: 1,1,1 Trichloroethane



Source: Alison Searl, PhD, Director of Analytical Services, IOM Consulting, *Some Current Approaches to OEL Setting in the EU*, BOHS, Occupational Hygiene Conference, Thistle Hotel, Bristol, 2008.

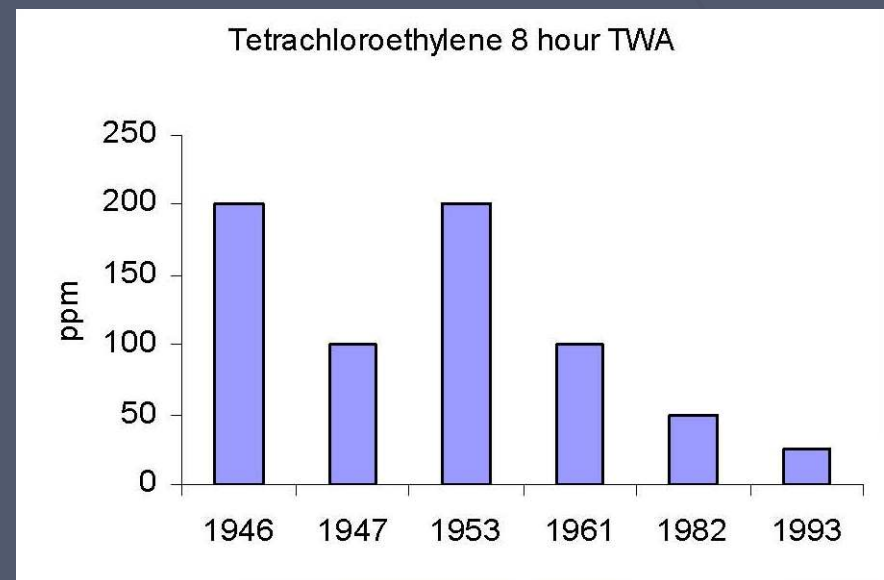
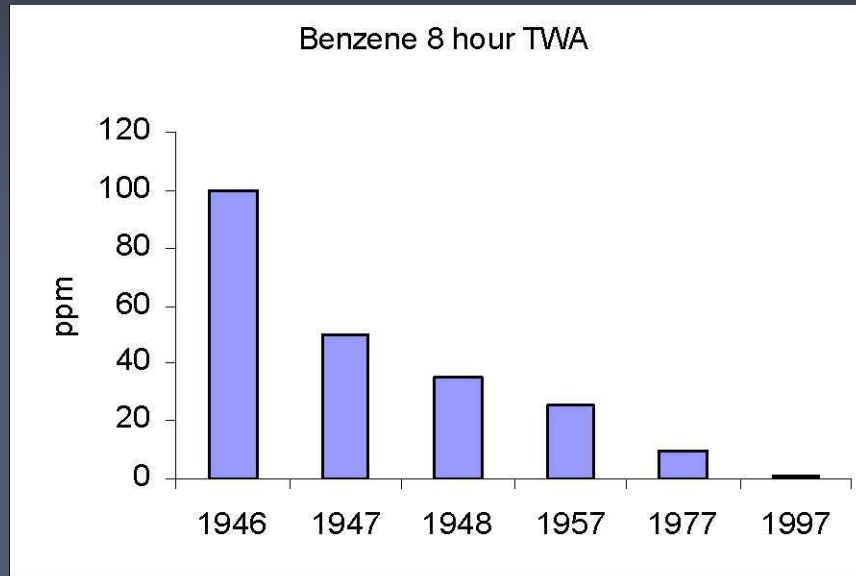
OEL Global Challenges

- Number of chemicals in commerce
- OELs not well understood
- Emphasis--full cycle risks
- Not all value OELs
- Basic data--quality & reliability
- Resources and expertise

OEL Global Challenges

- Varied risk determination efforts, resulting exposure levels and protection levels
- Few direct measurement methods
- REACH--new playing field
- OELs not true threshold of toxic risk, but acceptable risk.

ACGIH Threshold Limit Values



Source: Alison Searl, PhD, Director of Analytical Services, IOM Consulting, *Some Current Approaches to OEL Setting in the EU*, BOHS, Occupational Hygiene Conference, Thistle Hotel, Bristol, 2008.

Critical Few Questions

- Do OELs have value today?
- Are there alternatives?
- Who should participate?

Do OELs Have Value?

- Risk assessments
- Respirator selection
- Exposure priority setting
- Purchase decisions
- Control recommendations for product consumers

Global Alternative

- HARMONIZATION--
Making identical or
minimizing differences
between standards or related
measures of similar scope

Reality # 1

- Subjective Perception **born of different Personal Values may doom HARMONIZATION.**
- **HARMONIZATION** between different countries and cultures challenging.

Reality # 2

- Common overarching value of protecting Human Health may allow for international **SHARING** of information documenting the exposure limits.

Reality # 3

- Shared DATA will be critical to feeding the process.
- REACH may force sharing.

Who Should Participate?

- Neutral 3rd party?
- International body?
- Role of U.S. organizations, federal or professional?

Advocates – Green Paper

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Topics – Green Paper

- Historical Evolution of OELs
- OEL Setting Processes Today
 - US and EU
- OELs Are Critical to Industrial Hygiene and Risk Assessment
- Today's World Community Challenges
- Future Direction?

Excerpt

“... we believe that Occupational Exposure Limits (OELs) are absolutely critical. We hope that this Paper will encourage our broad audience of stakeholders to discuss the critical issues, continue the dialogue and, as a call to action, help determine what the future for OELs should be. In working together, our profession can lead a way forward.”

Green Paper

- Full paper available at www.ioha.org
- Summary--October 2009 Synergist
- 2009 Vancouver, BC PCIH
- 2010 Rome, Italy IOHA Conference
with 27 member nations in attendance

Thank You - Any Questions?