THE DEVELOPMENT OF

OCCUPATIONAL HYGIENE IN

AUSTRALIA
Occupational health does not have the profile of safety in Australia and elsewhere

- **Injury** – immediate - for all to see;
- **Illness** – generally long term;
  - *Greatly underestimated (Grantham)*
WORST INDUSTRIAL DISASTERS
(Grantham Principles OH & Hygiene)

- Bhopal 1984
- Hawks Nest Tunnel 1930s
- Wittenoom 1940s ->
AUSTRALIAN OHS KEY STATISTICS

Safe Work Australia 2006 - 2007

- Fatalities
- Deaths from disease
- Mesothelioma

2006 - 2007
UNITED KINGDOM WORKPLACE DEATHS ANALYSIS OF ILLNESS AND INJURY

HSE – United Kingdom 2005 -2006

Comparison of deaths from work-related illness and injuries

- Cancer: 57%
- Chronic Obstructive Pulmonary Disease: 38%
- Asbestos: 1%
- Other non-malignant respiratory disease: 2%
- Fatal injury: 2%

http://www.hse.gov.uk/statistics/overall/comparison.htm
Scientists and engineers have been working in occupational health for more than 50 years in Australia

- **1980**
  - AIOH formed
  - Government OH scientists and engineers joined with industry hygienists

- **1982**
  - First Conference
  - Topics included dusts, lead, solvents, noise and PPE
MAKE UP OF MEMBERSHIP

AIOH Membership August 2010

- Associate
- Provisional
- Full COH
- Full
- Fellow COH
- Fellow
- Ret
- Student
WHERE DO HYGIENISTS WORK?

- **Industry**
  - *Employees & consultants*
  - *Largest sector is mining;*

- **Academia**
  - *Research*
    - *Epidemiology;*
    - *Toxicology;*
    - *Health effects of health affecting agents*
  - *Teaching*

- **Government**

![AIOH Employment 2008 Pie Chart]

- **Industry**
- **Gov**
- **Academic**
- **Consultants**
OLD ENEMIES

- Aerosols, gases, vapours;
  - Respirable crystalline quartz;
  - Welding fumes;
  - Confined spaces
- Asbestos;
- Noise;
- Hazardous substances
CONTEMPORARY AND NEW HEALTH HAZARDS

- Whole body vibration;
- Heat stress;
- Non ionising radiation
  - *EMF, UV*;
- Biological stressors;
  - *Legionella*;
  - *Moulds*
- Ultrafine particles
  - *Diesel particulates*;
  - *Nanoparticles*
STRATEGIES

- Ensure competent well trained hygienists
- Develop relevant publications
- Engage with government & standards setting
- Outreach nationally and internationally
TRAINING, EDUCATION AND COMPETENCY

HAZARDOUS SUBSTANCES INFORMATION
Are you ready for the Tsunami?

AUSTRALIAN INSTITUTE OF OCCUPATIONAL HYGIENISTS INC

BASIC PRINCIPLES IN OCCUPATIONAL HYGIENE

DATES & LOCATION
TRAINING, EDUCATION AND COMPETENCY

- 28th Conference Hobart 4th – 8th Dec 2010
- Continuing Education Seminars
- Keynote Australian & International Speakers
- Concurrent themed sessions
- Roundtables
- Technical tours
TRAINING, EDUCATION AND COMPETENCY
TRAINING, EDUCATION AND COMPETENCY

Certification Scheme
- Educational and experience standards
- Meets IOHA National Accreditation Recognition Scheme

Membership structure review
- Streamline progression
- Simplify membership structure
- Involve associates – practitioner?
PUBLICATIONS AND POSITION PAPERS

Position Papers
- Inorganic Lead
- Diesel Particulate
- Asbestos
- Respirable Crystalline Silica

- Diesel particulate
- Risk Management
- Heat Stress
CONTRIBUTE TO DEVELOPMENT OF GOVERNMENT GUIDELINES LEGISLATION AND STANDARDS

- **Australian Standards**
  - *Noise*
  - *Respiratory protection*
  - *Respirable & Inhalable Dust*

- **Government**
  - *Nanotechnology Safe Work Australia*
  - *Blood Lead and Exposure Standard*
  - *Submissions on synthetic mineral fibres, OHS model laws*
SPECIAL CHALLENGE
HARMONISATION OF LEGISLATION

Draft harmonised legislation due October 2010

Will?

- *Occupational health be fully addressed with appropriate weighting?*
- *Principles of exposure and risk assessment be addressed?*
- *Requirement for competent persons be set out?*
- *The basic requirement of the duty of care to provide a healthy and safe workplace remain?*
**Outreach I**

International Occupational Hygiene Association

International training resource for intermediate level occupational hygiene

AIOH provided financial and human resource support

Royal Australian Chemical Institute

British Occupational Hygiene Society

AIHA

S.I.A.

Australasian Faculty of Occupational & Environmental Medicine

Regional OH Organisations, Malaysia, Hong Kong, South Korea, South Africa
Enhancing Occupational Health and Safety Training in China: An Australia-China Partnership

Memorandum of Understanding Between
Griffith University
AND
Guangdong Institute of Health Inspection
AND
Guangdong Prevention and Treatment Center for Occupational Diseases
For a Workplace Health and Safety Program
May, 2008

Provides a significant opportunity for mutual learning
WHERE ARE WE NOW IN OH IN AUSTRALIA? I

Great progress has been made but we have a long way to go

- Occupational hygiene, medicine and safety are making a significant impact in the industries where they are employed or used;
  - Dust disease incidence is very low in Australia in mining;
    - Still variable success in dust and fume control;
  - Air conditioning and heat stress understanding greatly improved;
  - Noise still mainly reverts to hearing protection
WHERE ARE WE NOW IN OH IN AUSTRALIA? II

Reservations and Challenges in Progress

- Occupational hygiene, medicine and safety are not yet well entrenched across all industries;
  - Often poor hazard identification, assessment and control in many industries especially SME;
- Ironically hazards are sometimes over as well as under estimated.
SUMMING UP

- Occupational Hygiene Framework improving
  - Hygiene training, competency increasing, *(challenges with some undergraduate backgrounds)*;
  - Publications increasing the body of knowledge, *(Scope to improve risk communication)*;
  - Engagement with Government improving;
  - Outreach increasing locally and internationally.

- Need to continue to develop and grow the profession to continue to achieve healthy workplaces.