



## CONFERENCE PROGRAMME

### Monday, 6 May 2019

07:20	07:50	Registration open/arrival tea & coffee (Foyer)	
07:50	07:50	<b>Genesis Lounge</b> Session Chair: Miriska Gerber Introduction: Safety message, Acknowledgement of Sponsors	
07:55	08:00	Move between sessions	
Concurrent Sessions:	<b>Genesis Lounge</b> Session Chair: Miriska Gerber	<b>Heron Lounge</b> Session Chair: Carina Diaz	
08:00	09:45	<b>Continuing Education Session 1 (CES 1)</b> Title: Health Risk Assessments By: <a href="#">Peter Knott</a> and <a href="#">Jo Prigmore</a> (GCG and Fulton Hogan)	<b>Continuing Education Session 2 (CES 2)</b> Title: Acoustics 101 By: <a href="#">James Whitlock</a> (Marshall Day Acoustics)
09:45	10:05	Morning Tea	
10:05	11:50	<b>Continuing Education Session 1 (CES 1)</b> Title: Health Risk Assessments By: <a href="#">Peter Knott</a> and <a href="#">Jo Prigmore</a> (GCG and Fulton Hogan)	<b>Continuing Education Session 2 (CES 2)</b> Title: Acoustics 101 By: <a href="#">James Whitlock</a> (Marshall Day Acoustics)
11:50	12:40	Lunch / 12:10 – 12:40 Registration open	
Concurrent Sessions:	<b>Genesis Lounge</b> Session Chair: Carina Diaz	<b>Heron Lounge</b> Session Chair: Jo Prigmore	
12:40	14:25	<b>Continuing Education Session 3 (CES 3)</b> Title: Exposure Assessment Statistics – Tools and Tips By: <a href="#">Peter Knott</a> (GCG)	<b>Continuing Education Session 4 (CES 4)</b> Title: Science of Safety – Systems for the use of PPE as a control By: <a href="#">Penny King</a> and <a href="#">Julie Toseski</a> (3M)
14:25	14:45	Afternoon Tea	
14:45	16:30	<b>Continuing Education Session 3 (CES 3)</b> Title: Exposure Assessment Statistics – Tools and Tips By: <a href="#">Peter Knott</a> (GCG)	<b>Continuing Education Session 4 (CES 4)</b> Title: Science of Safety – Systems for the use of PPE as a control By: <a href="#">Penny King</a> and <a href="#">Julie Toseski</a> (3M)
16:30	16:45	Break	
16:45	18:15	<b>Canam Room</b> <b>NZOHS Annual General Meeting (AGM)</b> Open to members and non-members; Only NZOHS members are allowed to vote	
18:15	18:30	Break	
18:30	Late	<b>Venue: The Good Home Gastro Pub (159 Lincoln Road, Henderson)</b> Social Event / Networking: NZOHS Meet and Greet ( <b>Sponsored by Chemsafety</b> ) Title: <i>My most embarrassing shirt/sweater: The Great Reveal</i>	



## Tuesday, 7 May 2019

08.30	09.00	Registration open/arrival tea & coffee (Foyer)	
09:00	09:05	<b>Genesis Lounge</b> Session Chair: Miriska Gerber Introduction: Safety message, Acknowledgement of Sponsors	
09:05	09:30	Welcoming and Opening: Past President of the NZOHS	
09:30	09:45	IOHA – International Occupational Hygiene Association: Philippa Gibson	
09:45	10:00	Group Activity – Speed Networking	
10:00	10:45	<b>Keynote 1:</b> The importance of early Occupational hygiene involvement in emerging issues: the silicosis story. By: <a href="#">Dr Julia Norris</a> , (GP and President of the Australian Institute of Occupational Hygienists (AIOH))	
10:45	11:05	Morning Tea (Sponsored by Worksafe)	
Concurrent Sessions:		<b>Genesis Lounge</b> Session Chair: Miriska Gerber	<b>Heron Lounge</b> Session Chair: Jo Prigmore
11:05	11:35	<a href="#">The Mutual Benefits of Occupational Health and Occupational Hygiene Team Work</a> By: <a href="#">Lynda van Dam</a>	<a href="#">Whole-body vibration and hand-arm vibration monitoring in professional gardeners – an update in 2019</a> By: <a href="#">Jennie Kuzman and Kerry Cheung</a>
11:35	11:40	Move between sessions	
11:40	12:10	<a href="#">Human 2.0: Upgrading for the New World of Work</a> By: <a href="#">Elizabeth Howells</a>	<a href="#">Update: Addressing musculoskeletal harm in New Zealand</a> By: <a href="#">Marion Edwin</a>
12:10	12:15	Move between sessions	
12:15	12:45	<a href="#">Revision of the work-related health mortality and morbidity estimates</a> By: <a href="#">Dr Michael Butchard</a>	<a href="#">Control Banding – A useful tool for business's workplace risk assessment and management</a> By: <a href="#">Derek Miller</a>
12:45	13:35	Lunch / Exhibitor Ignite Sessions	
Concurrent Sessions:		<b>Genesis Lounge</b> Session Chair: Carina Diaz	<b>Heron Lounge</b> Session Chair: Miriska Gerber
13:35	15:05	<b>Worksafe Workshop:</b> Health Risk Management – the regulator's perspective By: <a href="#">Philippa Gibson, Kerry Cheung and Jim Napier</a>	<b>ChemSafety Workshop:</b> Hazardous Substances Regulations for occupational hygiene practitioners By: <a href="#">Janet Connochie</a>
15:05	15:25	Afternoon Tea (Sponsored by Honeywell)	
		<b>Genesis Lounge</b> Session Chair: Derek Miller	
15:25	15:50	<b>Keynote 2:</b> Worker Exposure Database – a useful tool to assist in health risk assessment for New Zealand workers? By: <a href="#">Kerry Cheung &amp; Dr Michael Butchard</a>	
15:50	16:20	<b>Keynote 3:</b> HASANZ Bigger, Better, Bolder By: <a href="#">Philip Aldridge, (Executive Director of HASANZ)</a>	
16:20	16:30	Introducing the new NZOHS Council	
16:30	16:35	NZOHS Conference 2020	
16:35	16:45	Dräger Young Hygienist of the Year Award	
16:35	17:00	Conference Closure: Message from the NZOHS President Acknowledgement of Sponsors	

## Ignite Sessions (7 May 2019 – Lunch Room)

12:45	13:35	Lunch / Ignite Sessions (Chair: Miriska Gerber)
12:50	13:00	Kenelec Scientific
13:00	13:10	Honeywell
13:10	13:20	Worksafe
13:20	13:30	Dräger

## Exhibitors Profiles

 <b>kenelec scientific</b> <small>measuring up</small>	<p>Looking to focus on health and safety? Kenelec Scientific is one of Australia and New Zealand's leading suppliers of latest generation technologies for OHS monitoring. We are a one-stop-shop for sales, rental, calibration and service of instruments including respirator fit testers, air quality samplers and personal exposure monitors for better worker protection.</p>
 <b>Honeywell</b> <small>THE POWER OF CONNECTED</small>	<p>Honeywell helps industrial hygienists do their job more effectively through the industry's most intelligent instrumentation and comprehensive personal protective equipment. The company manufactures fixed toxic, combustible and flame detection systems for laboratories and workplace; portable gas detection solutions for personal use and confined space entry; respiratory/hearing conservation solutions and more.</p>
 <b>WORKSAFE</b> <small>NEW ZEALAND   MAHI HAUMARU AOTEAROA</small>	<p>WorkSafe New Zealand is the country's primary workplace health and safety regulator, supporting workplaces to be healthy and safe by effectively identifying and managing risk. Everyone who goes to work should come home healthy and safe. WorkSafe New Zealand is committed to being a health and safety system leader and effective regulator that is a proactive, authoritative voice people look to for work health and safety leadership.</p>
 <b>Dräger</b>	<p>Dräger is a Global leader in the fields of Safety and Medical technology. The safety division offers consultancy, products and services for integrated hazard management, particularly for personal and facility protection. The portfolio comprises of fixed and portable gas detection systems, respiratory protection equipment, fire training systems, professional diving equipment as well as alcohol and drug detection. <a href="http://www.draeger.com">www.draeger.com</a></p>

## PRESENTERS

### Continuing Education Session 1 (CES 1)

#### **Health Risk Assessments (HRAs) by Peter Knott (GCG) and Jo Prigmore (Fulton Hogan)**

The term Health Risk Assessment (HRA) is often used to describe the approach to anticipating, recognising, evaluating and controlling occupational health hazards but rarely do organisations go out of their way to formalise this process and integrate this into their health and safety management systems or processes.

The New Zealand Occupational Hygiene Society in 2018 delivered a position paper on the adoption of European Standard EN 689:2018 “Workplace exposure – Measurement of exposure by inhalation to chemical agents – Strategy for testing compliance with occupational exposure limit values” as a guide to assessing occupational exposures in workplaces. The cornerstone of the standard is a risk assessment strategy based on the qualitative and quantitative assessment of potential workplace exposures.

This session will look at the mechanics and practicalities of the health risk assessment process using EN 689 as a foundation and how it can be applied to the New Zealand workplace. Using a number of practical exercises and applying readily available tools participants will be able to see how to carry out a walk through survey assessment of common contaminants including noise, particulates, gases and vibration to enable them to prepare a health risk assessment.

## Outline

- Occupational Health and Occupational Hygiene Overview
  - Understanding the relationship between risk, hazard and exposure
    - WES
    - EN 689 Strategy
    - Other models of HRA
  - Qualitative health risk assessment – the basic characterisation
    - Organisational Review
    - Walk through surveys
      - Practical strategies for identifying exposures for:
        - Particulates
        - Gases/Vapours
        - Noise
        - Vibration
        - Thermal Stress
      - Establishing or reviewing Similar Exposure Groups
      - When do we need to sample?
  - Quantitative health risk assessment
    - Establishing monitoring requirements
      - Investigations
      - Sampling Plans
    - What does the data mean?
      - Establishing baselines
      - Reviewing control effectiveness
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**Peter Knott** (MClinEpid COH® MAIOH)



*Peter is a Certified Occupational Hygienist and full member of the Australian Institute of Occupational Hygienists since 1994. His experience encompasses a variety of industries including primary aluminium smelting and fabrication, power generation, mining and technology sectors in Australia and overseas. Peter has represented industry bodies on Australian Standards committees for workplace atmospheres, respiratory protection and hearing protection. He has published or presented on topics such as exposure standards, biological monitoring, PPE, diesel particulate, bioaerosols and direct reading instrumentation. Peter has tertiary qualifications in Chemistry, Environmental Health and Clinical Epidemiology, and is currently a PhD student in Epidemiology at the University of Newcastle.*



**Jo Prigmore** is Fulton Hogan's National Health and Safety Manager with a focus on simplifying safety and maximising engagement; she is also the lead of Fulton Hogan's Health & Wellbeing Critical Risk Group. Jo is a Health and Safety generalist with a strong interest in Occupational Hygiene. It is over 20 years since Jo started as one of HM Inspectors of Health & Safety in the UK, she has also been a Case Manager for ACC; this has given her an insight into how people manage to get hurt at work and at home.



## Continuing Education Session 2 (CES 2)

### Acoustics 101 by James Whitlock (Marshall Day Acoustics)

In this half-day workshop, James will introduce the basic concepts of acoustics – an ‘Acoustics 101’ if you like.

Following this, he will demonstrate how these acoustic concepts present themselves in everyday life and cause conflict in our homes, workplaces and outdoor environments. This will give an insight into the range of projects that acoustic engineers undertake, the tools and methods we use to carry out our assessments (both desktop and in the field), and the national/international standards and planning frameworks we operate by.

He will conclude with some examples of projects where occupational health and safety for noise in the workplace was a key focus.

#### Outline

- Introduction and a bit about myself, and how I became an acoustic engineer
- Acoustics 101
- Applied acoustics – how we make measurements and calculations
- Noise and vibration standards in NZ
- Planning controls in the Auckland Unitary Plan
- A day in the life of an acoustic engineer – the range of projects we get involved in
- Example projects
- Questions/discussion



**James Whitlock** is an associate with Marshall Day Acoustics in Auckland with 18 years' experience in the field. He is involved in most aspects of acoustic design and assessment but spends most of his time these days on projects involving construction noise and vibration, road noise and classroom acoustics.

He is the past-President and current Secretary of the Acoustical Society of New Zealand, is on the council of the National Foundation for the Deaf, and on two committees for developing acoustic standards in NZ and Australia.

He has two noisy kids and spends his weekends either at the track in his budget (and noisy) race car... or playing drums noisily (the irony of which isn't lost on him).

**MARSHALL DAY**    
Acoustics

## Continuing Education Session 3 (CES 3)

### Exposure Assessment Statistics – Tools and Tips by Peter Knott (GCG)

This CES aims to provide participants with knowledge and skills to analyse occupational exposure data. At the conclusion participants should be able to appreciate the statistical background to analysing exposure data including variability and uncertainty, compliance testing, understand the concept of homogenous or similar exposure groups, have an awareness of various data analysis tools, and conduct hands-on analysis of data using a specific data analysis tool (Expostats).

#### Outline

The CES will be split into 2 sections:

The first part will cover statistical methods for exposure data analysis, examining the distribution of exposure data, within- and between workers' variances, what to do with censored (non-detects) data and strategies for determining exceedance of a Workplace Exposure Standard (WES). We will also investigate approaches for compiling Homogeneous or Similar Exposure Groups (HEGs/SEGs) using various sources, and some methods for assessing longitudinal results.

The second part will cover an overview of common tools for exposure data analysis including AIHA's IH STAT and the BOHS / NVvA BWStat Excel® packages as well as some applications in proprietary statistical tools. The session will conclude following a demonstration and review of the Expostats Bayesian toolkit for exposure assessment.



**Peter Knott** (MClinEpid COH® MAIOH)

*Peter is a Certified Occupational Hygienist and full member of the Australian Institute of Occupational Hygienists since 1994. His experience encompasses a variety of industries including primary aluminium smelting and fabrication, power generation, mining and technology sectors in Australia and overseas. Peter has represented industry bodies on Australian Standards committees for workplace atmospheres, respiratory protection and hearing protection. He has published or presented on topics such as exposure standards, biological monitoring, PPE, diesel particulate, bioaerosols and direct reading instrumentation. Peter has tertiary qualifications in Chemistry, Environmental Health and Clinical Epidemiology, and is currently a PhD student in Epidemiology at the University of Newcastle.*



## Continuing Education Session 4 (CES 4)

### Science of Safety – Systems for the use of PPE as a control by Penny King and Julie Toseski (3M)

It is well known that PPE is the least preferred option on the hierarchy of controls, but it is no less important than any other level of control when it is required.

Therefore, it is important that any PPE is appropriately selected, worn and maintained. This becomes even more critical when the level of required protection is highly dependent on how effectively the PPE is fitted and worn by a worker such as close-fitting respiratory protective equipment (RPE) and hearing protection devices (HPD).

Studies have found that 50-80% of workers fail to properly use the PPE provided. Achieving the expected and required protection is a real issue in the workplace. Fit is an often ignored component of the correct application of PPE for individual workers. One size definitely does not fit all, and this must be resolved to identify a product that fits the individual appropriately.

This presentation will look at PPE selection considerations, why PPE is not worn, importance of fit and assessing fit.



**Penny King** (NZ Regional Sales Manager, 3M Personal Safety Division)

*Penny has been employed by 3M for 20 years and a member of the Personal Safety Division for 13 years. In her current sales role Penny has responsibility for major customers covering heavy industries such as steel making, refining and ship repair. Penny also supports customers in the following industries: transportation, marine, aviation, construction, demolition, infrastructure, utilities, food/beverage and pharmaceutical manufacture. Penny provides technical assistance, training and support to assist with effective use of the 3M Personal Safety range of products. Penny holds NZ Diploma Business and NZIM Diploma in Management.*

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Applied to Life.™



*Julie Toseski is a recent addition to the 3M ANZ Personal Safety Division and is currently based in Sydney, NSW, Australia. Julie has a Masters in Science (Occupational Hygiene Practice) MSc (OHP) from the University of Wollongong, with over 10 years' experience in the Work Health & Safety Industry. Previous work experience includes the Forestry & Mining industries; with focus on underground & open cut coal mining, uranium mining, as well as port operations. She first started her Occupational Hygiene career at the Centre of Disease Control - National Institute of Occupational Safety & Health Cincinnati, OHIO, USA (CDC – NIOSH), under the supervision of Research Toxicologist John Snawder and his team, whilst conducting Assessment of Oil and Gas Worker Exposures to Volatile Organic Compounds. Her innovation and dedication to workplace health & safety was recognised in 2012 when she was awarded a 'High Commendation' for 'Best Individual Workplace Contribution' from WorkCover NSW, and in 2018, when she was a finalist in the Women in Resources NT 'Exceptional Woman in Resources Award'. She is a passionate Occupational Hygienist who is dedicated to ensuring workers' health is not compromised by workplace exposures and practices.*

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## CONFERENCE DAY KEYNOTE PRESENTERS

### Keynote 1: The importance of early Occupational hygiene involvement in emerging issues: the silicosis story By Dr Julia Norris (FRACGP, FAIOH, COH), MBBS (Hon), BSc (Hon)

Dr Julia Norris (FRACGP, FAIOH, COH), MBBS (Hon), BSc (Hon)



*Dr Julia Norris is an advocate of preventative health with a unique combination of qualifications and experience in both Occupational Hygiene and Medicine. Throughout her career as both an occupational hygienist and medical doctor, she has demonstrated a passion and commitment to protecting and promoting worker health.*

*Julia is the Director of Occuhealth Pty Ltd, an Australian occupational hygiene and medical consulting company. As well as being a General Practitioner, Julia is also a Certified Occupational Hygienist, a Fellow of the Australian Institute of Occupational Hygienists and the current President of that body. She is also a fellow of the Royal Australian College of General Practitioners and a registered medical review officer. Julia has over 20 years of experience in occupational health matters, having worked across many industries including mining, refining, oil and gas, construction and agriculture.*

### Keynote 2: Worker Exposure Database – a useful tool to assist in health risk assessment for New Zealand workers? By Kerry Cheung and Dr Michael Butchard (Technical Programmes & Support and Regulatory Intelligence, WorkSafe New Zealand)

Exposure monitoring is the main service that occupational hygienists are known for. In its most basic form, it includes establishing a sampling strategy; using the appropriate methods and equipment to measure worker exposure levels; analyse the data; and come to a health risk evaluation. One of the challenges faced with exposure monitoring is achieving the minimum number of samples required, to derive a health risk evaluation with enough confidence in the data. A way to inform sampling strategy could include the agglomeration of data from comparable Similar Exposure Groups (SEGs) obtained by occupational hygienists or industry, exposure data from other sources, professional judgement, and statistical modelling. All of this combined, and more, contributes towards a Worker Exposure Database.

The benefits of having a Worker Exposure Database are: businesses can benchmark their exposure levels against similar sized companies or industries; providing a data-rich resource for occupational hygienists to inform their professional judgement; occupational health research can be carried out with large datasets; direct interventions in high-risk areas to prevent work-related disease or deaths; and inform the process of setting Workplace Exposure Standards.

This presentation will discuss international examples, the strengths and limitations, what the tool might look like, and how it could be used. An open dialogue with the audience is welcome – to explore all views on what could work, what would not work, and the value of it to stakeholders in New Zealand.

**Kerry Cheung** (Technical Specialist, Worksafe New Zealand)

*Kerry Cheung is an Occupational Hygienist and Technical Specialist (Work-Related Health) at WorkSafe New Zealand. His background is in occupational hygiene consulting, advising, and occupational health research (CPHR, Massey University). Currently, Kerry is completing his Master of Work Health & Safety (Occupational Hygiene) at the University of Wollongong. His current interests are in statistics and occupational vibration exposures.*

**Dr Michael Butchard** (FNZCPHM, MPH, MBChB, BA(hons), BSc)

*Dr Michael Butchard is a medical doctor, specialised in public health medicine. He has been with WorkSafe for two years as the Work-related Health Intelligence Lead. Prior to this, Michael has worked for Community and Public Health CDHB, the New Zealand Child and Youth Epidemiology Service, and the Population Health Department of the University of Otago, Christchurch, where he occasionally teaches 4th year medical students.*

*Since joining WorkSafe, Michael has developed a keen interest in the epidemiology of work-related health, including the population-based methods to estimate the burden of chronic work-related exposures.*

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### Keynote 3: HASANZ Bigger, Better, Bolder *By Philip Aldridge (Executive Director of HASANZ)*

What HASANZ is doing to make the Health and Safety sector better. HASANZ started small, and through working with professional bodies and Government Agencies, we are now delivering a number of initiatives to grow the sector. Learn about what is happening now, what is coming up and where we can work together.

**Philip Aldridge** (Executive Director of HASANZ)

*Philip leads the day to day operation of HASANZ and the implementation of its business strategy. He has a broad background in both the public and private sectors with extensive leadership experience across a range of membership, government, industry training and commercial organisations. When Chief Executive of InfraTrain New Zealand, he chaired the Built Environment Training Alliance (BETA) and was closely involved in building capability in the high-risk infrastructure construction industry for the Christchurch rebuild. This spurred his active interest in promoting workplace health and safety.*

## CONFERENCE DAY PRESENTERS

### The Mutual Benefits of Occupational Health and Occupational Hygiene Team Work

By Lynda van Dam

The Occupational Hygienist access to a workplace is often via the Occupational Health Nurse and the H & S Team. The process of getting the Hygienist through the door to do their valuable work can take a lot of negotiating and persuading of management. Why is that? It's a bit like Occupational Health Nurses companies are not fully aware of what we do until they have us on board. Part of an OHN's role is to look at the big picture when introducing a Health Monitoring program. Determining and in some cases measuring the risk requires the input of a Hygienist. What business's understand are measurements, minimisation of risk and outcomes. Establishing a good foundation for meaningful evidence based health monitoring is the best and most professional approach for the Occupational Health professionals, team work with Hygienists provides this way forward in many cases.



**Lynda van Dam** (*Director of Business Health Services Ltd*)

*Lynda is a Director of Business Health Services Ltd along with her business partner Wendy Spence. Business Health Services was established in 1989. Lynda has worked as an Occupational Health Nurse for over 35 years in NZ and in the UK prior to that while on her OE after finishing her nursing training in Masterton. On returning to NZ she completed a certificate in Occupational Health at AUT and a Diploma in Occupational Health Practice from Otago. When not working in and on the business Lynda enjoys kayaking, walking, reading, fine wine and food.*

### Whole-body vibration and hand-arm vibration monitoring in professional gardeners – an update in 2019 By Jennie Kuzman and Kerry Cheung (*Hastings District Council and OCCHEM*)

Whole-body vibration (WBV) and hand-arm vibration (HAV) exposure is a physical hazard present in many industries. In the past, there has not been much focus on WBV and HAV as a hazard, as it is not well understood or monitored in New Zealand. In 2017, Hastings District Council carried out initial WBV exposure monitoring for its mowing operations at various parks and reserves within the district, to establish baseline results. Follow-up monitoring to develop a dataset was carried out in late 2017 with additional further monitoring (including for HAV) carried out in 2018. The study so far has found that Ride-on Mowers were at a higher risk for whole-body vibration exposure above the exposure limit compared to Tractors with mower attachments. Following the implementation of a comprehensive maintenance programme, follow-up results showed there was a 32% reduction in average WBV Daily Vibration Exposure A(8) and a 37% reduction in average Vibration Dose Value in Ride-on Mower operators. Preliminary results illustrated that Weed Eaters produced the highest average HAV exposure levels compared with other hand-held gardening tools. This presentation is an update on the previous case-study and adds WBV data from the latest 2019 assessment.



**Jennie Kuzman** (*Health and Safety Manager at Hastings District Council*)

*Jennie has over 15 years' experience in Health and Safety across a range of industries including local government, infrastructure, civil construction and engineering. Jennie is a Graduate member of NZISM, and an associate member of NZOHS and BOHS. Jennie is passionate about Occupational Health and is currently studying Occupational Hygiene through the University of Illinois in Chicago.*

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**Kerry Cheung** (*Technical Specialist, Worksafe New Zealand*)

*Kerry Cheung is an Occupational Hygienist and Technical Specialist (Work-Related Health) at WorkSafe New Zealand. His background is in occupational hygiene consulting, advising, and occupational health research (CPHR, Massey University). Currently, Kerry is completing his Master of Work Health & Safety (Occupational Hygiene) at the University of Wollongong. His current interests are in statistics and occupational vibration exposures.*

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## **Human 2.0: Upgrading for the New World of Work**

*By Elizabeth Howells*

Technology and the world of work is changing at an ever increasing pace placing greater demands on people. Can people change, learn and grow to safely meet these demands?

Knowing how to distinguish technical problems from adaptive challenges, and how to communicate and meet them, is key to future-proofing organisations and people. In this informative and interactive session, business psychologist Elizabeth Howells will lead you in an exploration of the latest in adult developmental science to:

- Form new ways of understanding what prevents and enables change
  - Gain ideas on how we can fashion workspaces that are incubators for growth
  - Boldly experiment with ways to effectively meet technical problems and adaptive challenges.
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**Elizabeth Howells** (*Registered Psychologist and Director of PeopleCentric*)

*Elizabeth is a registered psychologist and Director of PeopleCentric, Elizabeth partners with clients to actively bridge the gap between science and the world of work through customised, research-based solutions. With well over a decade of experience spanning a range of industries and sectors, Elizabeth delights in seeing her clients challenge their own thinking to achieve success. The passion and vision Elizabeth brings to her capability building and development work have made her highly effective and sought after in the areas of coaching, culture, wellbeing, engagement and change.*

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## 'Update: Addressing musculoskeletal harm in New Zealand'

By Marion Edwin

Musculoskeletal discomfort and injury is a health risk prevalent across many industries and job types. The recent changes in WorkSafe and ACC systems have created a lack of focus on this issue - confusingly re-named as 'body stressing' - with a resultant lack of direction, leadership and effective resourcing. A review of current international good practice trends will provide a picture of what good practice in this field could look like, and will include a summary of the useful 'discomfort, pain and injury' prevention and management approach that was promoted in New Zealand 2006-2012. The New Zealand situation will be discussed to provide understanding of the strengths, limitations and challenges of existing musculoskeletal harm reduction understanding and approaches.



**Marion Edwin** (CNZHFE, Principal Ergonomist and Director, Optimise Ltd, Motueka)

*Marion is a consulting ergonomist with 20 year's work experience, and a background as an occupational therapist returning injured workers to work. She has worked extensively with previous New Zealand programmes for musculoskeletal injury reduction and management, and continues to provide consultancy services across many industry sectors including a wide range of manufacturing, deep sea fishing, and in healthcare. Marion is current Chairperson for the Human Factors and Ergonomics Society of New Zealand, and has been the human factors/ergonomics representative on HASANZ since its inception. She has been working recently with ACC on re-defining the musculoskeletal harm reduction strategy.*

## Revision of the work-related health mortality and morbidity estimates

By Dr Michael Butchard (Regulatory Intelligence, WorkSafe New Zealand)

There have been two previous estimates of the health burden on New Zealanders caused by chronic work-related exposures; one by the National Occupational Health and Safety Advisory Committee in 2004, and one by the Ministry of Business, Innovation and Employment in 2013. These estimates have found that the number of work-related health deaths caused by chronic exposures is over ten times the number of work-related deaths caused by acute injury, and have provided information on the order, in terms of harm, of diseases and exposures. Since the last estimate, recent international research findings are available to allow for a meaningful revision. The aim of this study was to update the estimates for work-related health deaths and hospitalisations, using the same attributable fractions methodological approach as used in previous estimates. A systematic literature search identified published work-related attributable fractions. Where more than one attributable fraction was found for a disease, one was selected based on the research quality, recency, and validity to the New Zealand context. The set of selected attributable fractions, which included some not included in previous estimates, were applied to the most recently available Ministry of Health mortality and hospitalisation data. Estimated work-related health deaths have increased from the previous 2013 estimate, and hospitalisations are similar. Fewer diseases account for a greater proportion of work-related health burden compared to previous estimates. Recent international attributable fraction research has allowed for a meaningful revision of work-related health burden estimates. The difference in the distribution of disease burden compared to previous estimates is largely due to the updating of the attributable fractions used.

**Dr Michael Butchard (FNZCPHM, MPH, MBChB, BA(hons), BSc)**

*Dr Michael Butchard is a medical doctor, specialised in public health medicine. He has been with WorkSafe for two years as the Work-related Health Intelligence Lead. Prior to this, Michael has worked for Community and Public Health CDHB, the New Zealand Child and Youth Epidemiology Service, and the Population Health Department of the University of Otago, Christchurch, where he occasionally teaches 4th year medical students. Since joining WorkSafe, Michael has developed a keen interest in the epidemiology of work-related health, including the population-based methods to estimate the burden of chronic work-related exposures.*

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## **Control Banding – A useful tool for business’s workplace risk assessment and management** By Derek Miller

Control banding has been designed to help workplaces by providing an easy to understand and apply approach to controlling hazards. It was designed for small and medium size enterprises (SME's), which have limited access or expertise in workplace health and safety or occupational hygiene, to guide their assessment and management of workplace risks. For SME's this has the potential to be a useful tool.

So control banding models are an assessment method that can be used to manage workplace risks. It is a process that matches a control measure to a range of hazards in a simple way. It can tell a business when they need to call in a hygienist or other suitably qualified specialist e.g. very high risk.

This talk will focus on what control banding is, how business can use it for assessing chemical risks and assessing their controls or need for controls. It will also cover the various systems out there and the limitations of control banding plus why some verification of the process may be required through specialists such as occupational hygienists.

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**Derek Miller (Occupational Hygienist, COH, LFOH, MAIOH, MNZOHS)**

*Derek has worked in the fields of environmental health and occupational hygiene for over 30 years. He has been president of the NZOHS and is member of the HASANZ Governance Group. In addition to this has represented NZ occupational hygienists on various International boards as well as international and national working groups related on occupational hygiene matters. He likes to relax by tramping, making cheese and enjoying the waters of life.*

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## Worksafe Workshop: Health Risk Management – the regulator's perspective

By Philippa Gibson, Kerry Cheung and Jim Napier (Health and Technical Services, WorkSafe New Zealand)

Under New Zealand's new health and safety legislation, PCBUs have a primary duty of care in relation to workers who do work for them and other persons – that their health and safety is not compromised by the conduct of the business or undertaking. The Health and Safety at Work legislation includes fragments requiring a genuine systematic approach to the management of work-related health. Even though the risk management process is not expressly mandated in the legislation, a process of managing risk is implicit in the 'reasonably practicable' qualification. This workshop will consider legislative requirements in relation to work-related health, the status of the WESs and BEIs, and will discuss how ISO 31000 *Risk Management – Guidelines* may be used as a tool to assist PCBUs manage health risk for workers. The workshop will cover WorkSafe New Zealand's expectations for occupational hygiene assessments and will discuss the first work-related health prosecution to be taken under the Health and Safety at Work Act, 2015.

By the end of the workshop, participants should:

- Have an understanding of the legal duties imposed on PCBUs in relation to health risk management; and
- Be able to apply ISO 31000 to the management of health risk; and
- Understand the status of WorkSafe's WESs and BEIs in law; and
- Understand what WorkSafe expects in terms of competency and content in occupation hygiene assessments.



**Philippa Gibson** (Principal Specialist in Work Related Health at WorkSafe)

*Philippa specialises in health risk management, and in particular health risk assessment. She is certified as an industrial hygienist by the American Board of Industrial Hygiene and certified as an occupational hygienist by the Australian Institute of Occupational Hygienists. She is a board member of the International Occupational Hygiene Association, and a Fellow of the New Zealand Occupational Hygiene Society. At WorkSafe she is in the Operations and Technical Specialists team providing technical support to WorkSafe, inspectors, other agencies and PCBUs in the area of health risk management, Workplace Exposure Standards and exposure assessment. She is also a health and safety inspector.*



**Kerry Cheung** (Occupational Hygienist and Technical Specialist (Work-Related Health) at WorkSafe New Zealand)

*Kerry's background is in occupational hygiene consulting, advising, and occupational health research (CPHR, Massey University). Currently, Kerry is completing his Master of Work Health & Safety (Occupational Hygiene) at the University of Wollongong. His current interests are in statistics and occupational vibration exposures.*



**Jim Napier** (Technical Specialist, WorkSafe New Zealand)

*Jim has over 20 years' experience in Health and Safety, with the past 13 years being in the field of occupational health and hygiene. He worked for 5 years as an occupational hygiene consultant in a busy Inner West Sydney risk management consultancy before returning to work with WorkSafe New Zealand. Jim is a full member of both the NZOHS and the AIOH, a Certified Occupational Hygienist (COH)®, and a past NZOHS Council member.*

## Chemsafety Workshop: Hazardous Substances Regulations for occupational hygiene practitioners

By Janet Connochie (Senior Chemical Consultant, Compliance Certifier)

The purpose of this workshop is to provide an introduction and overview of the Health and Safety at Work (Hazardous Substances) Regulations to practitioners who encounter hazardous substances at client sites and would like to increase their knowledge about what they should be seeing on site to identify compliant vs non-compliant sites, and what this means.

### Outline

- Introductory examples of what people might see on sites.
- Introduction to hazardous substances legislation regime
  - WorkSafe vs EPA roles
  - Relationships between HSWA / HSNO / Regulations & EPA Notices
  - Timeframes
- Overview of the structure of the regulations – what topics do the regulations cover – identify which sections will be covered in the workshop, and which will not (e.g. explosives, tank wagons)
- Steps for identifying hazardous substances present – including inventory requirements, sources of information and Safety Data Sheets.
- Certification requirements and threshold.
- Generic controls – Emergency Response, Labelling, Packaging, Signage
- Training & Handlers
- Class by Class
- Flammable gases and liquids
- Oxidising Substances
- Toxic & Corrosive Substances
- Special cases – Laboratories, where has class 9 gone?
- PPE, Workplace exposure and relationship to GRWM



**Janet Connochie** (Senior Chemical Consultant, HSNO Compliance Certifier, Systems Manager and Director of Chemsafety).

As Chemsafety's HSNO Specialist Janet provides compliance certification and hazardous substance management solutions and is thoroughly abreast of upcoming changes in the legislation. Janet has developed and presented training for certified handlers, and also site-specific sessions in chemical handling, safety data sheet interpretation, and laboratory HSNO management. With extensive experience in occupational hygiene Janet works with our team of Consultants to provide our clients with an understanding of the hazards in your workplace environment. As a recognised expert in the field of hazardous substance Janet has been invited to speak and chair at numerous conferences and professional development sessions. She is always happy to share her knowledge and experiences to any audience and can tailor any session to your requirements.

## NZOHS Sponsor Acknowledgement

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Thank you for attending the NZOHS Work-Related Health Conference 2019.

We hope you enjoy the conference.

At the end of the conference, please take a few minutes to complete the feedback form on the next page.

Have a safe journey.

## FEEDBACK FORM

Please take a few minutes to complete the feedback form.

NAME (optional): \_\_\_\_\_

Circle your answer:

I am a **member / non-member** of the New Zealand Occupational Hygiene Society (NZOHS).

Please respond to the following questions by using the rating below:

	1	2	3	4	<i>Circle your answer</i>				
	Poor	Fair	Good	Excellent					
1. The conference was well organized.	N/A	1	2	3	4				
2. The presenters were knowledgeable.	N/A	1	2	3	4				
3. The material was presented in an interesting manner.	N/A	1	2	3	4				
4. The material presented was relevant and helpful.	N/A	1	2	3	4				
5. The Continuing Education Sessions was...[select score].	N/A	1	2	3	4				
6. The exhibitors and their ignite sessions were [select score].	N/A	1	2	3	4				
7. The purpose of the conference was met.	N/A	Yes		No					
8. My expectations of the conference were met.	N/A	Yes		No					
9. Including the Annual General Meeting with the conference.	N/A	Yes		No					
10. The social event was ...[select score].	N/A	1	2	3	4				
11. The catering was ...[select score].	N/A	1	2	3	4				
12. The facilities were ...[select score].	N/A	1	2	3	4				
13. Include a social event in future. Idea: _____	N/A	Yes		No					
14. I would attend a similar conference in the future.	N/A	Yes		No					
15. I would recommend a similar conference to my colleagues in future.	N/A	Yes		No					
16. I would like to join the NZOHS, please contact me. Email: _____	N/A	Yes		No					
17. Which topics or aspects of the conference did you find most interesting/useful?									
18. I would like to know more about the following topics:									
19. How did you hear about the conference? ( <i>Circle your answer</i> ) NZOHS Newsletter / Meeting ; NZOHS Email ; Friend / Colleague Who _____ ; Facebook, LinkedIn, Safeguard Email, Other _____.									
20. Any further suggestions or ideas for future (e.g. venue/location/catering/advertising):									

**Thank you, your feedback is much appreciated.**

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