



Occupational exposures to carcinogens in Australia

The Cancer Council of Western Australia has published a monograph based on workers' compensation data paid in Australia 2010-2012 provided by SafeWork Australia's National Data Team.

It identifies the following key issues:

- Occupational exposures to carcinogens are estimated to cause over 5,000 new cases of cancer in Australia each year.
- Approximately 3.6 million Australians could be exposed to one or more carcinogens at work.
- Priority carcinogens applicable to the Australian industrial profile should be the focus of scientists and regulators.
- The number of occupationally caused cancers compensated each year equates to less than 8 per cent of the expected number.
- Under-compensation may be a result of lack of awareness of occupational risk factors among workers and health professionals, along with the inherent difficulties in assigning a specific cancer case to an occupational cause.

Other possible reasons for under-compensation include the worker's lack of awareness of the entitlement to claim compensation or how to access compensation schemes and, importantly, inadequate recording of workers' occupational history, which could help to identify possible exposure to carcinogens.

Source: Cancer Council of Western Australia, Occupational exposures to carcinogens in Australia 2015, Monograph Series

In this issue . . .

Legislation/Regulation	3
Safety	4
Air pollution	7
Health - physical	9
Health - psychological	14
Sleep/Fatigue	17
Hazardous substances	18
Legal/illegal drugs	18
Workers' compensation	19
Cancers	20



WELCOME

In this issue ...

Legislation/Regulation

New Irish safety representatives resource book	3
Employers jailed for exposing workers to asbestos fibres.....	3
Creative sentence for OSHA violation.....	3

Safety

Asbestos inspections not done regularly, report finds.....	4
AIHW reports decline injury death rates.....	4
High rates of serious injury observed in manufacturing industry.....	4
Japanese government moves to eradicate overwork deaths	5
Preventable injuries kill dozens of Canadians daily	5
Repeat safety offender gets off lightly	5
Macquarie University study finds OHS Business Case Studies fundamentally flawed.....	6
France to ban Monsanto's Roundup weedkiller	6

Air pollution

What you need to know about the health effects of particulate matter 2.5	7
Low vitamin E, particulate matter and lung function	7
Air pollution - young children and allergies	7
No safe level of particulate air pollution.....	8

Health - physical

Light fixture kills bacteria safely and continuously.....	8
Are genetic changes involved in allergic susceptibility	9
Faster heart rate linked to diabetes risk	9
Prolonged sitting and its health consequences.....	10
Walking two minutes an hour lengthens life.....	10
Inactivity reduces muscle strength.....	10
Data scientists find connections between birth month and health	11
New office and work design improves worker health and productivity	12
World happiness of people.....	13

Health - psychological

New breakthrough in how amphetamines and cocaine disrupt brain functioning.....	14
PTSD May be linked to accelerated aging.....	14
Strong link between dementia and taking medication for insomnia, allergies, depression, drugs	14
Having a stroke steals eight years of brain function.....	14
Teenage bullying can result in depression in early adulthood.....	14
School teachers don't have time to address students' mental health	11

Sleep/Fatigue

Sleep apnea and excessive daytime sleepiness - association with risk of depression in men	16
Discovery of a protein that suppresses the biological clock.....	16
Late night eating results in sleep deprivation	17
The effect of life satisfaction on sleep onset latency during mid-life	17
Impact of sleep duration and quality on cancer survival	17

Hazardous substances

Tourists and FIFO workers hit by mosquito-borne virus	18
Workplace chemicals the eighth leading cause of death in USA	18

Legal/illegal drugs

Cannabis users a danger to their workmates.....	18
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Workers' compensation

The costs of failing to protect workers on the job.....	19
The increasing cost of psychological claims for workers' compensation.....	19
Proposal for national self-insurance for big companies.....	20



Issue 3

Vol 19
July 2015

WorkCoverWA increases prescribed amount for 2015/16 financial year	20
Workcover WA Strategic Plan.....	20

Cancers

Cancer study casts doubt on chemical standards.....	20
One in three Europeans still potentially exposed to asbestos.....	21
Asbestos production and exporting to continue in Europe.....	21
Thousands of UK police officers in asbestos risk alert	21
Asbestos in talcum powder causes mesothelioma.....	21
Cautious optimism about new mesothelioma treatment.....	22
The ongoing legacy of smoking.....	22
UV beads used as skin cancer alert.....	22
New potential melanoma drug target discovered.....	22

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Legislative/regulatory matters

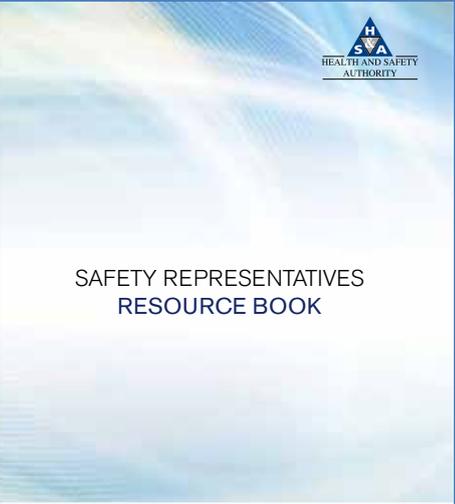
New Irish safety representatives resource book

The Health and Safety Authority (HSA) of Ireland has published a new, free 278-page resource book for the country's health and safety representatives. The publication is a comprehensive easy-to-read informative guide relevant to all parties in the workplace.

Martin O'Halloran, CEO of the HSA said that he was hopeful the resource book will facilitate the further development of the role of the safety representative and lead to more meaningful communication and consultation in the workplace, which is one of the fundamental enablers of success.

The Resource Book can be found at www.hsa.ie

Source: TUC Risks # 701, 9 May 2015



Employers jailed for exposing workers to asbestos fibres

In Wales, a builder who exposed workers to asbestos while working on a commercial unit on an industrial estate has been jailed for six months by a Magistrates Court.

The HSE inspector said that by undertaking the uncontrolled removal of asbestos, work for which he was not licensed, the builder exposed himself and his co-workers to the risk of inhaling asbestos fibres. The workers could also have posed a health risk to others, including, for example, their families and loved ones, by taking home contaminated clothing.

Meanwhile in the USA, a New Jersey man has been sentenced to three years in prison for using inmates from a half-way house to illegally remove asbestos from a former hospital causing the release of toxic dust and debris.

Workers did not wear protective equipment except for paper masks which they removed when they were unable to breathe.

Source: TUC Risks #707, 20 June 2015

Creative sentence for OHSa violation

A Nova Scotia court has found a company guilty of failing to institute any policies or practices that addressed workplace safety when an electrician employed by the company was electrocuted working on an energised system. The court imposed a fine of \$35,000 on the company, acknowledging that it was very small, insolvent and no longer operating.

The Nova Scotia Occupational Health and Safety Act allows fines and "creative sentencing options" for violations.

The Court also decided to impose a "community service order" requiring the company to make a series of presentations on the facts of the case as indicated by the trial decision, the applicable regulatory requirements, and the required due diligence. The presentations must total 150 hours and be completed in 18 months.

The use of "enforceable undertakings" in this case should be a reminder to the Western Australian government that removing this option to regulators from the health and safety legislation currently under consideration would be detrimental to its principal objectives.

Source: Cos Mag, 24 June 2015

SAFETY



Asbestos inspections not done regularly, report finds

The Western Australian Auditor-General, Colin Murphy, has found that, although there has been some improvement in the way asbestos risk was being managed in the public sector, there was still significant room for improvement.

The report revealed that the Disability Services Commission and the Department of Agriculture and Food had not been inspecting their properties as required.

The report found inspectors with the Department of Agriculture and Food and the Department of Housing may not be sufficiently trained because not all of them had received refresher training.

Importantly, Mr Murphy raised concern that the lack of a single agency responsible for co-ordinating asbestos management had led to "inconsistent practices" and agencies "not being clear on their responsibilities".

Source: ABC News Release, 22 April 2015

4 / MONITOR / JULY 2015

AIHW reports decline in injury death rates in decade to 2009/10

The *Trends in injury deaths, Australia: 1999-00 to 2009-10* report shows that the rate of injury deaths decreased by an average of three per cent per year between 1999/2000 and 2004/05 and then remained stable to 2009/10.

There has been an average decline in:

Transport injury deaths	4.1%
Thermal injury (smoke, fire, flames or contact with heat)	3.2%
Suicide	2.7%
Homicide	5.2%

The rates of fall injury deaths did not show a marked trend.

In 2009/10 there were 2,247 deaths due to suicide and, of these, there were more than three times as many male suicides as female suicides.

In 2009/10 injury death rates were much higher for males at 61/100,000 compared to 37/100,000 for females.

The report also showed that around three times more injury deaths occurred in people aged 65 and over than in the general population (both male and female).

The Indigenous death rate was 1.8 times that of other Australians in 2009/10.

Source: AIHW Media Release, 12 May 2015

High rates of serious injury observed in the manufacturing industry

SafeWork Australia reports that the manufacturing industry holds second spot in the number of serious workers' compensation claims of any industry in Australia and will be a main focus of the *2012-2022 Work Health and Safety Strategy*.

Statistics show some manufacturing sub-sectors have rates more than twice as high as the national rate with fabricated metal product manufacturing a particularly high offender recording 54.3 claims per 1,000 employees – more than four times the Australian average.

Source: SafetySolutions, 7 May 2015



JAPANESE GOVERNMENT MOVES TO ERADICATE OVERWORK DEATHS

The government of Japan is to introduce a law to promote measures to prevent deaths from overwork or 'karoshi'. The draft "Act to Accelerate Moves for the Prevention of Karoshi" was published on 25 May and includes measures to reduce the percentage of people working 60 hours or more a week to five per cent or less by 2020.

It also contains preventive measures such as conducting educational activities on karoshi and improved counselling systems.

A ministerial panel which has been considering the draft legislation says that 17 per cent of men in their 30's are working at least 60 hours per week and emphasised that 4.68 million people are in danger of becoming karoshi victims and 16 per cent do not take any paid annual leave at all.

Source: TUC Risks 705, 5 June 2015

Preventable injuries kill dozens of Canadians daily, cost billions to economy

A report by a group focusing on injury prevention which examined all injuries across Canada in 2010 claims that preventable injuries were responsible for about 43 deaths a day and were the top cause of death among Canadians aged between 1 and 44. They also claimed the lives of more children than all other causes.

Falls were the top preventable injury and the biggest drain on the economy accounting for C\$6.7billion.

The report says that the numbers will continue to increase without active steps to reduce Canada's preventable injury rate and concludes that "...it is time to take comprehensive, effective action that will prevent injuries and save lives."

Source: Cos Mag, 5 June 2015

Repeat safety offender gets off lightly

In the UK, Pirelli Tyres have been prosecuted by the HSE following a workplace fatality, after an investigation found the company did not have a system in place to ensure an autoclave used to heat parts of tyres to temperature of up to 145° was checked before being switched on. A worker was found dead, trapped in the autoclave.

Passing sentence, the judge said that the firm had already been prosecuted for two criminal health and safety offences, the most recent in 2013 involving the removal of a machine guard when it was in use.

Pirelli Tyres was fined £150,000 and ordered to pay £47,000 in prosecution costs.

In Australia, the penalty could well have been many times that amount.

Source: TUC Risks, #701, 9 May 2015

JULY 2015 / MONITOR / 5

Macquarie University study finds OHS Business Case Studies fundamentally flawed

The Executive Summary of the findings of the Macquarie University study *The Business Case for Safe, Healthy and Productive Work* says:

- The business case for work health and safety is generally misunderstood and poorly analysed.
- The legal requirements for work health and safety provide a clear business case for investment.
- **The limitations of financial cost-benefit analysis make it inappropriate for informing decisions as to whether or not to invest in controlling risks to the health and safety of workers, however:**
 - financial (cost) analyses are likely to be useful for highlighting the most obvious and measurable work health and safety cost implications of operational and financing decisions – although to avoid misinterpretation must be accompanied by a caveat that recognises the incompleteness of estimated financial benefits. To this end, detailed research that can provide industry with guides to ratios of visible to hidden costs for various injury and illness outcomes are likely to be useful;
 - intervention cost analyses (as opposed to cost-benefit analyses) remain important for informing choices between equally effective risk controls.

The study was co-funded by SafeWork Australia, the Safety Institute of Australia and CPA Australia.

Source: *The Business Case for Safe, Healthy and Productive Work, Implications for resource allocation: Procurement, Contracting and infrastructure decisions, November 2014*



France to ban Monsanto's Roundup weedkiller from garden centres

France has announced a ban on over-the-counter sales of Monsanto's weedkiller Roundup at garden centres after glyphosate, the active ingredient in Roundup, was classified as potentially harmful to human health.

"France must be on the offensive with regards to the banning of pesticides" said French Environment Minister Ségolène Royal.

"I have asked garden centres to stop putting Monsanto's Roundup on sale in self-service aisles", she said. Royal did not specify how she would enforce a ban.

Glyphosate was introduced by Monsanto in the 1970s under the brand name Roundup and is the world's most widely sold herbicide used by farmers and amateur gardeners alike.

In March, the International Agency for Research on Cancer (IARC), an arm of the World Health Organization (WHO), classified glyphosate as "probably carcinogenic to humans". That prompted calls from public officials, health experts and consumers worldwide for a ban on the pesticide. Some retailers across Europe have already started to remove Roundup from their shelves.

German retail giant REWE Group announced in May that its 350 'Toom Baumarkt DIY' stores would no longer be selling products containing glyphosate by 30 September 2015 at the latest. In Switzerland, supermarket chains Coop and Migros both have removed glyphosate products from their product range. The French move is part of a wider effort to reduce the country's pesticide use.

Source: *Global Agriculture, 16 June 2015*





AIR POLLUTION

What you need to know about the health effects of particulate matter 2.5

PM_{2.5} air pollution can have a significant impact on human health, not only for local populations, but also in regions far from its source of emission, shows a new study which calculated 'damage factors' to human health of PM_{2.5} and health in different parts of the world.

The study investigated the impact of PM_{2.5} on human health at the global level using a global chemical transport model to estimate the fate of PM_{2.5} in 10 world regions. They considered primary emissions of PM_{2.5} as well as the fraction of secondary PM_{2.5}. Primary PM_{2.5} such as black carbon and organic carbon is emitted directly into the atmosphere. Secondary PM_{2.5} is formed in the air through the chemical transformation of 'precursor' gases such as nitrogen oxides, sulphur dioxide and ammonia.

In all regions the damage factors of the PM_{2.5} components black and organic carbon combined were calculated to be about five times greater than damage factors of secondary PM_{2.5} formed by the gaseous pollutants.

PM_{2.5} made up of any particles smaller than 2.5 micrometres in diameter, is emitted from various sources, including the combustion of fossil fuels and other organic matter. It has been linked to serious health problems, including heart, lung diseases and premature deaths, and can be transported long distances in the air. This means that it may affect people in countries, regions and continents far from its source.

Although the damage factors partly depend on the size of the regions defined in the study, researchers say their results highlight the importance of the global transport of PM_{2.5} and this should be taken into account when calculating damage factors.

Source: Science for Environment Policy, Issue 410, 16 April 2015

Low vitamin E – particulate matter and lung function

An association between the amount of Vitamin E in the body, exposure to particulate pollution and lung function has been identified by researchers from King's College, London and the University of Nottingham. The paper adds to growing evidence suggesting that some vitamins may play a role in helping to protect the lungs from air pollution.

Although the study did not specifically demonstrate a protective effect, it is the first to show a clear link between Vitamin E concentrations in the blood and reduction of the effects of exposure to fine particulate matter in the general population.

Professor Frank Kelly, co-author of the study, said "These new findings are consistent with previous reports which observed lower levels of Vitamin E in people with lung conditions such as asthma. However, we do not yet fully understand which types of particulate pollution specifically damage the lungs or which vitamins best interfere with this pathway to reduce the level of damage."

Source: ScienceDaily, 15 May 2015

Air pollution – young children and allergies

In another study by the University of British Columbia, researchers concluded that exposure to outdoor air pollution during the first year of life increases the risk of developing allergies to food, mould, pets and pests. The study showed that sensitivity to allergies was associated with exposure to traffic-related air pollution during infancy.

"Understanding which environmental exposures in early life affect the development of allergies can help tailor preventative measures for children," said first author Hind Sbihi. "We also found that children who attended daycare or with older siblings in the household were less likely to develop allergic sensitization, suggesting that exposure to other children can be protective."

Source: UBC News, Media Release, 4 May 2015

No safe level of particulate air pollution

Researchers used satellite data to determine particle air pollution in every zip (postal) code in New England, USA. This allowed them to examine the effects of PM_{2.5} on locations far from monitoring stations, and to look at the effects of short-term exposures and annual average exposures simultaneously.

They analysed health data from everyone covered by Medicare in New England – 2.4 million people – between 2003 and 2008 and followed them each year until they died.

They found that both short and long term PM_{2.5} exposure was significantly associated with higher death rates, even when restricted to postal codes and times with annual exposures below EPA standards.

Short-term (two-day) exposures led to a 2.14 per cent increase in mortality per 10 µg/m³ increase in PM_{2.5} concentration and long-term (one year) exposure led to a 7.52 per cent increase in mortality for each 10 µg/m³ increase.

Senior author, Joel Schwartz, concluded that “particulate air pollution is like lead pollution, there is no evidence of a safe threshold even at levels far below current standards, including in the rural areas we investigated. We need to focus on strategies that lower exposure everywhere and all the time, and not just on locations or on days with high particulate levels.”

Source: ScienceDaily, 4 June 2015

HEALTH - PHYSICAL LIGHT FIXTURE KILLS BACTERIA SAFELY, CONTINUOUSLY

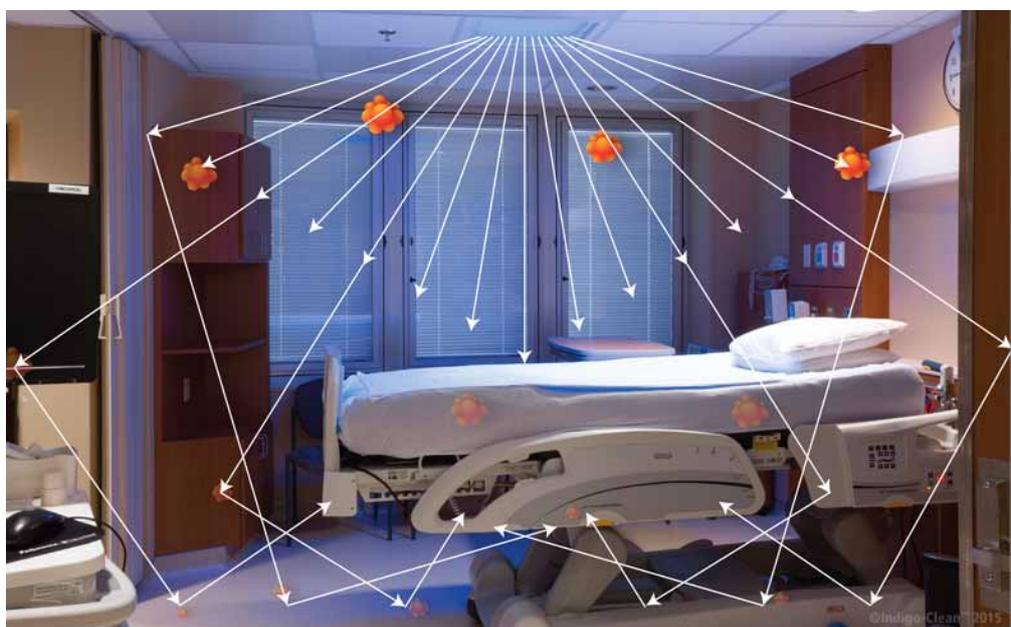
A new light fixture uses Continuous Environmental Disinfection technology to continuously kill harmful bacteria linked to hospital acquired infections (HAIs).

The technology behind the Indigo-Clean™ inactivates a wide range of micro-organisms that are known causes of HAIs, including MRSA (Methicillin-resistant Staphylococcus aureus) C.difficile and VRE (vancomycin-resistant enterococcus).

Indigo-Clean™ is a light fixture manufactured through an exclusive licencing agreement with the University of Strathclyde Glasgow, Scotland, which developed, provided and patented the technology. The light operates continuously and requires no operator, kills bacteria in the air and on all surfaces, and complies with all internationally recognised standards for patient safety.

The Centers for Disease Control and Prevention (CDC) in the USA reports that around 1 in 25 hospital patients have at least one infection contacted in the health care setting. It estimates HAI's cause at least 1.7 million illnesses and 99,000 deaths in acute care hospitals in the US and add \$35-45 billion in excess health costs each year.

Pic: Copyright Indigo-Clean™, United Hospital Kenosha Medical Center Campus, Kenosha, WI



Source: Science Daily, 26 June 2015

HEALTH - PHYSICAL

Are genetic changes involved in allergic susceptibility?

New research at Curtin University has shown that the Australian environment may be causing genetic changes and making people more susceptible to allergies such as hay fever. The results presented recently at the Annual Meeting of the Thoracic Society of Australia and New Zealand reveal that something in the Australian environment is changing the way people's bodies work, making them more likely to reach for the tissue box come spring.

The prominence of asthma allergies has gone up significantly in Western countries.

Researcher Brad Zhang is trying to work out what it is in the Western environment which is causing the increase in allergies. Almost 20 per cent of the Australian population has an allergic disease and the rate is increasing. Hospital admissions for severe, life threatening allergic reactions have increased four-fold in the past 10 years.

The study of external factors on gene expression may now open the door to finding ways to treat and potentially eradicate hay fever and allergies.

Source: Chemwatch Bulletin, April 2015



Faster heart rate linked to diabetes risk

An association between resting heart rate and diabetes suggests that heart rate measures could identify individuals with a higher risk of diabetes, according to an international team of researchers.

Senior author Xiang Gao, associate professor at Penn State, said "we found participants with faster heart rates (suggesting lower automatic function) had increased risk of diabetes, pre-diabetes and conversion from pre-diabetes to diabetes. Each additional 10 beats per minute was associated with 23 per cent increased risk of diabetes, similar to the effect of a three kilogram per meter squared increase in body mass index."

All participants were employed at Kailuan Co Ltd, China and cannot be considered a representative sample of the general Chinese population.

Source: ScienceDaily, 22 May 2015



PROLONGED SITTING AND ITS HEALTH CONSEQUENCES

The *British Journal of Sports Medicine* advises that office workers should be on their feet for a minimum of two hours daily during working hours to help workers' health. This daily quota should eventually be bumped up to four hours a day, breaking up prolonged periods of sitting with the use of sit-stand desks, standing based work and regular walk-about.

This guidance aims to address the growing body of research linking prolonged periods spent seated – as opposed to being generally inactive – with a heightened risk of serious illness and premature death.

Source: *Chemwatch*, 2 June 2015

Walking two minutes an hour lengthens life

Getting up from your desk at least once an hour and walking for two minutes means a longer life according to a study by the University of Utah.

The lead author, Srinivasan Beddhu, said that sitting for a long time increases the risk of death and the study findings suggest that replacing sedentary work with an increase in light activity might confer a survival benefit.

The research analysed information on more than 3,000 participants in a national survey more than a decade ago, with subjects wearing accelerometers that objectively measured activity levels. Researchers followed the participants for more than three years after the initial data was collected in 2003/04.

A 33 per cent lower risk of dying was discovered for those that get up every hour to walk around. Among the patients with chronic kidney disease in the study group, the risk of death was 41 per cent lower in those who walked for two minutes each hour.

Source: *Bioscience Technology*, 1 May 2015

Inactivity reduces muscle strength

Researchers at the University of Copenhagen have reported that experiments reveal that inactivity affects the muscle strength in young and older men equally.

Having had one leg immobilised for two weeks, young people lose up to a third of their muscular strength, while older people lose approximately one fourth.

Researcher Martin Gram says that "it is interesting that inactivity causes such rapid loss of muscle mass (when immobilised for two weeks young men lose 485 grams on average, while older men lose approximately 250 grams). In fact, it takes three times the amount of time you were inactive to repair the muscle mass lost." This may be caused by the fact that when we are immobilised, it's 24 hours a day.

Source: *Science Daily*, 26 June 2015

Data scientists find connections between birth month and health

Scientists may make fun of astrologers for saying that your birth month exerts a profound effect on your personality and direction in life, but a new study finds them singing a similar refrain.

Data scientists at Columbia University Medical Center uncovered a surprising correlation between the month you're born and your risk of developing various health problems, including heart disease, viral infections and ADHD.

While the idea that your birth month can predict your health destiny might seem outlandish, the scientific community has welcomed the findings.

"The great thing about working in science is that scientists are incredibly open-minded people -- as long as you have the data to back up your claims!" Dr. Nicholas Tatonetti, assistant professor of biomedical informatics at the university and the study's lead author, said in an email to *The Huffington Post*.

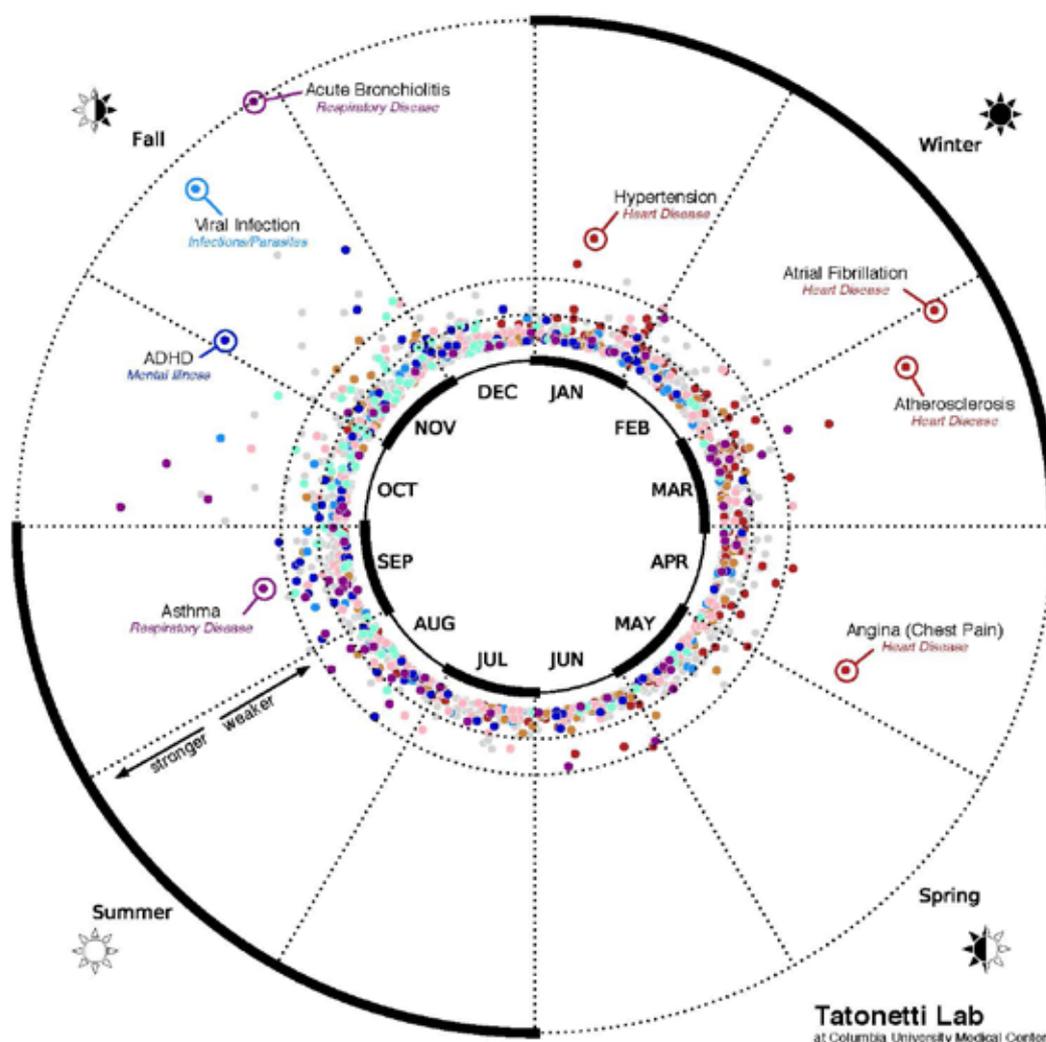
"When we present these results we are always careful to point out that birth month is a proxy variable for environmental exposures. It is well known that environment can be a very important factor in early development, especially when in the context of some particular genetic variants."

Here's a rundown of some of the most important findings:

- Overall, babies born in October had the highest risk of disease, and those born in May had the lowest risk.
- Asthma risk was highest for July and October babies.
- November babies were at the highest risk for developing ADHD.
- Babies born in March faced the highest risk for heart problems including atrial fibrillation, congestive heart failure and mitral valve disorder
- Winter babies were at a higher risk of neurological problems.

Source: *Huffington Post*, 10 June 2015

Birth Month and Disease Incidence in 1.7 Million Patients





NEW OFFICE AND WORK DESIGN IMPROVES WORKER HEALTH AND PRODUCTIVITY

A major employer's move to a new office and a shift to an activity-based work system has contributed to a big improvement in employee well-being.

Medibank recently moved to a new office building and was hoping for a lift in physical and mental well-being and productivity.

The design of the premises which encourages physical movement throughout the day and provides the workers with the freedom of choice to decide how and where to work has marked a new era in employee health, says Medibank's Kylie Bishop. She said that every element of the building has been designed with health at its core.

"Medibank Place has a coloured ramp spiralling up into the heart of the building, a multi-purpose sports court, an edible garden, outdoor terraces, natural light, a lounge with a fireplace, games and quiet areas for employees to retreat, rejuvenate and refresh," she said. It also encourages workers to use two staircases, which led to a central atrium, to work or socialise.

In the first few weeks following the move, 70 per cent of the company's staff reporting feeling healthier, and 71 per cent said they felt more engaged with the Medibank "for better health" initiative which encourages people to eat well and stay active.

Source: OHS Alert, 2 June 2015



WORLD HAPPINESS OF PEOPLE

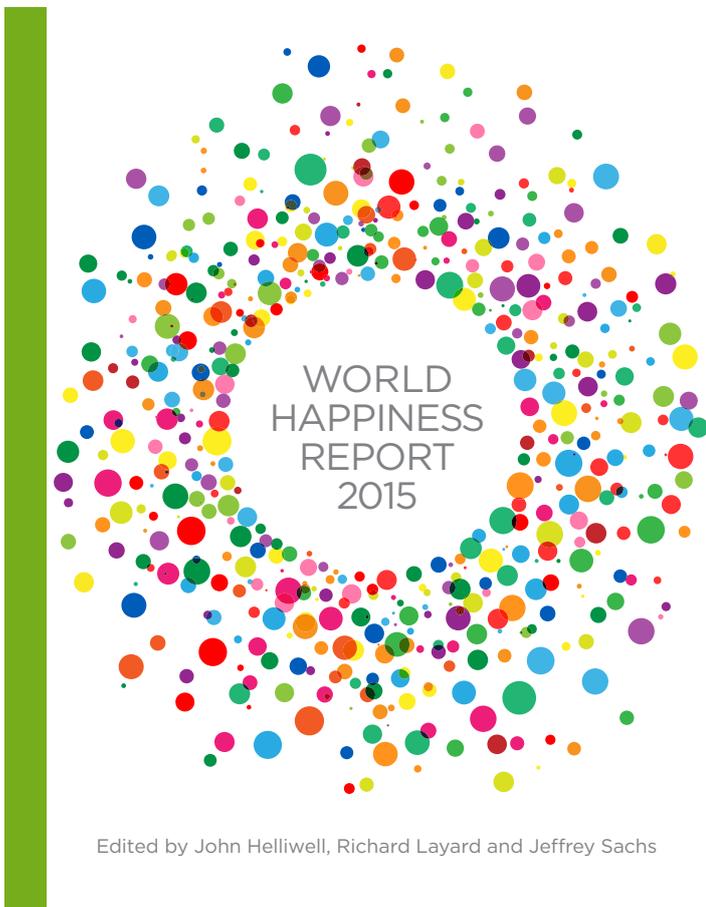
The *World Happiness Report 2015*, published by the Sustainable Development Solutions Network, an initiative under the United Nations, aims to determine the happiness of people in each of 158 countries.

The chapter dealing with what countries can do to improve happiness and well-being is particularly critical of a government decision-making system which is based on economic benefit, not the benefit to the people.

Commenting on the report's critique of the current system, Hugh Robertson, the head of the UK Trade Union Congress said "benefit to business always trumps the benefit to workers. We saw this in the recent evaluation by the EU of Health and Safety directives, where the emphasis was on economic benefits.

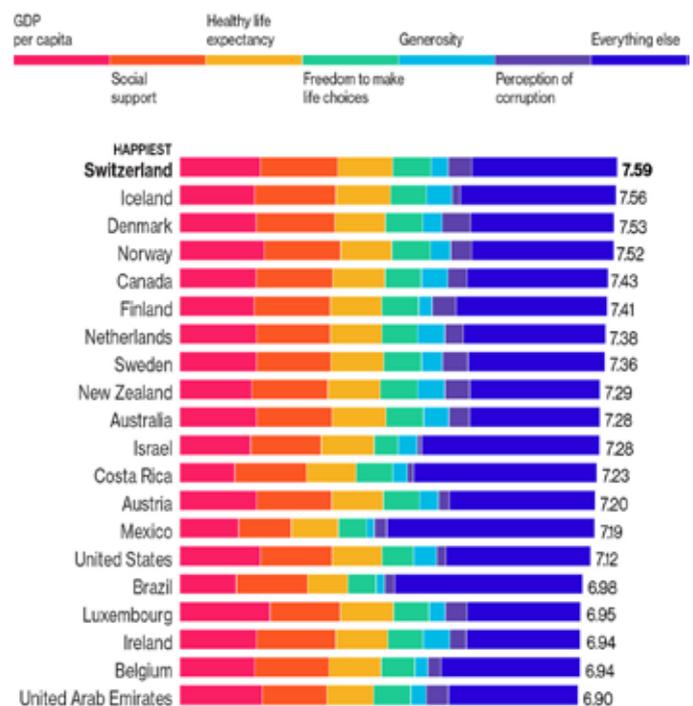
He added that "the *World Happiness Report* recommends that this should change and instead policies being based both on the benefit to people, rather than the economy, and where the focus was on the actual improvement in people's 'well-being' that will come about instead of the material benefit to individuals, would be a brave and radical one. It would put people's well-being and happiness at the top of the Government's priorities.

Source: TUC, Risks 700 and World Happiness Report



20 Happiest Countries in the World

Residents of each country were asked to score their quality of life on a scale of 0 to 10.



Note: Researchers estimated how much each factor contributed to people's happiness.
Source: World Happiness Report 2015

HEALTH - PSYCHOLOGICAL

New breakthrough in how amphetamines and cocaine disrupt brain functioning

In a major advance in the field of neuropsychiatry, researchers at the Vollum Institute at Oregon Health and Science University have illuminated how cocaine and amphetamines disrupt the normal functioning of the dopamine transporter in the brain.

This discovery paves the way for developing treatments that could blunt the effects of cocaine and amphetamines in addicted patients. Currently, there are no approved drug therapies for amphetamine abuse, and the rate of relapse for people addicted to cocaine and amphetamines is high.

The dopamine transporter serves as a 'pump' that removes the neurotransmitter from the synapse, or the regions of nerve cell to nerve cell communication. Amphetamines and cocaine block dopamine signalling by interfering with the dopamine transporter.

Dr Richard Goodman, director of the Institute said that "the research fills in a major gap in our knowledge that's persisted for decades: how exactly these addictive drugs impact normal brain functioning. It arms the pharmaceutical industry with specific information about targets for treatment, opening the door for new therapeutic approaches for blocking the effects of cocaine and amphetamines."

Source: Bioscience Technology, 12 May 2015

PTSD may be linked to accelerated aging

University of California, San Diego researchers suggest that post-traumatic stress disorder (PTSD) may cause accelerated aging, a new study suggests.

Previous research has linked PTSD with mental health disorders such as depression and insomnia, anger, eating disorders and substance abuse. However, this is the first time it has been potentially linked to a number of biological processes that could lead to faster aging.

Author Dr James Lohr said that "these findings do not speak to whether accelerated aging is specific to PTSD but they do argue the need to re-conceptualise PTSD as something more than a mental illness.

Source: MedicineNet, 8 May 2015

Strong link between dementia and taking medication for insomnia, allergies, depression, drugs

There is a strong and possibly irreversible link between Alzheimer's disease and many commonly used medications for insomnia, allergies and depression according to a large JAMA Internal Medicine Study.

Three months of taking either daily Benadryl, Advil PM (ibuprofen), Tylenol PM (paracetamol), or Motrin PM (ibuprofen) pills, for example, is associated with an increased risk of Alzheimer's of 19 per cent. More than three years of the latter increases that risk association by a 'significant' 54 per cent.

Source: DDD Magazine, 30 April 2015

Having a stroke steals eight years of brain function

A study by researchers at the University of Michigan which used data from more than 4,900 black and white seniors over the age of 65 has shown that having a stroke robbed older adults of about eight years' worth of brain function.

In both black and white patients, having had a stroke meant that their score in a 27-item test of memory and thinking speed had dropped as much as if it would have if they aged 7.9 years overnight.

The researchers say the findings underscore the importance of stroke prevention.

Source: ScienceDaily, 5 June 2015

Teenage bullying can result in depression in early adulthood

New research by a team at the University of Oxford has been carried out in a large study into the association between bullying by peers in teenage years and depression in early adulthood and found that nearly one-third of early adulthood depression could be linked to bullying in teenage years.

Researchers say that while the study is only observational and no definite conclusion can be drawn about cause and effect, interventions to reduce bullying in schools could reduce depression later in life.

Source: ScienceDaily, 2 June 2015

SCHOOL TEACHERS DON'T HAVE TIME TO ADDRESS STUDENTS' MENTAL HEALTH

A nationwide survey of teachers has found that they do not have time to focus on the mental health of students.

The survey of 600 principals and teachers by mental health charity Beyond Blue found that while almost 100 per cent of them considered mental health to be as important as academic achievement, 22 per cent did not believe it was their responsibility to address the mental health of students and 47 per cent did not have the time to dedicate to achieving positive mental health outcomes.

The research suggested that teachers did not have the tools or resources readily available for them to address mental health concerns. Only one third responded that their school gave training for staff members to support student mental health.

Source: Sydney Morning Herald, 4 May 2015



SLEEP/FATIGUE

Sleep apnea and excessive daytime sleepiness – association with risk of depression in men

According to a new community-based study of Australian men which was presented at the *2015 American Thoracic Society International Conference* in May by researchers from the University of Adelaide, severe obstructive sleep apnea (OSA) and excessive daytime sleepiness are associated with an increased risk of depression in men.

The study involved 1,875 men aged 35-83 who were assessed for depression at two time points over a five year period.

“Excessive daytime sleepiness and severe OSA were both associated with the prevalence and recent onset of depression in our community-based sample, and the presence of both was associated with an even greater risk”, said lead author Carol Lang, PhD. “Men presenting with depression should be screened for OSA so that an appropriate control or treatment can be planned.



Discovery of a protein that suppresses the biological clock

A new study by University of California – Santa Cruz has found that a protein associated with cancer cells is a powerful suppressor of the biological clock that drives the daily (circadian) rhythms of cells throughout the body.

The discovery adds to a growing body of evidence suggesting a link between cancer and disruption of circadian rhythms, while offering new insights into the molecular mechanisms of the biological clock.

The ticking of the biological clock drives fluctuations in gene activity and protein levels that give rise to daily cycles in virtually every aspect of physiology in humans and other animals. A master clock in the brain, tuned to the daily cycle of light and dark, sends out signals that synchronize the molecular clocks ticking away in almost every cell and tissue of the body. Disruption of the clock has been associated with a variety of health problems, including diabetes heart disease and cancer.

Source: *ScienceDaily*, 2 June 2015



Late night eating results in sleep deprivation

According to research from the University of Pennsylvania, presented at "Sleep 2015" in June, eating less late at night may help curb the concentration and alertness deficits that accompany sleep deprivation.

Senior author David F Dinges said that "our research found that refraining from late-night calories helps prevent some of the decline those individuals may otherwise experience in neuro-behavioural performance during sleep deprivation."

The new study results serve as a bookend to other research on the links between eating and sleep deprivation.

A 2013 study from the same team found that individuals with late bedtimes and chronic sleep restriction may be more susceptible to weight gain due to the increased consumption of calories during late-night hours.

Source: ScienceDaily, 4 June 2015



The effect of life satisfaction on sleep onset latency during mid-life

Lower life satisfaction has been linked to sleep problems during mid-life in a new study reported in the journal *SLEEP* and presented at the AGM of the Associated Professional Sleep Societies LLC.

The findings support the idea that life satisfaction is interlinked with many measures of sleep and sleep quality, suggesting that improving one of these variables might result in improving the other.

Source: *Journal of Sleep and Disorders Research*, Vol 38, 2015 Abstract Supplement

Impact of sleep duration and quality on cancer survival

In another new study, researchers found that pre-diagnostic short sleep duration and frequent snoring was associated with significantly poorer cancer-specific survival, particularly among women with breast cancer.

The study group comprised 21,230 women diagnosed with a first primary invasive cancer during follow-up from the Women's Health Initiative established by the US National Institutes of Health in 1991.

Source: *Journal of Sleep and Disorders Research*, Vol 38, 2015 Abstract Supplement

HAZARDOUS SUBSTANCES

Tourists and FIFO workers hit by mosquito-borne virus

During the most recent outbreak (2011) of the potentially fatal mosquito-borne virus, Murray Valley Encephalitis (MVE), Western Australia experienced more than 55 per cent of the nation's recorded cases.

Curtin University researcher Dr Linda Selvey said that "as more non-immune people moved into an MVE endemic area either to do FIFO work or travel, it is no surprise that more cases would be non-Aboriginal adults. Forty per cent of the cases were infected outside of their area of residence."

The majority of those infected were involved in activities that led to a high exposure to mosquito bites such as camping near rivers or creeks, fishing at dusk or attending outdoor evening sports in MVE endemic areas.

Source: ScienceWA, 7 May 2015

Workplace chemicals the eighth leading cause of death in the US

An advocacy group in the US, Public Employees for Environmental Responsibility (PEER), has claimed that chemical exposures are now responsible for more than 40,000 premature deaths each year.

The group, unveiling a new worker right-to-know chemicals website, said occupational exposures kill malignantly, from cancer, neurological breakdown, cardiopulmonary disease, and other chronic maladies.

Executive Director, Jeff Ruch, stated that "more Americans die each year from chemical exposures than from all highway accidents, yet we have no national effort to stem this silent occupational epidemic."

Source: TUC Risks # 705, 5 June 2015

LEGAL/ILLEGAL DRUGS

Cannabis users a danger to their workmates

A recent online survey conducted by the National Cannabis Prevention and Information Centre has found that Australian workers believe cannabis use has a detrimental effect on the performance of their co-workers.

Forty per cent of those who have worked with a cannabis user think the drug causes reduced motivation at work and one-third think that co-workers' use of cannabis resulted in decreased productivity.

Dr Peter Gates, a senior researcher, said apart from productivity, safety is a major concern if people arriving at work are affected by an illegal substance. When skills such as concentration, co-ordination and reaction time become diminished in a cannabis user who is responsible for the safety of their colleagues, it becomes really concerning for everyone at work.

Source: SafetySolutions, 7 May 2015



WORKERS' COMPENSATION

The costs of failing to protect workers on the job

The US Occupational Safety and Health Administration reports that employers now provide only a small percentage (about 20 per cent) of the overall financial costs of workplace injuries and illnesses through workers' compensation. This cost-shift has forced injured workers and their families and taxpayers to subsidise the vast majority of the lost income and medical care costs generated by these conditions.

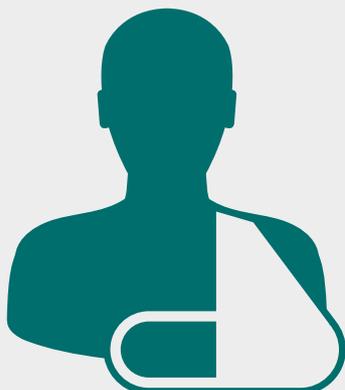
The costs of workplace injuries in the US are massively subsidised by injured workers their families and the taxpayer.

Moreover, only a fraction of injured workers receive any workers' compensation benefits through state workers' compensation programs. Several studies have found that fewer than 40 per cent of eligible workers apply for any workers' compensation benefits at all.

The challenges facing individuals with work illnesses are even greater than for those with injuries. Few workers with occupational illnesses receive any benefits from the workers' compensation system; one study estimates that as many as 97 per cent of workers with occupational illnesses are uncompensated. Most cases of work-related chronic illnesses are never diagnosed as work-related.

When a linkage is made, the diagnosis generally comes long after employment ends. Even when a proper diagnosis is made, a worker who is eligible for benefits under Medicare, Medicaid, Veterans' Benefits, or private insurers is most likely to take that route, and avoid the barriers to obtaining benefits through the workers' compensation system.

Source: Adding inequality to injury: the costs of failing to protect workers on the job, OSHA, March 2015



Fewer than 40% of eligible workers apply for workers compensation benefits¹⁵

The increasing cost of psychological claims for workers' compensation

Comcare, the agency which insures all federal public servants for workers' compensation, is under pressure to control the rate of increases in premiums with claims costs almost doubled for most mechanisms of injury between 2009/10 and 2012/14.

Comcare itself now has a premium rate of 6.17 per cent of payroll equating to \$4,400 per employee.

The Australian Tax Office, one of the federal organisations Comcare insures, has recently complained about having to pay 2.8 per cent of its payroll to insure its workers against injury and disease.

For premium payers (excluding licensed self-insurers) between 2009/10 and 2013/14 claims costs for most mechanisms of injury were approximately doubled although the percentage of injury or disease claims were either stable or reduced.

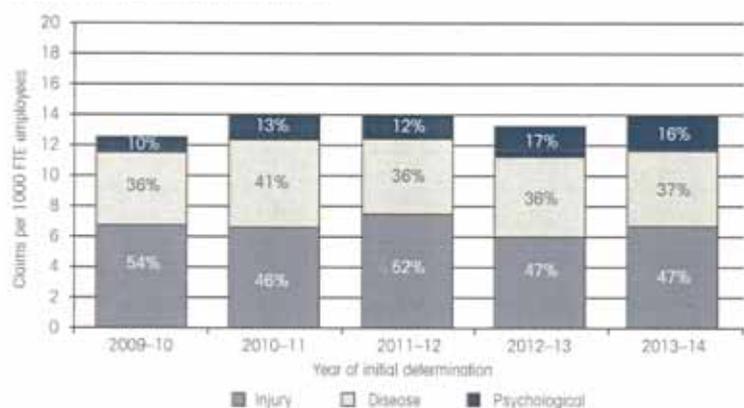
Between 2009/10 to 2013/14 mental stress claims accounted for 13 per cent of all claims, however these claims represented 43 per cent of total cost with an average total cost per claim of approximately \$291,000.

However, in 2013/14 psychological claims accounted for 16 per cent of all claims and sustained 37 per cent of total claim costs with an average claim cost of \$342,000, more than twice the average costs of the next highest mechanism of injury costs which was biological factors.

While the ATO cannot go elsewhere for insurance the ACT Government plans to exit the Comcare system and establish its own insurance scheme after being billed \$95m for 2014/15.

Source: Compendium of WHS and Workers' Compensation Statistics

Graph: Claims by nature of injury (premium payers)



Proposal for national self-insurance for big companies

The Queensland Chamber of Commerce and Industry, the Australian Lawyers Alliance and the Council of Unions have written to all sectors asking them to block the federal government's proposed changes to the Safety, Rehabilitation and Compensation Legislation Amendment Bill 2014.

The group's claim opening up national self-insurance to big companies who operate in two or more states will have unintended consequences for small businesses as well as dilute the state's WorkCover scheme.

Analysis by the Queensland government has estimated the departure of 2,500 big businesses from WorkCover will result in a reduction in premium income of \$250 million a year, or 18 per cent of the \$1.4b premium pool.

Australian Lawyers Alliance Queensland president Rod Hodgson said that the bill could push more organisations to the inferior Comcare system, which he said had a poor record on safety and benefits for injured workers.

Source: *Financial Review*, 1 July 2015

WorkCover WA increases prescribed amount for 2015/16 financial year

WorkCover WA has announced that the Prescribed Amount, the maximum amount an injured worker can receive in terms of weekly payments for loss of earnings during the life of their claim, has been increased for this coming financial year by just over two per cent from \$212,980 to \$217,970.

Source: *WorkCoverWA Media Release*, 22 May 2015

WorkCover WA Strategic Plan

WorkCover WA has advised that its new Strategic Plan 2015-18 has taken effect from 1 July. The plan defines operational themes that underpin the Agency's three strategic goals:

1. Strategic Scheme Management
2. Leadership
3. Agile and innovative organisation.

WorkCover WA says that its commitment to achieving these goals enables the organisation to further strengthen Western Australia's workers' compensation and injury management scheme.

The Strategic Plan is available from www.workcover.wa.gov.au

CANCERS

Cancer study casts doubt on chemical standards

Chemical exposure standards "should be revisited" because **low level exposures to a mix of substances which individually might be harmless can together present a cancer risk**, a major study has concluded.

The Halifax Project, a high-profile taskforce formed in 2013 by the international organisation Getting to Know Cancer, involved 174 scientists in 28 countries and investigated 85 chemicals that were not considered to be carcinogenic in humans.

The paper notes "our current understanding of the biology of cancer suggests that the cumulative effects of (non-carcinogenic) chemicals acting on different pathways that are relevant to cancer, and on a variety of cancer-relevant systems, organs, tissues and cells could conspire to produce carcinogenic synergies that will be overlooked using current risk assessment methods. Cumulative risk assessment methods that are based on 'common mechanisms of toxicity' or common 'modes of action' may therefore be underestimating cancer-related risks."

The paper concludes that "current regulations in many countries that consider only the cumulative effects of exposures to individual carcinogens that act via a common sequence of key events and processes on a common target/tissue to produce cancer should be revisited."

Lead researcher William Goodson III from San Francisco's Pacific Medical Center commented that "every day we are exposed to an environmental 'chemical soup' so we need testing that evaluates the effects of our ongoing exposure to these chemical mixtures".

Source: *TUC Risks* # 709, 4 July 2015

CANCERS

One in three Europeans still potentially exposed to asbestos

A high-level meeting on environment and health in Europe in April has appealed urgently to all European countries to eliminate asbestos-related diseases, as a new United Nations report showed that one third of the 900 million people living in the region are potentially exposed to asbestos at work and in the environment.

The report indicated that asbestos is responsible for about half of all deaths from cancers developed at work.

According to new estimates, deaths from mesothelioma in 15 European countries costs society more than 1.5 billion Euros annually.

"While 37 of the 53 Member States in the region have banned the use of all forms of asbestos, the remaining 16 countries still use asbestos, especially for building materials, and some continue to produce and export it", according to the report.

Source: United Nations News Centre, 30 April 2015

Asbestos production and exporting to continue in Europe

Governments backing the asbestos industry have derailed attempts to require mandatory warnings on all its cancer-causing exports.

Russia and Kazakhstan – the world's biggest asbestos exporters – headed a group of just four governments that refused to allow chrysotile asbestos to be put on the list of hazardous substances for which 'prior informed consent' is required by importers. The two asbestos exporters were joined by Zimbabwe – which wants to re-open its mothballed asbestos mines - and Russia's ally, Kyrgyzstan.

The system requires a unanimous vote of the 160 plus participating countries.

Source: TUC Risks #703, 23 May 2015

Thousands of UK police officers in asbestos 'risk' alert

In the United Kingdom, the Metropolitan Police have conceded that up to 30,000 police officers might have come into contact with asbestos at training facilities used for firearms training between 1980 and 2007. They said that a rigorous examination would be undertaken at all such buildings to establish whether asbestos was present.

Source: BBC, 26 May 2015

Asbestos in talcum powder causes mesothelioma

A Los Angeles County jury has awarded US\$13m to a woman who used Cashmere Bouquet daily from 1961-1976 and was diagnosed with mesothelioma in 2014.

Evidence in the case revealed that Colgate-Palmolive made Cashmere Bouquet from the 1930's to 1993 sourcing talc from three different mines that were documented as being contaminated with asbestos as early as the 1940's. Colgate-Palmolive's own later testing of the talc found it to contain asbestos, but never passed this information to either the Food and Drug Administration or consumers.

Settlements have been paid in the past to factory workers who used the talcum powder and contracted an asbestos-related sickness.

Source: OHS Reps SafetyNetJournal, #320, 7 May 2015



Cautious optimism about new mesothelioma treatment

Australian researchers are using nanocells to transport very small genes known as microRNA to inhibit tumour growth in patients with mesothelioma.

Once in the lung, the nanocells delivered the microRNA to the affected lung to inhibit tumour growth.

Scientists from the Chris O'Brien Lifecare Centre have published a case report of a patient whose mesothelioma has almost disappeared.

Researchers emphasised that only one patient responded to the treatment and the other nine have either remained stable or continued to decline.

They say they do not know how long the treatment will work or if it will work in others.

The research was published in the American Journal Respiratory and Critical Care Medicine.

Source: ABC news, 15 June 2015

The ongoing legacy of smoking

An updated estimate has found that 48.5 per cent of the nearly 346,000 deaths from 12 cancers among adults 35 and older in 2011 were attributable to cigarette smoking.

Researchers from the American Cancer Society provided the updated estimate because they note smoking patterns and the magnitude of the association between smoking and cancer death have changed in the past decade.

The study concluded that cigarette smoking continues to cause numerous deaths from multiple cancers despite half a century of decreasing prevalence. Continued progress in reducing cancer mortality, as well as death from many other serious diseases, will require more comprehensive tobacco control, including targeted cessation support.

Source: ScienceDaily, 15 June 2015

UV beads used as skin cancer alert

In the UK, road workers are being provided with strings of UV reactive beads to highlight sun exposure risks over the summer months.

The solar beads are to be worn while working outdoors and warn of increased UV light levels as they change colour.

While they can be worn as necklaces and bracelets, workers are advised to attach the strings of beads to the zips of their hi-vis vests and jackets as they are more practical that way.

The changing colours alerts wearers to the increased rates of damaging light and the need to apply sunscreen. Water bottles, sunscreen and fact sheets and posters are also being distributed to staff to raise awareness across the organisation.



Source: Construction Enquirer, 19 May 2015

New potential melanoma drug target discovered

University of North Carolina's School of Medicine researchers have identified a possible new drug target for a potentially deadly form of skin cancer that, when blocked in a pre-clinical study in mice, reduced the cancer's growth.

They found high levels of a particular enzyme in melanoma samples that they believe is a driver of the cancer's growth. The enzyme called interleukin T-cell kinase (ITK) has not previously been explored as a driver of solid tumours. Normally, it's expressed in a subset of the body's disease fighting immune cells.

The researchers hope the findings, published in Clinical Cancer Research, could lead to new treatments for melanoma.

Source: ScienceDaily, 1 May 2015



Occupational Health Society of Australia (WA)



Incorporated in 1978, the Occupational Health Society of Australia (WA Branch) is a non-profit association which provides a forum for the wide range of disciplines engaged in the occupational health profession in Western Australia.

The aims of the Society are:

- to develop effective occupational health practice within WA
- to encourage awareness by individuals, organisations and other bodies, of the role of occupational health
- to provide a forum for professional contact between persons interested in, and working in, occupational health
- to express an independent, professional viewpoint on all aspects of occupational health considered desirable in the public interest
- to seek the improvement or an extension of the existing legislation for the promotion of safety and health at work in order to ensure uniform principles are applied in all occupational activities.

Visit www.ohswa.marcsta.com for more information.

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