

The silent O H &S risk... ‘Chronic diseases’

Do you have a minefield of employees?

Which one is waiting to detonate?

Will others be affected?

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Abstract:

Chronic diseases are the silent OH&S risk for the worksite. Employees are silently developing risk factors (overweight, elevated blood pressure, insulin resistance) that are leading to chronic diseases such as Cardiovascular disease, stroke, cancer, obesity, high blood pressure and Type 2 diabetes.

These diseases are developing over the lifetime of an employee and ultimately affect their health, absenteeism, injury and productivity. Importantly the poor health of one employee can put the safety of another at risk.

A growing body of research testifies to the effectiveness of many worksite health promotion programs. Many employers are becoming increasingly engaged in the health of their employees not only to be socially responsible but to improve the company's performance through reducing illness, improving employee well-being and lowering employer's health benefit costs.

Worksite wellness programs in the mining industry aim to keep the industry free of fatalities, injuries and disease.

Corporate Nutrition Solutions provides worksite assessments, group education sessions and interventions that are effective in minimising employees' risks from chronic diseases.

Chronic diseases are the silent OH&S risk.

Chronic diseases include coronary heart disease and stroke, cancers, obesity, high blood pressure and Type 2 diabetes. (Millen)

Staff and employees are silently developing risk factors for chronic disease. They are gradually gaining and becoming overweight, seeing rises in their blood pressure as they age, being diagnosed with pre-diabetes or diabetes. Chronic disease risk factors creep up on each and every one of us! It may take decades but it will happen in our working years and affect our productivity.

Let's look at some of the frightening facts showing us how the health of your workforce is affected by chronic diseases.

A. Cardiovascular disease was the most common cause of death in NSW in 2004 (Eat well NSW). Forty-five percent of deaths from cardiovascular disease are estimated to be due to poor nutrition (Crowley). It also accounts for more than one-third of years of life lost due to premature death (Chief Health Officer). Men are twice as likely to have a heart attack as women (Chief Health Officer). Coal miners have an increased risk of heart disease when compared to the general population (Bofinger). In fact, the injury/disease incidence rate for the Black Coal Mining Industry is more than four times the All Industries rate (Foley).

B. Men are more likely to be **overweight/ or obese** than women with 67% of men compared with 53% of women (aged 25 years and over) being overweight (AIHW, 2001). Interestingly half of those classified as overweight or obese actually considered themselves to be of acceptable weight (ABS 2004-2005).

It gets worse. The incidence of **overweight** among NSW mine workers is slightly above the Australian male average across all age categories (Simtars- Bofinger, 2003). This concurs with our experience that more than half of miners and staff seen in our programs are overweight or obese. Overweight or obesity independently influences the accident rate (Froom) and overweight/ obese employees have twice the number of sick days (Burton). So the common assumption that manual workers are healthier, slimmer and fitter than their white collar counterparts does not in fact appear to be true.

C. In addition, there appears to be an unexplained proportion of both entry and routine coal miner medicals which report **abnormally elevated blood pressure results** when compared to the Australian male population.

In a study by Bofinger, 2003, analysis of blood pressure readings for both entrant and routine NSW coal mine workers (Singleton, Newcastle, Corral and the Lithgow district) indicated significant incidence of elevated blood pressure readings. Of particular concern was the increased percentage of the younger 25-44 age categories of who appear to have higher than average blood pressure readings.

Due to the significant percentage that is also either overweight or obese, these NSW coal workers are at serious risk of developing future health complications including cardiovascular damage and high blood pressure (Bofinger, 2003). So mine workers already have a head start when it comes to the presence of health risk factors and the potential for chronic disease.

D. Employees with **diabetes** are twice as likely to have cardiovascular disease. Those people with diabetes who also have an additional chronic disease (such as overweight or heart disease) are associated with having an increase in fatigue –related complaints and greater productivity losses (Boles).

E. Blue collar workers are the least healthy occupational grouping in the Australian workforce (Korda).

There is no denying that overweight, obesity, high blood pressure and diabetes are all independent risk factors leading to illness, absenteeism and lost productivity (Burton). Each one of these risk factors is also leading to cardiovascular disease. Each one of these risks can be minimised by a healthy lifestyle and good nutrition.

Good nutrition is fundamental to general health and prevention of disease and disability. On the other hand, poor nutrition is a known risk factor for the development of these chronic and life-threatening diseases (eat well NSW).

Is your workplace sitting on employee time bombs?

Can you think of an employee who's health status worries you?

Is the health of one employee putting many more employees at a safety risk?

The health of an individual doesn't only negatively affect productivity, absenteeism and lost time due to injury (Burton, McCunney, AIHW Oct 2005) but also places the safety of colleagues and fellow workers at risk.

This is best demonstrated by the Waterfall train accident. On 31st of January 2003, a driver of a passenger train travelling from Sydney to Wollongong suffered a heart attack, causing the train to derail at high speed south of Waterfall station, resulting in seven fatalities and multiple injuries. Staff and innocent bystanders were all injured as a result of cardiovascular disease of the driver. Commissioner McInerney was scathing in his criticism of the State Rail Authority. He stated " If Mr Zeides' severe underlying coronary artery disease had been detected by a more rigorous process of medical assessment than was undertaken, then not only would the accident probably have been avoided, it may also have saved lives and injuries" (smh).

Similarly, on June 18, 1972, British European Airways Flight crashed two minutes after takeoff from Heathrow Airport, killing all 118 passengers and crew on board. The autopsy of Captain Key also revealed undiagnosed coronary artery disease (wikipedia).

But I ask you is it simply enough to *detect* an employees chronic disease?

Should worksites assist employees to minimise their risk of developing life long chronic disease by early intervention and health promotion?

Health promotion is understood as interventions that ensure better health, well-being and pleasure, and the recognition of factors that promote health and prevent illness (Naumanen).

An ageing workforce, and a skills shortage faced by many industries, is making the issue of employee health more pressing for employers. Many employers are becoming increasingly engaged in the health of their employees not only to be socially responsible but to improve company performance (Medibank Private).

The close associations between the dietary patterns and chronic disease profiles of men emphasize the importance of targeted preventive nutrition interventions to promote health in the male population (Millen). The worksite represents one of the most promising settings for prevention, early detection and follow up interventions (Leitzinger).

The Minerals Council of Australia's Safety and Health Vision is: "An Australian minerals industry free of fatalities, injuries and diseases" and that "All fatalities, injuries and diseases are preventable ([australiancoal](#)). This vision indicates that mine sites are taking the health of their employees seriously.

Public policy statements, such as EatWell NSW 2003 – 2007, and Healthy People 2010 have emphasized the potential benefits of investment in disease prevention and health promotion programs.

It is the position of the American Dietetic Association that primary prevention is the most effective, affordable course of action for preventing and reducing risk for chronic disease (Stitzel). Dietitians are experts in disseminating nutrition education in this complicated area of chronic disease (Nasser).

As corporate investment in worksite wellness programs grew during the 1980s, scientific efforts to evaluate the health and cost benefits of these initiatives also expanded. The vast majority of 122 studies to 2004 indicate improved health outcomes relative to smoking cessation, weight loss, and coronary heart disease risk factor reduction after employees' participation in worksite health programs (Pelletier).

Worksites are able to assist employees to minimise their risk of developing life long chronic disease by early intervention and health promotion. A worksite that shows a genuine interest in its employees will develop their trust, commitment, and employee morale. Employees that are happy and healthier, are known to be fitter for work, less likely to be absent from or injured at work and more productive (Burton).

What complicates the issue?

Is health the company's responsibility?

1. Health problems, early retirement and work absenteeism are rather common in ageing workers.

Cardiovascular disease risk and events increase with age (ABS). With the retirement age increase from 60 to 65, employers need to ensure that staff and employees have minimised their risk of gradually developing chronic disease during their years of employment. It is necessary for management to participate effectively in their health promotion and that this should be done in collaboration with health professionals (Naumanen Feb 2006). Health promotion at work is highly regarded by those over 50 years of age (Schilling). Optimal management of already established chronic disease is the focus of education in this older age group. The younger age groups have the greatest potential for preventing chronic health diseases through proactive health programs. To engage all groups of employees, well planned and well targeted health programs are critical.

2. The retention of well, productive staff is a priority for the mining industry.

The healthiest Australian employees are almost three times as productive as their unhealthy colleagues (Medibank Private). Having healthy employees makes economic sense. Organisations that demonstrate a concern for the welfare of their employees show improved staff recruitment and retention, not to mention raise the public profile of the organisation.

3. Men do not seek health care. It is in the company's interest to bring health care to the worksite.

Men do not volunteer, they are recruited (Ollife). Men are notorious for not seeking out health care. Worksites are able to create a supportive environment and bring health care to men at the worksite. High attendance rates at health education programs can be achieved if workers if they are involved from the decision making process and have say in the program content.

4. Compensation claim premiums are high

The incidence of compensated claims for the Mining industry in 2003–04 equated to around 6 claims per day. Notably, a person sustaining an acute coronary event at work may make a successful claim for compensation, even though the fact that the event occurred while working was coincidental (Australian Safety and Compensation Council).

Compare this to the cost of health and nutrition education that reduces the risk for chronic disease. Not only can Worker Compensation premiums be reduced, but so can the risk of a major traumatic event happening (such as in the case of the Rail and Airline worker) that puts others lives at risk.

What interventions work?

Nutrition education is:

- the cornerstone of preventing the development of the disabling chronic diseases.
- is crucial to prevent and treat cardiovascular diseases, diabetes and pre-diabetes, overweight and obesity, and hypertension.
- a complex area and requires expert input. Dietitians who specialise in workforce nutrition are able to integrate knowledge of the complex systems of the human body into dietary and meal recommendations. They are able to acquire a detailed understanding of the target audience and prepare and deliver nutrition education that is tailored to each worksite's environment, the mix of employees, available resources and training needs. We are able to ensure that the program is relevant to your organisations health needs. Not only can a specialised worksite dietitian provide health education programs, but we are qualified in menu assessment and design. We are able to recommend small changes in recipes and food choices that positively impact on an employee's health everyday. Small changes in food selections can lower fat, sugar and salt intake and increase fibre all beneficial for cardiac health, diabetes, overweight and for other chronic diseases.

A rigorous process of medical assessment was the recommendation following the report from the Waterfall disaster. It is NOT simply enough to detect an employee's chronic disease. A review of the literature **does not** substantiate the efficacy of a stand alone health risk assessment for motivating behaviour change (Hudson). We know from the literature that a worker simply presenting for a medical test will not be motivated to make changes to their diet or lifestyle to improve their health. A health risk assessment needs to be followed up with personalised counselling and follow up sessions. It makes productivity, economic and social sense to detect "at risk" employees and prevent them from developing chronic diseases in the first place, AND to assist those with chronic diseases to manage them to optimise their health.

Absenteeism is highest for those with diabetes, high blood glucose (Boles) and those who are overweight or obese (Burton).

Individuals who reduced **one** health risk improve their presenteeism by 9% and reduced absenteeism by 2 % (Pelletier, July 2004).

A growing body of research testifies to the effectiveness of many worksite health promotion programs in reducing illness risks, improving employee well-being, and lowering employers' health benefit costs (Foote).

Which programs for which staff??

Reduce the Minefield!

Prevent the chronic disease explosions.

Reducing the minefield of unhealthy employees requires a well thought out comprehensive approach to management of life long chronic disease. Chronic diseases are not solved by annual tool box talk which ticks the box on O H &S requirements.

It is a complex area, and not simple to address. The mining workforce is unhealthier than average and are at greater health risk. These time bombs require progressive OH & S managers who are willing to demonstrate leadership and be at the cutting edge of staff health. Management need to be seen as supportive and lead by example by participating in sessions, make suitable lifestyle changes that improve their own health, enlisting participants and distribute promotional material about toolbox talks and healthy lifestyle programs.

Investment in staff and miners health reaps high returns for the company. Many large studies show us that healthier staff are more productive staff.

Several studies of 8 week interventions have shown positive changes in health status. A study by Hartman, conducted among employees of the city of Phoenix, showed that a significant reduction in cholesterol levels can be achieved following 8 x 1 hour education sessions that emphasized low-fat eating behaviours. Similar results were seen by Aldana in the "Coronary Health Improvement Project" in which 2,700 employees were encouraged to participate with a spouse or significant other. Results showed that these positive healthy lifestyle changes were seen at 6 weeks and 6 months later.

In another study by Aldana, pre-diabetic and previously undiagnosed diabetic employees participated in a 12-month worksite diabetes prevention program. One year following the intervention, oral glucose tolerance and aerobic fitness had improved significantly. Approx 50 % were no longer in the pre-diabetes or diabetes category! Improvements in diabetes risk factors persisted at the 2 year follow up study in most of these employees.

A review of one of the most comprehensive health promotion and disease management programs at the worksite, (such as the study of over 6,000 people at GlaxoSmithKline (Stave)) shows annual savings associated with the impact of the program of \$633 per person. This equates to a savings of over 3 Million dollars per year due to significantly lower health care and lifestyle related costs. All of these larger studies provided ongoing support and education for at least 1 year and up to 4 years.

Corporate Nutrition Solutions specialises in flexible workplace health programs tailored to the budget and training requirements of the mining and other blue collar worksites. We are able to assist in assessment of chronic diseases, provide health programs directed at minimising the risk for developing chronic disease risk factors and to optimise the health and lifestyles of employees that already have risk factors for poor health.

Put the H back in O H &S.....

Chronic diseases are the silent OH&S risk.

They need NOT be developing in your workforce.

Diffuse the bombs, reignite with a health lifestyle supported by the worksite!

'step change' to a safer future ...

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