

# **Education as a Path to a Healthy Workforce and Early Detection of Health Problems**

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## **Abstract**

The combination of increased mechanization, a compressed working week, commute lifestyle and poor diet has had a dramatic impact on the mining industry workforce with statistics suggesting that 70% of workers are either overweight or obese. There is an opportunity for the mining industry to implement practical and positive strategies to address the problems of reduced health and wellbeing in mineworkers.

Jellinbah Mine, in partnership with Ford Health Group, has run a health and wellbeing program for the past 21 years. In 2009 Jellinbah Mine was the workplace finalist in the Healthy Queensland Awards for Central Queensland. As part of that award they are implementing a project to improve the awareness and participation of all employees – in particular, working aged males – in health programs. The question of why don't men participate in owning their health is being asked. This pilot study will assess the effectiveness of different media approaches using video-byte and verbal presentations, as well as internet and written materials, provided by Core Health Consulting.

Ford Health in coordination with Jellinbah is conducting pre and post-initiative evaluation to understand best practice so that this may be shared with other employers in regional areas to improve health outcomes and utilization of the health system.

## **Introduction**

Each year the Queensland Mining Industry commits a significant amount of resources to protect the safety and health of mine workers and those who may be affected by mining operations. A large proportion of these resources are concentrated on safety initiatives and incident prevention while the statistics indicate that a higher concentration is also required for illness prevention. From data provided in the Queensland Mines and Quarries "Safety Performance and Health Report 2008-09", lost time in coal mines related to sickness and medical issues was 547,740 hours for open cut mines and 103,223 hours for underground mines. The lost time related to sickness and medical issues was over ten times greater than lost time associated with injury/compensation.

Mining companies provide a lot of safety training for mine workers as part of managing hazards and controlling risk in the workplace, but is sufficient training provided to manage the lifestyle-related health risks of mine workers? There is an opportunity for the

mining industry to implement practical and positive strategies to address the problems of reduced health and wellbeing in mineworkers.

## **History of Jellinbah Mine's Wellbeing Program**

In 1989, a group of key Jellinbah employees discussed with Dr Ford the prospect of developing a health and wellbeing program for our workforce. This was beyond our statutory requirement. At that time key stakeholders were invited to participate in those discussions. Champions, our largest contractor and therefore employer, was key to the process. Unlike many other coal mines of the time, Jellinbah used contract labour and held a smaller team of technical and administrative staff.

The concept of the program needed to be sold internally to managers, shift supervisors, smaller self-employed contractors and the workforce itself. External stakeholders included local health service providers, families and the general community. The local central highlands community of the time was divided between mining and non-mining. A great deal of face-to-face promotion was needed by our management and Ford Health to gain the trust of men and women, and to instill confidence that the outcome of attendance and use of the program would not jeopardize employment prospects. What we found over time was that the program actually helped preserve the employment of many men. For example, the early identification and treatment of prostate, bowel and skin cancers and heart disease enabled those employees to lose minimal time away from work and in several instances the health and wellbeing program prevented death. Mental health, arthritis, diabetes and high blood pressure were other conditions that would be picked up over time, adding to the culture of support and trust.

In 2008 we designed and wrote our first Wellbeing Policy, which focuses on strategies and interventions to reduce employee absenteeism, increase employee productivity and reduce workers compensation claim costs. Implementing training in healthy lifestyles and conducting health risk assessments can identify at risk issues before an incident occurs that results in loss for both the employee and employer.

The types of services provided under this policy from time to time now include:

- Voluntary health assessments and advice provided by Ford Health.
- Injury management programs such as rehabilitation and Safespine warm up for work stretching exercises provided by professional consultants.
- Physio support and education programs by professional consultants.
- Delivery of toolbox health promotion presentations (eg heat stress, fatigue management, stress management).
- Delivery of comprehensive and proven back care and manual handling workshops provided by external professional consultants.
- Financial assistance for gymnasium visits.
- Coordination of personal exercise programs provided by external professional consultants.
- Nutrition advice provided by professional consultants.

- Quit Smoking Programs.
- Employee Health and Wellbeing Education Programs.

In 2009 Jellinbah Mine was the workplace finalist in the Healthy Queensland Awards for Central Queensland. As part of that award the mine is implementing a project to improve the awareness and participation of all employees in health programs; in particular, working aged males. The question of why don't men participate in owning their health is being asked. This question provides an opportunity to develop and implement simple solutions to a complex problem.

### **Implementing a Health and Wellbeing Education Program**

The challenge was to develop a program that would improve the health and wellbeing of mine workers by providing them with the tools to assess their own level of health compared with community established standards and, more importantly, to identify the signs of when things are not normal, prompting them to seek the relevant medical assistance as early as possible. The program had to be simple and allow for an "exit" point from a health topic once people determined that they had enough information to decide that they did not have a concern in that particular area. The program also needed to provide additional information for those mine workers who may have a concern and determined that they needed to get more information on the topic.

The challenge was also to establish how to deliver the information at a level that the mine workers could understand and relate to. Working in consultation with Core Health Consulting, a structure was developed to deliver the information in a simple format that builds the knowledge over time with visual, written and electronic media.

### **The My Core Health Program**

The program is designed to cover all of the most common health concerns of the working aged male over the full year. Every month looks at a different topic from prostate cancer to depression, and everything in between. It is produced three months in advance, giving key stakeholders the flexibility to evaluate the relevance of the topics being discussed and to make changes to content, production style or delivery method where necessary on an ongoing basis. Every health topic is written by an expert in the field, and then edited by a medical professional, ensuring the highest quality and reliability of the information given. The program is broken down into three parts being weekly films, supporting factsheets and an intranet site that can be used by employees and their families to access more information and seek further resources.

### **The Films**

Each monthly topic is broken down into a series of four professionally produced films of 2-4 minutes in length, which are shown in series order to all mine staff on the same day every week. Generally speaking, the monthly breakdown looks like this:

- Week 1: Introduces the health concern.
- Week 2: Discusses the effects of the problem on the body and identifies the potential causes.
- Week 3: The risk factors - who is at risk? The range of solutions - what measures can be taken to minimise exposure?
- Week 4: Lifestyle advice such as exercise, nutrition and recommended lifestyle changes where applicable.

The films have been kept short, dynamic and entertaining in order to really engage the audience's interest. These vary each week and usually include interviews with health professionals and survivors of the relevant condition, providing a personal touch that will help viewers relate more closely to the topic. This 'freshness' and variety is crucial to keeping the audience engaged over the year-long program.

In order to help workers retain the information presented, each film is reinforced by a factsheet.

### **The Factsheets**

Factsheets have been developed for each film to give workers the opportunity to seek more information if they feel they need it, or to recap on that week's topic. These are available in the mustering area to support the commencement of each new topic. Uptake of these factsheets, such as how many staff voluntarily took more information, will be monitored and documented as part of this pilot study. This will provide a good indicator of topic relevance, amongst other things.

### **The Internet Site**

Intranet site access is provided on the Core Health Website for Jellinbah Mine employees and their families. For further information on the topic of the month, each employee has access to an intranet site hosted by Core Health Consulting where they can watch the films again, look at the factsheets and find further advice and resources. Intranet usage is very easy to monitor and helps to determine the popularity of each topic and, therefore, the most common health concerns the users have. In addition, we are able to assess related factors like the effectiveness of delivery methods for the continued improvement of the program. For example, are take-up rates of the printed factsheet high but intranet log-ons low? If so, is electronic delivery effective amongst blue collar workers? The intranet site will also feature an 'ask a question' mechanism which the employee and their family can use to ask any burning questions they may have. The mechanism will direct them to the correct health professional for formal feedback.

The My Core Health program aims to heighten awareness of common health problems in the target group and, most importantly, to highlight the importance of prevention or early detection of life threatening illnesses. By improving the health literacy of employees, we're predicting an increase in the number of medical visits (to either the

onsite medical officer or a local GP) and a higher rate of early detection tests like bowel screens, etc.

American research shows that for every dollar spent on workplace health promotions, the average US company saves \$6 in:

- Increased productivity
- Reduced absenteeism
- Lower health care expenses
- Improved employee health and morale.

While we don't yet have access to Australian figures, the My Core Health Program is the first step to a better understanding of the effectiveness of workplace health education in this country.

## **Health Literacy and Engagement**

One of the key factors that were identified early in the Jellinbah health program was the importance of engaging the men in their own health. If they participated in the health program and were educated about their health, they would be able to address health issues early and hence more successfully.

Knowledge, attitudes and beliefs about health are important determinants of lifestyle and health behaviours. An understanding of good health and its importance can influence an individual to adopt health-protective behaviours, such as regular exercise, rather than risky behaviours, such as smoking. These health behaviours then become critical to shape health both now and in the future.

Having a better understanding of the state of their health, their risk factors and the behaviours that would influence it, are essential components of their health literacy. We are health literate when we know what constitutes good quality advice, how and where to seek further information when required and how to translate information into action.

Engagement in health programs and building of health literacy through health programs therefore are essential for the ongoing development of the Jellinbah health program and the path to a healthy workforce.

The research project to be conducted at Jellinbah mine by Ford Health aims to answer several key questions:

- Why do some men in a regional workforce engage in health activities and some do not?
- What are the best messages and tools to both raise their awareness, motivation and health literacy?
- What are the most salient factors that will influence their decision to be involved in health activities or not?

- What will elevate health in their priority list to ensure they take action or interest in their own health?
- Are these issues unique to males in a regional setting or working in the mining industry?

Research will be conducted both through a literature review and research activities conducted onsite. Findings from the research will be incorporated into program activities to enhance the uptake of health activities on the mine site.

Initial findings from focus groups have identified several key issues that will be investigated further. Motivation to attend health activities is influenced significantly by family, desire for longevity or attention required for an existing health issue. Visible management involvement is also important in encouraging participation.

Trust also in the health professionals and in the confidentiality of the process is also key to its success. Clear and simple explanation of the process, endorsements of the program by respected champions, and in some cases a picture of the health professional in the promotional materials would assist with building trust in the process.

### **Access to Meaningful Information**

Information technology offers a new medium in which to conduct health education activities for mine sites. It can be provided 24 hr a day across all shifts and accessed either at work or at home on-line. It is also a cost effective method to provide health information and access to health professional advice to regional and remote locations.

The question that is currently being asked is would technology based health education tools be well received and useful in a regional mining setting? Are they effective in improving health literacy in the mine site?

Jellinbah Mine will also be conducting a trial of new Health and Wellbeing program that incorporates digital and IT resources, with traditional written and verbal presentation of information.

### **Access to Health Services**

If we are to succeed in raising the level of health knowledge for mine workers and we truly believe in the benefits of health and wellbeing programs, then this must be supported by improved access to health care providers. Most mines have arrangements with local health service providers for the management of workplace injuries and illness but these services are often not seen as the platform of enhancing health and wellbeing. There may be significant benefits in discussing what additional health and wellbeing services can be provided by these health care providers and taking a preventive approach rather than a reactive approach to workplace health promotion.

The benefits of a successful proactive health and wellbeing program include:

- Reduction in major health risks due to early intervention
- Reduction in absenteeism due to a healthier workforce
- Improving employee retention because of a healthy workplace
- Increasing productivity due to a more active workforce
- Improved morale as a result of more energy and wellbeing
- Improved workforce relations

## **Conclusion**

How to continue to build on the success of a health program that has been already going for 21 years is a challenging task. The activities to be conducted at the Jellinbah mine site over the next 12 months will assist the program in two ways. The project will revisit the basics of motivation and engagement to look at what attracts men to be involved in health programs and motivates them to stay involved. It will also take fresh look at health education with the introduction of a new health and wellbeing program initiative to the site. The findings from both of these research projects will assist to reinvigorate the program and improve the employee's health literacy as a path to a healthy workforce and the early detection of health problems. Management leadership and commitment is a crucial element in creating long term sustainable change through health and wellbeing initiatives.

## **References**

Sparrow, A. 2006, "Health and Wellness Promotion in Rural Blue Collar Industries...Creating a Supportive Environment for Change", QMI H&S Conference Presentation.

Queensland Government, Dept of Employment, Economic Development and Innovation. 2009, "Queensland Mines and Quarries Safety Performance and Health Report 2008-09".