Delivering and Evaluating Effective Health Promotion Programming

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Occupational Health and Safety is of major importance to all Australian employers. Under our system of government, the States and Territories have responsibility for making laws about workplace health and safety and for enforcing those laws. Each State and Territory has a principal OHS Act which sets out requirements for ensuring that workplaces are safe and healthy. This Duty of Care requires everything 'reasonably practicable' to be done to protect the health and safety of others at the workplace.[1] For example, information and instruction on workplace hazards and supervision of employees in safe work.

The Work Cover Authority of each state ensures that employers meet legislative requirements and conduct random audits, particularly focussing on industries where employees are more likely to be at risk for injuries. Those employers found in breach of legislative requirements receive substantial fines. Work Cove premiums, paid by the employer, are linked to employee claims and affect bottom line returns.

Years of implementation have shown employers that a safe work environment and zero lost time due to injuries contribute to a bottom line return. In fact it is clear that Safety is Free.

To date there has been less interest in the health of employees in Australia. After all, health is the domain of the individual and in the past there has been little documentation to support a bottom line return for employers.

The 'health' in Occupational Health and Safety will become increasingly important as organisations move from an injury management approach focussing on manual handling and environmental risks to a 'whole person' approach, which recognises that the health of an employee, rather than just their injury, is fundamental to their ability to do their job safely.[2]

Health Promotion Programs need to be seen as part of a strategic framework, which will lead to a revenue centre-based HR strategy. A Health and Productivity Management system creates the necessary foundation to deliver a new approach to people management by actively measuring and managing employee health, absenteeism and presenteeism (on the job productivity). This is a clear move away from the traditional approach to health and wellbeing in the workplace.

Ever so slowly the idea of health is emerging as the next important people management strategy. As with all new ideas, a plethora of providers are now flooding the market with wellness programs ranging from running on-site gyms to quit smoking seminars to yoga and pilates, to flu injections and fruit baskets. Organisations are now challenged with the question 'Why Health?'

There are a number of reasons that an organisation chooses to embrace health and wellbeing programs. A healthy culture generates advantages such as motivated employees, improved company profile and attracting and retaining better applicants. Some companies embrace health as part of their work-life balance strategy which contributes to the 'Employer of Choice' status, others as part of the remuneration package. These factors are strategically important but difficult to quantify.

Whilst in the past organisations focussed on the feel-good components of health promotion, there is increasing awareness that health and productivity are linked. Research is showing that organisations will gain improved productivity resulting from an investment in health promotion programming. There are numerous studies in the US that support the hypothesis that employees who participate in health promotion

programs have lower levels of absenteeism and higher levels of productivity. For example, these studies report reductions of up to 16% in absenteeism for program participants.[3]

Early research conducted through the Health and Productivity Research Centre at the University of Wollongong is demonstrating that the US data is reflected in the Australian environment. Whilst the data pool is still relatively small, it is becoming increasingly evident that health and productivity linkages transcend geographic boundaries.

Of those companies that now embrace the concept of health promotion and endorse a range of wellness programs the most commonly asked questions are what programs should we engage in and how effective are these programs?

It is paramount for a company taking health seriously to ensure that the program has the capacity to;

- deliver the baseline health status of the individual and population
- define why the program is being implemented,
- identify program objectives
- identify communication strategies
- engage staff in the process.
- provide an evaluation framework

Why Health?

"Why health?" If the answer embraces any serious commitment to health for a range of reasons including productivity gains, then the first serious hurdle has been successfully passed. Why is this a serious hurdle? – because many organisations still believe that health is the responsibility of the individual and that there are no benefits to the employer, only additional costs eating into an already reduced bottom line.

There are still numerous challenges ahead, including getting the idea of a health promotion program on the strategic agenda, ensuring that all senior managers are on board, getting buy in from the unions, identifying champions from the broader staff base and finally engaging staff in the program. This minimises any later issues with privacy and reasons as to why the program is being implemented.

The specific objectives of a program can only be determined if there is a general understanding of how a health promotion program fits into the overall strategic direction of the organisation. This planning process can take a significant period of time but done properly goes a long way to ensuring the success of the program.

The Health Risk Assessment

The fundamentally most important step in the implementation of a health and productivity strategy is to determine the baseline health status of the individual and population. The specific Health Risk Assessment (HRA), which is a questionnaire in measuring individual health and risk behaviours, will have an impact on the ongoing success of the program as a serious strategy.

The sorts of decisions that need to be made around the HRA include;

- are the questions validated?
- what is size of the data pool?
- is the HRA a part of a longitudinal study?
- does the questionnaire focus on major health risks and biometrics data?
- is the HRA delivered on paper or on-line and how long does it take to complete?
- has the questionnaire been developed in or adapted to the Australian environment?
- what are the privacy issues related to the information collected?

After the HRA is completed decisions need to be focused on data outcomes, and this can be divided into two separate areas:

Individual reports
- do individuals receive an individual profile?
- how is that profile shaped?
- is it relevant to age, gender, risk level?
- does it provide relevant information for the participant to begin to instigate changes?

Company reports
- does the organisation receive a population profile?
- how is the data segmented and analysed?
- does the information provide a baseline health status of the organisation?
- are there recommendations for interventions?
- will it be able to track changes over time for an individual and for the larger population?

An organisation should expect that the HRA be able to, at the very least, establish the baseline health status of the organisation, define program components and establish health strategies.

Advanced versions of the HRA have incorporated self-reported work impairment (presenteeism) metrics that can be linked to health conditions and work environment factors. This information focussing on psychosocial issues and work environment can provide additional information for non-health related interventions such as EAP and work-life balance issues. [4,5]

It is generally recommended that an organisation administer the HRA in a Pre and Post Program format. Pre Program collects base line data and is also used as the basis for developing a strategic framework for targeted programs and interventions in areas where they are likely to have the most impact. Post Program is used to measure the impact of the interventions against the base line data and to identify how to modify and improve the ongoing health promotion program, and can provide more specific information in relation to Return On Investment. (ROI)

The Engagement Strategy

An important factor to be considered in relation to the implementation process is how is the new health promotion strategy going to be communicated to the staff. The communication strategy must be appropriate to the specific program and in line with the cultural variations of a particular organisation. Whilst many may view this as a nice to have, research is showing that the level of engagement by the staff is dependant on the positioning of the health promotions program. Examples can include emails (from the CEO), tool box briefings, posters, letters in pay packets.

Important to note that these examples are not necessarily transferable, sometimes even within the same company with multiple sites in different states.

For sustainable changes to occur, engagement needs to be at about 50% annually and 80% over 3 years (accumulative).[6] So engaging and maintaining staff participation, is extremely important for organisations embarking on a health promotion program.

Research has suggested that sustained participation can only be achieved if the individual takes responsibility for their own behaviour change. To that end the kind of questions that need to be asked of potential providers, is how is their program going to engage participants in behaviour modification with long term sustainability?

The Intervention Options

After the HRA is completed it is important to develop the strategic framework for delivering the interventions that have been recommended. Options can include, health seminars, structured physical activity programs, health expos, telephonic counselling, on-line services, newsletters, employer subsidised smoking cessation, competitions, health checks, including skin and dental, flu injections, healthy canteens, fruit baskets and so on.

Other intervention options may include EAP, financial counselling, depression in the workplace and work-life balance programs.

The list can be quite imaginative and needs to reflect a combination of the outcomes of the HRA, the culture of the organisation and the available budget.

Equally important is the question of the qualifications of the staff delivering the program regardless of delivery channel.

The Evaluation Framework – Why Evaluate?

Just as earlier we asked the question Why Health?, the question Why Evaluate? is being asked. Evaluation is without a doubt a critical component of a health promotion strategy as it provides the framework to ensure that current and future programs and interventions are based on data driven information.

Without evaluation it is impossible for either the organisation or provider to determine what is working and what has failed. Some providers shy away from evaluation particularly because it can pinpoint failure but this is unfortunate, as failure should be seen as an opportunity for improvement.

In essence evaluation strategies establish best practices and industry benchmarks and enable HR and Safety practitioners to calculate the value of the program.

An evaluation strategy should focus on 3 specific areas;

- Subjective measures – customer satisfaction
- Output measures – attendance and completion rates
- Outcome measures – program impact

Customers are generally separated into two categories, employer and employee.

Organisations engaging a health promotion provider should satisfy themselves that reports include participation feedback sheets, annual customer service surveys and focus groups where possible. Other questions to ask include the delivery mode of the surveys and the level of modification to suit specific customer needs.

The following indicates the type of reports that should be considered by an organisation embarking on a health promotion program;

- HRA take-up rates
- initiatives, areas of concern and strategies for improvement
- description of all initiatives conducted during the period
- details including delivery dates, times, venues etc
- program participant attendance %
- identification of risks / areas of concern
- recommended solutions for areas of concern
- staff feedback regarding initiative delivery and format

It is fundamental to measure the impact and outcomes of the interventions. Health Outcomes should be measured each year, at an individual level providing feedback to the participants and at a population level to the organisation. These measures are invaluable to managers who need to put forward the argument for a sustainable health promotion program. Managers need to know what worked, what didn't and what were the impacts in response to the original expectations.

What information is required from the evaluation can range from specific health improvements and participation to more specific productivity improvements and linkages to ROI. Organisations should determine what evaluation framework is the best for their specific needs.

Case Study

Australian Health Management Group (***ahm***) is in the business of health. The organisation specialises in providing evidence based health management programs across the care continuum from preventative health programs, through to management of acute and chronic conditions. These programs are delivered telephonically, on-site, on-line and on paper throughout Australia.

In 1994 ***ahm*** formed a partnership with the Health Management Research Centre(HMRC) at the University of Michigan, world leaders in health promotion program evaluation, to introduce the concept of health management into the Australia arena. HMRC has been researching and evaluating health promotion programs in the US for 30 years and provided 3rd party evaluation of Australian insurance population data.

For over a decade, ***ahm*** has collected data in relation to health and behaviour change in the health insurance population and could see how improved health decreased health costs. US health promotion programs evaluated by HMRC were in the corporate environment and the data emerging from this research was exciting, showing that there was in fact a linkage between health and productivity not just health and health care costs. There was however no data or research in relation to the Australian corporate market.

Several years ago ***ahm*** made a strategic decision to take the concept of health management programs into the corporate market. Today, the division ***ahm*** Total

Health delivers a range of health risk management programs including Health Risk Assessments, on-site services, telephonic counselling and online services to a number of corporations around Australia.

The following case study represents the delivery and analysis of a health promotion program to ***ahm*** (parent company) by ***ahm*** Total Health. The project was approached in the following manner

- Why health?
- What HRA ?
- The Engagement Strategy – how did the health promotion program get developed and communicated to general staff
- The Intervention Options - what did the health promotion program look like
- The Evaluation Framework including Pre and Post Progam
- Moving forward

Why Health?

In answering the very important question of Why Health, for ***ahm*** this was an easy answer. For all the reasons explained earlier, ***ahm*** believes in the importance of health promotion.

Additionally, the CEO and the Senior Management team are in the business of 'walking the walk'. If you are going to sell health to the broader corporate community you best start with yourselves.

Finally and most importantly it was important to test the hypothesis – that there was a relationship between health and productivity in the Australian corporate environment.

So the decision was easy.

The Health Risk Assessment

The ***ahm*** Health Risk Assessment is a tool modified to reflect the Australian environment and clinical protocols (which are the intellectual property of ***ahm***), and is based on a survey developed by the United States Centre for Disease Control and validated over several decades by University of Michigan Health Management Research Centre. The HRA allows for benchmarking a particular population against the broader community in Australia (200,000 (participant numbers)) and the United States (2,000,000 (participant numbers)) with specific emphasis on modifiable risk factors and psychosocial issues.[4,5]

The Engagement Strategy

ahm approached the health promotion program by launching with a large health expo at its Head Office. Over 300 staff of a total of 350 staff attended. Smaller sites had smaller expos so that all staff had the opportunity to be involved. The expo was conducted on company time and the CEO launched the program ensuring his commitment to the health and wellbeing of the employees of the company. A series of well constructed emails formed the basis of the communication strategy leading up to the expo encouraging all staff to attend the health expo to get health screens, gather relevant health information, have a massage, get involved in competitions to win prizes and complete the HRA electronically at their individual workstations.

The HRA site was left open for several weeks with reminders both electronically and in meetings of the opportunity for employees to learn about their own health. Each participant who completed the assessment received a comprehensive health profile along with a personalised health action plan that detailed specific steps they could take to improve their health. They also found out their "health age" as opposed to their chronological age—and learned ways to shed years. (Health age incorporates lifestyle, genetic and other factors).

All personal information is kept strictly confidential.

The Interventions -what did the health promotion program look like

Following the data analysis was development of the strategic framework in collaboration with the General Manager Corporate Services and the HR team.

A comprehensive communication strategy was developed in association with the marketing department, alerting staff to the outcomes of the Corporate Scorecard and of the calendar of events. Posters were placed in strategic locations to remind staff what was about to happen and how to get involved. There was certainly a feeling of excitement.

The following represent the array of interventions offered as part of the ***ahm*** health promotion program;

- Telephonic Coaching
- On-line services
- Structured Physical activity program
- Annual ergonomic assessments
- Health Seminars
- Nice to haves including fruit delivered weekly and bi annual 10 minute chair massages
- Flu injections
- Health Screens
- Skin Checks
- Eye and Dental testing
- Monthly newsletter

The Evaluation Framework

ahm Total Health undertook to work with the parent company as if with a external customer providing a formal evaluation framework reporting on success and impact.

- The HRA was implemented (to date) on 2 occasions 12 months apart to determine if the interventions that had been recommended had in fact made an impact on the health status of the ***ahm*** corporate population

- All interventions that were conducted were measured for attendance and completion rates

- The staff were surveyed to see if they are satisfied with the program and if they felt that the program had made a difference to their health

The information was provided back to the ***ahm*** Senior Management Team in a variety of formats

What did the data look like?

The aggregate data provided some interesting information about the health status of the organisation and what health risks were prevalent in the ***ahm*** corporate population.

Specifically the following information was analysed with a focus on 'did the interventions make a difference to the health and productivity of ***ahm***?'

- The top four risks in the ***ahm*** corporate population
- The health status of ***ahm*** corporate population (measured by the number of health risks*)
- The linkage between health status and self reported productivity
- Specific work environment issues

Top 4 Health Risks

To summarise the outcomes in relation to the top 4 health risks, the interventions clearly worked with a decrease in excess weight, excess illness days and low physical activity. This correlates to the specific weight and exercise focus of the interventions. In the area of stress however there was an increase, which can be explained by the simple fact that the organisation underwent a restructure in this period and this is reflected in the numbers.

Measurement – Health Risk	**2004 (at risk)**	**2005 (at risk)**
• Excess Weight	34.4%	29.5%
• Stress	23.1%	28.2%
• Excess illness days	23.1%	21.8%
• Low physical activity	20.6%	17.6%

Health Status

A key metric that is factored into the measurement process is the number of individuals in a population at low risk status, (0-2 risks). The success of a health promotion program is measured by the increasing of numbers of individuals in the low risk group.

The success of the ***ahm*** health promotion program can be seen by the fact that there was a net movement from medium risk to low risk, increasing the low risk category from 64% to 72% of participants. This is a significant movement in 12 months.

Measurement	**2004**	**2005**
• Low Risk (0-2 risks)	64%	72%
• Medium Risk (3-4 risks)	25%	16%
• High Risk (5+ risks)	11%	12%

* Appendix -High Health Risk Criteria

Health Status and Productivity

Research has clearly shown that there is a linkage between health and productivity, consistently finding, that as the number of health risks increase, percentage of work impairment also increases. In this ***ahm*** population the same correlation was found,

with work impairment increasing from 13% for the low risk group to 23% for the medium risk group to 30% for the high risk group.

If 13 % is considered to be the baseline impairment (as good as it gets), then any impairment over and above these levels (10% medium risk and 17% high risk) might be considered 'excess' work impairment that could potentially be impacted on by health interventions resulting in a net reduction in lost productivity.

The research is in fact showing that for every risk reduced (or gained) there is a net change of 3% in work impairment – gained or decreased. [7]

Measurement	**2004**
• Base impairment (Low Risk)	13%
• Additional impairment (Medium Risk)	23%
• Additional impairment (Low Risk)	30%

Corporate Environment Factors

Using the HRA several work environment factors were measured. These included work conditions, leadership and management, career opportunities and work-life balance. Overall there was only an improved perception of work-life balance. This would have a direct linkage to the seminars that were conducted helping ***ahm*** staff understand that the policy of work-life balance was a serious one. The increased work dissatisfaction in other areas of the work environment is directly linked to the restructure, which also contributed to the increased stress levels of employees identified earlier.

Measurement	**2004 (at risk)**	**2005 (at risk)**
• Not satisfied with work conditions	22%	26%
• Not satisfied with leadership and management	15%	16%
• Career opportunities not adequate	29%	32%
• Not satisfied with work-life balance	14%	9%

In addition to implementing a pre and post program evaluation strategy, ***ahm*** conducted a staff satisfaction survey online, to gauge the impact of the health promotion program on the staff. Generally speaking more than 65% of ***ahm*** staff did engage in the health promotion activities with more than half of those participating attributing their health changes entirely to the health promotion program.

What do these changes mean?

The data clearly showed that some interventions were successful, some less so and in some areas the lack of interventions impacted negatively on the staff. The results of the pre and post assessment, has lead to a new program being designed to more specifically target some of the areas that have been identified.

The new health promotion program has focused on building on the previous activities including structured physical activity for all staff, an executive health program for the senior management team, walking groups and telephonic counselling.

In addition a series of seminars have been rolled out to help non clinical staff to understand what the data from the ***ahm*** study means to the company and to them - in relation to health risks and what the long term effects of poor health will mean to them personally.

A new communication strategy has been developed to maintain staff engagement to build on the successes from the previous program.

The feeling towards the new program is positive but the results of course will not been evident until another HRA is implemented in 2007.

Conclusion

So Why Health? ***ahm*** is committed to building awareness of the linkages between health and productivity and providing solutions for organisations. If employers can incorporate health promotion programs into their Occupational Health and Safety policy, they will find that they have an improved workplace, an improved perception of work environment and an improved productivity. Eventually the Australian workplace will embrace the fact that like Safety, Health is Free.

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Appendix. High Health Risk Criteria

Selected Measures	High Risk Criteria
Lifestyle/biological risks	
Alcohol use	Heavy drinker (>14 drinks/week)
Blood pressure	➢ Systolic blood pressure greater than 139 mmHg or ➢ Diastolic blood pressure greater than 89 mmHg or ➢ Taking blood pressure medication or ➢ Self-reported high blood pressure range
Body Weight	BMI>=27.5 [weight (kg)/height $(m)^2$] (equivalent to 30% over ideal body weight calculated from the 1959 Metropolitan Height and Weight Table)
Cholesterol	Greater than 6.18 mmol/l
Drug/medication use for relaxation	Sometimes or almost every day
Physical activity	Less than one time per week
Safety belt use	Using seatbelt less than 100% of the time
Smoking	Current cigarette smoker
Illness days	6 or more days personal illness days during the past year
Medical problems	having had heart problems, diabetes, cancer, bronchitis/emphysema or past stroke
Psychological risks	
Job satisfaction	Disagree or strongly disagree
Perception of physical health	Fair or poor
Personal life satisfaction	Partly satisfied or not satisfied
Stress	S-scale score over 18[61]
Overall risk levels	
Low risk	0-2 health risks
Medium risk	3-4 health risks
High risk	5 or more health risks