

• pre-planning •

- 1 Programme Orientation
- 2 Programme Stages
- 3 Programme Positioning
- 4 Programme Organisation

• planning •

- 5a Programme Design
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• implementation •

- 6 Marketing Your Programme
- 7 Programme Implementation
- 8 Programme Evaluation

workplace health promotion: implementation series



Programme Evaluation

Knowing if your programme works

Updated Version 2

KEY CONCEPTS

- Types of evaluation
- Evaluation criteria

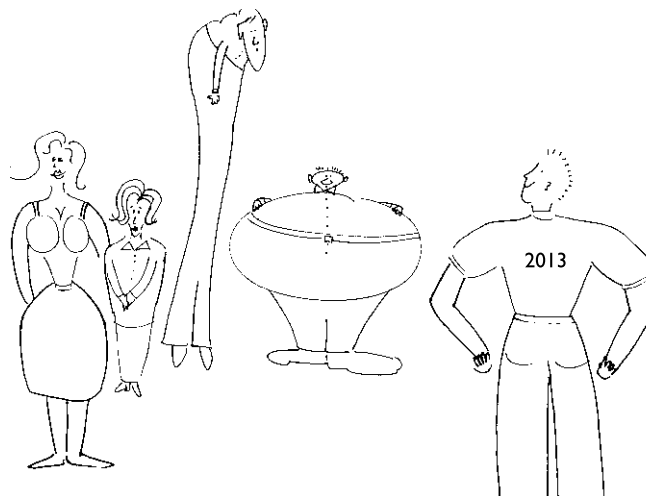
– The Workplace Health Manager...

Your role is a critical one because you have the opportunity to bring about changes that can impact your colleagues' health.

Though your role differs from company to company, you are generally tasked to plan, organise and implement a workplace health promotion (WHP) programme.

While you do not need to be an expert on health issues or be medically trained, some basic understanding of health, the factors that influence it, concepts of WHP and what can be achieved will definitely help you in your task.

This guide will support your role as a workplace health manager, and enable you to plan effectively. To find out on the latest news and events, visit HPB's one-stop on-line portal for workplace health managers at www.hpb.gov.sg/healthatwork. If you need further assistance, please e-mail to Workplace Health at HPB_HEALTH_At_Work@hpb.gov.sg or call 64353704.



Workplace health promotion begins with you, you & YOU...

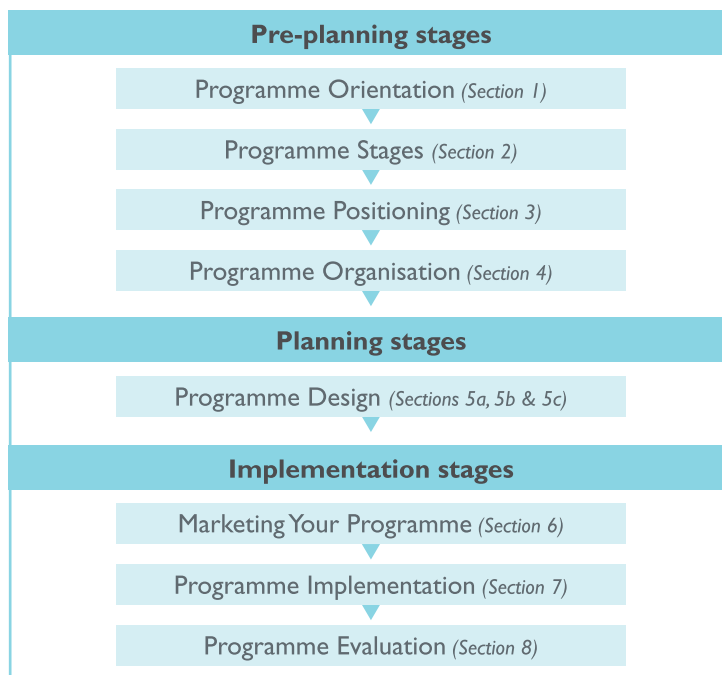
Introduction

The *Essential Guide to Workplace Health Promotion: The ABCs of Managing Your Organisation's Programme* consists of eight Sections, grouped into three series of Pre-planning, Planning and Implementation. This form of organisation mirrors the actual stages of WHP programme planning and implementation.

At different points in each Section, there will be cross-references in italics. This is intended to improve understanding of the inter-relationships between different concepts in different sections.

In these Sections, you will find:

- concise flow charts
- clear definitions
- simple explanations
- essential survival tips
- useful examples
- helpful checklists
- ready-to-print templates.



icons



Ideas you can apply



Technical information



Case studies of companies



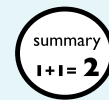
Essential survival tips



Frequently-asked questions



Useful notes



Quick summary

Overview

You have invested time, money and effort to run a workplace health promotion (WHP) programme. Now you need to know if your programme has achieved its goals and whether the objectives and interventions need to be further adjusted.

In this Section, you will learn the types of evaluation, and the methods for evaluating your programme.

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2 Types of evaluation	p 6
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Why evaluate

I Why evaluate

I.1 It helps avoid mistakes and repeat successes

Without evaluation, there will be no improvement, because we would not know why a programme or an activity worked or failed.

I.2 It helps justify the use of resources

Evaluation results help to justify the worth of the WHP programme to key stakeholders (e.g. senior management and staff). Without evaluation, a company will not be able to know if the resources (e.g. funds, manpower and time) it has invested in the WHP programme have been worthwhile.

I.3 It helps reduce wastage

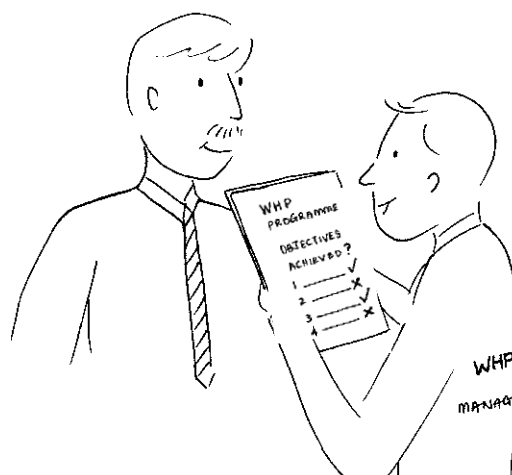
Evaluation helps to reduce wastage of resources. Many companies devote a lot of resources (e.g. time, money and manpower) to run their WHP programme, but fail to systematically find out if these resources are yielding results.

“

Effective evaluation is more about understanding how we learn and change than it is about judgement and measurement.

”

Health Canada



Evaluate results to help justify the worth of your WHP programme to stakeholders.

Types of evaluation

2 Types of evaluation

You can evaluate specific objectives and goals of the WHP programme at specific stages.

2.1 Evaluation of process objectives

Evaluation of process objectives allow you to measure short-term (1–2 years) changes in:

- procedures (e.g. quality, design, efficiency and delivery)
- activities (e.g. types, appropriateness, timing, accessibility and marketing)
- maintenance of programme
- staff involvement (e.g. participation and feedback).

Process objectives enable you to answer questions such as:

- Was the programme well-managed?
- How many employees participated in the programme?
- What was their response to the programme?
- Were the activities appropriate?
- Was the coordinator cooperative?

(See Appendix A for a sample process evaluation form.)

2.2 Evaluation of impact objectives

Evaluation of impact objectives allow you to measure mid-term (2–3 years) effects of your programme.

These include changes in:

- health practices (e.g. physical activity, smoking, mental wellbeing and healthy eating – refer to *Health Practices Survey in Section 5a: Uncovering True Health Needs*)
- awareness or knowledge of health-related issues.

Impact objectives allow you to answer questions such as:

- What changes has the programme made to the health practices of employees?
- Did the programme facilitate changes in company's policies to create a more conducive environment?
- Has the programme brought about changes in attitudes and beliefs related to health?
- Has buying/eating behaviour of fruit changed?

2.3 Evaluation of goals

Evaluation of goals allow you to measure long-term (3–5 years) effects. These include changes in:

- organisational issues (e.g. medical cost, absenteeism and productivity)
- health problems (e.g. diabetes, cancer and hypertension)
- health risk factors (e.g. physical activity, high cholesterol and obesity).



With evaluation, start small and gain confidence as you progress.



EVALUATION OF WHP PROGRAMME		
PROCESS OBJECTIVES	IMPACT OBJECTIVES	GOALS
Short term (1–2 yrs)	Medium term (2–3 yrs)	Long term (3–5 yrs)
<ul style="list-style-type: none"> • Procedures <ul style="list-style-type: none"> – Quality – Design – Efficiency – Delivery • Activity <ul style="list-style-type: none"> – Types – Frequency – Appropriateness – Marketing – Accessibility • Staff involvement <ul style="list-style-type: none"> – Participation – Feedback 	<ul style="list-style-type: none"> • Awareness level <ul style="list-style-type: none"> – Knowledge related to benefits of healthier behaviour • Health practices <ul style="list-style-type: none"> – Physical activity – Smoking – Mental wellbeing – Healthy eating • Fitness status • Organisational issues <ul style="list-style-type: none"> – Staff morale/job satisfaction 	<ul style="list-style-type: none"> • Health-risk factors E.g. <ul style="list-style-type: none"> – Physical activity – High blood cholesterol – Obesity • Health problems E.g. <ul style="list-style-type: none"> – Hypertension – Cancer – Diabetes • Organisational issues <ul style="list-style-type: none"> – Medical costs – Absenteeism – Staff turnover – Corporate image – Increased performance
Done using quantitative and qualitative methods	Done using quantitative method	

2.4 Quantitative and qualitative methods

Quantitative method is usually used to assess goals and impact objectives. This includes measuring before and after changes to blood pressure, blood cholesterol, blood sugar and body mass index, or monitoring trends over time in the form of percentage changes to these areas. Quantitative evaluation involves issues that can be tabulated into 'yes or no' answers or answers that can be put on a scale. Data for quantitative method is usually obtained through surveys.

Qualitative method is sometimes used to assess process objectives. The main objective is to develop an understanding of the process as to how and why the programme has or has not worked. This is usually done through self-reported feedback forms, open-ended unstructured interviews, participant observation and focus groups. Qualitative evaluation is often used to gather subjective, in-depth responses that are not easily put into neat categories.

3 Methods of measuring goals in evaluation

Some outcome indicators (e.g. increases in productivity due to the programme and increased innovation) are more difficult to quantify than others. But there are other quantifiable/measurable outcomes that we can evaluate.

3.1 How to measure goals?

Different measures are needed in order for a complete picture of whether the WHP programme had achieved its goals. Different outcome goals should be considered (e.g. changes in health risk factors) and not just lowered medical costs, turnover rate and absenteeism.

EVALUATING GOALS WITH SAMPLE MEASURES

SAMPLE ORGANISATIONAL GOALS	SAMPLE MEASURES	MEASURES RELATED TO COSTS
Reduced health risk factors	Biometric indicators like blood pressure readings, blood cholesterol readings, body mass index and blood glucose levels are compared against the readings at the start of the programme.	
Reduced medical care utilisation	<ul style="list-style-type: none"> • Utilisation of employee assistance programmes (e.g. for stress-related problems) • Self-reports in Health Practices Survey (see <i>Section 5a: Uncovering True Health Needs</i>) 	Changes in medical care costs related to visits
Reduced health-related costs		Method I – Tracking health-related costs over time (see <i>Section 3.3.1</i>) Method II – Tracking health-related costs before and after interventions (see <i>Section 3.3.2</i>)
Absenteeism	No. of days absent due to ill-health or related to non-participation of targeted WHP programme	Calculations of daily rates (including consideration of additional time that supervisors and employees must invest to coordinate work missed)
Increased performance	Comparison of ability to perform jobs as captured by survey (e.g. presenteeism scales) administered before and after the implementation of WHP programme	Increased sales or no. of products/ services produced
Gaining strategic advantage in recruitment	Time spent on completing a successful hire of different types of positions	Reductions in costs associated with recruitment
Reduction in staff turnover	No. of resignations	Reductions in costs associated with recruitment and training
Better corporate image	<ul style="list-style-type: none"> • Survey of new job applicants • Investor confidence indices 	
Retention of employees	No. of years of continual service and employment	Less recruitment and training costs

3.2 How detailed should the evaluation be?

How detailed the evaluation should be depends on the following factors:

- If the evaluation data is qualitative, it can be collected through focus groups. If there are fewer than 30 responses, use this method.
- If the evaluation data is quantitative, determine whether the data comes from a representative sample* of employees.
- Resources available (e.g. information, time and money)
- Information required by senior management and other stakeholders (e.g. identification of the types of returns and investments or comparison of returns on investment (ROI) of similar initiatives in different countries)
- Level of validity† or reliability# required by senior management.

* Representative sample – a sample that has the same basic characteristics as the population it was drawn from

† Validity – degree to which the programme caused the change that was measured

Reliability – degree to which the programme can be expected to produce similar results in other contexts (e.g. other branches of your company)



Anything else you wish to know, Sir?



Be realistic about what is necessary and what is possible. Set the research agenda and objectives according to your management's requirement.

3.3 Methods for measuring health-related costs (savings)

3.3.1 Method I – Tracking health-related costs over time and showing returns on investment (ROI) from WHP programme

This method yields rough estimates of savings from embarking on a WHP programme. It compares the health-related costs *with* a WHP programme against a benchmark of health-related costs *without* a WHP programme. You might want to use this method to persuade management to commit more to the WHP programme. Below is an example of how you can use trend analysis to track total health-related costs and savings over the years.

Step I Fill in relevant data

HEALTH-RELATED COSTS AUDITS OVER TIME								
	2009	2010	2011	2012	2013	2014	2015	2016
1. Medical care costs <i>(including health insurance premiums)</i>								
Cost of:								
(i) Hospitalisation [A]								
(ii) Medical claims (outpatient treatment) [B]								
(iii) Health insurance premiums [C]								
<u>Total medical care costs [A+B+C]</u>								
2. Absenteeism costs								
(i) Total days of absenteeism [D]								
(ii) Average costs per day (daily salary of absent employee inclusive of cost of hiring temporary employees, training staff replacement and additional supervision) [E]								
<u>Total absenteeism costs [DxE]</u>								
3. Total health-related costs								
Medical care costs + absenteeism costs	\$350*	\$380*	\$400*	\$430*	\$470*	\$500*	\$515*	\$530*

\$30 \$20 \$30

↑
WHP programme introduced with other health cost reducing measures

* Hypothetical figures of total health-related costs per employee per year

Step 2 Calculate % change in total health-related costs for the past four years up to the present year (2013)

Average % change in health-related costs from 2009 to 2012
= Average of differences between the years $\times 100\%$
Original baseline health-related cost (from 2009)
= $(30+20+30) \div 3 \times 100\%$
 350
= 7.62%
= 8% (rounded to the nearest whole number)

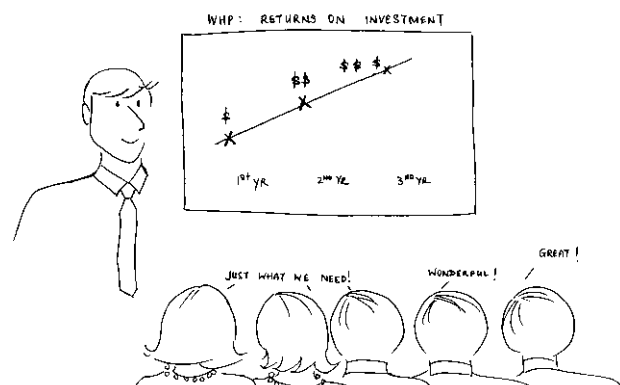
Step 3 Derive the average % increase in health-related costs in four years' time, i.e. 2016 (or later if your WHP programme has not been intensive/comprehensive/targeted)

Based on the average change in the health-related costs (8%), % increase in health-related costs per employee in four years' time would be:
= 8% x 4 years
= 32%

Step 4 Calculate the health-related costs in 2016 as part of natural trends without a WHP programme

By 2016, assuming a constant rate of increase in health-related costs at 8% per year, even without a WHP programme, the health-related costs per employee for the company
= (health-related costs in 2012) $\times \frac{132}{100}$
= $430 \times \frac{132}{100}$
= \$567.60

An excellent WHP programme can yield high ROI.



Step 5 Calculate ROI from net savings of a WHP programme and other health-related cost reducing measures

Net savings in 2016 is the difference between (What you would have spent on health-related costs in 2016 without a WHP programme) and (What you actually spent for health-related costs)

$$= \$567.60 - \$530 = \$37.60$$

$$\text{ROI} = \frac{\text{Net savings}}{\text{Original health-related costs w/o a WHP programme (2012)}} \times 100\%$$

$$= \frac{37.60}{430} \times 100\%$$

$$= 8.74\%$$

≈ 8% Returns on Investment

For more information on how to calculate returns on investment, see Appendix C.



These net savings do not include increased presenteeism, increased productivity, increased innovation, increased resilience, improved quality of life or avoided costs of pain, grief, suffering, loss of leisure, low morale.

3.3.2 Method II – Tracking health-related costs before and after interventions

For this method, you need to track pre-programme baseline health-related costs and compare them against post-programme health-related costs.

$$\text{Savings} = (\text{Participant Baseline average per capita cost})^* - (\text{Participant Observational average per capita cost})^\dagger \times \text{Number of years of WHP programme} \times \text{Number of participants}$$

Here's an example: Before participating in the WHP programme, a group of employees' average health-related costs per year was \$80. There are altogether 270 participants in the company.

After participating in the WHP programme for five years, this group of employees' average health-related costs per year was \$75.

Thus the savings would be

$$\$5 \times \text{Number of participants (270)} \times \text{Number of years of WHP programme (5)} = \$6,750$$

* Participant Baseline average per capita cost: average health-related costs per person before programme

† Participant Observational average per capita cost: average health-related costs per person during the programme

Adjustments

You will need to adjust for medical trends (e.g. inflated cost of healthcare).

For example, if the inflated healthcare costs is 5% flat rate per year for five years,

$$\text{Adjusting for inflation of costs} = 5 \times 5 \times 6,750 = \$1,687.50$$

The diagram illustrates the calculation of inflation adjustment. The equation is $5 \times 5 \times 6,750 = \$1,687.50$. Three boxes are connected to the equation: 'Inflation rate' points to the first '5', 'No. of years of intervention' points to the second '5', and 'Gross savings' points to '6,750'.

$$\begin{aligned} \text{Real savings adjusted with inflation rate} &= \$6,750 - \$1,687.50 \\ &= \$5,062.50 \end{aligned}$$

Data needed

To use this method, you need the following data:

- Claims cost during baseline and observational period
- Identity of participants
- Subject attrition experience
- Stable employee recruitment.

Advantages

The advantages of this method are that it is:

- based on your own data
- not effected by non-participating employees
- fairly easy to do.

3.3.3 Possible explanations for discrepancies between expected results and actual results (if any)

If your results show some discrepancies, these might be the possible factors:

- Medical trends (e.g. introduction of medical treatments that suddenly increase the medical cost)
- Narrow range of health cost definition
- Changes in HR medical plan/insurance schemes
- Changes in percentage of employer financial responsibility for health claims cost
- Changes in co-payment schemes
- Significant changes in size or location of the workforce
- Significant changes in demographics
- Errors in reported health claims cost
- Unusually large number of major claims
- Unusual disease patterns

How to do evaluation

- Under-reporting of claims as a result of incentives (e.g. no MC policy)
- Wrong application of economic returns methodology
- Selection bias
- Small sample sizes.

4 How to do evaluation

Step 1 – Have clear goals and objectives

Ensure you have clear goals, impact objectives and process objectives.

Step 2 – Plan for evaluation

Decide on the types of evaluation you need when you are planning your programme.

Step 3 – Collect data

Determine the types of data you need to collect and plan your data collection method (see Section 5a: Uncovering True Health Needs).

Step 4 – Analyse and interpret data

Use the methods described in this Section to analyse the data.

Step 5 – Plan for improvement and expansion

Plan for improvements based on the results of your evaluation. Consider how you might expand the WHP programme. Write a report outlining your recommendations and suggestions for improvements.



Planning for evaluation needs to be done in the early stages of programme design. Evaluation is closely tied up with realistic goals and objectives. You need to clearly understand them before proceeding with the evaluation plan.

Appendix A
Evaluation of health promotion activity

Appendix B
Health-related costs audit

Appendix C
How to do returns on investment (ROI)

Appendix A

Evaluation of health promotion activity (*Process objectives*)

We would appreciate your input on the activity you have just attended. Your valuable feedback will allow us to plan better health promotion activities in the future. All responses will be kept strictly confidential.

Type of activity: _____

Date: _____

Venue: _____

Please tick the appropriate column and write your comments under 'Suggestions for Improvement'.

	Strongly agree	Neutral	Strongly disagree	NA
1. The activity was appropriate and useful.				
2. The activity has improved my knowledge and understanding of the subject.				
3. The activity will cause a positive behaviour change in me.				
4. The service provider delivery was effective.				
5. The educational materials provided were useful.				
6. The activity was efficiently coordinated.				
7. The timing of activity was appropriate.				
8. I was informed of the activity early.				
9. The marketing and publicity of the event was well done.				
10. The activity was conducted at an easily accessible location.				
11. The pricing for the activity was appropriate.				
12. I would like to attend future activities of similar nature.				

Suggestions for improvement:

Appendix B

Health-related costs audit (per employee per year)

	2009	2010	2011	2012	2013	2014	2015	2016
1. Medical care costs <i>(including health insurance premiums)</i>					(present)			
Cost of:								
(i) Hospitalisation [A]								
(ii) Medical claims (outpatient treatment) [B]								
(iii) Health insurance premiums [C]								
<u>Total medical care costs [A+B+C]</u>								
2. Absenteeism costs								
(i) Total days of absenteeism [D]								
(ii) Average costs per day (daily salary of absent employee inclusive of cost of hiring temporary employees, training staff replacement and additional supervision) [E]								
<u>Total absenteeism costs [DxE]</u>								
3. Total health-related costs								
Medical care costs + absenteeism costs								

Appendix C

How to do returns on investment (ROI)

- Step 1 – Determine the scope of the WHP programme you are considering.
- Step 2 – Identify returns – financial and non-financial (consider using survey options to quantify).
- Step 3 – Identify investment associated with these interventions (e.g. costs of activities and health education programmes).
- Step 4 – Adjust for inflation and the changing value of money over time.
- Step 5 – Present with assumptions, recognise and describe the consequences of any limitations in the analysis.

Formula for ROI

$$\frac{\text{Net gain/benefits}}{\text{Cost}} \times 100\%$$

For example, if the planning and implementation of the programme cost an initial investment of \$20,000 and the savings in terms of health costs, productivity gains, reduced absenteeism come to \$4,000, then the ROI would be

$$\frac{4,000}{20,000} \times 100\% = 20\% \text{ annually}$$