



Welcome to the Programme and Project Management Workbook

The aim of this Workbook is to provide you with a support package for **Programme and Project Management (PPM)** that will help you apply the basic principles of programme and project management to your work in the future. It has been specially designed to fit alongside our **Introduction to Programme and Project Management** and **Intermediate Programme and Project Management** modules.

This is in addition to the Video Arts book *Project Management: The Essential Guide to Thinking and Working Smarter,* which we have supplied to participants on our Project Management workshops in the past and which can still be ordered, single copies, via <u>www.amazon.com</u>. This is a book we highly recommend that is a particularly good 'fit' with our two modules, and which also links with the Video Arts production *"Project Management" that* stars Dawn French and which we use on many of our Programme and Project Management workshops.

Together these materials are intended as a resource, a support package, that will help you begin to manage, and participate in, projects in your own work area.

The Workbook is not at this stage exhaustive but will be augmented and up-dated from time to time.

What is the difference between Programmes and Projects?

Project Management recently (2003) celebrated its 50th anniversary. For many years we spoke *only* of **Project Management** as a subject, as a discipline; it was largely about using particular approaches to handle one-off 'pieces of work'. More recently as project management has grown in popularity and use, we began to use the word **Programmes** to describe *series* of projects that link together to become "themed" programmes.

For example building a road bridge or a rail tunnel would be a project (large, complex project) but building the bridge/tunnel may well not be a 'stand-alone' or 'one-off' but part of a larger 'regeneration' or 'transport development' programme, i.e with its own approach roads etc as part of an overall transport infrastructure programme. Basically a 'programme' is a series or group of related 'projects' that are managed together as a 'portfolio'.

In our Introductory module we gave examples of programmes and projects - which included the renowned first Apollo Moon Landing : most people will either know or recall that man's first landing on the moon by Neil Armstrong and Buzz Aldrin was a particular project (Apollo 11) or mission that formed part of a major space and lunar exploration *programme,* the Apollo programme.



"A Programme is a collection of projects and other items of work that are managed together as a portfolio" Department for Education & Skills 'PPM' website : <u>http://www.dfes.gov.uk/ppm/</u>

Note re "Pilot" Projects :

Today we often see organisations run 'pilot' projects; they run these purposely to find out *if* and *how* something works. Then, from the experience they gain in the 'pilot', they will often develop further 'follow-on' projects and larger 'programmes' of linked projects i.e. they use the outcomes and experience they gain in the 'pilot' project to inform and develop further projects or larger programmes of activity.

Our first PPM Scenario, mentioned below and developed in this Workbook, is in fact an example of a Pilot project – designed to test out the introduction of a PPM approach across a particular part of the National Health Service (NHS), one of the old Health Authorities which in 2001 was approaching, like the rest of the NHS, a period of major transformational change flowing from the key document "Shifting the Balance of Power" and the radical NHS Plan that flowed from it.

The Practical Approach to Programme and Project Management

The component parts of **Programme & Project Management** are largely sensible, logical approaches to planning, implementing and managing work; they have been brought together over the years to form a structured, disciplined approach to managing *goal-specific* and *time-finite* activities. Thus, this Workbook encourages throughout a practical, "hands-on" approach to PPM.

It provides three separate real-life Scenarios that you can work with. All three are relevant to healthcare, two of then (the "FeelGood" projects) have a Public Health/Health Promotion orientation. All three are relatively *small* projects, used purposely to give you insights into the *fundamentals* of PPM. But the underpinning principles of PPM that we bring out apply equally to large programmes and projects

To help you understand the practical application of some of the main tools and techniques used in PPM we provide you in the Workbook with an example of a **Project Plan**, which has been based on a specially developed **Scenario** (the "Project Management Project"). We also provide a **Template** that you can use to plan *new* projects in the future. Information and advice is included on a number of *recommended* tools that can be used during the setting up and running of a programme or a project.

Be sure to refer to the Introduction to Programme and Project Management and Intermediate Programme and Project Management modules on HealthKnowledge: these can not only be viewed in "e-learning" mode but also downloaded to provide you with a detailed resource to the whole subject of Programme and Project Management

Important Note:

Programme and Project Management can be as simple or as sophisticated as you or your organisations want it to be. But there are some *core* elements that you will need to



understand and know how to use. It is our aim to show you, using our 'FeelGood' scenarios, how to use a number of key programme and project management tools and techniques, apply them to practical work-related situations.

Hobbs, P. *Project Management: The Essential Guide to Thinking and Working Smarter*. London: Marshall Publishing, 1999.



About this PPM Workbook:

The Workbook will be available electronically via our knowledge and e-learning platform "Health Knowledge" which now forms part of the **Public Health Electronic Network (PHeNet)**; you can use this to find out more about programme and project management

Here we list the main sections of our PPM Workbook : in electronic format you will find these will 'click-through' to the relevant sections

Section 1: Scenarios (1 and 2)

Scenario 1: The 'Project Management Project'

Scenario 2: The 'FeelGood' Project

Section 2: Project Planning

The Project Life Cycle

Sample Project Plan (for scenario 1 above)

Project Plan template

Section 3: Template for a Project Plan

Section 4: Project Management Tools

SWOT analysis

PEST analysis

Force Field analysis

The 5 Whys

Cost benefit analysis

Risk assessment

Work Breakdown Structures

PERT charts

GANTT charts

Computer-based project management software

Critical Path Analysis

Project Definition Summary

Information resources on Project Management



Section 1: Scenario 1: 'The Project Management Project'

This is our first PPM Scenario, described here exactly as we have used it in our PPM workshops over the last few years :

The Chief Executive has tasked one of her managers with developing and delivering a programme of workshops, designed to introduce managers and key staff to the principles of Project Management as a means of handling particular 'pieces of work' which have defined time-scales and their own budgets.

The Chief Executive (CE) believes that there are quite a lot of 'pieces of work' potential projects - that could benefit from the 'programme and project management approach; these include some change-management programmes that will need to start later in the year. The CEO also feels that this initiative could provide a 'platform' for the organisation to develop its own in-house 'programme and project management 'system' – a framework that helps people set up and manage programmes/projects on an efficient and effective basis that is used right across the organisation.

Whilst the CE is supportive of formal programme and project management training (e.g. Prince) she feels that staff should be introduced to the programme and project management concept through initial half-day introductory workshops. These will be supported by a PowerPoint presentation, a write-in workbook and - an innovation - a Programme and Project Management 'Tool-Kit'.

Through discussion, it has been agreed that there will be a pilot workshop, which will be run twice, designed to attract a minimum of 18 and a maximum of 25 key staff at each workshop. Unless appropriate and available resource can be located internally, an external consultant will be commissioned to work with the manager given responsibility for this project.

Delivery and assessment of the two proposed workshops will effectively be a 'pilot' project and be used to assess whether further workshops and project management training will be run in the future. For operational reasons these 'pilot' workshops will be held in late July and late September 2001.

There will be a cash budget of up to **£3,500** for the pilot phase to cover external consultant, materials development and printing, and a suitable venue for each of the two half-day workshops

Staff time and indirect costs are estimated as follows: CE: 1 day over the whole project (£300 per day) **£300**



Manager: 6 days over the whole project (@ £175 per day) **£1,050** Secretary/Admin: 5 days over the whole project (@£90 per day) **£450**

A small **working group** will be set up, comprising CE, project manager, external consultant and the administrator, and meet monthly to review progress/problems.

Feedback from workshop delegates, as well as from the contractor and other interested parties will be collated, summarised and reported back to CE by 30th September. Based on the key performance indicators and participant feed-back the working group will decide whether to recommend further Project Management workshops and training at a meeting scheduled for 1st October. At this stage this project will close.

If further workshops are recommended they will take the form of a new Project or Programme.



Section 2: Project Planning

The Project Life Cycle

Below is a widely recognised model that illustrates the various phases that a typical project goes through. We will use it to take you through the stages, activities and actions that are typically carried out in each phase.



The Project Life Cycle

Firstly we look at **Phase 1** (**Definition**), see how we can *scope* the project, assess its *viability*, decide whether it should be handled – and if so, how. We *define* the Project in terms of its outputs ('deliverables'), the budget and time frame in which it is to be completed.

The next phase (2) – **Planning** - is a critically important phase. In this phase we consider many aspects of the project and write a **Project Plan** that, if approved, will be used to guide and steer us through the remaining phases of the Project.

Phases 3 (Organise) and **4 (Execute)** can be considered together as the "**implementation**" phase – first the Project Manager/Co-ordinator and his/her team *organise the resources* needed to carry out the project, then begin to carry



out the tasks, actions and activities in accordance with the project plan that will see the project achieve its aims and objectives. Finally there is a formal **Close Out** phase **(Phase 5)** where the completed project is 'handed-over' to the client and all reports and assessments are concluded. There is typically a review and a final report is written.

SAMPLE PROJECT PLAN

Here we have developed a template for SCENARIO1 (*The Project Management Project* described above)

PROJECT PLAN TEMPLATE Based on our 'Project Management Project' scenario

Phase 1: define the scope of the project

1. Goals (aims and objectives) of the project

Aim of Phase 1:

To introduce key staff to the principles and practice of project management, as a means of handing particular pieces of work in the organisation.

Objectives/deliverables

A **workshop** (which will be run twice), will provide for 2groups of up to 18 key staff to receive detailed introduction to and training in Project Management. At the end of the workshops participants will:

- be able to identify the key features of projects
- understand how to identify the key stakeholders
- have worked through the project management steps using a given scenario
- have learned through practical application and having fun
- be provided with a guide to Project Management and copies of PowerPoint slides as part of a support/resource pack that will also include a **work-book** and a **project management tool-kit**

2. Time-scale

- the project opened on 1st May 2001 with the request to the selected manager to scope and set up the project
- two workshops are to be provided one in late July, the other in late September



- due to holidays and absence of key staff, August is scheduled to be a lowactivity month
- the project is to be completed by 30th September and closed-out on 1st October 2001

3. Budget

The Chief Executive will fund the development of these workshops and delivery through an outside consultant within an agreed budget of £5,300 after the *boundaries* and *deliverables* have been agreed.

It was agreed that the initial level of need would be sufficient to plan and deliver two workshops, hire quality venues and develop, provide and print the necessary materials.

The following costings are all based on 2001-2002 levels, when the project actually ran

Workshop development and delivery expected consultant costs

- 2 days preparation @ £500 per day
- 2 days delivery @ £500 per day

Brent & Harrow health Authority costs

- reproducing materials
- collating the feedback sheets
- following up staff who require further support
- administrative support
- venue/refreshments

Staff costs

Note: some organisations cost-in staff time, others don't. Our view is strongly that it *should* be costed-in. Here we give indicative, not actual, costs:

CE: 1 day over the whole project (£300 per day) £300
Manager: 6 days over the whole project (@ £175 per day) £1,050
Secretary/Admin: 5 days over the whole project (@£90 per day) £450

4. Develop the Project Brief for the Consultant

Example of Project Brief:

Requirements



To develop & deliver 2 x introductory project management workshops

Background

The Health Authority (HA) currently employs around 200 staff who have a variety of roles; these include finance, operations, informatics, organizational development and public health. There are five Primary Care Groups (PCGs) who employ between 10-20 staff each, of which many roles are mirrored in each organisation.

Many of these staff have a project management role. It has become apparent, as a result of appraisals as well as through managers, that these staff would benefit from an introduction to project management skills.

Aim of the Workshops

To introduce up to 50 key staff to the principles and practice of project management, as a means of handling particular pieces of work.

Objectives

By the end of the workshop participants will:

- be able to identify the key features of projects
- understand how to identify the key stakeholders
- have worked through the project management steps using a given scenario
- have learned through practical application and having fun

Deliverables

- an understanding of the key features of project management, including being able to:
 - define the aims and objectives of the project
 - be clear about the benefits of good project management
 - identify the stakeholders
 - identify if a working group, steering group or advisory group is required
 - define the deliverables
 - understand a project life cycle and what each stage involves
 - undertake a risk assessment
 - define the tasks to achieve the deliverables and relationships between each task
 - determine the critical path
 - establish milestones and complete a Gantt chart



- monitor and evaluate progress
- develop a planning checklist
- introduction to project management tips, tools and techniques. These will also be outlined in the workbook
 - SWOT analysis
 - PESTELI analysis
 - cause and effect analysis
 - risk assessment
 - cost benefit analysis
- project management workbook, which will consist of:
 - project life cycle
 - project plan checklist
 - tools and tips as above
 - 5 Why's list
 - risk assessment calculations
 - definitions of aims, objectives and deliverables
 - list of potential stakeholders
 - monitoring forms

Workshop format

- interactive
- relaxed and non-threatening
- there will be two separate workshops covering the same materials:
 - the first will be an interactive introduction to project management
 - the second will be an exploratory journey that is practically based working through a project that each participant identifies. The facilitator will give feedback of learning points after each practical.

Workshop dates and times

These times include 30 minutes for lunch at the end of the session

25 th July	8.45am registration
	9am start
	1pm lunch and close
20 th September	8.45am registration
	9am start
	1pm lunch and close

Workshop development and delivery: expected time input

2 days preparation



2 days delivery

Brent & Harrow HA will be responsible for:

- reproducing materials
- collating the feedback sheets
- following up staff who require further support

Costs

- training provider: £500 perhalf-day Workshop + VAT
- refreshments & venue: to be met by Brent & Harrow Health Authority

Outputs from the workshops

Staff become more competent/confident in project management A project management workbook to support staff in the future, consisting of:

- project life cycle
- project plan checklist
- tools and tips as above
- 5 Why's list
- risk assessment calculations
- definitions of aims, objectives and deliverables
- list of potential stakeholders
- risk assessment calculations
- monitoring forms

Time frame

- two workshops will be undertaken: one during July the other in September 2001. There is urgency, particularly for those who have had this identified as part of their appraisal.
- see separate GANTT chart. GANTT Charts can either be developed using a word processor, Microsoft excel spreadsheet or alternatively through one of the Project Management software packages, such as PRINCE or Microsoft Project 2000.

5. Cost/Benefit Analysis

Discussion with the Chief Executive highlighted the following (next page):





Costs	Savings	Benefits
External + internal costs = <u>£5,300</u>		• in the early stages of project management it is more beneficial to introduce staff to simple tools, rather than complex electronic project management databases
		 staff can attend Prince courses or use Microsoft Project at a later stage if they feel it to be beneficial and money is available
		 save time and impact on the organisation by employing a specialist consultant
		 a bespoke workshop with a workbook has the ability to make the training more sustainable and be given locally
£106 per capita (£5300/50)		 train 50 staff of whom at least 25 will adopt project management effectively
		 of those 25, each will undertake at least 3 projects = 75 in total at an average of £8000 per project = £600,000
	£640 x 75 = £48,000	 evidence suggests that good project management efficiencies save 8% of the project costs i.e. £8000 x 8% = £640
Total potential savings	£42,700 p.a.	£48,000 less £5,300 = £42,700 on £600,000 worth of projects

Cost Benefit Analysis : Conclusion

The cost benefit analysis identifies that carrying out this Project could save the Health Authority up to £42,700 p.a. and is therefore a worthwhile project. There is



no relevant ion-house resource: use of a consultant will ensure quality of training materials.

6. Force Field analysis

Driving forces	Resisting forces
Director of Public Health	< Time
Organisation – need for better project Management	Politics
Some Team Leaders	New ways of working
Some staff	 Should be using electronic methods
Cost effectiveness	

7. Assess the risks and develop plans to reduce the risks

	"Likelihood	" score "Se	eriousness"	Total
1. less than 18 people sig up for each workshop	yning	5	7	35
Reducing risk: monitor responses, re-market if necessary, identify other interested parties				
2. quality of workshops		3	10	30
Reducing risk : continuous assessment of materials with consultant, the first is a pilot that will be reviewed and amended where necessary				
3. tool kit not completed		3	10	30

Reducing risk: continuous assessment with consultant



project management

Time and Precedences

AUTO SLIDE Please Wait



'Estimating the time required for tasks can be one of the most difficult parts of planning a project' (Hobbs Pg 42)

TASK TIME v LAPSED TIME

e.g *Time needed for PR Agent to *write* Publicity Piece : 16 hrs (= 2 days)
* Time taken to *Submit* Publicity Piece (10 days)

It is very important to work out the *dependencies* between tasks: a *precedence diagram* will help here. (Hobbs Pg 43)

Precedence diagrams are particularly useful because they show the links and relationships between tasks across the whole project and therefore aid the estimation of *total time* that a project will take to complete. In particular precedence diagrams show tasks that are critical i.e those that must be completed before other linked work can proceed.

Precedence diagrams help project managers to spot potential blockages and bottle necks and to pay attention to them at the *planning* stage

Sample Time-Precedence Chart Next Screen



project management

TIME-PRECEDENCE CHART FROM MODULE 1



Copyright Martyn Laycock 2001- All rights reserved

Copyright Martyn Laycock, the knowledge college 2001-2005 ALL RIGHTS RESERVED http://www.phel.nice.org.uk/healthknowledge/



Here are the Actions/Activities Summarised across Phases 2 & 3 :

Phase 2	Phase 3		
<i>Plan</i> the project	Organise the project		
Identify and commission a consultant to develop the workshops	A Consultant was commissioned who had developed similar work for other organisations. He was felt to be competent and able to amend the previous work he had undertaken to meet different objectives required by Brent & Harrow		
Project Manager Identify and book suitable dates Administrator	Liaise with the Consultant and venue to determine two appropriate dates. These times include 30 minutes for lunch at the end of the session 25 th July 8.45am registration 9am start 1pm lunch and close 20th September 8.45am registration 9am start 1pm lunch and close		
Prepare the milestones	See separate Gantt Chart		
Project Manager Define workshop format with Consultant that is interactive, relaxed and practically based Project Manager + Consultant Define workshop	 Liaise with consultant for a workshop which is: interactive relaxed and non-threatening there will be two separate workshops covering the same materials the first will be an interactive introduction to project management the second will be an exploratory journey that is practically based, working through a project that each participant identifies. the Consultant will give feedback of learning points after each practical. 		
Project Manager + Consultant	 liaise with Consultant regarding materials, approve outline of structure and then detailed overview of the workshop materials on a regular basis copy materials where required order project management guides collate workbook prepare the participants' workshop packs 		

	NHS
Phase 2 <i>Plan</i> the project	Phase 3 <i>Organise</i> the project
Define the evaluation techniques	 liaise with the Consultant to determine how the workshops will be evaluated prepare evaluation materials using flip-chart sheets: hygienes: venue, food, administration content and structure delivery: consultant and materials
Project Manager + Consultant	 future will you use project management? what are your future needs?
Book the venue	 identify how many rooms are required identify a venue and check that it is appropriate for the needs (often a visit is required) check with the venue that the seating is appropriate for the function confirm all details in writing ensure the booking forms are with the administrator on
Administrator Book the refreshments	 the day, with telephone numbers for contacts. this often needs to be done separately from the venue booking. Confirm in writing, with specific times for tea/coffee etc.
Administrator	 ensure the booking forms are with the administrator on the day, with telephone numbers for contacts.
Prepare, despatch and monitor the marketing flyer	 prepare a flyer which is clear in its aims and objectives put cartoons or catchy logos on flyer to attract attention do not put on too much information, but ensure that it includes all the vital information i.e. objectives, time, date, venue, include refreshment periods check the responses at two-weekly intervals
Project Manager + Administrator	 if bookings are low re-assess who received the original flyer and re-market the event



Phase 2 <i>Plan</i> the project	Phase 3 <i>Organise</i> the project
Order/book materials for the workshop + prepare list of articles to be taken on the day	 Prepare a check list of materials to take to venue: LCD projector flip charts pens name badges attendance list copy all documents extra copies of the schedule for the session copies of orders for rooms and refreshments small group lists if desired re-check that venue is organised post its, bluetac check with Consultant that no further materials are
Rehearsal of the workshop	necessary Organise with Consultant
Consultant and Project Manager	

Phase 4: Execute the Project

(example of Consultant track and workshop 1 only) See time/precedence/network chart on next page

- select appropriate consultant and contract re deliverables and payment
- liaise with consultant re structure, key learning points, re presentation
- ensure consultant delivers final draft of presentation by 10th July
- approve and sign-off structure & presentation by 17th July
- arrange a rehearsal with consultant by 17th July
- finalise detailed arrangements with consultant two days before the workshops
- liaise with venue caterers to re-check timings of food and drinks
- administrator, project manager and consultant arrive at the venue at least 45 minutes before the participants
- set up room to required seating arrangements
- administrator to check in and provide labels for staff
- administrator to collect workshop evaluations and feedback from each delegate



Phase 5: "Close Out"

- administrator to collate feedback forms from Workshops 1 & 2
- evaluate effectiveness from both the participants and the Consultant
- final report by Project Manager covering:
 - recruitment and attendance at workshops
 - feed-back from participants and consultant
 - cost-effectiveness and value-for-money
 - quality of workshops
 - quality and usage of project tool-kits
 - acceptance and utilisation of the Project Guide
 - evidence to date of take-up of Project Management in the organisation
- final working group meeting: 30th September
- close-out report to Chief Executive covering costs, attendance, quality, impact, recommendations re further workshops/project management activity
- close-out Meeting with Chief Executive: 1st October 200



Workshop 1 & 2 of the Project Management Project : Milestones Summary

This GANTT Chart can either be developed using a word processor, Microsoft Excel spreadsheet or alternatively through one of the Project Management software packages, such as PRINCE or Microsoft Project. If using a word processor put all these dates into your Microsoft Outlook with a reminder so that you are warned of each important date (Scheduling is a vitally important part of Project Management).

The Project Management Project	Мау	June	July	August	Sept
Workshop					
Agree aims, objectives and budget	25 th				
Write project brief for the Consultant	25 th				
Identify & recruit a Consultant	31 st				
Develop and agree a workshop structure with Consultant		4 th			
Develop and agree workshop content and handouts		30 th			
Develop and agree tool kit contents and lay-out			7 th		
Order 50 copies of Project Management guide		30 th			
Develop pre-workshop pack		30 th			
Print materials			7 th		
Mail pre-workshop pack to participants			11 th		10 th
Marketing					
Develop flyer and disseminate	31 st				
Monitor responses and if necessary re-market					
Venue					
Book venues and refreshments	31 st				
Confirm arrangements with venue just before the date			23 rd		19 th
Prepare materials for the day (as identified in the detailed			Workshop		Workshop
plan above) and deliver workshops			1 23 rd		2 17 th



Scenario 2: The "FeelGood" Projects

Part 1: FeelGood Day

The following report relates to a local initiative for NHS staff held in the North West London sector in connection with World Mental Health Day on 10th October 2001. (Selected delegate feedback is included.)

You should read this report making relevant notes as to how a more disciplined project management approach could have improved its handling.

Report on 'FeelGood Day' for staff held Harrow, 10th October 2001

A Mental Health Promotion Event for Staff

Organisers

Health Development Manager, Community Involvement and Health Promotion team, Brent and Harrow Health Authority (BHHA)

Occupational Therapy Manager, Mental Health Unit, Harrow and Hillingdon Healthcare Trust (HHHT)

Rationale

It was decided that <u>World Mental Health Day</u>, Wednesday 10th October, was the ideal time to promote staff mental well-being. A decision was made to implement the suggestions raised by staff participating in the *Coping with Change* workshops, organised by the Health Authority earlier this year.

Time frame

The idea was raised at a Mental Health Promotion meeting in mid-August. Action began at the end of September continuing until 2 October (two weeks), once funding had been approved.

Budgets

The Trust Fund at the Health Authority agreed to fund up to £400. This amount would be matched by the partner organisation HHHT, to bring the total to £800.



How the day was organised: key steps

- the idea was discussed with the organisers at Brent and Harrow Health Authority (BHHA) and Harrow and Hillingdon Healthcare Trust (HHHT) and it was agreed to take it forward and work together
- Trust Funds money was applied for, and support sought from HR managers
- approval gained from Trust Funds of principle and secured funding
- networked to find out details (cost, availability) of possible contributors of complementary therapies
- decided on appropriate venue, Harrow Hotel local, accessible, history of working with them, pleasant, familiar
- determined cost of venue and booked a suitable room
- drafted an agenda for the day
- notified Health Authority (HA) employees to keep the date free until detail had been finalised
- booked times and activities with contributors
- gained assurance from her manager that her team could pay for the excess costs, if the Trust Funds wouldn't
- confirmed amongst organisers the agenda and the final e-mail that would be circulated to staff
- drafted a flyer, which was posted within the organisations and notified HR manager of developments
- posted the final e-mail with agenda to staff at HA
- secured media coverage with HR Manager
- visited the venue a couple of days beforehand and made adjustments to layout of room and confirmed eating arrangements
- set up the room early on the day, including a visitor's book to keep track of who attended and their feedback, a display of health promotion resources from BHHA and examples of good HR practice from 3HT, a screen to cordon off the individual therapies, refreshments, and audio-visual equipment

Outcomes

- no. of people who attended = 73
- no. of people from BHHA = 43 (59%)
- no. of people from HHHT = 28 (40%)
- other (student, Assertive Outreach Team) = 2 (3%)



Cost-effectiveness

- total cost of venue and food = 1397.95
- cost of contributors = 260.00
- total cost = 1657.95
- cost borne by each of BHHA and HHHT = £828.98
- cost per person = 1657.95/73 * 100 = £22.71 per person

Costings

The total amount spent (£1,700) was *twice* the original budget – which had been increased when the likely numbers and precise costs were known

What worked well? (Summaries from attendee feed-back)

- excellent event
- yoga
- Tai Chi
- all activities
- opportunity to relax and look after oneself
- opportunity to feel valued
- networking
- lunch
- very innovative, lots of joined up action

What could have been improved? (Summary from feed-back)

- larger venue
- more time for individual sessions; taking bookings in advance for these treatments
- adequate ventilation
- not attracting enough men
- some staff from Wembley unable to come because no car
- should have been within budget

What staff want from BHHA and HHHT (summary from feed-back)

- weekly yoga classes (lunchtime or after work): staff happy to pay reduced costs
- onsite massage and other treatments
- more regular activities on an ongoing basis
- event to be held 2-3 times a year
- activities to be held at other (convenient) venues
- concurrent sessions and then swap over
- contact details of contributors available



- more advance notice of such events
- bookings taken of individual treatments in advance, advertising of the list, and holding it in a private area
- better labelling of food at events

Conclusions

Overall, the event was extremely successful, judging by an analysis of both the quantitative and qualitative data. The event was perceived to send a positive message to staff, who clearly indicated that they would like similar events to be organised on a more regular basis in the future, particularly activities such as yoga and Tai Chi. While the event did run over budget, the venue and the food absorbed most of the costs, not the contributors themselves. Therefore, if classes could be set up at cheaper venues, then this approach would be a positive way of promoting staff well-being, without being resource-intensive. "The event was an example of good practice in mental health promotion and will be included and costed in local strategies, to keep such activities sustainable."

Suggestions for the future

- have confirmation well before from those who will be joining in that day and accordingly plan for an appropriate venue and the appropriate services
- there is a need for a fairer way of allocating the specialist treatments, such as a lucky dip
- a list of those who have been allocated a place for the specific sessions must be displayed so that everyone knows about the allocations rather than just to know that the therapist is fully booked
- costings need to be established prior to the event to ensure the project comes within budget
- ensure the venue is comfortable and appropriate for the numbers and required use





The "FeelGood 2" Project

Following the "success" of the FeelGood day and to meet staff requests, it is proposed now to run a follow-up event. *This time we shall use Project Management to plan and implement the event and will incorporate some of the lessons learned from FeelGood 1.*

Please read the report on FeelGood 1 – (above) : including the summarised feedback from staff. We will use this feedback to inform the planning and implementation of FeelGood 2.

"FeelGood 2" : Introduction

Following the success of a FeelGood day, organised as part of World Mental Health Day 2001 for staff of Brent & Harrow Health Authority (BHHA) and Harrow and Hillingdon Healthcare Trust (HHHT) it is proposed that a follow-on event, to be known as 'FeelGood 2' should be held in March 2002.

Turnout at the initial event on October 10th 2001 was very good, as was the feedback from the 73 people who attended. Some of the lessons learned from the first event will need to be considered when putting on a proposed wider programme of activities offering attendees a greater choice of activities and timings.

The date proposed for the day-long event is 21st March, the first day of Spring.

There are options on venues and costs.

For this event a more structured Project Management approach is to be adopted

Objectives

The primary objectives for the event are to promote staff mental well-being; given the high record of stress-related ill-health suffered by NHS employees generally the programme is proposed to consist of optional activities that will help staff cope with some of the stresses and strains of major change initiatives.

A range of interesting and varied programmes is being considered, again at the Harrow Quality Hotel – which proved a popular and successful location in October. However, in an effort to achieve good value-for-money other cheaper options are also being considered.



This time the aim is to get **125-150** people to attend during the day, also to significantly increase the proportion of males attending. The overall aim is to provide a relaxing and enjoyable experience for all those who attend.

Approach

- given the lessons learned from the first event a more structured Project Management approach is to be adopted
- this time there will be, *subject to approval of a detailed Project Plan*, a clear budget and milestones (see Module 1 and Module 2)
- quality and satisfaction with the event will be measured by user-friendly questionnaires that event attendees will be asked to complete before leaving
- on this occasion there is the opportunity to consider using a trial version of Microsoft Project 2000 as a planning and monitoring aid
- although attendance will be voluntary, the event will be marketed and promoted by BHHA and HHHT and the aim is to get *at least 125 staff* to attend during the day
- to help planning and logistics the intention this time is to positively encourage participants to pre-book

Organisation of the project

The project is to be organised by Community Involvement and Health Promotion team, Brent & Harrow Health Authority (BHHA), who are leading on the development of borough-based mental health promotion strategies, as part of the <u>Mental Health National Services Framework (NSF)</u>. As in the original FeelGood Day, the Mental Health Unit at Harrow & Hillingdon Healthcare Trust (HHHT), will work closely in partnership with BHHA

Rationale

A potential Budget of up to £1,000 has been identified from the B rent and Harrow Health Authority Trust Fund; there *may* be additional funding available if pre-bookings indicate high levels of intended acceptance.

It is intended that HHHT match this amount but, as mentioned above, this can only be approved once a viable Project Plan has been submitted and agreed

Projected Costings/Options

A. Venues

- 1. Harrow Quality Hotel: (venue used for first event)
 - £250 per half day (total £500 for day)



- 2 adjoining rooms@ additional £50 per room per session (Max £200)
- **Food/refreshments:** £2 per head (refreshments); £6 per head (lunch)
- 2. Business Exchange, Harrow
 - £150 per half day (total £250 for full day)
 - adjoining room: same price/terms
 - **Food/refreshments**: as Harrow Quality Hotel above
- 3. A no-cost NHS location (Belmont) has also been suggested but not yet checked out. Catering at this venue would need to be brought in but is believed to be about 25% cheaper than the above hotels

B. Contractors (providers of 'stalls' and services)

Eight have been identified who can do the proposed date; they are believed to be a typical cross-section of what is available in the area.



Schedule of contractors available and costs

Contractor	Cost	Availability	Comments
Aroma - tiks	£100	All sessions	Individual 20-minute
			sessions. Needs table +
			power
Body Beautiful	£100	All sessions	Individual 15-minute
			sessions. Needs
			Table/Chairs (M)
Colour Me	£75	Afternoon only	Presentation: 10/15 @
			session
Dress 'n' Go	Free	All sessions	Presentation: 10/15 @
			session (M)
Exercise the Mind	£50	All sessions	Presentation: 5/10 @
			session (M)
Forget-me-Not	£75	Morning only	Presentation: 10/15 @
			session (M)
Glad-to-be-Alive	£50	All sessions	Personal 20-minute
			Consultations
Happy as I Am	Free	All sessions	Personal 20-minute
			consultations

M = believed to be of appeal to Men

Tasks

- consider the report on the original FeelGood day and note the areas in which Project Management would have been of benefit:
- who are the key stakeholders in the FeelGood 2 project?
 - the client?
 - the sponsor?
 - the project manager/supervisor?
 - the end-users?
 - any others?
- complete a 'definition' and scoping of the project, following the processes that we outlined in workshop 1 and using whichever of the following tools you believe are most relevant :
 - SWOT or PEST analysis
 - Cost Benefit Analysis
 - Force-field Analysis
 - the 5 Whys



• risk analysis

Write a brief Project Mission statement:

What are the main goals of the FeelGood 2 project? :

What are the key deliverables?

- Consider now, what are going to be the main *milestones* in this project?
- we must now do a deliverables/work breakdown structure :
 - using meta-planning/wall techniques work out the project deliverables, and work packages
- now re-visit the milestones are they accurate?
 - use a network diagram to plot the project showing time-lines and the main deliverables. You could use a PERT or GANTT chart if you find it easier, more beneficial.
- prepare a draft budget based on the above
- make recommendations as to whether the project should be handled:
 - show costings for various alternative venues
 - indicate particularly how the marketing and administrative process will be handled to ensure that if approved this will be a high quality day, delivered on time to agreed numbers and within budget!



Section 3: Template for a Project Plan

Title of project:

Phase 1: define the scope of the project

- **budget** Define the boundary and agree with budget holder.
- aims and objectives of the project
 - a) Aim
 - b) Objectives/deliverables

To be delivered by (date):

• date project to be completed and closed out

• outline activity schedule

GANTT Charts can either be developed using a word processor, Microsoft Excel spreadsheet or alternatively through one of the Project Management software packages, such as PRINCE or Microsoft Project Manager.



List below the key milestones that will go into the GANTT chart. Fill in the table at the end of this section.

Cost/Benefit Analysis

Cost	Benefits
 Force Field Analysis 	

Driving forces



Resisting forces

Risk assessment tool

Assess the risks and develop plans to reduce the risks

Very likely Quite likely Extremely likely

Copyright Martyn Laycock, the knowledge college 2001-2005 ALL RIGHTS RESERVED http://www.phel.nice.org.uk/healthknowledge/



0 5 10

Likelihood score Seriousness Total

1.

Reducing risk:

2.

Reducing risk:

3.

Reducing risk:

Look at any risk that scores **more than 30**; the higher the score the more you need to consider **risk** avoidance.

Phase 2 Plan the project	Phase 3 Organise the project



Phase 2 Plan the project	Phase 3 Organise the project	

4. Execute the project

Actions, tasks, activities, milestones, reviews etc

5. Close out Evaluation, reports, future etc




Project milestones

This GANTT Chart can either be developed using a word processor, Microsoft Excel spreadsheet or alternatively through one of the Project Management software packages, such as PRINCE or Microsoft Project. If using a word processor put all these dates into your Microsoft Outlook with a reminder so that you are warned of each important date.

Timeline Line-> Action Activity			



Section 4: Project Management Tools

SWOT Analysis

SWOT is an acronym for examining an organisation's Strengths, Weaknesses, Opportunities and Threats, and using the result to identify priorities for action (Ansoff, 1965). The main principle underlying SWOT is that internal and external factors must be considered simultaneously, when identifying aspects of an organisation that need to be changed. Strengths and weaknesses are internal to the organisation; opportunities and threats are external.

Use

Many managers and health professionals will have experience of working with this framework. A team or other sub-unit of an organisation writes down its mission or purpose. Keeping this mission in mind, they can identify all their strengths and weaknesses, preferably using a checklist such as the <u>7S</u> model. They do the same for opportunities and threats, using a checklist for the external environment such as <u>PESTELI</u>. On its own, this information is rarely helpful or usable and must be considered further. This requires the asking of further questions about each of the factors listed under the four headings. For strengths and weaknesses the questions asked are:

- what are the consequences of this? Do they help or hinder us in achieving our mission? If the factor does genuinely help the achievement of the mission (and only if the positive impact on the mission is convincing) then indeed it is a strength. Similarly if, but only if, it hinders achievement of the mission is it a weakness
- what are the causes of this strength (or weakness)?

For opportunities and threats the questions asked are slightly different:

- what impact is this likely to have on us? Will it help or hinder us in achieving our mission? Again, only if the opportunity helps the team achieve the mission can it be considered such; even if it causes the world to be a nicer place, but fails to impact on the teams ability to achieve its mission, it will not be an opportunity for these purposes
- what must we do to respond to this opportunity or threat?

The analyst now reflects on the mission and all four components, paying particular attention to the causes of the strengths and weaknesses, and to the responses required to the opportunities and threats, and links together common threads into a set of priorities for the team to address.

Evidence

SWOT analysis is a ubiquitous feature of business strategy texts and courses. In a survey of 113 UK companies, <u>Glaister and Falshaw</u> (1999) found that SWOT



was one of the most widely used strategic planning tools in current use across a range of sectors.

In health, SWOT has been widely used in a variety of settings, including: the voluntary community health movement in India (<u>Sharma and Bhatia</u>, 1996); sub acute care services in the USA (<u>Stahl</u>, 1994); public oral health services in Finland (<u>Toivanen et al.</u>, 1999); the provision of medical education in Australia (<u>Gordon et al.</u>, 2000); and activity aimed at control of tobacco use in the UK (<u>Edwards et al.</u>, 1999). These publications provide descriptions of how SWOT was used in a particular setting and do not attempt to evaluate the relative value of the technique.

In a review of its use in 50 UK companies, <u>Hill and Westbrook</u> (1997) found that SWOT often resulted in over-long lists of factors, general and often meaningless descriptions, a failure to prioritise issues and no attempt to verify any conclusions. Further, they found that the outputs, once generated, were rarely used.

Commentary

The above findings do not invalidate the use of SWOT. They do, however, reinforce the point that SWOT needs to be used carefully and with the end in mind rather than as a process in its own right.

SWOT analyses might be used for example in:

- looking at the potential problem of under provision of GPs
- nurse prescribing
- future of public health with abolition of health authority

PEST (or STEP) analysis

This is a checklist for analysing the environment in which an organisation or its sub-unit operates.

Although **PEST** is designed specifically to consider external factors, the same checklist can also be applied inside an organisation. Initially the acronym PEST was devised, which stands for:

- **Political factors** both big and small 'p' political forces and influences that may affect the performance of, or the options open to the organisation
- Economic influences the nature of the competition faced by the organisation or its services, and financial resources available within the economy
- **Sociological trends** demographic changes, trends in the way people live, work and think



• **Technological innovations** – new approaches to doing new and old things, and tackling new and old problems; these do not necessarily involve technical equipment – they can be novel ways of thinking and organising.

More recently the list has been expanded to **PESTELI**, and it now includes:

- Ecological factors definition of the wider ecological system of which the organisation is a part and consideration of how the organisation interacts with it.
- Legislative requirements originally included under 'political', relevant legislation now requires a heading of its own
- Industry analysis a review of the attractiveness of the industry of which the organisation forms a part

Like McKinsey's 7S model, this checklist can be used to analyse which factors in the environment are helpful to the organisation, and which may impede progress of the organisations aims. From here, work can commence on how the organisation could respond to these forces. It is only if this second stage is undertaken that PEST or PESTELI becomes useful rather than merely interesting.

Too often included in a stand–alone section in reports, and not linked to any implications for organisational action, nor to the internal action (7S or equivalent), this tool for the analysis of the external environment frequently may not yield a return for the investment of time committed to undertake it. This is not an indictment of the tool, however.

There is a danger, common to all checklists, such as the ones discussed here, that once an entry has been made under each of the headings it is deemed complete, regardless of whether or not this list reflects the complexity of the reality. Another common error in the implementation is that 'boxes' are completed without reference to the aims of the organisation or to the change programme; this can lead to considerable expenditure of time and energy for little benefit.

PEST might be used for example for:

- looking at the impact of <u>NHS Direct</u> on certain services and how they might be delivered now or in the future
- identifying the delivery of public health in the future taking it from an organisation based service to a sector-wide service

Force field analysis

Description

Force field analysis (<u>Lewin</u>, 1951) is diagnostic technique that has been applied to ways of looking at the variables involved in determining whether organisational



change will occur. It is based on the concept of 'forces', a term which refers to the perceptions of people in the organisation about a particular factor and its influence.

- **Driving forces** are those forces affecting a situation and which are attempting to push it in a particular direction. These forces tend to initiate change or keep it going
- Restraining forces are forces acting to restrain or decrease the driving forces

A state of equilibrium is reached when the sum of the driving forces equals the sum of the restraining forces

Lewin formulated three fundamental assertions about force field change:

- Increasing the driving forces results in an increase in the resisting forces; the current equilibrium does not change but is maintained under increased tension
- 2. Reducing resisting forces is preferable because it allows movement towards the desired state, without increasing tension
- 3. Group norms are an important force in resisting and shaping organisational change

Use

_ . .

-

Once change priorities have been agreed, a force field analysis can be used to identify actions that would enhance their successful implementation.

The following is a force field analysis that was undertaken when considering the benefits of running an in-house project management course.

. . . .

Driving forces	Resisting forces
Director of Public Health	← Time
Organisation – need for better project management	← Politics
Some tam leaders	New ways of working
Some staff	 Should be using electronic methods
Cost effectiveness	



Evidence

<u>Lewin</u>'s work is widely cited throughout change management literature. Empirical research supports Lewin's assertions that working to reduce the resisting forces is more effective than efforts to increase the driving ones (<u>Zand</u>, 1995).

Commentary

For the force field model to be of use, the forces need to be identified perceptively, rigorously and objectively, and the means identified of addressing the resisting forces need to be creative.

Many practising managers will be able to reflect on occasions in their own experience when they have aimed to increase the driving forces, rather than reduce the resisting ones, and have increased the resistance and the tension as a result.

Other change management authors have developed models and tools which analyse forces. (See, for example: <u>Kanter</u>, 1983; <u>Beckhard and Harris</u>, 1987; <u>Nadler and Tushman</u>, 1989; <u>Kanter, Stein and Jick</u>, 1992.) We describe two such tools below: 'sources and potency of forces' and 'readiness and capability'.

'Sources and potency of forces'

In their book Organisational Transitions: Managing Complex Change (1987) <u>Beckhard and Harris</u> describe and illustrate two techniques for analysing relevant sources of energy. They analyse respectively the 'sources and potency of forces for change', and the 'readiness and capability' of individuals and group to enact change.

Description

First, the nature of the change demanded must be specified, using tools of the sort described in previous sections. Then all forces for change, both inside the organisation and external to it, are listed along one axis of a grid. On the other axis the potency of the forces is indicated, as high, medium or low.

Nature of change demanded									
		Owners	Legislature	Employees	Trade unions	Social values			
Potency of	High								
forces	Medium								
	Low								

Sample grid for analysing the sources and potency of forces for change



Use

The grid is useful for clarifying the underlying forces for change. On occasion, as <u>Beckhard and Harris</u> point out, the energy for change emanates from one particular senior manager, rather than from a variety of environmental sources such as demographic change and new technologies. They observe that this does not invalidate the change objectives but clarifies where the energy will have to come from in the ensuing change programme.

Evidence

Not subjected to a literature search.

Commentary

Whereas <u>Lewin</u>'s analyses is used to diagnose and plan interventions, this is more useful as a vehicle for discussion among key opinion formers at an early point in the change process, to ensure that everybody is aware of the need for change.

' Readiness and capability'

Description

Early on in the change process, managers need to identify which specific groups and individuals will be required to support change if the change is to be successful. When they have done so they can determine the readiness and capability of these individuals and groups to enact the roles required of them in the change process. Understanding the readiness involves analysing attitudes: willingness, motives and aims. Capability is determined by whether they have the power, the influence and the authority to allocate resources, and the appropriate information and skills. <u>Beckhard and Harris</u> (1987) have developed a Readiness-Capability Assessment Chart which enables the user to list individuals or groups who are critical to the change effort, and to rank them (high, medium, or low) each according to their readiness and capability with respect to change.

Use

In health care an organisation's power is derived from a number of different sources and is not easy to identify as in other industries. In any change management process the location of power and the use to which it will be put needs to be known by those attempting to lead the process and this tool is, among other things, a means of finding out its location.

Evidence

Not subjected to a literature search.

Commentary

Any change agent or senior manager in a health care setting will intuitively undertake an analysis of this sort. This chart helps bring it into the open, permits



assumptions to be tested and information shared and this increases the validity of the information available to the change agent.

Ansoff HI. Corporate Strategy. An analytic Approach to Business Policy for Growth and Expansion. New York: McGraw-Hill Book Co., 1965.

Beckhard R, Harris R. Organisational Transitions: Managing Complex Change. Wokingham: Addison, Wesley, 1987.

Edwards R, Brown J, Hodgson P, Kyle D, Reed D, Wallace B. An action plan for tobacco control at regional level. *Public Health* 1999; 113(4): 165-170.

Glaister KW, Falshaw JR. Strategic planning: Still going strong? *Long Range Planning* 1999; 32(1): 107-116.

Gordon J, Hazlett C, Tencate O, Mann K, Kilminster S, Prince K et al. Strategicplanning in medical education: Enhancing the learning environment for students in clinical settings. *Medical Education* 2000; 34(10): 841-850.

Handy C. Beyond Uncertainty. London: Random House Ltd. 1995.

Handy C. The Empty Raincoat. London: Random House Ltd. 1994.

Handy C. Understanding Organisations. London: Penguin 1985.

Hill T, Westbook R. SWOT analysis: It's time for a product recall. *Long Range Planning* 1997; 30(1): 46-52.

Hughes D. NHS managers as rhetoricians: A case of culture management. *Sociology of Health and Illness* 1996; 18(3): 149-169

Kanter RM, Stein B, Jick T. The Challenge of Organisational Change. London: Free Press, 1992.

Kanter RM. The Change Masters. London: George Allen and Unwin, 1983.

Lewin K. Field Theory in Social Science. New York: Harper Row, 1951.

Martin J. *Cultures in Organisations: Three Perspectives*. New York: Oxford University Press, 1992.

Nadler D, Tushman M. Organisational Framebending. *Academy of Management Executive* 1989; 3: 194-202.

Pascale R. Managing on the Edge. London: Penguin, 1990.

Peters T, Waterman R. In Search Of Excellence. New York: Harper and Row, 1982.

Pugh DS, Hickson DJ, Hinings CR, Writers on Organisation, Harmondsworth: Penguin, 1983.

Sharma M, Bhatia G. The voluntary community health movement in India: a strengths, weaknesses, opportunities, and threats (SWOT) analysis.' *Journal of Community Health* 1996; 21 (6).

Stahl D. Development of subacute care services. Nursing Management 1994; 25(11): 32-37.



Toivanen T, Lahti S, Leino-Kilpi H. Applicability of SWOT analysis for measuring quality of public oral health service as perceived by adult patients in Finland. *Community Dentistry and Oral Epidemiology* 1999; 27(5): 386-391.

Zand D. Force field analysis. In: Nicholson, editor. *Encyclopedic Dictionary of Organisational Behaviour*. Oxford: Blackwell, 1995.

The Five Whys

Q: WHY put on two project management courses?

- A: Because we need to train at least 50 of our managers
- **Q:** WHY do we need to train 50 managers?
- A: Because we want them to start doing Project Management
- Q: WHY do we want them to do Project Management?
- A: It's an efficient and effective way to do critical work
- **Q:** WHY is it efficient and effective?
- A: Because research shows we could deliver on time within budget; at present we often don't.
- Q: WHY do we want to deliver on time and within budget?
- A: Because that way we please our customers, save time, save money, thus keep costs down

Cost benefit analysis

Costs: £5,300

to train 50 key staff (=£106 per person)

Benefits

*it introduces project management into an organisation
*50 key staff trained
*assume 25 adopt project management and carry out average 3 projects p.a (25 multiply 3 = 75)
*estimated saving per project = 8% of normal cost; normal cost = £8,000 per project
(75 multiply £8,000 multiply 8%)
= £48,000 Saving

Total potential saving £42,700 per annum



Risk assessment

There are a number of tools and techniques: Here we show a simple but effective numerical assessment

Very LikelyHow likely is this particular risk to happen?
Quite LikelyExtremely Likely1510How serious will it be if it does?
Quite SeriousExtremely serious1510

Multiply the two scores together

Suggestion: Look hard at anything scoring 25 - 30+

Assessing the risks

There are two factors to take into account when assessing risks.

- how likely it is to happen
- how serious will it be if it does

In each, case you should aim to rate the risk on a scale of one to ten. For instance, if you were assessing the risk of a labour dispute, you might decide it was fairly unlikely (3), but that the results would be very serious (9). You then multiply the two figures together, which will give you a figure between one and hundred. The higher the figure, the more seriously you need to treat the risk.

Planning for risk

Just about every task in your project will contain some element of risk. What the project manager has to do is decide at what level the risk should be regarded as serious.

A typical recommendation is that the use 25 on the risk assessment scale (medium likelihood multiplied by medium seriousness) as your cut-off point. Any task with a risk above that needs to be looked at in advance, and progress towards its completion monitored more carefully than usual. You may also need to have a backup plan for the most serious risks.

Recording risks

Once you have identified tasks where the risk is higher than average, you may find it helpful to record them in a risk register. This approach encourages you to anticipate what might otherwise come as a complete surprise.



In many cases you will have to search actively for early indications of problems. For instance, if you have delegated recruitment of 400 market research interviewees within five days, a warning sign would be if only 20 have been recruited by the end of the first day. You will only know this if you request daily updates on progress

Dealing with risk

In order to make the effort planning for risk worthwhile, you need to be able to do something about it when a risk has been identified. There are three main ways of dealing with risk:

• avoid

Identify the cause of the risk and try to avoid it. In the example given, you might recognise that recruiting 400 interviewees within five days will be impossible, and plan the research to take account of a smaller sample.

• deflect

See if you can get others to underwrite or take on some of the risk so that you do not bear the consequences alone. You might make the client feel responsible for recruiting their own interviewees.

Make a contingency plan

Have a backup plan that will allow your plans to stay largely intact. You might increase the number of people involved in recruitment, change the database from which you are recruiting, or broaden the parameters of the sample.



Work breakdown structures

Work breakdown structure for the recruitment of a new person to fill a vacant



Courtesy of SpottyDog Project Management

This is a technique that helps us analyse the *content* of work and also the *cost* by breaking it down into its component parts. Work Breakdown Structures are derived from 'network analysis' systems, many of which utilise the 'critical path' method covered in the next Slide and again later in this module.

Work breakdown structures are often referred to as the 'backbone' of Project Management and the 'root' of many project control systems. They are produced by:

- identifying the key elements
- breaking each element down into component parts
- continuing to breakdown until manageable work packages have been identified.

These work packages can then be allocated to the appropriate person or people.



The use of **work breakdown structures** and **work packages** helps to develop the project into 'hierarchies', the lowest level of which is a 'well-defined task' (i.e. one piece of work or group of tasks) for an individual to perform in a 'reasonable period of time'.

See pages 38-41 in Hobbs 'Project Management Guide' for a more detailed description of this process - and of the aspects and items that flow from them.

Project Evaluation Review Technique (PERT) Chart

Network Diagram for the recruitment of a new person to fill a vacant post:



Shown above is the **PERT** chart of the Work Breakdown Structure shown in the previous Slide after network analysis has been applied.

PERT* (Project Evaluation Review Technique) is used as a form of 'network analysis' to determine the inter-relationships between the tasks identified in the **Work Breakdown Structure** (see previous Slide) and to define the 'dependencies' of each task. Whilst laying out a **PERT** chart it is often possible to see that assumptions for the order of work are not logical or that they could be achieved more cost effectively by re-ordering, re-arranging them. This is



particularly true when allocating resources; it may become evident that two tasks cannot be completed at the same time by the same person due to lack of working hours. Conversely, by adding an extra person (even part-time) to the project team several tasks can be done "n parallel' - thus shortening the length of the project.

Critical Path Analysis (CPA) is used as we have said and shown above in conjunction with **PERT** analysis to identify the tasks that are critical in determining the overall duration of the project and that are critical to its overall success. In the example above the critical path is shown by the tasks in the row beneath critical path (shown by the tasks in Red boxes).

GANTT Charts

For the recruitment of a new person to fill a vacant post:

			97								28	Jul	'97	· _					47	۹ug	j ' 9	7					1′	1 Ai	JД	'97	
ID	Task Name	Duration	F	S	S	М	T	W	Т	F	S	; S	: 1	M	Т	W	T	F	: [S	S	М	Т	۱	N	Т	F	S			
1	Establish the need	2d																													
2	Set target date	1d																													
3	Establish leadtimes	1d	1																												
4	Book venue	1d																													
5	Choose advert location	1d																													
6	Agree format	2d																													
7	Devise tests	5d											¢																		
8	Job description	2d																													
9	Set criteria	1d																													
10	vVrite advert	2d																													
11	Place advert	1d																													
12	Shortlist	3d																													
13	Invite candidates	1d																					8								
14	Conduct interviews	3d																													
15	Take decision	1d																													
16																															
17			1																												

Courtesy of SpottyDog Project Management

Gantt charts (named after the inventor) or bar charts as they are sometimes called, are used to display and communicate the results of **PERT** and Critical Path analysis in a simple bar chart format that can be readily understood by those not involved in the detail of the project.



A Gantt chart is a horizontal bar or line chart which will commonly include the following features:

- activities identified on the left hand side
- time scale is drawn on the top (or bottom) of the chart
- a horizontal open oblong or a line is drawn against each activity indicating estimated duration
- dependencies between activities are shown
- at a review point the oblongs are shaded to represent the actual time spent (an alternative is to represent actual and estimated by 2 separate lines)
- a vertical cursor (such as a transparent ruler) placed at the review point makes it possible to establish activities which are behind or ahead of schedule

Project management tools and methodologies incorporating Gantt Charts include PRINCE, MacProject and Microsoft Project 2000.

😻 SAI	MPLE1\Win1							_ 🗆 >
File E	Edit View Options Repo	orts MultiProj	ects Help					
Ê	⊒[⊴] ம[[\$](\$	9 👩 🗖	8	< > ·	Task Ins	+Row	-Row +Col	-Col ?
Outline	e: 1.0.1 Duration	: 10 [Days Start:	1/4/99	08:00 A	M End	1/15/99	05:00 PM
Descri	ption : Develop Requireme	ents		Lir	nks		Cost	\$0
Work 0	lutline	Tasks						
1.0	Product Definition		╼╼					
2.0	HW Development							
2.1.0	HW Design			╞╋┼╋┼╴	┑╷╓┻┓			
2.2.0	Materials						h	
3.0	Manufacturing				┞╋╵		┝╋┼╋	
4.0	SW Development	╞╴╵		╙━┼─┼			ł	
•		•						
Tas	ks ; 🚺 Critical 📗	Normal		Milesto	ones; 🌠	🖉 Critica	l 🚫 Nori	nal X

Computer-based project management software: examples

Example of a Project Management system featuring a GANTT chart



The above chart shows some of the features of just one computerised Project Management system – 'MinuteMan' -but you can see the various task and activities along the horizontal time lines. Linkages of tasks are shown.

This diagram shows how 'milestones' (white diamonds – examples identified above) may or may not lie on the critical path .



Sample of Microsoft Project 2000

GANTT	Chart
-------	-------

6	3 3	~ 3	6 🗈 🖻 🝼	5		0		12		00	No Group	525	1	Q	Q	3
÷ -	Show	v - Ari	al			B	II	J	-	* *	All Tasks			¥=	2-	-
		Allo	cation													
	0	Task Ne	vne			1	Duration	0	OK	Start	7 Apr '00	24 Apr			May	
1	1000	Curr	ent performan	ce revi	iew		5.78 da	ove l	0	14/04/00	EWIESS	S M 1 / V 1			-C-	r D
2	-		ner Project revi			_	1.46 da	-	õ	12.04.00			-		~	
3	-		Staffing				0.5 da	-	ě	18/04/00	. 100%				3	
4	12		Allocation				0.5 da	ws.	0	3/04/00	100%					
5	Ú,		Progress		0.5 da	N'S	0	19/04/00	* 100C				5			
6		Beau	dline for Palmer	Proje	ct		0 da	nys:	3	25/04/00		10.2	5.04		5	
7	6	Halft	one Priject Initi	ation			4 da	ys:		26/04/00		+			29.	0%
8		E vani	- Broinet rouis			23	3.96 dag	ys	0	04.05.00					-	
9			Plant				5 da	rys	0	04/05/00	1100				1	-
10		1. 32	Consumables				5 da	rys	0	11/05/00						
11			Staffing				5 da	rys.	0	18/05/00						
12		= 4	Allocation				5 de	rys	8	25/05/00						
13			Drancee			1	Зda	iy's	۲	02/06/00						
14			ask finishes on 08 than its Deadline			n is	5.96 day	ys	8	16:05:00						
15			starmig	2102.00		100	2 da	ry s	0	16/05/00						
16		1 23	Allocation				2 da	rys	۳	18/05/00						
17		17 1	Progress			1	2 da	ny's	9	23/05/00						
18	100	Dead	dline for Winter	Projec	:R		0 da	ry s	۲	01/05/00						
19		E	ual Software Re	view			4 da	ys	9	02.06.00						
20			Annual Softwar	e Revie	cw-1		2.de	rys	۳	02/06/00						
21		1	Annual Softwar	e Revi	ew-2	1	2 da	rys	0	06/06/00						
22		Beat	dline for Annual	Softw	are	-	0 da	ry's	3	08/06/00						
	1										1	1.0.00				

Microsoft's Project Software

Whilst in our workshops we demonstrate some of the features of Microsoft 'Project 2000', here we merely replicate a "page" of the main Project document. Note milestones and critical tasks are shown in red. Project Manager's regularly up-date progress to the system which then indicates the progress against Plan. Resources (especially human resources) can be tracked, costed and managed via this system.

Critical Paths

Once the **Time-Precedence (or Network) Diagram** has been developed, then **Critical Path Analysis** can be used to work out the shortest time it will take to complete the project

Critical Path Analysis can also help project managers see where there is **slack time** with their projects - time between critical tasks in which other non-critical tasks can be completed

It also helps identify **float times** - how long certain non-critical tasks may be delayed without affecting the overall length of the project.

Critical Path techniques are very useful beyond the fundamentals of project management

REVIEW

project

management

Copyright Martyn Laycock 2001- All rights reserved

Critical Path Analysis (CPA)

AUTO SLIDE

Please Wait

This is a very useful technique that builds upon many of the fundamentals we covered in our Introductory Module and forms the core of the **Critical Path Method (CPM)** of project management that was first developed in the 1940s – and which we are following in this module. **CPM/CPA** lies at the heart of many Proprietary project management systems, including most of the computer-based systems available today. Essentially the technique allows a Project Manager to realistically calculate the shortest time that a particular Project should take to deliver its goals and objectives. It does this by helping Project Managers understand those key tasks, activities and deliverables that are *critical* to many others.

PERT charts are very useful in bringing out these benefits; look at Pg 44 and you will see the critical path (the heavily shaded boxes across the centre); the total time the project will take will be the aggregate of the times taken to complete each of these critical tasks; each can only be done when that proceeding it has been satisfactorily completed.

Float tasks are tasks where there is some flexibility between the scheduled taskstart date and the latest task-start date that would be acceptable – in other words the project manager can 'float' the task further along the project time-lines without it becoming a problem or bottleneck to other tasks.





Slack time is time between critical tasks where other tasks, often additional tasks that arise during the project (e.g. remedial work or extra activities that become necessary) can be accommodated



Practical Use of Critical Path Analysis

project

management



The Critical Path method (CPM) was originally introduced as an aid to scheduling - paths which lie on the critical path will indicate the total time that will be required to complete the project.

Use of this technique helps project managers how to allocate tasks. They will also keep extra vigilant watch on tasks on the critical path because if they slip behind schedule the whole project can be delayed.

Other advantages include those tasks which have some 'float' time - they can be managed on a flexible basis around the critical tasks. However as we show above any task can become critical if it misses its own deadline.

So watch out for 'non-critical' tasks that 'creep up on you'!



Project name: FeelGood 2	Project No.: 01/17							
Sub projects: None	Related projects: FeelGood 1							
Project manager: A.N.OTHER	Client:							
End users: BHHA/HHHT staff	Sponsors: Trust Fund/HHHT							
Key benefits:	Scope:							
Goals:	Objectives:							
Timings: Draft plan by 10/12/01	Deliverables:							
Costs:	Milestones:							
Quality parameters:	Key resources:							
Authority levels	Key assumptions:							
AGREEMENT Client (Sponsor)	AGREEMENT Project manager							

Project Definition Summary (above)

It is highly recommended once scoping and definition of a project is completed that a formal 'Project Definition Summary' is completed. See example above, developed from "The Essential Guide" by Peter Hobbs (Pg 33).

This 'cements' the project definition and, as outlined in the example above, provides the facility for the Client, any Sponsors and the Project Manager to agree all the main parameters of the project. This then becomes a key Document for the project and typically if there are to be any variances during the Project these should be agreed between the signatories.

In this way the 'journey plan', the 'route map' for the project are clearly established at the outset and arrangements put in place as to how the project will be managed/handled. It should also be used as a key document when the project is concluded and the final Project Report is prepared

- were all key goals and objectives met?
- was the project completed on time?
- within Budget?
- were the Quality parameters achieved?
- were the key benefits realised?



Key sources used for research for this presentation

Field M, Keller L. Project Management. Milton Keynes: Open University, 1998.

Hobbs, P. *Project Management: The Essential Guide to Thinking and Working Smarter*. London: Marshall Publishing,1999.

Rodney Turner, J. *The Handbook of Project-based Management*. London: McGraw Hill, 1999.

Taylor J. The Project Management Workshop. Amacom, 2001.

Key words: project, project management, project-based management, project life cycle, budgets, budgeting, scheduling, deliverable breakdown structures, work breakdown structure, work packages, resource allocation, project management software, managing risk, project planning, assigning tasks, milestones, estimating time, teams and team-working, team motivation, monitoring and control, critical path analysis, reporting, stakeholders, project close-out, client, sponsor, time-precedence charts, GANTT charts, PERT charts, network diagrams

In this module we have focused on the approach taken in the book *Project Management – the Essential Guide to Thinking and Working Smarter*, by Peter Hobbs, which we recommend as a well-presented guide to the fundamentals of Project Management and to understanding some of its key features. It contains some excellent practical exercises that can be related to your own work area, your own projects and is also supported by a video that can be hired or purchased from Video Arts.

The book covers certain areas in considerably more depth than this brief module and can be used to develop knowledge and application of the subject alongside the use of this Module.