A Case Study of a Business Process Reengineering project, "Straightening the Path for Patients", at Taranaki Healthcare, a New Zealand Crown Health Enterprise, 1995-1997

A thesis presented in partial fulfillment of the requirements for the degree of
Master of Business Studies (Health Management) at Massey University

Pieter Wessel Pike

1997

Abstract

This case study describes and analyses the Change Imperative(Phase One); Visioning (Phase Two); Redesign (Phase Three) and Plan for Implementation (Phase Four) Phases of a Business Process Reengineering (BPR) project in the New Zealand Health sector at Taranaki Healthcare. The research strategy in the words of Yin (1994, p.1) was " an empirical inquiry that investigates a contemporary phenomenon in its real life context" when the boundaries between phenomena and context are not clearly evident and in which multiple sources of evidence are used.

Michael Hammer, president of Hammer and Co., Cambridge, first coined the term Business Process Reengineering, in 1990. He described reengineering as fundamental and radical redesign of business processes to achieve dramatic improvements. The application of BPR methodology, as change strategy, is now widely applied.

Numerous studies concentrate on the methodology but few discuss its actual application in a real time project. This case study addresses this issue. The empirical part of this study involved two surveys together with a qualitative analysis of debriefing sessions held at the end of each phase. The first survey was conducted in July 1996, after the completion of the Visioning Phase and the second during November 1996, after the Plan for implementation Phase. Both surveys included a cluster sampling of the reengineering project team and a stratified random sampling of Taranaki Healthcare employees. The data collection was based on a multi-method approach and included a review of project reports, surveys before the project, and quantitative analysis of patient numbers, case complexity, capacity, utilisation and other demand management factors.

Acknowledgments

Many people, with constant advice and assistance, helped to make the design, research, and writing of this thesis possible. I wish to thank Taranaki Healthcare for allowing me the opportunity to use the reengineering initiative "Straightening the Path for Patients" as the basis for this case study. I would particularly like to thank the reengineering project team, who conducted the project in such a focused and dedicated manner under trying circumstances. Their willing assistance has been very much appreciated.

A special word of thanks to my supervisors, Dr Nicola North and Prof Anthony Vitalis, for their commitment, constructive advice and the review of a thousand and one draft proposals. Also a special thank you to Sue McTavish, who, despite endless pages of spelling and grammar mistakes to correct, supported my efforts with carefully constructed remarks.

I am especially grateful to my wife, Marianne, and our children: Unre-anne, Karen-lize, Jeanne-mari and Gerald-John, who supported me throughout the whole process of researching and writing. Their willingness to wreck draft reports and interrupt thought patterns always stimulated new ideas, which made this case study more colorful. I would finally like to dedicate this thesis to my wife, without whom none of the work could have been started, let alone completed.

Table of Contents

Chapter Three: Taranaki Healthcare

Chapter Seven: The visioning, redesign and plan for implementation phases of the project

Chapter Eight: Evaluation of the reengineering project at Taranaki Healthcare

List of Figures

Introduction

The purpose of this case study is to describe and analyse the application of business process reengineering at one of the New Zealand Crown Health Enterprises. Twenty-three Crown Health Enterprises were established under the provisions of the Health and Disabilities Services Act of 1993. The setting up of Crown companies for the delivery of health care services, separate from purchasing agencies, was foreshadowed in 1991 by the "Green and White Paper", the statement of government Health Policy.

The case study discusses the impact of these changes and explores the demographic, economic and technological trends in health care. It is, however, not the objective of this case study to justify or question the health reforms as such, but rather to concentrate on business process reengineering, the strategy chosen by Taranaki Healthcare in response to these changes in the health service environment. The researcher was closely involved in this reengineering project at Taranaki Healthcare, initially as project leader for the medical-surgical team and later as project manager for the total project.

The majority of existing research publications either discuss the methodology of Business Process Reengineering or refer to the results achieved but very few concentrate on the application in practice. The literature study examined the background of Business Process Reengineering (BPR) and its links with other management theories. It therefore became apparent that the term "business process reengineering" has been mis-used as a synonym for "restructuring", "work redesign" and "total quality management". This creates confusion not only in expectations but also in resource requirement, and adds to the high failure rate of reengineering programmes. Only five percent of all companies that embark on a

reengineering initiative ultimately succeed (John P. McPartlin: *Just Chasing Rainbows*, *Informationweek*).

Many authors make a point of stating that health care organisations offer ripe pickings for BPR initiatives. Others feel "much of what passed for reengineering has been merely a big marketing success, selling the same old administrative value analysis as new wine in old bottles" (Martin Stankard, president of Productivity Development Group Inc. Westford, Mass).

James E. Short and N. Venkatraman (1992) stressed that reconceptualising the organisation and its key business process in the larger business network is of more strategic importance than internal efficiency and effectiveness. This is highly applicable to the health sector where organisations concentrate on service delivery in their compartmentalised area as either primary, secondary or tertiary care. The importance of the larger business network fits well with the broader rethinking of the organisation's external relationships succinctly labeled "Strategic intent" by Hamel and Prahalad (1989).

The reality of health rationing is evident in the financial constraints being applied to the New Zealand health sector. This is not limited to New Zealand but rather a dilemma facing most of the western world. Financial constraint forces providers to review the traditional work practices and core business processes. Health care organisations, at the leading edge of best practice in terms of service delivery, willingly accept that there are radically improved ways of achieving their patient care objectives.

The challenge is for clinicians and managers to determine what is to be done and to work together to create simpler, more explicit, more accountable, and more

patient focused processes. While cost reduction may often be an outcome of many BPR projects, it is more frequently a by-product rather than the primary focus.

This thesis describes and analyses the process by which one health care organisation went about reengineering its processes. Chapter One outlines the research design, the methods used for data collection and analysis. This section includes justification of the specific research method, outlines the data collection and data management, highlights some ethical issues and limitations in this study.

Chapter Two describes the changes in the New Zealand health sector and the challenges the reforms it created. The Health Sector has not been immune to the competitive market-oriented environment which has developed in New Zealand since 1984. The government embarked on a health reform process with the prime objective of establishing an internal market model as described by Enthoven (1991). This represented a radical departure from the basic philosophy of health care in New Zealand for more than fifty years. The chapter highlights the funding issues for health care, the trends in health service delivery and the impact of technology changes.

Chapter Three is a brief description of Taranaki Healthcare. It starts with the company profile, the people of the region and the key drivers for change. The options for Taranaki Healthcare in this changing environment are discussed towards the end of the chapter, which leads into the discussion of the literature on Business Process Reengineering, provided in Chapter Four.

The application of Business Process Reengineering by Taranaki Healthcare is discussed in Chapters Five, Six and Seven. These chapters concentrate mainly on "how" the project was conducted and not on the specific findings at Taranaki

Healthcare. This created considerable difficulties for the researcher who, as project manager, focused not only on the project process but also on the specific findings for Taranaki Healthcare during each phase.

Chapter Eight provides a critical analysis of the application of the methodology at Taranaki Healthcare. It provides a comparison between the ideal project based on theoretical evidence and the practicalities of Straightening the Path for patients. This chapter also compares the level of achievement based on the critical success factors for the project as perceived by the project team and the wider organisation.

The Conclusion summarises the implications of the study and makes recommendations for further research. The Implementation Phase of the reengineering project at Taranaki Healthcare provides a major opportunity for further study in terms of the longer term realisation of the three basic values of the project: improvement of the quality of patient care; improved working life; and financial viability.

Chapter One

Research Design and Method

Introduction

This chapter describes the research design process, discusses the justification of the specific design, outlines the objectives, describes the process of data collection, data management and analysis, notes some limitations of the study , and discusses the perspective of the researcher.

Research objectives

The aim of the case study was to document and analyse the application of business process reengineering at a New Zealand health care organisation. The three objectives of the research were:

1. to describe the process of a reengineering project in the health sector

2. to evaluate business process reengineering as change strategy at Taranaki Healthcare;

3. and to make recommendations on further research.

Research design

Given the limited number of previous reengineering case studies in the health sector, a case study design was indeed most suitable to provide rich descriptive material. As information was lacking on the practical application of reengineering, a qualitative approach was chosen.

The research design, as stated by Morgan and Smircich (1980), derived from the nature of a social phenomenon to be explored. Case study methodology, as empirical social research, can be traced back to the conduct of life histories (Jennifer Platt, 1992). It begins with a logical design and is the preferred strategy to describe a contemporary phenomenon, such as business process reengineering, applied within a real life context (Yin,1994). Robert Stake (1994), on the other hand, considered case studies to be a choice of object, not a choice of methodology.

The researcher chose a longitudinal sample design, focusing on a single organisation, Taranaki Healthcare, over a time period. Pettigrew (1985) suggested that research on change should focus on processes within the broader social, economic and political context surrounding each organisation based on "time series data".

The uniqueness of "Straightening the Path for Patients", a reengineering initiative involving the whole organisation in health care, justified a descriptive case study using a single case, with an embedded design based on the phases (subunits) of the project (larger unit of analysis).

Theoretical framework

The research provided rich descriptive data which were analysed in the light of three theoretical areas: international trends in health care management; New Zealand health policy; and theory on BPR.

Validity

Validity was established by the following mechanisms suggested by Yin (1994). Construct validity was assured by the use of multiple sources of evidence, including internal documents, questionnaires and interviews, and by having four project leaders of the reengineering process to review the draft report for accuracy and consistency. External validity relies on analytical, not statistical, generalisation. As no causal relationships were claimed, internal validity is not applicable to this case study (Yin,1994).

Data collection and analysis

The qualitative data had to be analysed systematically to tease out themes and patterns. This meant that the structure derived from the data rather than being forced into logico-deductively derived assumptions and categories (Jones, 1987).

Multiple sources of evidence were used in this case study. It was aimed at achieving data triangulation and convergence to support construct validity. The researcher used a content analysis approach of the following documentation and archival records: letters, memoranda, agenda, announcements, proposals, project

progress reports, formal studies, service agreements, organisational publications, area maps and survey data. The interviews were open-ended, with some semi-structured elements.

The researcher conducted two surveys as part of the data collection process. Each survey consisted of a cluster sampling of the project team members and a stratified random sample of Taranaki Healthcare employees. The first survey was conducted at the end of the "visioning" phase of the project, and the second at the end of planning for implementation (see Chapter Five). The cluster sampling of 42 project members yielded 26 responses in the first survey, and 23 out of 32 in the second sample. Using a random stratified sampling technique one hundred Taranaki Healthcare employees were surveyed of whom 63 responded in the first survey and of the same employees 60 responded in the second survey.

The researcher further used the participant–observation technique during the debriefing sessions of the project team members at the end of each project phase to obtain further data on the project. This was the only way to perceive the reality from the viewpoint of the team members "inside" the case study rather than external to it. Robert Yin argues that such a perspective is invaluable in producing an "accurate" portrait of a case study phenomenon (Yin,1994).

Time frame of study

The proposal for this case study was presented in April 1996 following consent from the Taranaki Healthcare Board of Directors. Data was collected and analysed between October, 1995 and June, 1997. The first draft of the case study was presented in June 1997, and the final draft in October 1997.

Analysing the case study evidence

Analysis of case study evidence is one of the least developed and most difficult aspects of case studies (Yin, 1994). The data collection plan was shaped by the theoretical propositions underpinning the study: international health care trends; New Zealand health policy; and BPR theory.

The case study design included an embedded unit of analysis for each of the sub-phases of the project and then a programme logic model for the whole case. The programme logic model, as promoted by Joseph Wholey (1979), is said to be useful in case studies that describe a complex chain of events over time such as "Straightening the Path for Patients".

Literature review

The literature survey looked at existing case studies, and drew on several disciplines, including business studies, demography, sociology and health care. The literature review examined the theoretical background of BPR; the New Zealand health services; and health care trends and business process reengineering case studies within and outside the health sector.

The following sources were consulted to locate literature: relevant libraries; on-line catalogue; databases, including Medlink and the internet; consultation of indexes of bibliography and dissertation abstracts; follow-up of bibliographies in articles and books; relevant journals; consultation of academics involved in this

field; discussions at national and international conferences; and Taranaki Healthcare in-house publications.

The literature review initially posed some challenges. There are many publications on reengineering methodology within the health sector and other industries, but very little on the coherent practical application as total case studies. Examination of other management theories as well as health care literature proved necessary to understand the background for the study. It also served to generate sensitising concepts useful in analysis of data. The literature was used on an iterative basis. Ongoing evaluation of the case study led to further searches of the literature.

Structure of the case study report

An unsequenced structure, where the order of sections or chapters assume no particular importance, is very applicable to this descriptive case study.

Ethical issues

The researcher gained the consent of the Chief Executive Officer of Taranaki Healthcare and the Board of Directors to conduct this case study. The researcher, however had to be mindful not to release commercially sensitive information and key strategies which could affect the long term viability of Taranaki Healthcare.

The Chief Executive Officer at Taranaki Healthcare, gave consent to survey

Taranaki Healthcare employees. The surveys were distributed by the Quality Advisor at Taranaki Healthcare. Participation was voluntary based on informed consent. The Quality Advisor collected the questionnaires and collated the results to ensure anonymity and confidentiality.

Involvement of the researcher

The researcher played an active role in the project and was therefore part of this process under study. This fits well with the tradition of action research based on the phenomenological philosophy. Susman and Evered (1978), point out that many people schooled in positivist research methods are sceptical about the value of action research. While action research is bound to be found wanting when measured against criteria of positivist science, it is perfectly justifiable from the viewpoint of other philosophies such as phenomenology.

The major limitation is that participant-observation may lead to potential biases. The researcher, as project manager, assumed positions of advocacy for the strategy, contrary to positivist scientific practice. The researcher was part of the Taranaki Healthcare Executive and had a vested interest in the success of the project. The researcher was conscious of this and applied the validity mechanism to limit possible bias. The researcher's involvement, on the other hand gave unlimited access to all information, documentation, and facets of the project, a major advantage in a case study where access can limit and bias conclusions.

Chapter Two

The New Zealand Health Service

Introduction

This chapter gives a brief demographic description of New Zealand and describes the New Zealand Health Service. Discussion focuses on the current funding structure for health services, the structure of New Zealand's health system, its monitoring regime and the trends in health care.

A demographic description of New Zealand

New Zealand lies in the western Pacific, straddling latitude 40 degrees South, 1000 miles south-east of Australia. The land is comparable in size to Britain and Ireland, running nearly 1000 miles from north to south. The population of three and a half million people live on the two main islands. Seventy-three percent live in the North Island and 27 percent in the South Island (Laugensen and Salmond,1994).

Thirteen percent of the people are of Maori descent (indigenous people of New Zealand), four and a half percent of Pacific Island descent, 79 percent are ethnic Europeans and two percent are other ethnic groups. The average population growth is less than one percent per annum. The Maori and Pacific Island populations are younger and growing at more than twice the European rate (Laugensen and Salmond, 1994).

Twenty-three percent of the population are children under the age of 15 and 12 percent are people 65 years and older, which makes New Zealand a very youthful population. The proportion of the elderly population is expected to increase slowly over the next fifteen years and will increase steeply thereafter (Laugensen and Salmond, 1994).

Morbidity and mortality patterns are generally similar to those in other developed western countries. Life expectancy at birth for males (72.4 years) and females (78.3 years) has improved, but, relative to other OECD countries, the New Zealand ranking has slipped in tandem with the relative decline in economic performance. (Pool, 1991).

In terms of life expectancy, the health status differential between Maori and non-Maori has narrowed in recent years. In the 1990s, new-born non-Maori children could expect to live four to five years longer than their Maori counterparts. Forty years ago, the differential was between 14 and 17 years. Over four-fifths of the recent differential is due to higher Maori mortality at ages forty and over (Pool, 1991).

Life-style factors play an important part in explaining the excess Maori mortality. Tobacco consumption in New Zealand is now among the lowest in OECD countries. In 1992, twenty-one percent of Europeans, 26 percent of Pacific Islanders and 44 percent of Maori were regular smokers. Obesity, cardiovascular disease and the complications of diabetes mellitus are particular problems for both Maori and Pacific Islanders. (Laing, Pomare, 1994)

The New Zealand Health Service

Since 1984, New Zealand society has undergone fundamental change. The social welfare state, modeled on British Poor Law (Laugensen and Salmond, 1994) is seriously challenged by a competitive market-orientated environment. Healthcare has not been immune to these challenges. In 1991, the Government of New Zealand embarked on a reform process to change the health sector. The prime objective behind the reforms was to establish an internal market model for New Zealand health services along the model advocated by Enthoven,(1991). This represented a radical departure from the basic philosophy which had characterised the New Zealand health service for more than 50 years.

A strong principle underpinning health care in New Zealand has been the accommodation of private sector medicine, particularly in general practitioner services. The overall philosophy of allowing consumer choice alongside a system of state-provided and funded health care can be traced back to the passing of the Social Security Act in 1938 (Laugensen and Salmond, 1994).

The government's role in providing health care in New Zealand falls into two distinct periods. In the first period, from 1840, when the Treaty of Waitangi (the foundation document signed between Maori and the British Crown) was signed, until 1938, government involvement in health care was minimal.

Since 1938, when the Social Security Act was passed, the role of the state in Health services has been much more comprehensive. In the nineteenth century, hospitals were provided for Maori, under the provisions of the Treaty of Waitangi and for compassionate and assimilation reasons. Europeans had to prove

economic need before being treated in state hospitals and were asked to contribute towards the cost of care. Charity and subscription hospitals, voluntary and local authorities existed alongside a minimal public hospital system. Universal, free care in hospitals was first established in 1846, but then only for the mentally ill. The involvement of the state in health services was prompted by necessity, as it found itself having to operate its own institutions for residual cases (Laugensen and Salmond, 1994).

The health service for the period 1840 to 1938, is comparable to that of the late nineteenth century in Britain, where friendly societies, alongside local government developed responsibilities for health services (Heidenheimer, 1990).

The election of the Labour Party to government in 1935 marked a critical juncture in New Zealand's history, for it signaled the beginning of a more comprehensive welfare state. The First Labour Government sought to introduce a publicly funded health service available to all New Zealanders, according to need, and with no direct charge to patients. What emerged after protracted negotiations with the medical profession was a public hospital system providing comprehensive services for in-patients and out-patients, and fee-for-service general practitioner and other services with varying levels of government subsidy. The comprehensive, largely publicly-funded health system was underpinned by the Social Security Act, 1938 (Scott, 1994).

Over the years since 1938, the public funding and universal nature of the system have been largely maintained by successive governments. In recent economically difficult times, health sector funding came under increasing government pressure. For much of the last decade there has been little or no growth in the block funding of public hospital services. However, despite a

succession of minor reforms, governments have not been successful in controlling and containing subsidised fee-for-service expenditure on health benefits in areas such as general practice services; pharmaceutical cost and laboratory services (Salmond, 1994).

Since the 1970s poor economic performance and rising debt levels have resulted in increasing determination on the part of governments to contain costs and achieve greater cost-effectiveness in health care. In 1974 the Labour Government's White Paper, *A Health Service for New Zealand*, advocated major reform of the health care system to achieve these ends. The White Paper proposed regionalisation of services through the creation of Fourteen Regional Health Authorities. These Regional Health Authorities would initially be responsible only for publicly provided hospital and public health care only but their role was envisaged as extending in the longer term to primary care through health benefits. This White Paper was bitterly opposed by the medical profession, and a change of government later in 1975 saw the proposals shelved.

The idea of regionalisation and integration of health services, however, gradually gained ground, and in 1983 a National Government introduced legislation to enable the formation of Area Health Boards. A Labour Government was elected in 1984, and it took six years before the fourteen Area Health Boards were finally in place. Within a few weeks of the change of government in October 1990, the new National Government signaled its intention to reshape the health service. In 1991, it dismissed the elected Area Health Boards, replacing them with commissioners, and released its policy document *Your Health and the Public Health*, also referred to as the "Green and White Paper", reflecting its negotiable and non-negotiable aspects. User charges for public hospital services and targeting regimes for other health benefits were introduced. (Laugensen and Salmond, 1994)

The passing of the Health and Disabilities Services Act of 1993 represented a milestone in the implementation of the current health reforms. By introducing the split between public funding and the provision of health care, the Act established an internal market model for health care which is conceptually comparable to changes introduced in the United Kingdom. Area Health Boards, were abolished, Regional Health Authorities were established as the Crown's purchasing agents for publicly funded health services, and Crown Health Enterprises were formed as Crown-owned companies to deliver health services (Laugensen and Salmond, 1994).

In the past, governments have on occasions attempted radical change of health care systems, often without much success. Britain's National Health Service (NHS) is an example of how traditional practices and structures persisted despite serious efforts to reshape it (Hollingworth,1991). In the 1990s, however, widespread health service reforms around the globe are challenging the notion that health care systems are inherently conservative, even immutable. For example, the proposed American Health Security Act represents, potentially at least, a radical change in American health care policy.

Funding of New Zealand Health Service

Since 1938, the government has funded the majority of health care through general taxation. In 1980, taxation contributed 88 percent of health care funding. In recent years, the level of public expenditure has declined to the present level of 76 percent. A decline in the proportion of public funding of health care represents a trend towards more private spending compared with the 1970s. The Consumers Institute of New Zealand, in 1993, estimated that 45 percent of the population was covered by health insurance (Consumers Institute of New Zealand,1993).

The role of the government, however, unlike the United States, has remained strong, and public hospitals are still the major providers of health services. As in Australia, New Zealand's public hospitals provide care across income and class categories. Public funding of health care is likely to continue, but it is possible that the government may seek to reduce the level of public funding further. Since the introduction of the 1938 Social Security Act, total health service expenditure as a proportion of gross domestic product (GDP) has been relatively stable and has little growth since 1980, as demonstrated in the table 2.1. Since 1960, compared with other OECD countries, public expenditure as a percentage of total expenditure has increased at a slower rate in New Zealand (McKendry, 1994).

Table 2.1. Health Expenditure Trends 1980-1992 as a proportion of GDP

Country	1980	1985	1990	1992
Australia	7.3	7.8	7.7	8.9
Canada	7.4	8.5	9.0	10.7
Germany	8.4	8.7	8.1	8.7
New Zealand	7.2	6.6	7.3	7.6
Sweden	9.4	8.8	8.8	8.7
United Kingdom	5.8	6.0	6.2	7.1
United States	9.3	10.7	12.4	14.0

Source: McKendry,C.G. and Muthumala, D., Health Expenditure Trends in New Zealand: Update to 1992, Ministry of Health, Wellington, 1992

The 1993 reforms introduced the possibility of a much larger role for the private sector in the provision of services through contracts between Regional Health Authorities and private providers. Previously, public hospitals were monopoly suppliers of public health care services; the Transitional Health Authorities could now purchase health care from private, public and voluntary providers.

The New Zealand health service, 1993-1997

The Transitional Health Authority

The coalition agreement, between the National Party and New Zealand First, in 1997, called for the centralisation of the four Regional Health Authorities (RHA) through the establishment of a Transitional Health Authority (THA). The four RHAs, established in 1993 became regional offices of the THA, based on geographic areas, and responsible to the Minister of Health through the Transitional Health Authority for the purchasing of health and disability support services for the people of their respective regions.

The area of Auckland and north of Auckland is covered by North Health; the Midland region extends from south of Auckland through to the Bay of Plenty, Waikato, Taupo and Taranaki; south of Wanganui to Nelson is covered by the Central Health Authority, and the remainder of the South Island is covered by the Southern Regional Health Authority. Midland Health is responsible for purchasing health services for the people of Taranaki, the area depicted in Figure 2.1.

Midland Health, as the purchaser of health care services for the people of Taranaki, is charged by Government to asses the health needs of people in its region and align these with the priority health demands set out by the Ministry of Health. Midland Health purchases all services funded by Vote: Health, and a substantial amount of hospital services funded by Vote: Accident Compensation.

Crown Health Enterprises

Crown Health Enterprises (CHEs) are limited liability companies and had two shareholders, the Minister of Finance and the Minister for Crown Health Enterprises, until 1997 coalition agreement. The coalition Government abolished

the Crown Health Enterprise Ministerial office in 1997 and replaced it with the Ministry of Health as shareholder. This structure brings Crown Health Enterprises directly under the scrutiny of those Crown agencies set up for monitoring of Crown-owned companies: the Industry Branch of Treasury, and the Crown Company Monitoring Advisory Unit.

There are twenty-three CHEs which deliver services purchased by the Transitional Authorities (THA), through their regional offices. Annual service contracts specify the volume, quality and price of these services. The performance of each CHE is monitored by both the purchaser and the Crown's agencies. One such CHE, Taranaki Healthcare Limited (THL), is the location of the present case study.

Figure 2.1   Map of the Taranaki Region
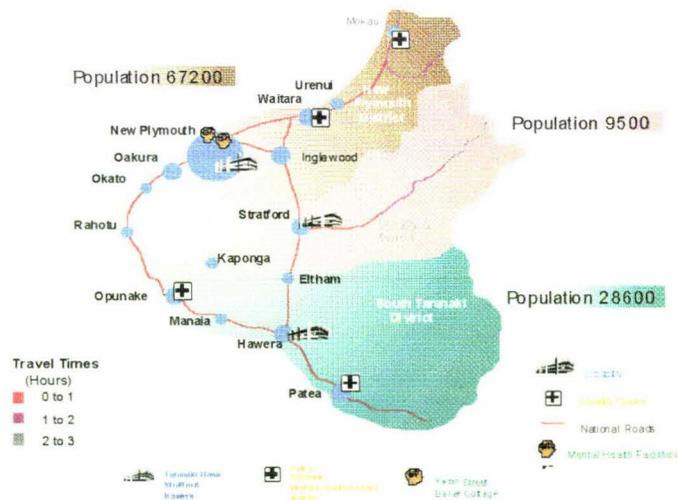
Source: Taranaki Healthcare Business Plan 1995/1996

The monitoring regime

The health reform process has substantially altered the monitoring regime within which Crown Health Enterprises operate. The Ministry of Health is responsible for policy advice to the Minister of Health. The Ministry determines the regulatory environment within which Crown Health Enterprises operate. This includes specific compliance issues which providers must satisfy or, alternatively, directives as to behavior, for example, the "management of change" protocols introduced in 1994. The primary interest of these agencies is fiscal. The key concern is that Crown Health Enterprises perform at an efficient level to achieve financial viability.

The delivery of public health services will remain an issue within the political arena. The Government, in particular, believes there is substantial scope for efficiency improvements on the provider side of the sector. This belief is coupled with frustration due to the current financial deficit position of many Crown Health Enterprises.

Trends affecting the delivery of health care

On 4 June 1867, Florence Nightingale wrote with remarkable prescience to her relative, Mr. Bonham Carter, a leading London barrister: "My view, you know, is that the ultimate destination of all nursing is the nursing of the sick in their own homes...I look to the abolition of all hospitals and workhouse infirmaries. But it is no use to talk about the year 2000" (*Get Real News*, August 1996). Braithwaite (1994), supported this and emphasised the need for strong linkages between the core and the peripheral units to assist the transition from well-defined hospitals to an elastic, seamless, health system.

Health services in this decade, with the support of technology, are well underway to support this wonderful vision for health care. Some of these modalities which are either already significant or will increasingly become more important will be discussed in the rest of this section.

Legal and ethical issues

There is expected to be increasing questioning of conventional wisdom about access issues, reasonable expectation regarding health outcomes (malpractice issues), the right to life and the right to die issues (ethical issues ranging from abortion to euthanasia).

Health Care Rationing

The issue of health care rationing the world over is being brought into ever sharper focus as capability and affordability conflict. The public as ultimate user of health services, is relatively ill informed of these conflicts. In particular,

hospital facilities are still perceived as the cornerstone of public health service delivery despite rapid changes in the way in which services are delivered. Access to local facilities and waiting lists remain at the forefront of the public's perception of health care delivery.

Increased use of ambulatory care

In the United States it is expected that nearly half of all secondary care patient

episodes will take place in an ambulatory setting by the year 2000 (Goldsmith, 1989). An increasing proportion of diagnostic and surgical activities are performed as day procedures. Sibbit (1992) estimated that the percentage of day procedures, done in New South Wales, Australia, will increase from 20.3 percent in 1986/87 to 45 percent in the year 2001. Day surgery facility fees for ambulatory surgery average about half those of hospital settings. Other advantages of ambulatory care include: decreased risk for hospital acquired infections; decreased separation anxiety and in many cases less disruption of family activities (Vaughan, 1991).

Reduction in average length of hospital stay

The impact of diagnostic and therapeutic technologies are reducing the length of hospital stay. This occurred across the spectrum of illness (see Figure 2.2.)

Figure 2.2 Trends in Average Length of Stay
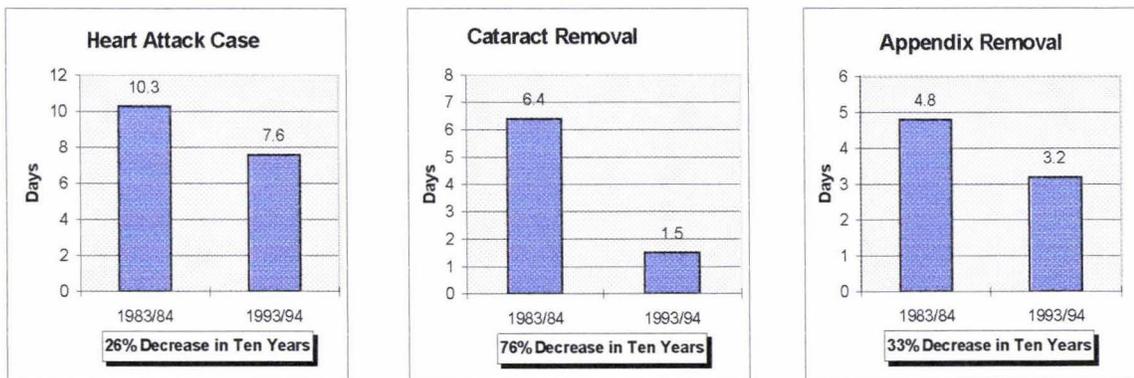
Source: Victoria's Health to 2050

Many common forms of surgery, for example have abandoned the hospital altogether, and those that remain are being managed with fewer pre-operative and post-operative days in bed (Robinson, 1994). This reduces the need for hospital beds and Figure 2.3 illustrates the international impact.

Figure 2.3 Acute Medical Care Beds, by Country
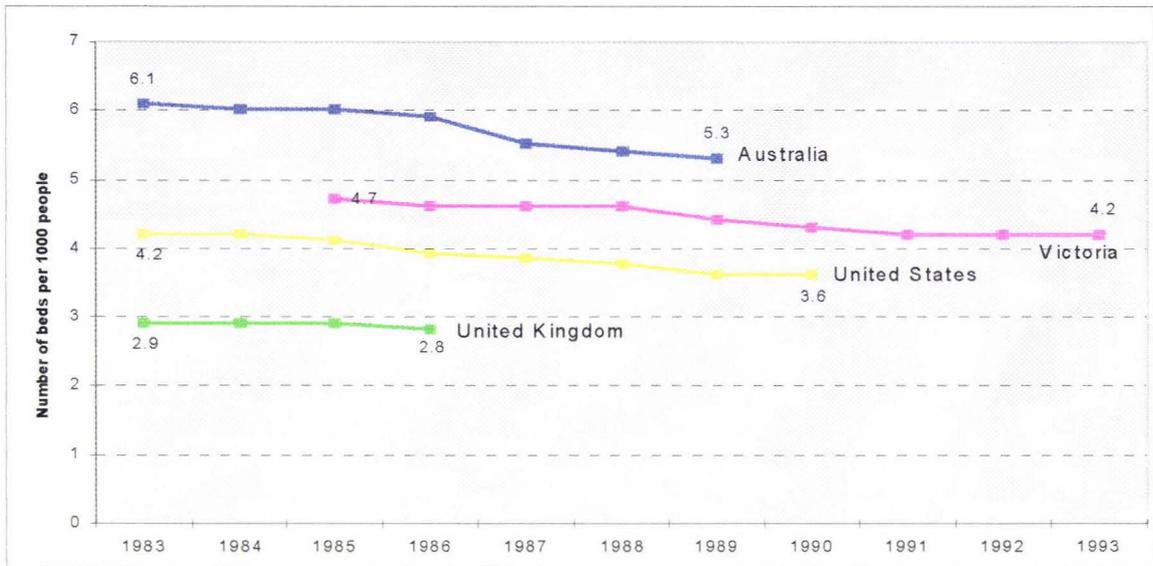
Pharmaceutical development

Many of the greatest advances in health care in the twentieth century have arisen from the development of new drugs. The new drugs for approval in Australia has increased from 15, during 1984/85, to 38 during 1994/95. (Victoria's Health, 1995) Developments in pharmaceuticals have allowed the more conservative treatment of many patients with drugs as opposed to invasive surgery.

Biotechnology

The impact of the new field of biotechnology is yet to be felt on clinical practice. The United States trends indicate that these developments will unleash another clinical revolution. The United States Federal Drug Administration approved the use of 27 new biotechnology products in 1993, while a further 273 products were in the development phase. (Read, 1994)

Technological trends in the delivery of health services

Internationally, technologies are enabling medical and surgical services to be delivered in faster, more mobile and efficient ways. Angioplasty, as a prime example, reduces the recovery time for patients, shortens the length of hospital stay and the cost is lower than complex surgery (Hailey,1994). Angioplasty has grown dramatically since the 1980's (Hailey, 1994) as illustrated by Figure 2.4.

Figure 2.4   Angioplasty Procedures 1988-1994
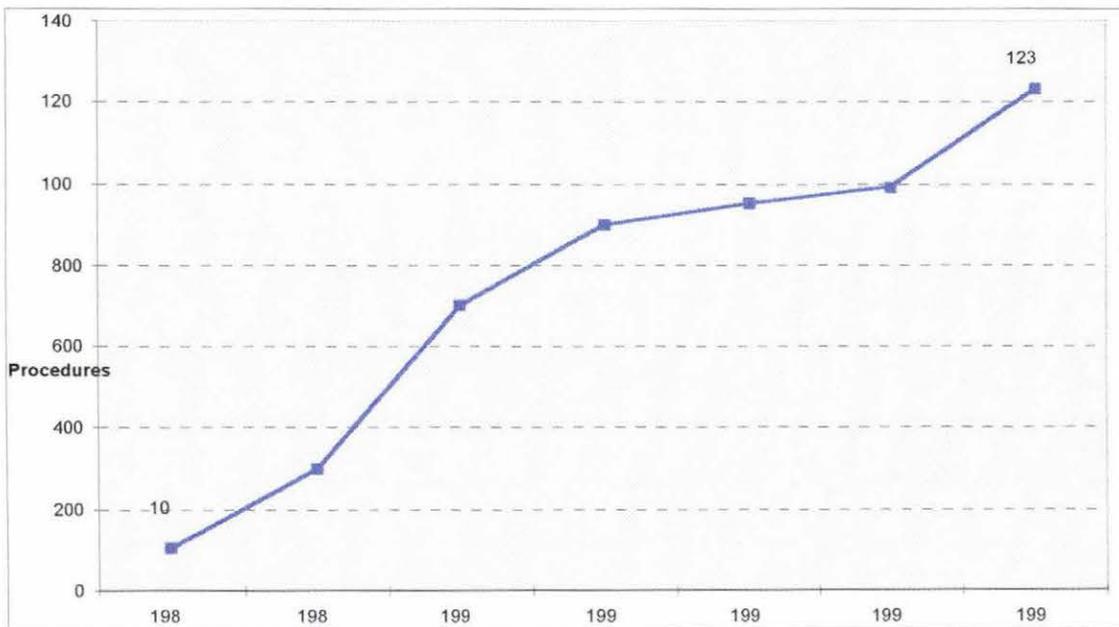
Source: Hailey, D. (1994) Health Care Technology in Australia

The introduction of laser surgery has reduced or, in some cases, eliminated the need for more invasive surgery. Lasers have been adapted to a range of new clinical areas since 1980s, including ear, nose and throat surgery, dermatology, gynaecology and gastrointestinal procedures (see Figure 2.5) (Jensen, 1988 and Loizou, 1991).

Figure 2.5 Trends in the use of laser surgery
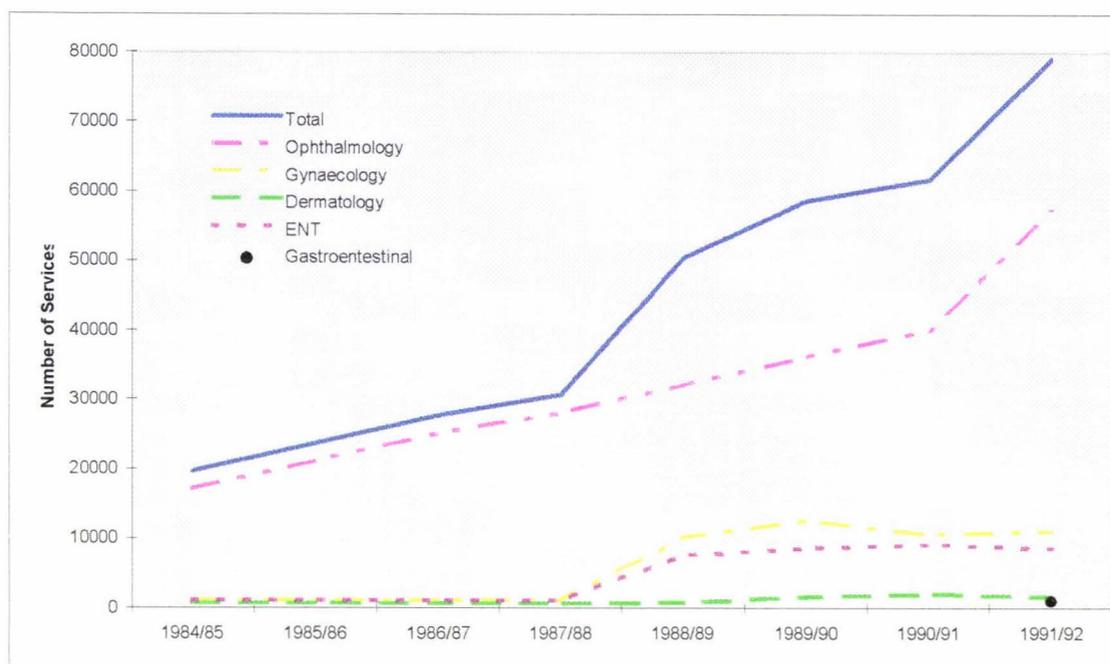
Introduction of systems that allow employees to work more from a home base, and closer to the client, may enable Taranaki Healthcare to be increasingly effective in its delivery of ambulatory services, especially when accompanied by appropriate training and human resource policies (Deloitte Haskins & Sells, not dated).

Increased use and coverage of cellphones, faxes, videophones, laptops, remote e-mail, and electronic data interchange (EDI) enable primary caregivers to update patient notes at the site of the visit. Information can be downloaded to the central file at the central hospital, where it can be used by other medical professionals. General practitioners could transfer patient data to the hospital before the patients arrival, which will help generate special investigations without delay.

Electrocardiograms (ECG) can be faxed from house surgeons to consultants for immediate advice on line. E-mail and electronic data interchange (EDI) allow

patient information to be moved rapidly between medical specialists. Radiology images with other patient information can be transmitted to any radiologist anywhere in the world for interpretation.

Advances in the field of telemedicine

Telemedicine is a development within video conference and distance learning. It allows clinicians to work together and learn from each other in new ways: for example a surgeon in one country can direct the surgery of another surgeon elsewhere in the world. Non-physical examinations can also take place. More commonly, it will allow a doctor and a patient to talk to another doctor, which could alter the need for patients to attend assessment outpatient clinics (McManis, 1989). South Australian remote hospitals use telemedicine routinely, and it is being trailed in New Zealand for secondary and tertiary consultations between Waikato and Taumaranui hospitals.

Increased use of mobile medical units and helicopters

As technology makes the equipment needed to perform medical interventions smaller, the ability to take assessment and treatment to the patient is enhanced. An example is the private mobile lithotripsy unit that currently visits Taranaki. Mobile assessment units targeting Maori are active in Otago/Southland and in South Auckland. The Cervical Screening Program at Taranaki has suggested that mobile screening could address the current problems in accessing women in South Taranaki. Mobile units could increase the amount of day surgery being completed. Improved use of helicopters could dramatically improve the time taken for trauma transfers to tertiary providers, and from remote locations to Base hospitals.

Conclusion

The New Zealand welfare state, modelled on British Poor Law, has undergone fundamental change. The introduction of an internal market for health service represented a radical change in the basic philosophy, which characterised the New Zealand Health service for more than 50 years.

The government funded the majority of health services through general taxation. The level of public expenditure, in recent years, has declined and the 1993 reforms introduced the possibility of a larger role for the private sector.

The structure and underlying principles of funding of the New Zealand Health Service was discussed in this chapter. The structure however, is dynamic and regular changes can be anticipated. Health, an emotive issue, is more over used by politicians to gain political advantage, sometimes contributing to further change.

Health services in this decade, with the support of technology, are changing dramatically. Advances in technology generally such as cellphones, faxes, EDI, and television, are challenging the idea that access to health care is dependant on patients presenting to providers. The focus of care is moving away from inpatient hospital services towards ambulatory and community care. Advanced diagnostic and therapeutic modalities have reduced the need of hospital stay days and the need for inpatient beds. The impact of biotechnology is yet to be felt. All of this has brought the issue of health care rationing into ever sharper focus with capability outstripping affordability .

Braithwaite (1994), stated that the hospital as the principal organisation which delivers health care is coming to an end and that the future has reached an evolutionary branch. The next chapter discusses Taranaki Healthcare and defines the key drivers for change at this organisation.

Chapter Three

Taranaki Healthcare

Introduction

Taranaki Healthcare Limited was incorporated as a Crown Health Enterprise in July 1993 under the provisions of the 1993 Health and Disabilities Services Act "to be an effective provider of high quality health and disability services". The organisation provides health and disability services predominantly for the people who live in the Taranaki region. The region consists of three territorial local authorities: New Plymouth, Stratford and South Taranaki.

This chapter briefly discusses the demography of Taranaki, gives an overview of the services provided by Taranaki Healthcare, highlights the key drivers towards change, and discusses the options considered by Taranaki Healthcare in response to a projected decline in revenue.

A demographic description of Taranaki

Taranaki is a dairying region and the energy center of New Zealand. The rationalisation of the dairying and freezing industries adversely affected small towns in the region and caused a migration of people seeking employment.

The total Taranaki population, contrary to the New Zealand trend, is therefore projected to decline by fourteen percent, from one hundred and five thousand people to ninety thousand, over the next twenty years (Taranaki Healthcare Business Plan 1996/1997).

The decline will mainly affect the Stratford district, with a projected decline from 9500 to 7400 people, and the South Taranaki district, where a decline from 28600 to 21200 is forecast. The New Plymouth population, however is projected to increase from 62000 to 67000 over the same period. The small Maori population in Taranaki is also predicted to increase over the next fifteen years (Department of Statistics: New Zealands Classification of Ethnicity, 1992).

Figure 3.1 Total Population for Taranaki 1996 - 2016
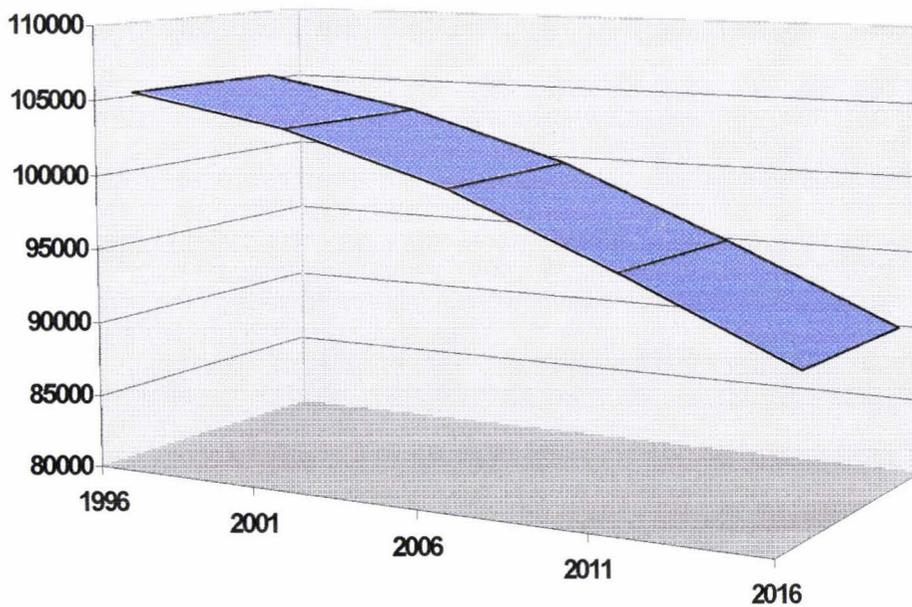
Source: Taranaki Healthcare Business Plan 1996/1997

The age distribution of the Taranaki population is also projected to change dramatically over the next twenty years. The average age of people in the region, which is projected to rise from 33 to 42 years, points towards an aging of the population. The elderly population (65+) is projected to increase by 39 percent, while the age group of fifteen and under will decline by 38 percent (Midland Health: The People of the Midland Region, 1994). The average age for the different territorial local authorities is illustrated by figure 3.2

Figure 3.2   Average age projections
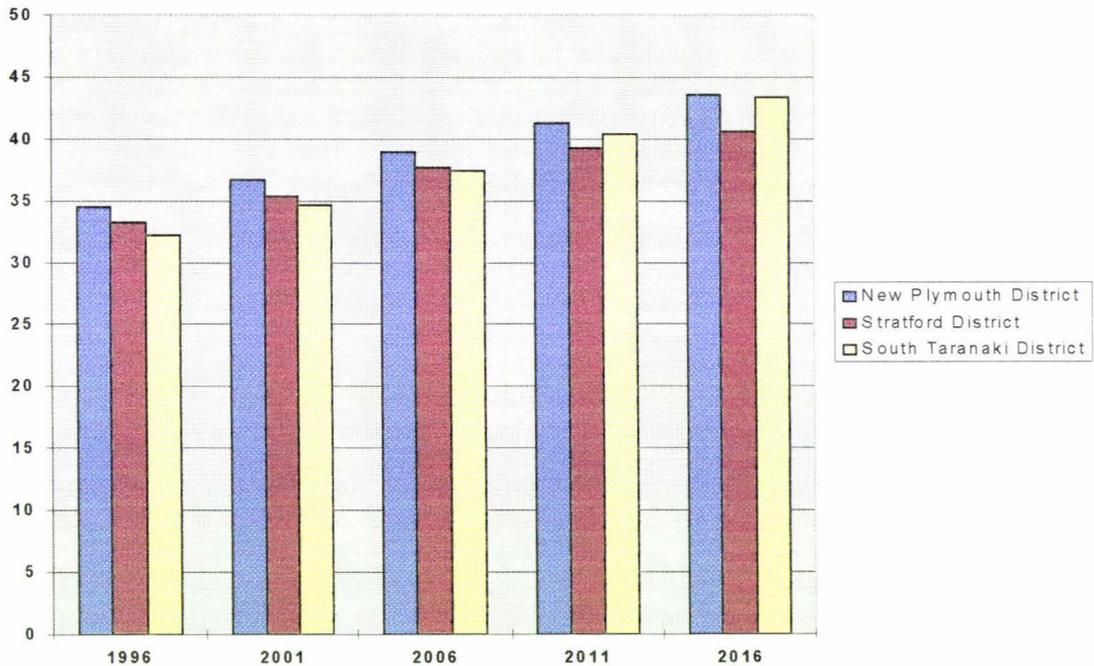
Source: Taranaki Healthcare Business Plan 1996/1997

More than 50 percent of those fifteen years and older, have no formal school qualification and almost three-quarters of the Taranaki population have no tertiary qualification. The percentage of women without any school qualification is particularly high. The overall qualifications level in Taranaki is, however, nineteen percent higher than the New Zealand average (Midland Health: The People of the Midland Region, 1994).

There is a large differential between higher and lower income groups in Taranaki. Almost 37 percent of people have individual incomes of less than $10 000 per annum and 85 percent an individual income of less than $30 000 per annum. The average income however, in the Taranaki region, is slightly above the New Zealand average and above the average Midland income (Taranaki Healthcare Business Plan, 1996/1997).

More than 40 percent of people in Taranaki between the ages of fifteen and 59, work in manual occupations. One fifth of the working population work in the agricultural and fishery industries as manual labourers. This is more than double the New Zealand average for these two industry sectors, and is also higher than the Midland level.

Taranaki Healthcare

Taranaki Healthcare, a provincially-based Crown Health Enterprise, is responsible for the delivery of services to the people of Taranaki as contracted by Midland Health. Taranaki Healthcare achieve this by providing services from a number of regional facilities (see Table 3.1) staffed by a wide range of clinical and non-clinical staff.

The facilities from which services are provided differ in configuration. This configuration impacts on the complexity of the cases that could be managed to the specific location. The services provided from each site will be discussed as part of the service divisions

Table 3.1 Facilities, staffing and budget of Taranaki Healthcare

Facilities	Hospitals	New Plymouth Base
		Hawera
		Stratford
	Health centres	Patea
		Opunake
		Waitara
		Mokau
		Inglewood
Employees	Medical	90.09 FTE
	Nursing	547.73 FTE
	Allied Health	245.86 FTE
	Clerical/ Management	217.95 FTE
	Support	165.48 FTE
	Total	1267.11 FTE
Budget	Revenue	$70,771,000
	Cost	$82,170,000
	Profit/(Loss)	($11,399,000)

Source: Taranaki Healthcare, Business Plan Addendum 1996/1997

Taranaki Healthcare service divisions

The services provided to the people of the region, by Taranaki Healthcare, can be classified in three major divisions: the medical and surgical service; the family and public health service; and the disability and rehabilitation service. These divisions are discussed in more detail below.

The medical and surgical services

The medical and surgical services generate approximately 75 percent of the revenue for Taranaki Healthcare. A comprehensive surgical service, which includes inpatient, outpatient and community services is provided in general surgery, gynaecology, orthopaedics, otolaryngology, ophthalmology, plastic surgery, neurosurgery and maxillofacial surgery.

Medical services are delivered through a combination of inpatient, outpatient and community services. Inpatient acute medicine is provided at Taranaki Base Hospital and Hawera Hospital. Both hospitals have Coronary Care Units.

Intensive and special care for the newborn is provided from a neonatal unit at Taranaki Base Hospital. The unit also undertakes care for babies who in most cases are over 1000 grams. Paediatric medical and surgical care is available at Hawera and Taranaki Base Hospitals.

The Accident and Emergency Department at Taranaki Base and Hawera Hospital provides 24 hour medical cover. This is provided by General Practitioners and Medical Officers contracted to Taranaki Healthcare.

Secondary specialty services are provided by local full-time and part-time and visiting specialists. Patients in need of tertiary services are referred to tertiary referral centres such as Auckland, Wellington and Hamilton for clinical management.

The Ambulance Service in Taranaki is one of only two CHE-based ambulance services in New Zealand. It provides emergency ambulance care for sick, injured and intra-hospital and inter-hospital transportation, which enables Taranaki Healthcare to provide a completely integrated emergency service.

Family and public health services

The Family and Public Health Service provides a broad range of personal and public health and disability services. High risk obstetrics are provided at Taranaki Base Hospital and basic maternity services are provided at Stratford and Hawera Hospitals. A network of community midwives provides antenatal education and monitoring and immediate post discharge care. Pregnancy counselling is provided. Post-natal education is available to women in hospital and after discharge.

Associated secondary specialist services are provided by local part-time and full-time specialists and the responsibilities of the Medical Officer of Health are carried out by visiting specialists. Public Health Nurses deliver health promotion, education, protection and surveillance programs directed at children and adolescents.

Health centres are located in Waitara, Opunake and Patea. Each has a core of District Nurses and clerical support and usually a Maori Community Health Worker, a Public Health Nurse and a Community Midwife. Visiting teams or staff from New Plymouth and Hawera also conduct Outpatients Clinics and use the centres as bases for their domiciliary services.

The Health Promotion Unit works towards empowering people to achieve their optimum level of health by planning, implementing and evaluating priority health programs that reflect the principles of the Ottawa Charter and public health goals (Taranaki Healthcare Business Plan 1996/1997).

The health protection unit operates from a base in New Plymouth. The regulatory/audit services and public advocacy/advisory services provided relate to food inspection, communicable disease control, public health aspects of civil defense, environmental health and toxic substance management.

Disability and rehabilitation services

Mental health services and services for the elderly are the two major components of the disability and rehabilitation service. A comprehensive mental health service is provided which includes inpatient, day patient, outpatient and community treatment for the acute mentally ill and those engaged in substance misuse. Inpatient and day patient care is available in New Plymouth only, while outpatient and community care are provided to outlying areas on a visiting basis and by community-based teams.

Extended Care is provided in Stratford and New Plymouth, and specialisation in the care of dementia patients, slow stream rehabilitation and terminal care at Taranaki Base Hospital. Intermittent care or relative relief is provided after assessment of need in New Plymouth and Stratford.

Customers

The profile of Taranaki Healthcare's customers are complex. The primary customer is the purchaser, Midland Health, which does not physically "consume" healthcare services. The people of Taranaki are both consumers of services and purchasers (through user part charges) of outpatient services. The third customer is the general practitioners, who currently act as agents on behalf of patients. Finally, there is the public of Taranaki, any of whom, through taxes, finance the purchase of services and collectively hold the major stake in the continued provision of comprehensive health and disability support services which they and their families may sometime need.

Market Assessment

The providers of primary health care services are predominantly private. Taranaki Healthcare does provide a small proportion of primary care, through

the Emergency Department, the school dental service and clinic services. The major proportion of acute secondary health services is provided by Taranaki Healthcare. Elective secondary care is shared with the private sector. To date there has been almost a total alignment of public provision with public purchasing from crown-owned providers, like THL, and private provision with private purchasing. This segmentation is expected to change in the future. The Health and Disability Services Act (1993) confirmed a trend within the New Zealand health sector to enable, if not to encourage, the entry of new providers of health services. Taranaki Healthcare's current monopoly on the provision of publicly funded medical and surgical services therefore, may shortly be contested by privately owned providers. On the other hand, Taranaki Healthcare may choose to provide services to privately funded patients. Approximately 78 percent of health services in New Zealand are purchased from Vote: Health, a further 13 percent from Vote: ACC funds, four percent from health insurance, and the remainder from patients' own funds (Department of Statistics,1994).

The New Zealand Ministry of Health is encouraging the move towards integrated care. This is intended to improve the integration and coordination of services across the entire health sector which includes public health, primary, secondary and tertiary services. The interest of general practitioners and other primary care providers in budget holding for secondary services is another threat to Taranaki Healthcare's maintaining its predominant market share of secondary medical and surgical services.

The gradually aging population, coupled with a decline in overall birth rates, will lead to a greater proportion of health services focused on the 65 plus age group (Department of Statistics: Population Overview, 1994). This is expected to lead to a greater demand for coordinated services that will allow people to stay in their own homes for longer periods.

Health care providers are expected to enter into new types of relationships with each other as they adapt to changing trends in service delivery. Contracts, partnerships, mergers, and alliances will be some new ways of working together. Joint Ventures, MSO (Managed Service Organisation), and MAISS (Managed Access to Integrated Support Services) will enter the traditional market place and change the competitive dimensions of health services.

The Reasons for Changes at Taranaki Healthcare.

There are significant pressures on Taranaki Healthcare to improve its performance. The organisation predicted a financial deficit of $11million dollars for 1995/96. This prompted the shareholding Ministers to instruct the Crown Company Advisory Unit (CCMAU) to insist on a business plan for Taranaki Healthcare with a clear path to financial viability. Deloitte Touche Tohmatsu, an internationally recognised health care consulting company, was engaged to do a diagnostic study at Taranaki Healthcare in May 1995. This study was to identify on a broad basis whether change was needed, and if so, to what extent significant gains were possible. The following discussion highlights the major issues.

The quality of service delivery

These can be grouped into three main areas: delays inpatient care; unnecessary complex processes; and duplication of effort.

Delays in patient care

General Practitioners currently refer patients to acute services and the lack of

admission guidelines and criteria leads to admissions which are not always appropriate to the level of care. About 25 percent of admissions to the acute medical wards are deemed to be for social reasons, not for medical care (BPR project team, Change Imperative THL Medical Surgical project, 1995)

The timeliness and inability to access the appropriate service or appropriate services create "bottle necks" which increase the average length of stay for patients. The extent of this problem could easily be under-estimated, for example, 63 percent of referrals to the geriatricians, according to the Deloitte diagnostic study, come from the medical wards where patients may wait up to one week for referral or transfer.

Complex processes

A high number of "hand overs" may occur, due to poor rostering, resulting in duplication of assessments and a lack in continuity of care for the patient. This also increases the risk of key information being overlooked or lost. There are a number of coordination difficulties between medical personnel and support services that lead to an inappropriate allocation of tasks, for example, between booking theaters and the anaesthetist. House surgeons have to contact both groups to find a mutually agreeable time for surgery, a task that could be done by clerical personnel.

There are problems associated with booking, performing and obtaining results of tests. Patients often wait for several days to have medical staff interpret and relay test information. Delays with tests can lead to delays in the diagnosis of a patient's condition, and thereby delays in their treatment. These delays also have an impact on the effectiveness of consultant reviews, and contribute to increased length of stay.

Due to poor the coordination of staff assigned to the pre-admission clinics, patients may have to return to outpatients a number of times before their pre-admission assessment is complete. This lack of coordination adds another delay to the treatment of the patient, and may mean the patient has to travel significant distances, take time off work, and pay additional user part charges.

Clinical guidelines ensure that hospital care is delivered in a consistent and appropriate manner. To date only a few of these guidelines have been implemented at Taranaki Healthcare. If these guidelines were developed, patients and staff would know in advance what the treatment steps would be, pre-booking of tests would be possible, and efficiencies could be gained in staff utilisation and reduction in length of stay. Quality of treatment could also be more easily monitored and improved.

Patient information at present is recorded manually. This creates inconsistency in the recorded format, and difficulty in access. This cumbersome patient information system may delay the patient's discharge and could also delay timely referrals by the consultant or registrar due to inadequate information. Questions are often repeated numerous times, and a perception of having to 'start from scratch' with each clinician is often acknowledged by patients.

There are a number of facility issues that have a significant impact on patient care. The ward layout prevents effective and efficient care: Location of utility rooms is not optimal, and inconsistent ward layout leads to difficulties in transferring staff. There are only a few single-patient rooms, and no ward interview rooms, which leads to a lack of patient privacy. Some hospital services are difficult to locate, and others could be grouped better to share resources.

Duplication of effort

Diagnostic tests are repeated unnecessarily in some circumstances: a patient arriving in the Emergency department may already have had tests carried out privately, but as these are not accessible to inappropriate information systems, these tests may well be repeated. The patient will have to undergo the discomfort of another set of tests, and there will also be a delay in receiving medical care.

Throughout the patient-flow process, patient details are captured a number of times. In many instances the same information is recorded by nursing staff, and medical staff, occupational therapists, and on many occasions the data recorded is unchanged. This problem arises because there is no integrated patient note system. The patient is inconvenienced by the same questioning, and staff time is wasted by recording the same details.

The path for patients through Taranaki Healthcare is made more complex than necessary by a number of system inefficiencies. By far the greatest of these result in patients waiting - to be seen, to be assessed, to be treated and to leave the system. Lack of simple internal coordination is often the only reason for these delays. There is an opportunity to improve the way information is collected and disseminated so that it becomes instantly available to whoever needs it when they need it.

Funding

Taranaki Healthcare had to cope with a new funding system, limited information about future intentions of its major customer (the RHA), and limited information about its own costs and business. Significant swings in the proposed contract volumes and revenues from Midland Health made forecasting extremely difficult during the two years of the project.

Based on the best estimates, Taranaki Healthcare faces significant financial distress over the next two to three years. The predicted deficit is based on the high cost of delivering services at Taranaki Healthcare and the reduction in revenue received from Midland Health. The reduction in revenue is summarised in the Table 3.2.

Table 3.2   Projected decrease in RHA revenue
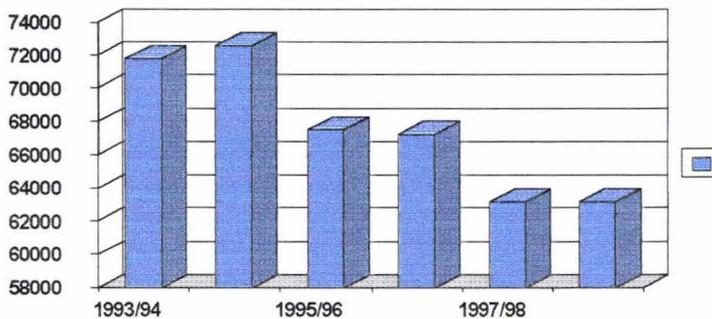
Source: Taranaki Healthcare Business Plan 1996/1997

Demographic changes

The discussion earlier in this chapter on demographic changes highlighted the continuing decline in the population base in South Taranaki and an expected centralisation in the New Plymouth area. The population in general will age, and the "at risk "group of health consumers will rise. This will result in a higher demand and a shift in the type of health care provided.

Advances in technology

There are considerable advances in technology in the health care area. These

changes will redefine the term "access to health care" and will also increase the use of ambulatory and community care settings. These in turn will reduce the need for inpatient services. Investment in technology may not be justifiable in certain circumstances, and a trade-off between providing local access (albeit without state-of-the-art level equipment and skills), or sending patients to other health care providers will have to be evaluated.

The next ten years will also be a time of dramatic change for the health Sector generally. National and international trends highlight a rapid increase in the use of minimally invasive surgery; shorter length of stay in hospitals; and an increased use of ambulatory services. The main technological advances took place in the areas of pharmaceuticals, equipment, techniques, information technology, telemedicine and in the longer term human genetics and robotics. (Ministry of Health, 1995). The expected impact of the technology advances were discussed in more detail in Chapter 2.

Patient care trends

The ageing of the population has important implications. Older people use far more services than young people and diseases of the aged tend to be of chronic nature which are often better treated in peoples homes (Robinson, 1994). The technical improvements in health care will help towards achieving this goal. There is also greater focus on standardisation of clinical care, such as the use of critical pathways, ensuring the adoption of best practices to reduce patient length of stay and readmissions (Hoffman, 1993).

The reduction in the average length of stay, made possible by technological advances and improved ambulatory care, and the reduction in total inpatient days and occupancy, will lead to a reduction in bed numbers. The impact of this trend at Taranaki Healthcare is summarised in the Figure 3.3.

Figure 3.3 Projected bed numbers

Bed Requirements
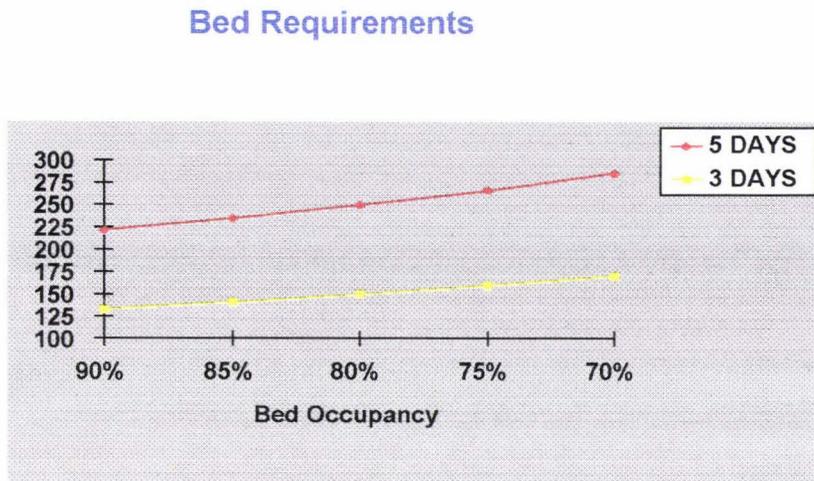
Occupancy & Length of Stay

Source: Developed from Taranaki Healthcare Business Plan Addendum 1996/1997

Effectiveness of decision making

Fundamental changes in the health care system over the last three years have generated much uncertainty and confusion. There are now several conflicting attitudes about the appropriate decisions to be applauded in the new environment.

On one hand, clinicians continue to make many decisions based on the best level of care for patients, whilst management decisions are having to be increasingly cognisant of the constraints being imposed by the principal purchaser. The community still has an expectation of the hospital as "their hospital", without fully appreciating the changed environment and the financial constraints.

There is an expectation that there will be more health care, and that the range of services will increase rather than decrease. There is confusion about the nature and role of waiting lists, and the comparability of actual levels between times and between specialties. National events are slowly changing these attitudes and perceptions.

As yet a new decision making framework has not emerged for evaluation within the new environment. The RHAs are driving some of the criteria for the framework, while individual CHEs are having to develop their own models from inherited attitudes and inadequate information systems.

The effectiveness of Taranaki Healthcare Limited in educating both internal staff and the community at large about the effect of capital rationing and the funding capacity and intent of the RHA will ultimately determine the long-term opinions of the effectiveness of decision making. This acceptance of funding limits will obviously have to be balanced with the need to provide accessible, appropriate and high quality health care to the population.

Conclusion

There are significant changes in the health sector worldwide, which require organisations, such as Taranaki Healthcare, to realign its business strategy. Some of these changes and implications were discussed in this chapter. Taranaki Healthcare, in response to these issues realised, as stated by Heraclitus in 450 BC, that "nothing endures but change" (as cited by Farmer, 1993).

The strategy was to reconfigure the services at regional sites such as Patea, Stratford, Hawera and Inglewood, and to realign the services provided at Taranaki Base Hospital, New Plymouth, with national and international practice. The earlier initiatives were aimed at quality improvement programs and for that the organisation achieved accreditation through the New Zealand Council of Healthcare Standards.

The realignment of services with international trends, within the funding constraints as discussed, required the organisation to move towards increased ambulatory care, a reduction in admissions through clear admission and discharge policies, and a reduction in the length of hospital stay. This fundamental shift required the organisation to achieve radical change enterprise-wide. As stated by Davis (1995), the managers had to see their jobs as engaging everyone in managing processes. Michael Hammer promotes Business Process Reengineering, as methodology, to achieve such radical change focused on organisational processes (Hammer, 1990).

Taranaki Healthcare, based on this, decided to involve staff in a comprehensive reengineering project *"Straightening the Path for Patients"* to achieve the necessary change. The history of BPR and the relationship with other management theories are discussed in the next chapter .

Chapter Four

Background to Business Process

Reengineering

Introduction

This chapter provides an historical overview of the management strategy of Business Process Reengineering (BPR) and discusses the relationship of BPR with other theories of management. A comparison of radical change with incremental improvement concludes the chapter.

Historical overview of BPR

The concept of BPR, though a recent development affecting organisational management, is rooted in developments that can be traced back to the first half of this century, to such innovations as scientific management, quality management and others. The drive to improve operational performance has been a constant feature of the twentieth century, evident in today's process-orientated methodology. The concept of process orientation and maximum leaps in performance is not a new principle, it flourished in the past in the West and elsewhere.

The concept of using technology and human enablers to benefit operational activities is not new either. What is new, however, is the combination of these

elements in a multi-dimensional approach, termed Business Process Reengineering by Michael Hammer (Hammer and Champy, 1990).

Reengineering is not a synonym for automating existing processes, downsizing, restructuring, reorganising, delaying, quality improvement, TQM or continuous incremental improvement (Hammer and Champy,1994). It does, however, incorporate and encompass many of these concepts. In many ways reengineering uses tried and tested management techniques in innovative combinations to review all aspects of an organisation's people, processes and technology in a single, coordinated manner (Davenport, 1993).

In addition to scientific management and the quality management movement, Business Process Reengineering has its origins in a variety of approaches to business improvement. These include industrial engineering, systems thinking, the work design approaches pioneered by the sociotechnical school, the diffusion of technological innovation, and ideas about the competitive use of information technology. These business improvement concepts (except the sociotechnical school), adopted in different forms by organisations in different geographies, are primarily American Western in origin (Davenport, 1993). These strategies are described below.

The Quality Movement

Process thinking originated with the quality movement. The focus on outputs and customers is consistent with the emphasis of early quality thinkers on minimising variation and defects in manufactured products (Garvin, 1988). The quality experts argued strongly that processes should be stabilised and variation closely measured through statistical process control. After stabilisation, steady but incremental improvement in the process could begin. The quality movement started with the pioneering efforts of Shewart, Deming,

and other quality researchers at Bell Laboratories in the 1930s (Juran, 1964). This approach, frequently called "quality control" or quality management, involved strict analysis and control of the production process for manufactured goods. The initial focus of this approach was on the manufacturing process rather than crossfunctional processes. Variation in the process is measured and minimised through statistical analysis, that is, statistical process control.

From these early days, according to Feigenbaum (cited by Garvin, 1988), the quality control concept went on to be greatly expanded by quality workers to include all processes involved in producing quality improvement and minimising variation in existing processes. The desired level of change is incremental, the focus is centered on product and on statistical measurement.

Japanese firms embraced the culture of continuous process improvement, and their managers tend to be extremely conscious of process management responsibilities. Japanese firms, in general, spend two-thirds of their research and development budgets on new processes while American firms spend two-thirds on new products (Thurow, 1991).

Radical process innovation was encouraged by some quality experts (Juran,1964) but not even mentioned by others. Edwards Deming was amongst those who held a mixed view. He admitted the need for radical improvement, but argued that a corporate culture that did not support continuous incremental improvement would not support more radical change.

Radical process innovation, as defined by Michael Hammer is, however, not the aim of the quality movement. The value of radical process innovation was admitted, sometimes grudgingly, by a few quality experts, but only when it occurred within a continuous improvement context. Although lacking a strong emphasis on innovation, the quality movement, with its focus on processes and

process improvement, complements re-engineering.

Scientific management.

The industrial engineering and systems movements constitute another source for process innovation concepts. The earliest precursor of these ideas, the scientific management movement of the late nineteenth and early twentieth centuries, was based on the assumption that behaviour at work could be engineered, designed according to principles of rationality and efficiency. The same approaches that had been successfully applied to technology were transferred to workers (Davenport, 1993).

The most prominent advocate of this revolution was Frederick Winslow Taylor. Taylorism, as scientific management came to be called, included several key principles that are related to reengineering concepts. These were separation of the execution of work from its design, the assumption that there is an ideal design for any work process, the need for measures and controls of work efficiency and effectiveness, and the need for workers to follow standard, routine procedures (Taylor, 1911).

Taylorist principles were further refined into "systems thinking" when the defense industry started to build complex missiles during World War II. Work was viewed as a complex system with measurable inputs and outputs which required rigorous controls and measures. As the complexity of the system grew, process flow diagrams were developed demanding mathematical techniques for queue analysis and optimal routing. This gave birth to the discipline of operations research.

Taylor's idea of a dominant "system" was given new substance by technology managers building it into the hardware and software of computer-based work systems. This, according to Davenport (1993), is contrary to Taylor, who

wanted to subordinate man to the system, whereas technology managers today see computer technology only to minimise the human element in work.

Business Process Reengineering is not a simple extension of Taylorism. Through innovative processes designed to accommodate creativity and worker autonomy, it celebrates the human contribution to work, and optimises rather than eliminates human resources. BPR incorporates radical change without neglecting the role of the human element in work motivation and design. Work can therefore be designed as a soft, human system rather than a rigid mechanical practice (Allender, 1994).

Work design

The study and improvement of work processes has been the focus of engineers and practitioners interested in organisational behaviour and development. Their goal was to improve process efficiency and the creation of meaningful jobs and greater worker satisfaction. Organisational theorists focused on individual jobs in the contexts of the organisational and social environment but did not do so with a cross-functional perspective as in reengineering (Davenport, 1993).

The Sociotechnical School

A group in England and the United States, the "sociotechnical school", combined the role of technology and work design. This school was the first to combine the human element and technology to achieve change (Davenport, 1993). Sociotechnical work design is the harmonious blending of technology and people in a structured work process, taking into account the culture and environment in which a work process occurs. The sociotechnical approach has been applied in many industrial environments, frequently as a way to enrich the jobs of assembly-line workers or to introduce technology effectively in

unionised job environments (Gyllenhammar, 1977).

The School emphasises the need for the concurrent management of technological and human change, with a strong focus on human enablers for innovation. Reengineering adds to this the importance of radical improvement in results and a focus on process thinking.

The Diffusion of Innovation

The diffusion of innovation literature brings a valuable perspective to process innovation. It focus on the implementation and the mutual adaptation of organisation and technology and not on organisational performance. Leonard-Barton (1988) described new technologies as an extremely complex subset of organisational innovations for implementation, requiring much skill.

All of these precursors as well as elements of process innovation are oriented toward operational improvement: that is, they assume that business advantage comes not through better strategies, but through doing business differently. However, each strategy of process innovation achieves its goal differently. Different levels of change are advocated, different aspects of the innovation process focused on, and different enablers of change emphasised. Each makes a distinct contribution to process innovation thinking, which Business Process Reengineering draws from, achieving a total redesign of all functions through introducing a business process.

Business Process Reengineering

By the mid - to late-1980s, many companies in the United States and Europe had begun to suspect that continuous improvement was insufficient to meet

their needs for business change. Companies such as Xerox, IBM and Ford, among many others, recognised the need for more radical change in their business processes and initiated programs for process innovation. The objective was to achieve major reductions in process cost and execution time, and to improve the quality of process outcomes. Again manufacturing companies were the first to pursue this level of business improvement (Hayes and Wheelwright, 1984).

Towards the end of the 1980s, the idea of redesigning or reengineering business processes gained popularity. A number of surveys of Information Technology executives in the early 1990s confirmed that process innovation was a high priority in their sector (Davenport, 1993). The current support for the concept of reengineering is based on two fundamental ideas. The first is that, for many organisations, incremental improvement is no longer an adequate response to the environmental pressures. And the second is to achieve dramatic increases in their performance based on rationally designed, cross-functional, customer-value delivering processes (Hammer, 1994).

Why radical change and not incremental improvement

Many traditional organisations are currently built upon functional silos. The processes within each silo do not fit well together across functional boundaries (Hammer, 1994). These processes were often originally designed for much smaller organisations and have evolved not always in the optimal way as the businesses have grown. As such, these processes tend to be internally focused (have a departmental view) rather than customer focused.

Incremental change and radical change lie on opposite ends of a continuum, a continuum which has many dimensions to it. Traditional operations-improvement techniques are typically restricted to optimising the performance

of individual functions, often with conflicting results. For example, the manufacturing department is rewarded for reducing inventory levels and/or maintaining minimum inventory on hand, while the company's overall customer-service objective is to assure customers of product availability (no stock-outs). Reengineered organisations move away from these multiple independent functional silos, each pursuing its own objectives, to a cohesive set of integrated, customer-focused processes (Hammer, 1994).

In most cases the greatest deficiencies to existing processes occur at the boundaries between functions, departments, facilities and information systems. Furthermore, information technology has often been used to automate existing processes, which were initially designed to be performed by people. Redesigning a process from scratch, to focus on providing customer value in a manner which makes best use of the power of technology, can lead to startling efficiency gains (Hammer, 1994).

Increasing global competition means that successful companies in the private sector will be those which lead the way to transformation. It is no longer possible to hide behind the barrier of national markets and trade protectionism, in order to evade either traditional competitors who have successfully transformed themselves or more recently established companies that from their start have adopted many of the new paradigms.

Government bodies throughout the world are now demanding levels of performance from the public sector similar to those achieved in the private sector. Some organisations are being privatised, while others that remain public are faced with meeting increasingly stringent quality and value-for-money standards.

The seminal article by Michael Hammer and James Champy (1990),

Reengineering Work: Don't Automate, Obliterate is probably the single most quoted source about business process reengineering. Hammer and Champy proposed that as new models of products are designed to suit our changing times, the organisations that produce those products should continually redesign processes.

BPR is not interchangeable with downsizing, restructuring or automating strategies which are primarily designed to shed cost. The benefits that BPR offers organisations if they can manage to "do it right" include stronger alignment of core processes to business strategy, the creation of customer value as a driver for all the activities, and an optimised business architecture for efficient cross-functional performance. Benchmarking is used to accelerate learning, stimulate change, define capability and lead to increased ambition and conviction (Camp, 1989).

Not all parts of a business should seek radical performance improvement simultaneously. According to Davenport (1993) this would be extremely risky, to the point of committing corporate suicide, and is, in any case, unnecessary. It is important to differentiate between those problems that require radical solutions and those for which more traditional incremental improvement techniques are sufficient. During any large-scale reengineering programme, some elements will require radical approaches and solutions, while for others incremental improvement efforts will provide dramatic results. The objective should be to achieve radical results.

The process view links improvement to overarching strategic objectives. It identifies those activities which throughout the process, contribute to the delivery of value, thus optimising overall performance rather than performance within a function. Processes also cross the boundaries between the

reengineering organisation and its suppliers and customers. There are often significant reengineering opportunities to be found by examining these external boundaries as well as the internal, inter-functional ones. As we move towards the age of the agile organisation, interorganisational boundaries will become increasingly blurred, and entire value-chains will compete with other value-chains rather than individual companies competing with each other (Hammer, 1994).

Figure 4.1   BPR and traditional improvement initiatives

SCOPE OF CHANGE
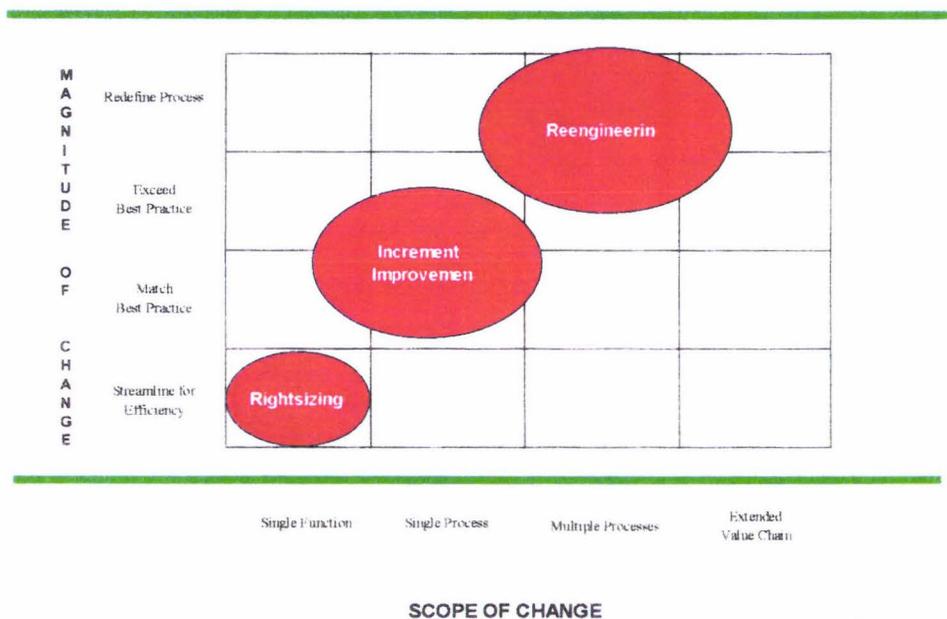
Source: Reengineering for Results, Deloitte,Touche and Tohmatsu (1996)

Business Process Reengineering in Healthcare

BPR is especially appropriate in health care (Pierson. 1994). Bergman (1994) in a special examination of reengineering in health care, stated that reengineering, applied broadly across the spectrum of patient care procedures, has the potential to recreate organisations and improve quality, customer responsiveness, reduce costs and streamline business operations.

Quality is something that all health care providers favor. It is not, as many would like to believe, something that happens without planning and conscientious effort. To evaluate the quality of clinical care is not new, Florence Nightingale, in the 1860's, developed and used a systematic approach to collect and analyse information on differences in mortality rates across hospitals (McLaughlin and Kaluzny,1994).

There have been few factors, until recently, motivating process improvement and a lack of process analyses capacity in health care (McLaughlin,1994). BPR address these issues with the support of technology. Technology is expanding at a phenomenal rate. The information technology available redefined communication and helped to create new ways of organising and managing people. When appropriate, technology should be employed to support the people to make the required process changes. Some workers suggest that BPR should precede a major investment in technology. The benefits from information technology deployment are marginal if they are simply superimposed on existing organisational conditions (Venkatraman, 1992). Many health care organisations, on the other hand, fail to achieve the potential benefit of BPR, by ignoring technology requirements (Bergman, 1994).

Key elements of BPR

Hammer (1990) described BPR as the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical measures of performance. The definition of reengineering encapsulates six key points. Three of these, found in most reengineering definitions in print today, are: a process perspective; a blank sheet of paper approach, and dramatic improvement in performance. The other three factors: a multidisciplinary team capable of understanding how all of the parts of the

organisation contribute to value creation; a sophisticated change management approach; and a strategic focus, are not mentioned consistently but are essential success.

The challenge for a reengineering project is two-fold. First, the planning and implementation of BPR must be timely and methodical. And second, the organisation must guard against the ever present reality of failure. The complexity of health care organisations emphasises these challenges and adds emotional, political, ethical and professional dimensions to the application of BPR.

Conclusion

Grint (1994) suggest that BPR, is not such a radical departure from what has gone before but merely a more persuasive rendering of the arguments for the process set against a backcloth of need to promote increased business efficiency. Total Quality Management (TQM), Scientific management, Work Design, Sociotechnical principles and the Diffusion of innovation are all concepts that could be related to BPR. Each of these, and a historical overview of BPR, have been examined in this chapter.

The next chapter discuss the BPR approach, the project structure and the timeframe of "Straightening the Path for Patients" at Taranaki Healthcare.

Chapter Five

The BPR project "Straightening the Path for Patients" at Taranaki Healthcare

Introduction

The patient is said to be the main focus in health care, although this is often not, in fact, the case. The reengineering initiative at Taranaki Healthcare focused on the patient as the key customer, and named the project "Straightening the Path for Patients". "Path" is an acronym for "Patient Access To Healthcare", strongly reinforcing the emphasis on patients.

The project was based on three values: quality of patient care, quality of working life, and financial viability. Two fundamental challenges were faced. The first was to establish new processes designed to deliver services of a quality which would exceed patient and customer expectations. The second was to transform Taranaki Healthcare successfully into the new way of working brought about by BPR.

This chapter includes an outline of the reengineering strategy applied in Straightening the Path for Patients. It discusses the project methodology, the scope, the structure, change management and communication strategy applied in the first four phases.

Project Methodology

Taranaki Healthcare decided to engage Deloitte Touche and Tohmatsu (DTT), the consulting company, to help the organisation in the reengineering effort. The decision was based on the need to have expert advise on the methodology, the need for instant access to international support, and the need for an objective opinion. DTT consultants were also required to provide training for team leaders and team members and to facilitate difficult meetings. The DTT consultants were involved in a diagnostic study at Taranaki Healthcare in April/May 1995, to identify the magnitude of change required. From this study and based on their advice, Taranaki Healthcare embarked on the BPR project. DTT was involved throughout the project at different levels, as explained in the following sections.

The project was based on the DTT Reengineering for Results methodology endorsed by Michael Hammer. It consisted of five phases: the change imperative; visioning; redesign; plan for implementation; and implementation.

The goal of the *Change Imperative phase* was to develop a compelling case for change, based on analysis of the external and internal environment, to document the results of the analysis, and to convince the Taranaki Healthcare Board (the company directors) to continue with the business process reengineering initiative.

The objectives of the *Visioning phase* were to develop a vision and a conceptual redesign for each of the processes identified in the change imperative, and support it with high level business cases.

The *Redesign phase* was aimed at developing detailed process redesigns,

and detailed specifications for resource requirements and support structures. This phase defined the projects needed to realise the redesign, and developed the implementation strategy.

The *Plan for Implementation* phase specified all the components necessary to realise the redesigns. In BPR these may include the development, building and testing of new information systems and technologies; the construction or refitting of buildings and other physical assets; the development of training courses; the establishment or renegotiations of commercial relationships; and the development of performance measurement and tracking systems.

The *Implementation* phase, is aimed at the introduction of the new processes to embed the new ways of working into the operating environment, to realise the expected benefit (Deloitte Touche Tohmatsu, 1995).

The Scope and Timeframe

There is controversy in literature on whether BPR projects should be enterprise-wide or not. Stephen Baldwin (1993) suggest reengineering is best applied when two conditions are present: radical change is needed, and if it is applied across the whole organisation. Davenport (1993), on the other hand, suggests organisation-wide reengineering would be extraordinarily risky, to the point of committing corporate suicide. Taranaki Healthcare, based on DTT consultant advice, opted in the initial stage of the change imperative phase, to conduct the project enterprise-wide but focused on Medical/Surgical, Support services and Pregnancy and Childbirth in the latter stages of the first Phase.

The project was launched on 7 September, 1995 and was expected to continue for eighteen months. The first phase ended with a presentation to Taranaki

Healthcare Ltd Board of Directors on 15 December, 1995. At this Board Meeting a decision was made to continue with the next phase, which began in April 1996.

In the interval between the end of the first phase and the start of the second phase, the project team communicated the findings of the change imperative to all personnel employed at Taranaki Healthcare. The project leadership group (its structure and role is described later in this chapter) visited three reengineered hospital sites in the United States: St Joseph's Hospital in Atlanta; Sisters of St Mary in St Louis; and Baystate Health Systems in Springfield, during March 1996.

The group then prepared an outline document - Introduction Document April1996 - to guide the rest of the project. This document outlined the key constraints, the guiding principles, the organisational targets and the Taranaki Healthcare values to guide the project team through the rest of the reengineering initiative. This document is currently available as an in-house publication.

The redesign phase began at the beginning of July 1996 and continued into the plan for implementation phase, which officially ended with the hand over of a coordinated five-year business plan for Taranaki Healthcare in November, 1996. The implementation phase began in December, 1996 and is ongoing at the time of writing.

Project structure

The project started by maintaining a traditional functional structure during the first or change imperative phase. The Project Director, who was chief executive officer of the organisation, reported to a Steering Committee. The

Steering Committee, made up of two Board Directors, the Project Director, the Project Manager and a Senior Manager reviewed the process and made policy recommendations to the Board. This management structure is set out in figure 5.1.

Figure 5.1 Management Structure of "Straightening the Path for Patients"

```
                    ┌──────────────────────────────────────────┐
                    │ Taranaki     Healthcare     Board          │
                    └──────────────────────────────────────────┘
                                      │
        ┌───────────────┐    ┌──────────────┐    ┌──────────────┐
        │ Steering      │────│ Project      │────│ THL          │
        │ Group         │    │ Directors    │    │ Managers     │
        └───────────────┘    └──────────────┘    └──────────────┘
                                      │
                              ┌──────────────┐
                              │ Project      │
                              │ Managers     │
                              └──────────────┘
                                      │
   ┌──────────┬──────────┬──────────┬──────────┬──────────┐
┌────────┐ ┌──────────┐ ┌──────────┐ ┌────────┐ ┌──────────┐
│Medical │ │Pregnancy │ │Disability│ │Mental  │ │Support   │
│Surgical│ │childbirth│ │Support   │ │Health  │ │Service   │
└────────┘ └──────────┘ └──────────┘ └────────┘ └──────────┘
```
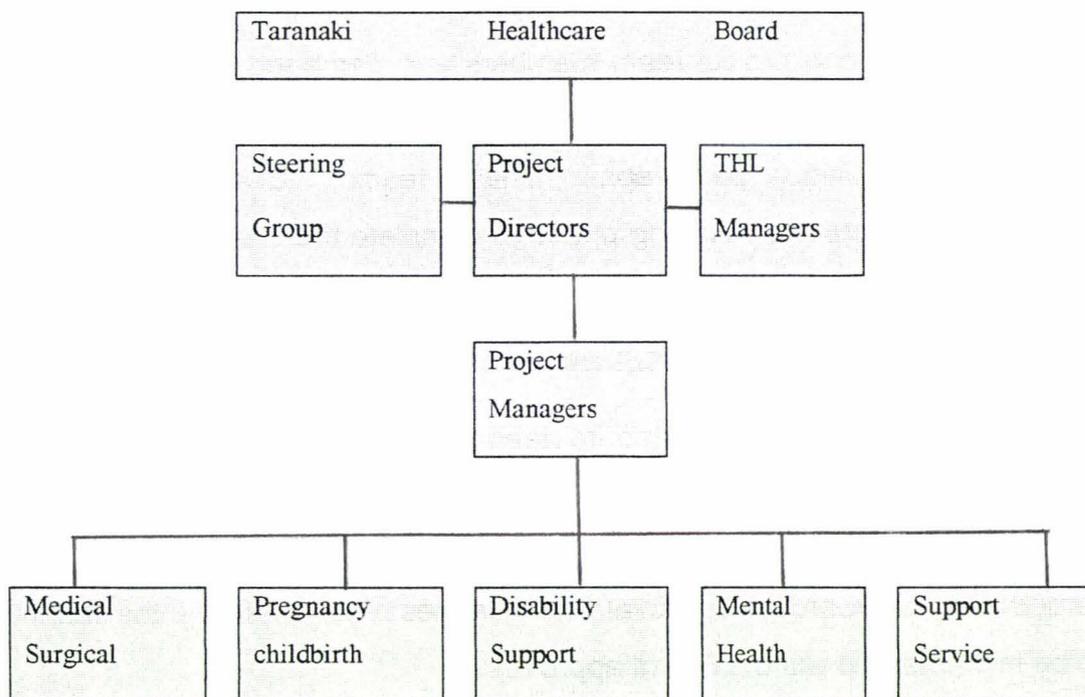
Deloitte Touche and Tohmatsu (DTT) had representation at project director and project management level, additional to consultant support for the different project teams outlined above.

The Project Director held weekly meetings, where individual project teams gave an update or status report on their respective projects against milestones. This was the only contact between the Project Director and the project team. The Project Manager (who reported to the Director) was, like the Project Director, stationed outside the project offices, and had very little hands-on

involvement with the project teams on a daily basis. The rest of the project team were structured in five project teams, each with a designated project team leader.

The teams were: medical/surgical, disability support, pregnancy and child birth, mental health and non-clinical support. Two weeks into the project, the project management team decided, without consulting the project team, to dismantle the Mental Health and Disability Support teams. This created a negative feeling among project team members and damaged the trust in the project management team, which was seen to be managing from a distance as outlined in the previous paragraph. These teams, however, were re-established just before the visioning phase to complete the change imperative in those services.

The project leaders were expected to lead the respective teams. Team members were involved in planning, collecting and analysing data. All project related proposals had to be presented to the project management team, who presented it to the Board for approval. No changes recommend by the teams could be implemented without Board approval.

Following a debrief session on the change imperative phase and the USA visit, the project management team was restructured. Although the titles were unchanged, the functioning was quite different. The Project Director and Manager were located within the project offices and project team members had access to both whenever needed. The reporting structure, however, remained the same.

The project for the second phase was divided into nine components: conceptual design, change management, carepath, inpatients process,

ambulatory and community care, clinical support including theater, radiology, pathology services, and non clinical support services. This new structure of the "Straightening the Path for Patients" project is set out in figure 5.2.

Figure 5.2   The Management of the project for the Visioning, Redesign and Plan for Implementation phase
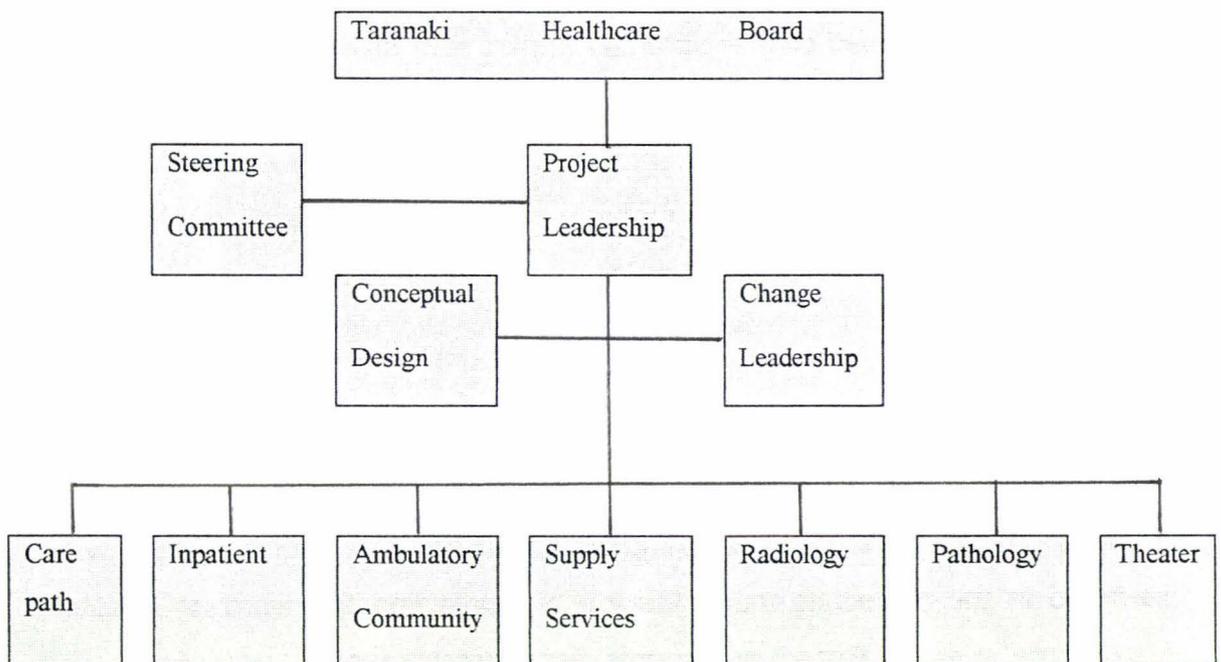
The complex structure of the reengineering project made it difficult for all team members to understand how their activities fitted into the big picture. The project leadership group had continually to 'recalibrate' team members on what, why, and where their efforts would lead.   From this point, daily meetings were held for 15 minutes at 8 am, between project management and team leaders, to address urgent issues.   Weekly meetings with all project team members were held to keep everyone up to date on project progress.

It was important to identify key advisory groups and individuals who could act

as 'sounding boards' during the visioning phase. These included a 'critique' team made up of individuals not directly participating in the project but who would be directly affected by its outcome, and a community stakeholder group. "Challenge sessions", so-called because the project team expected to be challenged on their innovative concepts, were held at various points during the development of the vision and conceptual redesign, to validate ideas and rally additional support for the initiative.

The components of the project changed slightly at the beginning of the redesign phase, based on the potential impact and size of the task on hand. The conceptual design team took on the role of the business planning team to put all the individual components into an integrated organisational plan. The ambulatory and community components were split into two individual projects, and the carepath took on a coordination role in patient-care processes.

Selection of project team members

It was important to ensure that people from all key stakeholder groups were involved in the project to make the job of 'spreading the word' in Taranaki Healthcare easier. Based on organisational track records, personnel within the organisation were identified as potential team leaders. The team leader position required a substantial contribution over a long period of time. After negotiations between the project management team and the senior manager of the specific candidate, potential team leaders were approached and asked to become committed to the project. The employees taking on these roles were initially seconded into the positions and their remuneration package and employment conditions remained unchanged.

The team leaders, as a project group, then identified the potential team members. The release of these people was again negotiated with their senior

manager and then their unit manager. The project applied the concept of 'Dynamic teaming' to handle specific tasks. For example, individuals with expertise in emerging technologies, other industries, and organisational design were included to add a fresh perspective to the vision preparation.

Change management plan

To ensure that the key aspect of "people" involvement was initiated and maintained, a change management plan was developed. This included the identification of key internal and external stakeholders involved with Taranaki Healthcare, along with key messages that needed to be delivered to various groups. An initial strategy to communicate with staff was to hold once weekly lunchtime question and answer sessions in the staff cafeteria. Regular external stakeholder focus-groups for specific services, such as the elderly, children, young persons and Maori, were established.

Defining the future state (Target Environment)

The current environment was examined in sufficient detail to identify significant barriers to change. A fine balance was required between an excessive and inadequate focus on the current situation. The development of the conceptual design was one of the first steps in defining the future state. The focus was for the change management team to focus on the human resource elements, organisational culture, organisation design, compensation, and performance management.

Transforming the organisation

The communication to the full workforce of the need to change and the findings

of the change was an important step in the enrollment process to transform Taranaki Healthcare in the new way of delivering services. The change management team developed a communication strategy which included tailor-made messages for specific stakeholder groups, identified by the project team.

Communication activities focused on refining the communication plan, and on continuing communication on the project purpose and schedule, as well as targets for the future. This was done through a weekly "rumor dump", the publication of a Path newsletter called "Get Real News" and the fortnightly publication "The Pulse". Examples of these publications are included in Appendix D.

Involving key people from the organisation in the project was a key strategy to achieve support for the reengineering effort. It created a good opportunity to enroll employees in the organisational vision and strategy set. Employees then become "company men and women" in the best sense. Their identity with the organisation will then exceed that of their alma mater or hometown team (Chase and Hayes,1991.)

The change management team also played a pivotal role, alongside the consultant input from Deloitte, in the education and training of project team members during the different project phases.

Managing the change program

One of the most important change management aspects during the project was the crafting of a need to change without laying blame and condemnation. The facilitation role is critical and the change management team had to coach the project team members in this craft.

Team building during the project was particularly important to ensure that the team continued to function as one overall team. New team members, added at the beginning of each phase, required effective team building to ensure integration into the existing team.

Conclusion

Taranaki Healthcare engaged Deloitte Touche and Tohmatsu (DTT), an international consulting company, to assist the organisation with the reengineering project. The project was based on the DTT methodology, endorsed by Michael Hammer. The goals of each phase; Change Imperative; Visioning; Redesign; Plan for Implementation; and Implementation, were discussed. The Taranki Healthcare reengineering project was enterprise-wide. This descriptive case study covered the first four phases, which took place from September 1995 to November 1996.

The project structure for the first phase was hierarchical, and the project management group had little involvement with the rest of the project team. The structure was changed for the second phase, and a more interactive approach existed between the project management group and the project team members. The change appeared to be successful and the structure was retained for the rest of this case study.

Change Management was geared towards defining the future state and managing the change programme through the transition. The next chapter discusses the elements of the Change Imperative Phase based on the methodology and framework discussed.

The following chapter discusses the elements of the Change Imperative phase based on the methodology and within the framework discussed in this chapter.

Chapter Six

The Change Imperative Phase

Introduction

This chapter describes how Taranaki Healthcare identified whether organisational change was required or not. It also discusses the elements of the change imperative phase as promoted by Deloitte Touche and Tohmatsu in their methodology *Reengineering for Results.*

Establish the change imperative

The objectives of this phase, as stated in Chapter Five, were to build a case for significant change and to identify which processes needed reengineering in the second phase. Most of the work in this phase required considerable data gathering and interviewing.

A dynamic approach to data gathering was adopted: as the results of early interviews were analysed, interview questions were modified for later interviews to maintain focus. Although common themes became very clear early in the process, it was, however, necessary to continue to ensure that all important constituencies were consulted. The objective of the final interviews was more to do with validating than gathering more data.

The process for gathering the information included: identifying all the services offered by Taranaki Healthcare; identifying the key clinical and non-clinical personnel from whom the best qualitative and quantitative information could be gathered; gathering information that was already available from other documentary sources and previous reviews; interviewing 842 of the 1251 employees, selected on a random but stratified basis; organising group meetings with key stakeholders such as general practitioners and local *Iwi* (Maori tribe); consolidating the information into service overviews; and validating the findings with interviewees and other personnel.

Strategic level external assessment

External factors can often be a stronger motivation of organisational commitment to change than internally generated management directives. The strengths and weaknesses of Taranaki Healthcare relative to other healthcare organisations, market and other environmental factors, determined the need for change and the gap that existed.

The strategic level external assessment carried out by the project team, developed a well-articulated description of the current external environment, and included an understanding of the market characteristics, the demography of Taranaki, and trends in health care services (see Chapter Four). This formed the basis on which to assess the appropriateness of the current strategic business, and identified those processes with the greatest impact on patients' needs and the competitive position of Taranaki Healthcare.

International and New Zealand trends indicate a move towards shorter lengths of stay, more complex admissions with higher acuity, and an increase in ambulatory care with early intervention services. The use of new technologies will allow providers to gain greater efficiencies and improve patient service.

The principles of budget holding and capitation similar to United Kingdom fundholding practices were being evaluated within the primary care system (Glenester,1993). This provided opportunities for other providers such as managed-care organisations, to enter the market and compete with Taranaki Healthcare for revenue.

The overall demographic trends for Taranaki reflect New Zealand trends, as outlined in Chapter Four. A summary of the components addressed during the external assessment are outlined in Figure 6.1.

Figure 6.1 The External Environment

External Influences on Taranaki Healthcare Ltd.

Political/Legal	Demographic/Economic
• Purchaser Strategies • Government policy • Health & Disability Services Act • Changing public litigiousness	• Declining population • Declining birthrate • Aging population • Low median income

TARANAKI
HEALTHCARE

Socio-cultural	Technological
• Rising consumer expectations • Size of high risk population • Consumer resistance to change • Stable Maori population	• Minimally invasive techniques • Pharmaceuticals • Telemedicine • Information technology

Source: Taranaki Healthacare Business Plan 1997/1998

Strategic level internal assessment

The purpose of the strategic level internal assessment was to understand the current state of Taranaki Healthcare, its sense of strategic purpose, and the background against which change had to occur. The assessment concentrated on the existing business, the core processes, organisational culture, the technology, and the organisational structure.

The existing business

Taranaki Healthcare provides a mix of primary, secondary and tertiary medical and surgical services, with a major focus on the delivery of secondary care. Primary services are offered at the emergency department, the school dental services, cervical screening and well child care programs.

Tertiary services are offered by consultants who have the degree of specialisation to perform tertiary services, for example, the technical capability of performing vascular and thoracic surgery. In the 1994/95 year there were three hundred and thirty nine referrals out of Taranaki, mainly to hospitals in Wellington, Auckland, Hamilton and Christchurch (BPR project team, Change Imperative THL Medical Surgical proect, 1995). Interviews with consultants revealed that there are no criteria governing the referral of patients out of Taranaki, making it difficult to determine by service what level of complexity was required before a patient would be referred.

Midland Regional Health Authority purchase almost all medical and surgical services on a casemix basis. The concept of casemix funding was established in the USA to reflect resource utilisation related to case complexity. The cases are compared with one another on a relative basis, called case weights, and the total for inpatient episodes then related to the total number of discharges. The term used for describing this is case weighted discharges (CWD) (Ferguson,1994). There are a small number of contracts for medical/surgical

services which are exclusively outpatient or community based, for example, the Accident and Emergency Service, known as non-casemix services. The revenue and costs for Taranaki Healthcare related to casemix and non-casemix services are summarised in table 6.1.

Table 6.1 Taranaki Healthcare casemix and non-casemix Revenue

	Current Year (1995/96)		Projected (efficient price)	
	casemix	non-casemix	casemix	non-casemix
Revenue per cwd	$3,064.75		$2,380.00	
Revenue	$41,153,463	$3,246,402	$31,958,640	$3,246,402
Estimated costs	$48,363,576	$5,398,810	$48,363,576	$5,398,810
Profit/(Loss)	($7,210,113)	($2,152,408)	($16,404,936)	($2,152,408)

As details of the financial performance are commercially sensitive, these cannot be discussed in more depth.

Some of the services at Taranaki Healthcare are provided at levels in excess of the existing contract. The case weight depends on the type of case and the clinical diagnosis, for example, a fractured neck of femur. Certain diagnoses are grouped together in a so-called diagnostic related group (DRG), for example, the fracture neck of femur is classified with all other types of hip fractures into one group (Bardsley, 1989). Each of these groups then have a specified case weight attached and, as explained earlier, the total number of discharges with that specific case weight are then called case-weighted discharges (Casas, 1992).

Table 6.2 compares the actual number of CWD done by Taranaki Healthcare with the Midland contracted CWD (95/96).

Table 6.2 Comparison of actual versus contracted CWD

Service	Contract	Actual
Medicine	6266	6265
Surgery	5034	6049
Orthopaedic Surgery	2128	2706
Total	13428	15020

Source: Medical Surgical Change Imperative Report

Taranaki Healthcare also provides some services which are not specified in purchasing agreements, and for which no explicit payments are made, for example, home oxygen therapy, sexual health clinics in South Taranaki. Some services such as cervical screening, diabetes and asthma education, and a number of child specific services provided are quite diverse and often poorly counted. Frequently, there is little or no recognition of these services by the purchaser, particularly in terms of payment.

Historically, public hospitals have admitted people with nowhere else to go or no other support. These so-called "social" admissions, an estimated 20-25 percent of medical admissions according to clinical staff, are due primarily to the failure of other areas of the health and social service systems (BPR project team, Change Imperative THL Medical Surgical proect, 1995). The lack of admission criteria for many services, and the ready availability of beds contributed to this.

A major determinant of the cost of inpatient care is the number of days of inpatient care provided. The total number of inpatient days are determined by

the number of admissions and the length of stay (LOS) per admission. The total number of inpatient days may be excessive for two reasons: an excessive number of cases with a LOS which is outside the accepted upper limit of the normal range (known as outliers); and/or where the average length of stay (ALOS) for patients within the normal range of stay (known as inliers) is greater than the ALOS of the reference group. The days associated with outliers and inliers for Taranaki Healthcare for the major service groups are outlined in Figure 6.2.

Figure 6.2   Excessive Outlier Days
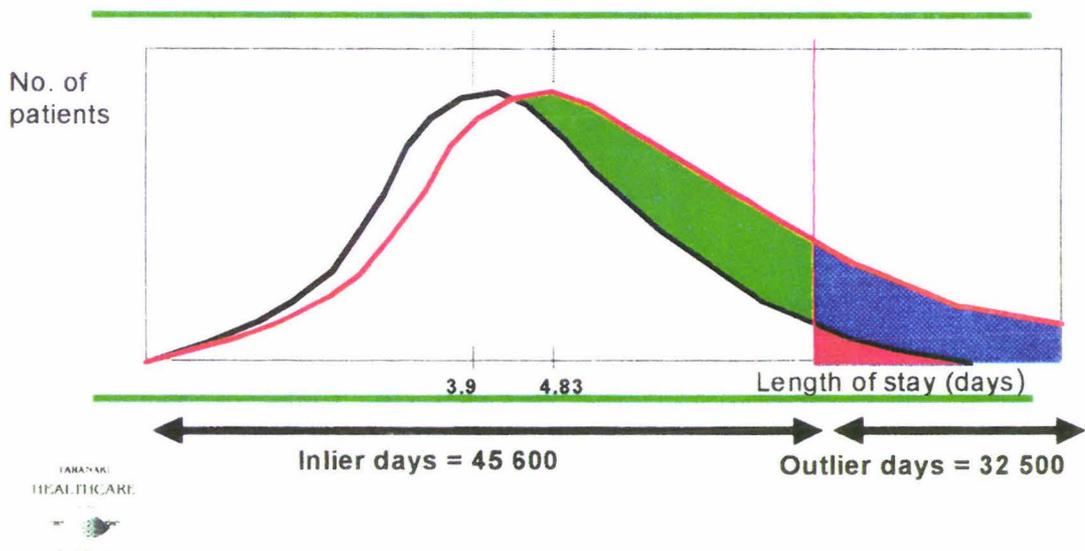
Source: Path Project Change Imperative Presentation, 1995

It is acceptable to have up to five percent of cases as outliers contributing up to 15 percent of the total number of inpatient days (BPR project team, Change Imperative THL Medical Surgical proect, 1995). Close to nine percent of Taranaki Healthcare inpatient episodes in 1994/1995 were outliers. This group, as illustrated in the above diagram, contributed 32500 inpatient days, or 42 percent of the total number of inpatient days, in 1994/95.

The major contributing factor relates to a practice, evolved over time, whereby patients are sent home on leave while the unit keep and staff their beds as if they were in hospital. This contributed 10000 bed days to the outlier number. Another reason is the bottle neck between internal consultations and transfers as outlined by the case of "Miss Smith" described in this Chapter.

The number of inpatient beds in an organisation delivering healthcare depends on the volume and mix of admissions/discharges, the number of days per admission, and the occupancy rate of resourced beds. The bed requirement at Taranaki Healthcare was discussed in Chapter Three (see Figure 3.3).

The appropriateness of some of the work carried out by certain professional groups was also evaluated through an activity analysis. For example, the unpacking of stores by Registered Nurses, an activity which has been questioned by the nurses themselves, reduces the amount of time spent on direct patient care.

The nursing employment strategy of Taranaki Healthcare in recent years moved towards an all Registered Nurse (RN) workforce, and the organisation encouraged Enrolled Nurses to upskill through bridging training courses. Registered Nurses account for 68 percent of the nursing workforce (BPR project team, Change Imperative THL Medical Surgical proect, 1995).

In order to test whether or not the skill mix is actually biased in favour of comprehensively skilled nurses, an activity analysis of a sample of a medical ward, a surgical ward and a paediatric ward was conducted. The analysis was carried out by senior Registered Nurses at Taranaki Healthcare with assistance from Deloitte consultants.

The analysis showed that RNs spent on average 26 percent of their time during the morning and afternoon shifts on activities that could be delegated, and 13 percent of night shift time on activities that could be delegated. Eighty percent of work over all shifts can be done by enrolled nurses under the supervision of a RN; and 46 to 57 seven percent of work over all shifts is appropriate for hospital aides to carry out under supervision (39-44 percent of work over all shifts is not appropriate for hospital aides to carry out).

Seventy-four percent of RNs are employed at the highest salary level, with levels reflecting years of service, not skill level. RNs at this level make up the greatest number of registered staff on any shift in the surgical and paediatric wards.

These findings indicate that the skill mix on the wards is currently inappropriate, and that the more highly trained nurses are not performing tasks commensurate with their skills or their salaries. The fact that they are under-utilised in terms of their skills indicates that the acuity of patients at Taranaki Base Hospital is not high enough to justify their current deployment.

While this finding does not automatically mean that the number of Registered Nurses will be reduced in a reengineered company, it sends a clear signal that the ratio of RN's to enrolled nurses should be aligned with the acuity of the patients treated by Taranaki Healthcare.

Value-added activities occurring in the medical and surgical areas are those necessary to the achievements of Taranaki Healthcare's overall strategy. Conversely, those that do not add value are activities that are not necessary to the strategies.

The medical and surgical activities which add value to the customers of Taranaki Healthcare, as determined through interviews and focus groups, include assessment, treatment and rehabilitation. This consists of outpatient sessions and inpatient care, all of which were identified as the key services offered by staff within their medical and surgical specialty. However, the proportion of time spent performing each of these value-added activities is important when understanding how efficiently they are being done, as illustrated by the nursing activity analysis done during this phase. An example of a move toward improving the value-added activity spent in the hospital is the introduction of a triage (or sorting) system in the Emergency Department. This system guarantees a minimum wait time for patients, and ensures that high-priority patients receive attention ahead of lower-priority patients.

Those activities that do not add value, in general identified through observation and interviews, are: outpatient staff nurses performing clerical tasks, such as preparing clinical notes; patients being required to repeat information to different clinical and non-clinical staff; repeated assessment of patient on admission by nurse, house surgeon, registrar, primary nurse, and, possibly, occupational therapists, physiotherapists, dietitians and others; repeated tests such as radiological examinations because results from tests ordered by general practitioners in the community are not automatically released to the hospital clinics. These are activities targeted for elimination through reengineering of processes.

The core processes
The core service, according to Chase (1991,p.16) is "the essential set of services that the firm must provide just to participate in its market". The core service delivery process in a healthcare organisation centers around patient care. To improve service delivery and create value the series of activities within this process were identified. These activities are: referral (how the patient gains access to the services at Taranaki Healthcare); assessment

(which set of services would best meet the patient's needs); treatment (delivery of inpatient care and continuing care); and the care provided to the patient following discharge. These activities and the core process are outlined in Figure 6.2.

Figure 6.4   The Core Patient Process in Health
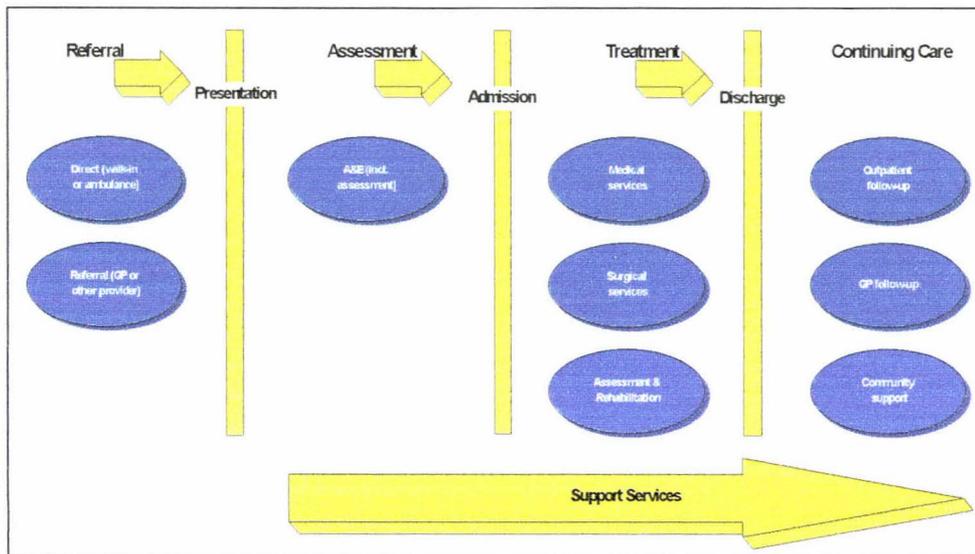
Source: Medical Surgical Change Imperative report

Patient example

"Miss Smith", an acute orthopaedic admission, is an example of a case study used to prepare process maps during the change imperative phase of the project.   The following is a description of her encounter with Taranaki Healthcare.

Miss Smith, a 67-year-old who lives alone, fell in her bathroom one evening and was unable to get up. The following morning her neighbour, who became concerned when Miss Smith didn't collect her morning newspaper, entered the home and discovered her on the bathroom floor.

The neighbour contacted the ambulance service. Miss Smith was transferred to Taranaki Base Hospital Accident and Emergency Department. She was assessed by the casualty officer, who suspected a fractured neck of femur and ordered a hip x-ray. The x-ray confirmed a fractured hip and she was transferred to the Accident and Emergency admitting ward.

She carried with her the front sheet of the admission documentation, which contained personal details completed by a registered nurse. The initial orthopaedic assessment (included social details and a physical examination) was carried out by the House Surgeon as the Registrar was unavailable.

The Registrar later reassessed Miss Smith, reviewed the x-ray, and confirmed the diagnosis. Miss Smith was then transferred to the orthopaedic ward to await surgery. Whilst in the ward she had a nursing assessment completed and a nursing care plan started.

The house surgeon on-call who admitted Miss Smith was not part of the on-call consultant's team and her case was therefore handed over to the house surgeon on that team. This resulted in another medical assessment. A mutually suitable theatre time for the anaesthetist, the surgeon and theatre staff was arranged by the house surgeon, who also obtained consent for the surgery. She was assessed by the anaesthetist for anaesthetic risk, and transferred to theatre. Following surgery, Miss Smith was transferred back to the orthopaedic ward. She was assessed and treated by the physiotherapist and other allied health professionals. On day seven after surgery, Miss Smith was ready for discharge, but the orthopaedic team realised that this was not possible in view of her home situation. She was at that point referred to the geriatrician for assessment to determine her suitability for the Assessment and Rehabilitation Unit (A&R). The geriatrician advised that Miss Smith would

benefit from the A&R's input, but had to wait for an available bed.

Miss Smith was transferred to the A&R unit one day later. She was reassessed by nursing staff of that unit, and another care plan was started. Here, too, she was reassessed by the medical staff, physiotherapist, occupational therapist and visited weekly by the orthopaedic surgeon. Before discharge, the Home Support Unit assessed Miss Smith to identify any assistance such as home help, meals on wheels, that would be required.

Arrangements were made for Miss Smith to receive District Nursing services, meals on wheels service, home help and the community physiotherapist. Follow-up appointments with the orthopaedic surgeon and the geriatrician were arranged.

Figure 6.4 Miss Smiths path through Taranaki Healthcare
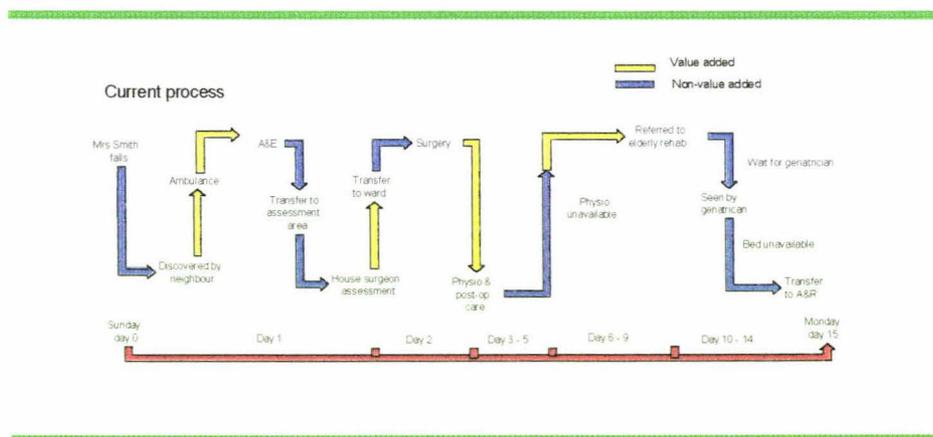
Source: Medical Surgical Board presentation

High-level patient flow diagrams based on case studies, similar to this, were developed for acute and elective patient flow processes. The following two figures (from the Medical Surgical Change Imperative Report) illustrate these

processes:

Figure 6.5 Acute Patient Flow Diagram
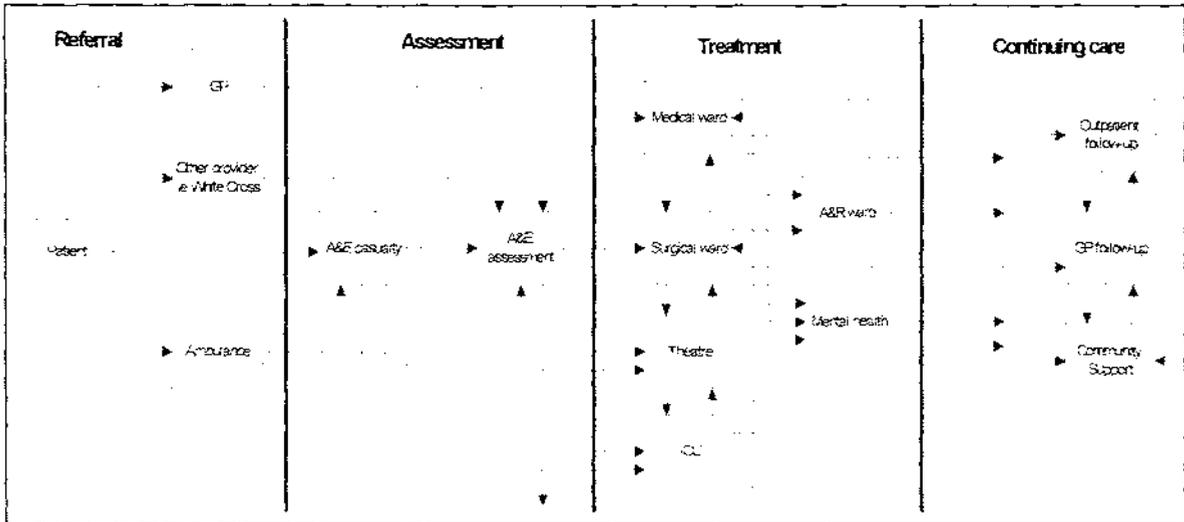
Figure 6.6 Elective Patient Flow Diagram
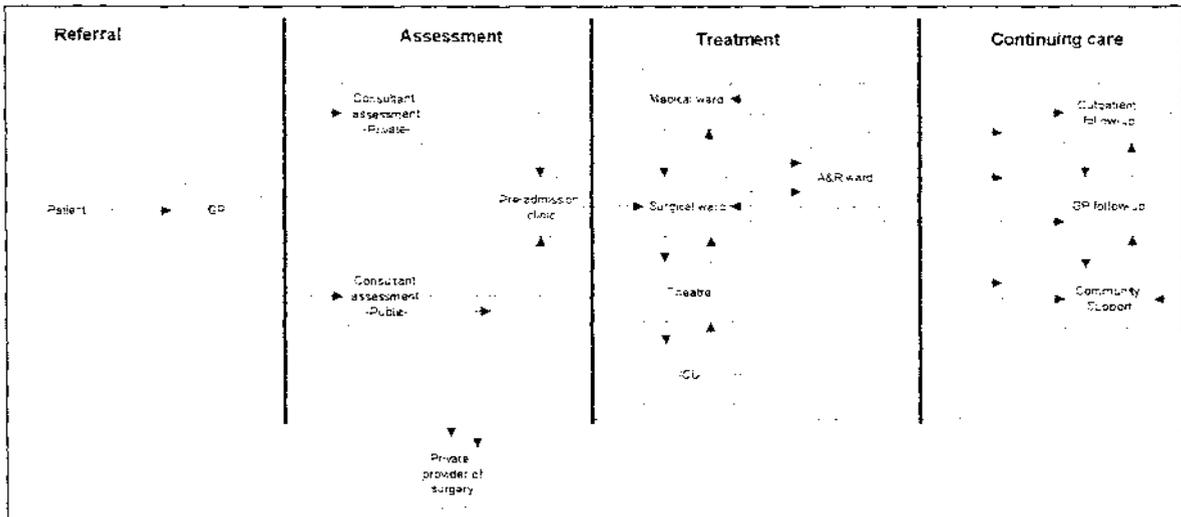
Source: Medical Surgical Change Imperative Report

These patient flow diagrams were used to illustrate the variety of possible patient paths through the hospital. How well, when and where each patient-related activity is all performed have a direct bearing on the patient's perception of the service, the quality of the working environment and the cost

of providing the service.

Workshops with senior nursing staff, discussions with focus groups consisting of representatives from all employee groups within Taranaki Healthcare, patients and other external stakeholders, highlighted a number of issues related to the patient's path through Taranaki Healthcare. The inefficiencies were summarised on cause-and-effect diagrams.

The three main groups of inefficiences were: delays in patient care; complexity of the processes; and duplication of effort. These groups, as illustrated in the herringbone diagram, Figure 6.7, were discussed in detail in Chapter 4.

Figure 6.7 Inefficiencies in care delivery
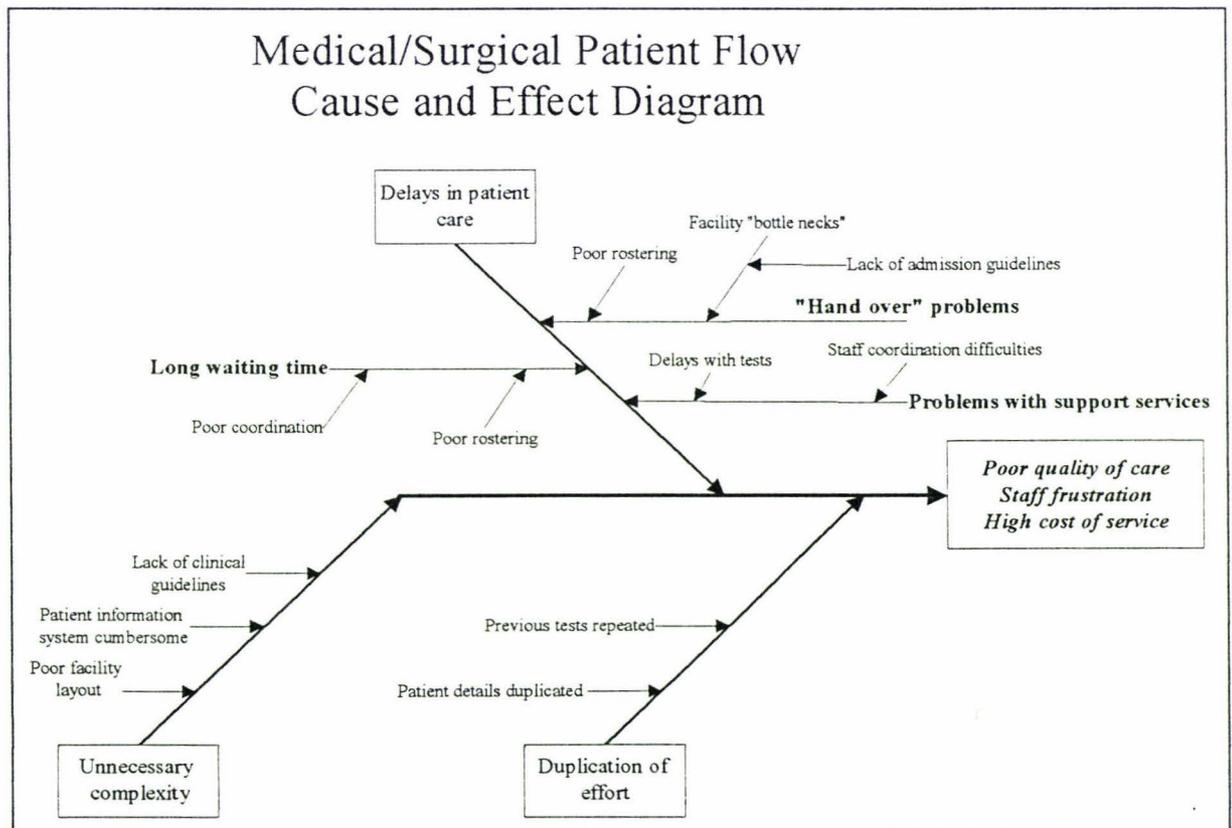
Source: Medical Surgical Change Imperative Report

The culture of the organisation

The culture of an organisation provides meaning, direction and habituation to employees, and moves an organisation as a whole into productive action. The culture typically evolves from the example set by the leaders within an organisation. A culture print, measuring relevant organisational dimensions such as vision, empowerment and bias for action, provides hard, quantitative, and statistically valid information on a traditionally intangible topic (Deloitte Touche and Tohmatsu, 1995).Deloitte Touche and Tohmatsu conducted a culture print of Taranaki Healthcare just before the first phase of the reengineering project based on the following ten dimensions:

1.   Vision

2.   Management

3.   Support

4.   Empowered - Not Bureaucratic

5.   Skill Utilisation

6.   Teamwork

7.   Performance

8.   Patient Focus

9.   Cost Consciousness

10.   Bias for Action

11.   Adaptability

The analysis and methodology used by Deloitte Touche and Tohmatsu for the Culture print are explained in the in-house publication, *Diagnostic Report for Taranaki Healthcare*. The key findings of this report are summarised in Figure 6.8.

Figure 6.8 Organisational Culture Print

Organisational Culture
Need to Change v Readiness for Change
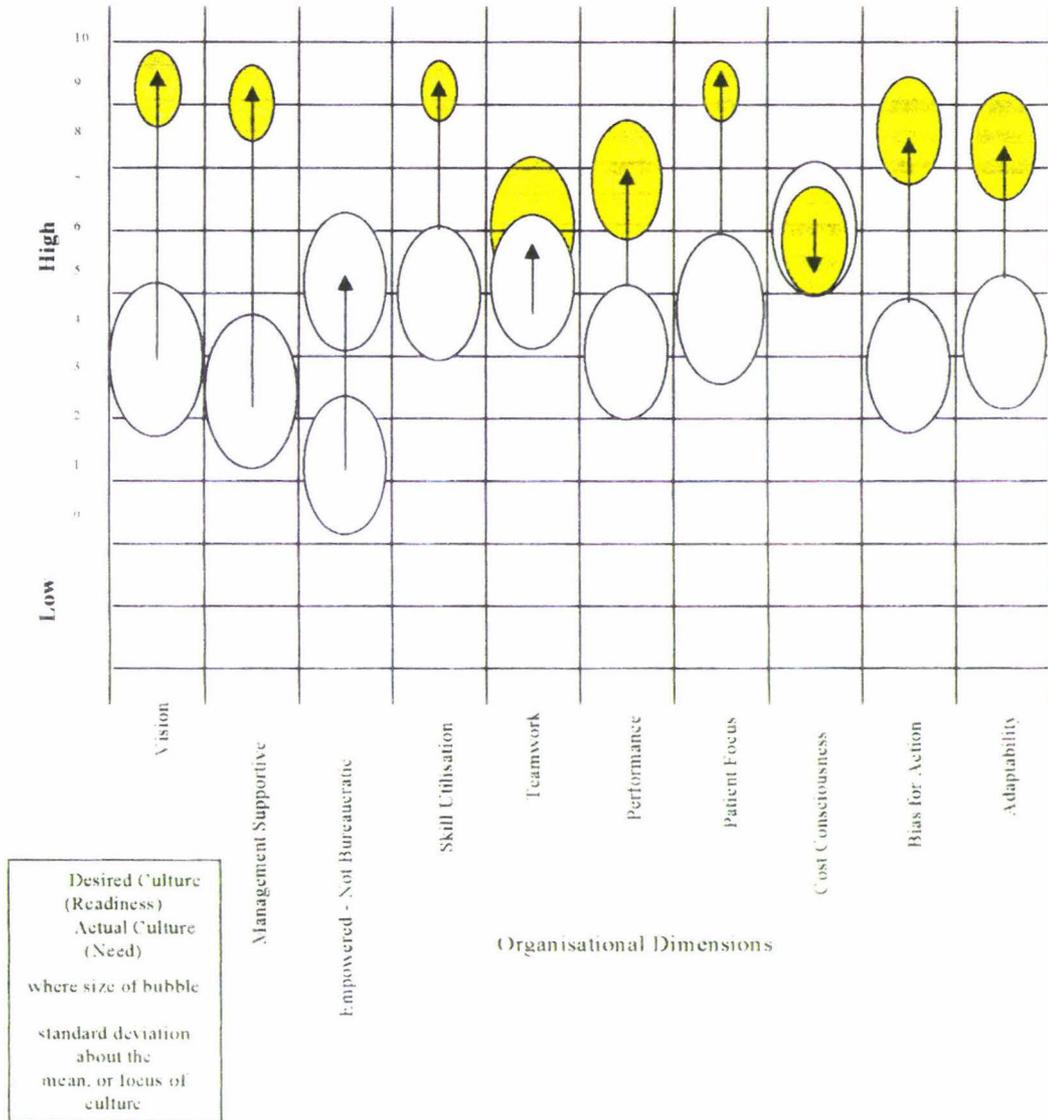
Source: Diagnostic Report on Taranaki Healthcare

The green bubbles represent the desired culture, the white bubbles the actual culture and the arrow the gap between the actual and the desired.

Cohesiveness of desired culture: While the culture at Taranaki Healthcare is less cohesive than desired there is, however, more agreement among staff about the way they would like things to be than about the way things are at present.

Cost consciousness: Employees felt that too much emphasis was placed on cost at Taranaki Healthcare. They were more responsive to the idea of cost savings rather than the simple exercise of cost cutting during budgeting. Employees also expressed a need for further clarification of health funding and appeared to be enthusiastic about providing better value for the health dollar.

Patient focus should be the number one priority: Employees overwhelmingly stated that attending to patient needs should be the most important part of Taranaki Healthcare's business. This was expressed by a mean score of 9.6 out of 10. The theme for the reengineering initiative 'Straightening the path for patients' therefore captured the true essence of the feeling in the organisation.

Management Support: The most significant difference between actual and desired cultures expressed through the culture print was management support. Inadequate support was the key reason for employee dissatisfaction and to resolve would require a dramatic change in attitude.

Importance of appropriate skill utilisation: This rated a close second to management support in difference between actual and desired culture. Employees wanted to perform those tasks that made best use of their skills and training. This involved delegation of some work and the elimination of no-value-added work.

Clarity of vision and removal of inertia: The culture print showed that employees were frustrated by the uncertainty over their future at Taranaki Healthcare. They wanted to be included in any changes that directly affected them and desired a clearer, more meaningful direction at strategic level.

Attitude to change: Most individuals wanted a more pro-active working environment.

Adaptability: The organisation wanted a dynamic culture that was responsive to the changing environment.

Performance based reward: Employees were unhappy with their remuneration and this led to a lack in motivation. This may be a symptom of the lack of management support and recognition. By addressing the latter problem the need for changes in remuneration might be reduced.

Information technology assessment

A range of information users were interviewed during this phase of the project. This included interviews with heads of departments, house surgeons, ward clerks, unit managers, service managers and the Director of the Quality Unit. Information systems within health care organisations, according to Kaluzny (1994, p.403), often "have a programatic or categorical character which makes it difficult to integrate clinical outcomes, process of care and financial information". The information technology provided at Taranaki Healthcare, summarised in Figure 6.9, is true to this statement.

The reliance on paper-based systems, despite the introductions of computer-based information systems, led to difficulties in maintaining complete and

accurate medical records for clinical and management information. This could lead to delays in patient care and revenue generation.

Figure 6.9 Information Technology Systems at Taranaki Healthcare
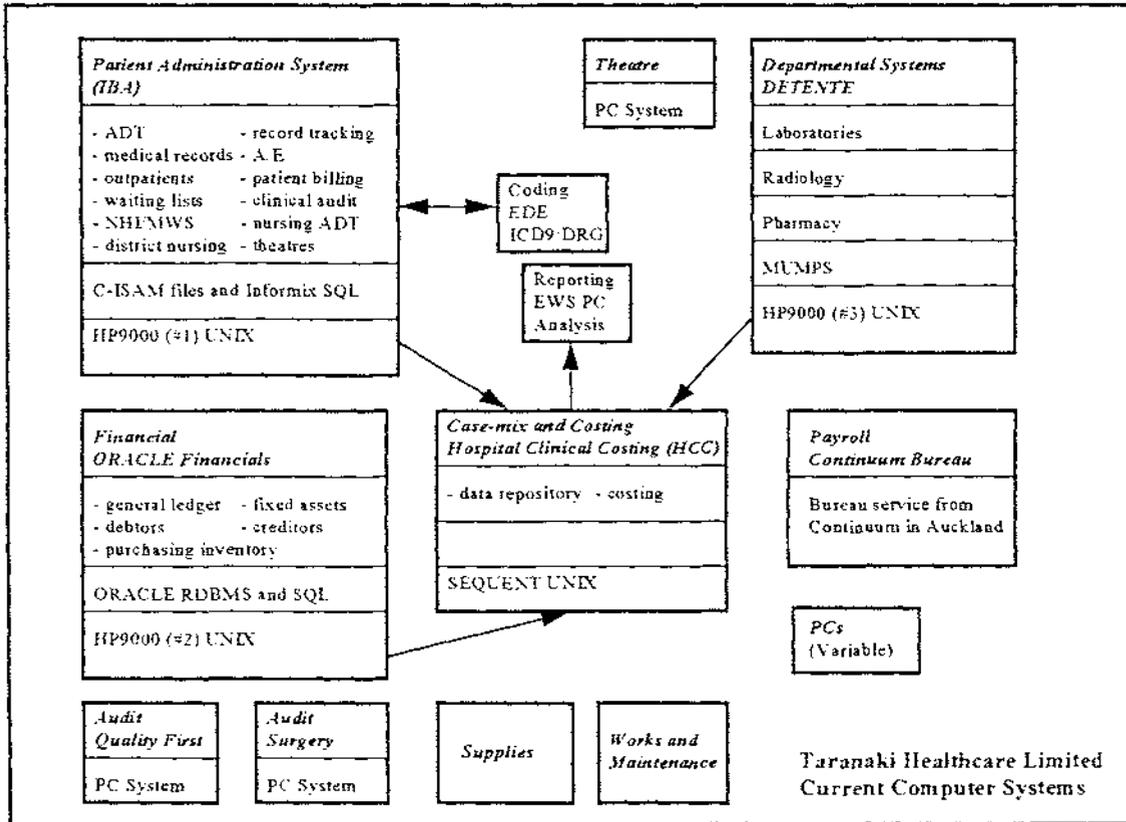
Source: Medical Surgical Change Imperative Report

The organisational structure

The organisational structure was evaluated during this phase of the project, and included an analysis of the management of the reporting relationships and the size of the individual divisions and units. The Taranaki Healthcare structure was seen as cumbersome with poorly defined accountabilities and unclear delegations at various levels (see Appendix C). All senior medical and surgical staff, for example, report directly to the Manager of Acute Services and not to the Medical Director. There is also a split in responsibility for New Plymouth and South Taranaki (BPR project team, Change Imperative THL Medical Surgical proect, 1995).

Conclusion

The objective of the change imperative phase was to build a case for change at Taranaki Healthcare. Most of the work done, required data gathering and interviewing people. The phase included a strategic level external assessment, evaluating the external environment and an internal strategic level assessment.

The internal assessment evaluated the existing business, compared revenue with cost, and identified the factors contributing to excessive outlier days for inpatient service in the organisation. The skill mix at Taranaki Healthcare was inappropriate, compared to the work carried out by professional groups. The core processes, the patients path and supporting functions, were mapped and the inefficiencies in care delivery summarised by cause and effect herringbone diagrams. The internal assessment also included an evaluation of the culture and the technology within of the organisation.

The findings of this phase were presented to the Board of Directors, employees of Taranaki Healthcare, and the New Plymouth Chamber of Commerce. The Change Imperative Report, consisted of the following volumes: Medical Surgical Report; The Support Services Report; Pregnancy and Child Birth Report. A copy of the report was handed to each of the senior managers, and a copy placed in the project library. The message was clear "fix the process, not the problem" (Sirkin, 1993).

The analyses performed during the Change Imperative phase, discussed in this chapter, provided the necessary groundwork for the next phase by providing a factual picture of Taranaki Healthcare. It was now, possible to shift the attention from "what Taranaki Healthcare was " to what they wanted to be" as discussed in the next chapter.

Chapter Seven

The Visioning, Redesign and Plan for Implementation Phases

Introduction

This chapter discusses the Visioning (phase 2); the Redesign (phase 3); and the Plan for implementation (phase 4) of the project. The project structure and time frame for these phases was described in Chapter Five.

The Visioning phase

The objective of this phase was to develop a vision and a conceptual redesign for each of the processes identified in the Change Imperative, and to develop business cases to support each of the process visions into a fully detailed design.

During this phase further analysis was conducted to support the change imperative, and to make it relevant and meaningful to the wider work force. This additional analysis helped to clarify further what was wrong with the current processes and also identified the root causes. This was useful both for personalising the change imperative, and also for creating a list of weaknesses to be avoided in the new process. After all " people can put their hands around a vision, sink their teeth into it, It operates in the realm of the senses and emotions" (Beckham, 1994).

Information gathered during the visioning phase helped to generate ideas and set specific performance targets. Although many analytical tasks had to be performed, visioning is at heart a very creative process. Success depends on the participation of high caliber individuals and the creation of an open, creative environment in which the team could work.

The actual process of visioning had three elements: the preparation of vision inputs; creative visioning sessions; the establishment of performance targets and the development of a business case. This included the identification of specific process enablers, such as technology, facilities, and innovative practices.

Preparing for visioning

Before beginning the creative visioning process, a certain amount of analysis of the results were needed for the brainstorming sessions. A conservative-looking tendency towards too much detail and analysis was however evident during the early stages of this phase. This was identified by the DTT consultants and the focus was again shifted to the relevant business process to fulfill patient and customer needs to contribute to Taranaki Healthcare's competitive position.

The need to change, documented in the first phase, was very compelling to Taranaki Healthcare senior management team, but was not sufficient to persuade individual members of the work force. The assistance the Taranaki project team received from the DTT consultants were especially useful in developing a somewhat greater level of detail, using terms that individuals understood, to establish acceptance for change. This was achieved by decomposing the high level processes into sub-processes.

The decomposed processes were mapped and then validated with key process participants, customers, suppliers and external stakeholders. Performance objectives for each component of the total processes, for example the pathology process were set, based on benchmark data and customer requirements. The following example, Figure 7.1. was used for the pathology process:

Figure 7.1 The Pathology Process
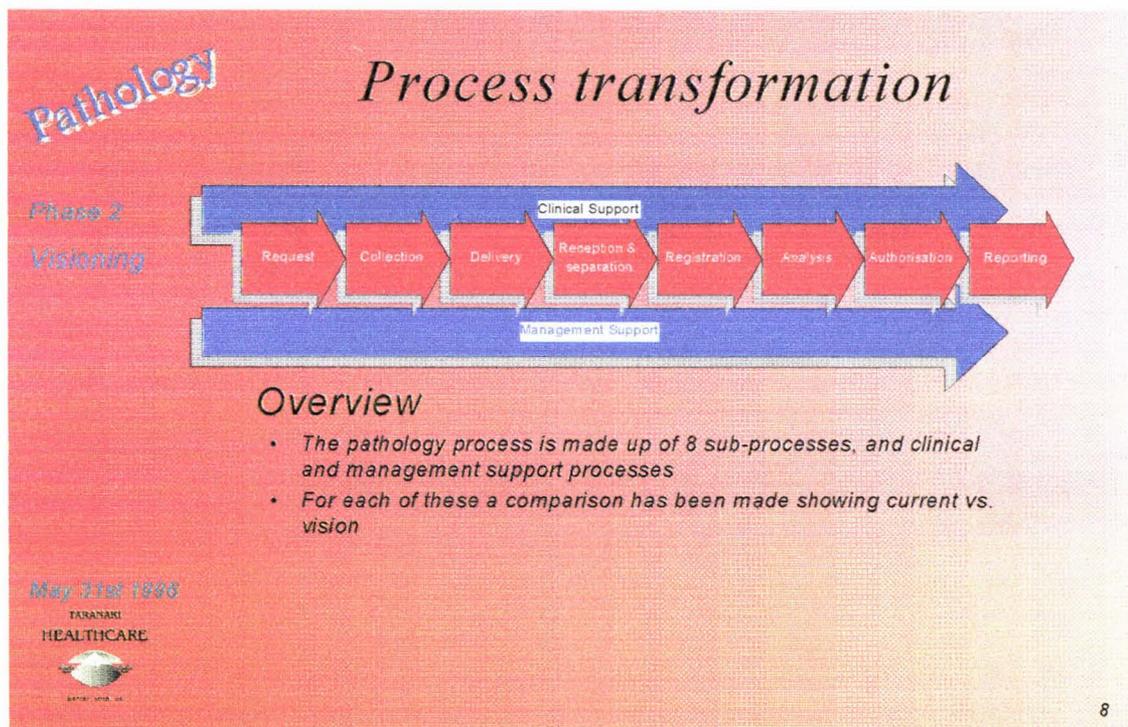
Source:Pathology Visioning report

Benchmarks emphasized 'how much' and innovative practices 'how' to achieve the radical changes (Camp,1989). Benchmarks, as quantitative measures of performance characteristics, were typically used to define the performance differential between Taranaki Healthcare and other like organisations. This gap analysis demonstrated potential improvement and helped to establish performance targets.

Innovative practices, on the other hand, revealed the mechanism by which dramatic improvement could be achieved at Taranaki Healthcare. New approaches inevitably stimulated 'out-of-the-box' fresh thinking with a paradigm shift towards service horizons for example: the continuous improvement cycle of a managed-care model (see figure 7.2).

Figure 7.2. Managed Care Continuous Improvement Cycle.

Continuous Improvements in a Population Based Managed Care Process
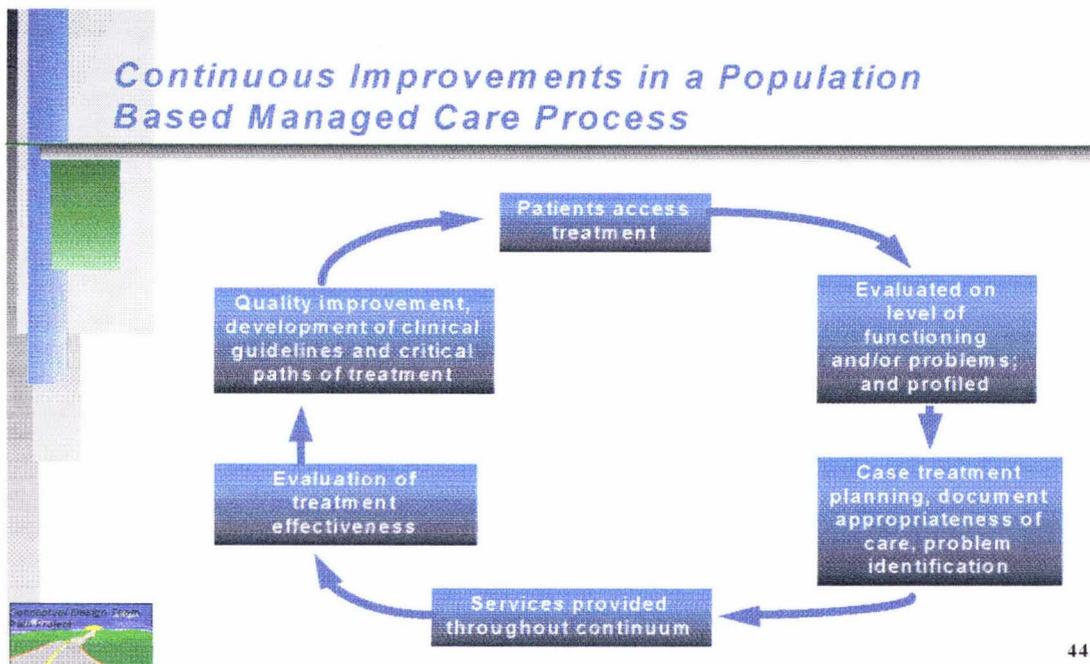
Source: Conceptual Design Visioning Report

Actually seeing new ideas in action builds enthusiasm. Appropriate site visits were arranged for this "seeing is believing'. For example, six project team members visited St Vincent's Hospital in Melbourne, Australia. This hospital went through an extensive reengineering project in the early 1990s.

Innovative practice data were not confined to the analyses of other health care organisations. For example, the booking system used by travel agents and airline services were explored for outpatient bookings systems by the ambulatory team. The "best in process" rather than the best in the health industry were identified.

Creativity exercises, in addition to this data gathering, were held to encourage radical, creative thinking for the visioning sessions. Visioning exercises were driven by a fact-based understanding of patient or customer needs and requirements. The purpose of visioning is to be 'out of the box', creative, and unconstrained by the existing ways of doing work.

Develop the vision

Hammer (1994) suggests that a clear view of the strategic vision for the business must exist and be communicated before the start of visioning sessions. This did not happen at Taranaki Healthcare due to changes in the Midland Health contracting intentions. The conceptual design team, therefore, developed the following vision (see figure 7.3.) to guide the project team. This vision was based on the Greenfields approach promoted by Hammer (Hammer, 1994).

Figure 7.3. Conceptual Design Team Vision
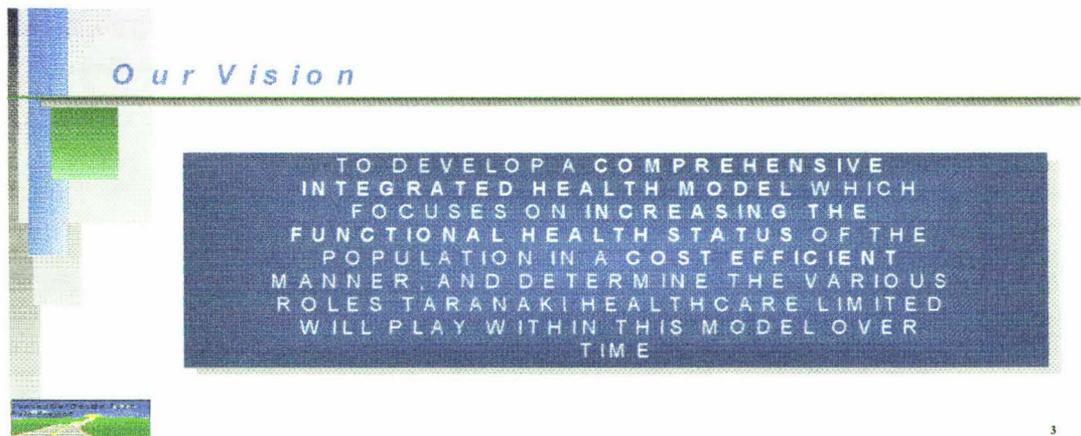
Source: Conceptual Design Visioning report

Several key issues were considered and used to stimulate visioning. These included patient and customer requirements, competitive dynamics, business strategy definition, benchmarks and best practice.

There is a distinct difference between a strategic vision and a process vision. The strategic vision defines the overall mission and objectives of the organisation with respect to its customers and competitors. Process visions, on the other hand, define the attributes and performance objectives of a particular process within the overall organisation which support the business strategy. Great comebacks is usually driven by a broad vision, well articulated and championed by the CEO (Cerne, 1995). The 'As-is' (the current situation) analysis performed in preparation for the visioning sessions was primarily to facilitate the development of the ' to-be' environment. It created a baseline understanding of strengths, weaknesses and core competencies of the 'as-is' processes. The basic understanding of the 'as-is' process was used to highlight some existing conflicts, for example, the conflict between the ethical and the financial basis for decision making. To illustrate this the conceptual design team, developed Figure 7.4.

Figure 7.4 Ethical dilemma caused by fixed volume contracts

Flow chart depicting DRG financial incentives as developed by RHA which create ethical dilemmas for clinical decision making
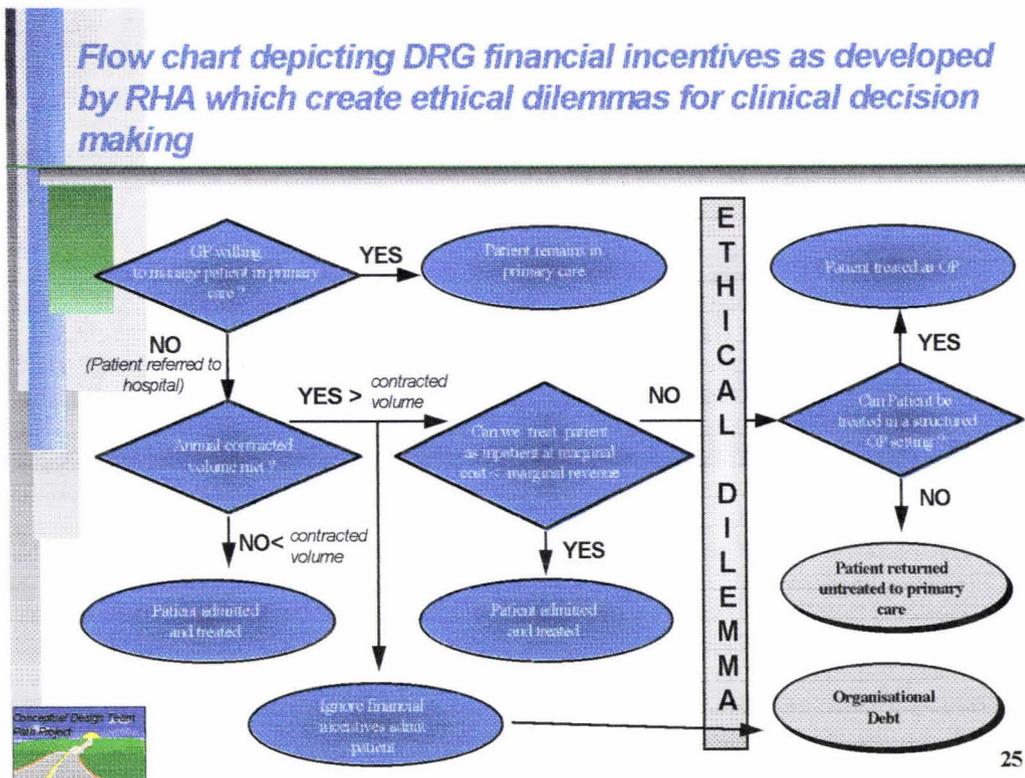
Source: Conceptual Design Team Visioning report

Benchmarks were used to identify performance gaps relative to best-in-class companies and provided an approximation of the magnitude of performance improvement possible, thus allowing legitimate targets to be set. The project team, assisted by the DTT consultants, researched best practice documents and contacted staff at the hospitals visited in the USA and Australia, to identify appropriate benchmarks. These documented external best practices and their perceived applicability to Taranaki Healthcare were powerful building blocks for the reengineered process vision. The vision for a specific business process, for example, inpatient services, had to provide a clear view of 'the destination' of that process. The vision therefore had to be much more comprehensive than just a good idea; it included integrating multiple innovations as building blocks to achieve the new business process.

An effective vision statement needed to include four primary elements -.

Innovation concentrates on radically new ideas focused on performance improvement;

Cohesion creates an integrated picture of how radical ideas, incremental ideas, and even old ideas are synergistically applied in the new process;

Communication clearly articulates the redesign and motivates the organisation and

Targets define the goals and planned results for the new processes.

A variety of considerations were given to determine how best to conduct these visioning sessions. The number of people involved, the format, the time, the duration, the facilitator and the material circulated before the session, are some examples of issues considered for the Path Project.

Following these sessions, more detail was usually required to make the 'vision' into something concrete enough for business-case preparation. This detailed vision, which included a more specific layout of each process, a description of

the technology required, and some thoughts around the required infrastructure, was then regarded as a conceptual redesign.

Establish performance targets

The operational targets to be used for measuring the performance of reengineered process were developed during this phase. These targets had to be explicit on the level of performance the reengineered process was expected to achieve, both in terms of internal measures such as average length of stay, and external measures such as patient satisfaction.

Bernd (1994), commented that measurement is at the heart of any improvement process. He maintained that if something cannot be measured, it cannot be improved. Figure 7.5 is an example of the dimensions of the performance measures developed to ensure improvement at Taranaki Healthcare.

Figure 7.5   Measuring Performance
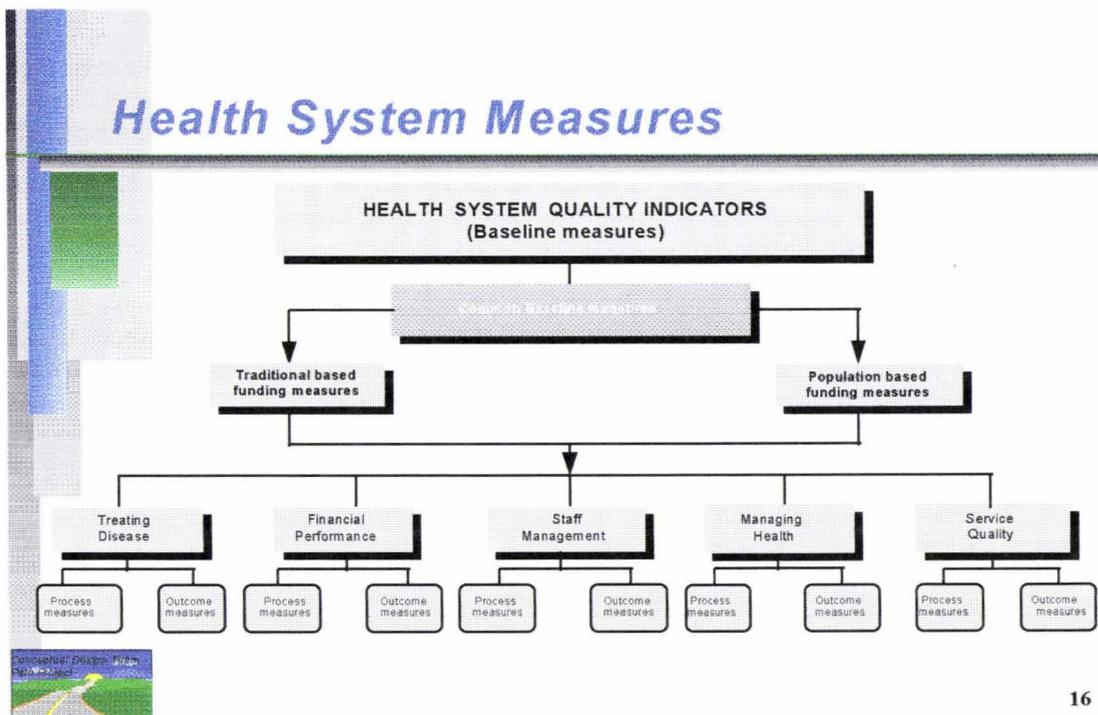
Source: Conceptual Design Visioning report

These targets provided a consistent, quantitative benchmark for the redesign efforts, and acted as a review point in the Plan for Implementation phase.

Develop a business case

Business cases for the proposed redesign projects to realise the vision were then developed. The business case for change had to pass a demanding screen based on the values of the project: quality of patient care; quality of working life; and financial viability. The following Figure 7.6 is an example of such a business case.

Figure 7.6 Example of a high level cost benefit analysis

.Source: Theater visioning report

The business cases developed during the visioning phase, were not finalised, as modifications were expected during the redesign phase.

The redesign phase

It was during this phase that the holistic and all-embracing nature of reengineering presented the greatest management problems. Many aspects of the services at Taranaki Healthcare needed redesigning: the patient process, supporting technology, job descriptions, incentive and reward structures, and management structures. This required a wide range of disciplines working in a number of separate redesign teams.

The redesign team consisted of employees with different skills grouped together to accomplish a complete set of work. The objective was to arrange team activities around redesigned process flows, and then assign joint responsibility among team members for achieving performance objectives.

The challenge was to ensure that the separate designs that the teams developed were consistent, mutually supportive and focused on meeting the overall goals of "Straightening the Path for Patients". Success in these circumstances required more than just good project management; it required every individual on every team to consider the implications of his/her redesigns for other peoples' components and at the same time to remain aware of the implications of others' work on their designs. A significant amount of time was spent in communication at all levels and in all directions - up, down and sideways - and yet it still wasn't adequate.

A crucial aspect of the redesigned processes was that they could be implemented successfully. The true practicality of the process visions were assessed. The theoretically perfect solution is of no value if people will not adopt it. For example, removing unnecessary history-taking by health professionals only works if these are of no benefit to the overall care plan for the patient, and if those performing them believe that they are unnecessary.

The project team, in its enthusiastic support for streamlining and empowerment, creatively challenged what was truly essential. This had to be balanced against an essential check and control process.

Development of the detailed redesign

The conceptual process design, prepared in the previous phase, was defined to the fullest level of detail. Each activity of each sub-process was defined in terms of its objectives, drivers, inputs, outputs, decision points, as well as its skill, resource and support requirements.

The first step was to identify and define the activities within each sub-process, and then detail the objectives, inputs, outputs, drivers, inter-relationships, control and reporting mechanisms and skill requirements. Once the activities were defined, the organisational components were determined and documented. These components included the physical location of service delivery and technology requirements (which people and activities should be electronically networked).

The technology support requirements to support the redesigned processes had to provide sufficient detail for the development of prototypes, and eventually supported the detailed information technology Build projects defined by the Information System Strategic Plan (ISSP). The Information System Strategic Plan established an overall information architecture and developed application-level technical design. This included a complete list of new business applications to be developed or bought, a corresponding list of those which (if any) applications would be replaced by new applications, and a list of redundant applications which could be taken out of service. The ISSP established security, audit, and control requirements for the new information technology. It also included installation, ongoing maintenance costs and

expected financial benefits based on a business case for the Taranaki Healthcare Business Plan.

The project teams developed templates based on ALOS, Occupancy Rate, Case complexity and the percentage of day cases to assess the organisational requirements for bed numbers and FTE employees. From this, the project teams developed a broad outline for the infrastructure design of sufficient detail to develop implementation plans. To determine these needs, the project teams considered workspace layout, real estate, and corporate knowledge.

Process performance measures were established for every sub-process, and included the necessary measurement systems to meet internal management reporting, accounting and legal requirements. These performance measures were validated by the project leadership group, the senior management team and Taranaki Healthcare Board.

It was important to the overall success of the reengineering programme to identify the baseline performance measures, so the actual, quantifiable results of reengineering could be accurately measured over time. A consensus decision from the project leadership group and the steering committee was to use the 1995 figures as the baseline for the project.

Incentives are a key determinant of individual behavior, and thus of whether or not the new processes will work when implemented (Hammer, 1994). Performance measures supporting the organisational goals were developed as a basis for providing incentives. It was critical to ensure that these measures and incentives were focused on meeting the needs both of patients and of other stakeholders, such as general practitioners.

Refinement of the detailed redesign

The redesign process was very repetitive. The redesigns were refined a number of times to ensure that they were completely integrated and could be implemented cohesively in the organisation.

It is often less risky, costly and time-consuming to use process modeling and simulation software to experiment with different redesign ideas, than it is to run actual pilot-type experiments in the live business environment. The project leadership team, in consultation with the project leaders, decided on an actual pilot-type experiment by using the care path for patients in need of a total hip-joint replacement. This was done to assist with the validation process.

A critical component of the redesign process was validation. The objective of validation is to assess whether the designs will work in practice and whether they will deliver the required level of performance to realise dramatic results. The additional benefits of validation included the creation of excitement for the vision across the organisation and helped scope the build and implementation phases. Project teams next set about communicating the redesigns to those personnel not included in the redesign; these briefings were termed "walk through". During this process, team members who identified very strongly with their projects, found it difficult to accept cynicism, doubt, and hostility towards the redesigned processes and indeed, the entire BPR strategy.

It was, therefore, important to exercise a great deal of care in conducting these "walk through" sessions. The user group had to be quite small and individuals with lively and open minds were preferred. The sessions began with an explanation at a high level of the principles of reengineering and a description of the conceptualising processes. The actual redesign processes were then presented.

Some "walks through" were conducted in two sessions. The first session covered the process vision. Staff were then allowed to digest and discuss the vision for a number of days before being presented with more detailed designs. This approach worked well for a number of teams, and proved a useful way of getting the wider organisation involved in the reengineering mindset. Most participants left the "walk through" with very positive attitudes, which in turn helped manage the change in the organisation.

The critical and challenging questions for the original processes and project values were repeatedly stressed as the new designs took shape. This was needed to avoid the risk of creating new processes with as many low-level faults as the current process. The detailed requirements for the infrastructure components of the new process were developed after the main redesign took place. The broad implications for the infrastructure were considered to ensure they were not unrealistic.

Attention was paid not only to the congruence of separate processes but also to the internal coherence of newly designed processes and their supporting structures. As an effective validation mechanism challenge sessions were held with a variety of individuals who would eventually contribute to successful implementation.

The Plan for implementation phase

The fourth phase required a marked shift in the intensity of the work effort and a much greater involvement of the operational staff with the project. The objectives were to finalise the Build project work plans, continue to communicate project progress widely, and to establish the structure for the implementation teams.

Define build projects

A high-level implementation strategy was developed to provide a framework for the identification of the building blocks required for implementation. This was necessary to facilitate the estimation of the implementation costs. These plans had to include the criteria for selection, work-plan information, potential pitfalls and success factors.

The key deliverables from each team for this phase included Build project plans; implementation strategy; business cases; skill requirements to support the build phase; a risk assessment; and a management plan.

Each team presented their updated business case and plans for the build phase to the project leadership group who discussed it with the senior management team and the steering committee for approval to proceed.

Developing the implementation plan

This phase in large reengineering projects such as "Straightening the Path for Patients" - involving multiple processes on multiple sites aimed at world best practice in terms of health care service delivery- can require anywhere from three to six months, up to several years. This phase at Taranaki Healthcare, however, had to be completed within six weeks to meet business planing commitments made by the organisation to its shareholders. This time frame did not allow for in-depth analysis of the build projects, as is usual during this phase (Deloitte Touche and Tohmatsu, 1995). Taranaki Healthcare took a major risk, against the advice of the consultants involved with the project. The impact of this decision will be discussed as part of the critical analysis of the project.

It was not realistic to take a superficial approach to building and implementing the new organisation and business processes. Such a large-scale change required significant transition planning, and it was unreasonable to assume that the organisation could make the necessary changes quickly. Months or even years might be required.

Significant business, execution and environmental risks may came into play during this phase. The senior management and unit management teams were restructured during this phase. This created a vacuum in the organisational leadership with subsequent difficulties in managing the change. This, coupled with the short time frame for this phase, rendered the organisation extremely vulnerable.

It is not uncommon to have in excess of a 100 people involved in the Build phase of a project this size (Deloitte Touche and Tohmatsu, 1994). At Taranaki Healthcare, however, the team consisted of 35 full-time equivalent team members, supported by eight full-time equivalent DTT consultant staff. This was yet another major concern for the project team, to whom it seemed that the rationing of resources at the last hurdle did not make sense.

The projects for implementation were divided into multiple sub-units within the organisation. Each of these sub-units proceeded somewhat autonomously. Good project management was even more critical during this phase than in any other phase. It was clear during this phase that the project teams got mired in details and tended to lose sight of the overall project objectives. It was essential for the teams to maintain a constant focus on achieving tangible, measurable results from their work efforts

Trust was established with a critical mass of people in the organisation, but not within all stakeholder groups. It was, therefore, not only critical to maintain the

existing trust but to increase it through the build and implement phases. Change leaders and champions are important to the success of the new beginnings.

It was also necessary, during this phase, to put all support requirements into place for full implementation of the new processes. The differing strengths and viewpoints of the organisation had to be melded into a balanced and diverse Build team. The composition of these teams varied but generally had the following representation: Process-specific as well as cross-functional expertise; industry expertise (familiarity with competitive environment and the organisation's opportunities for competitive advantage); process users as well as providers; information technology expertise; operations expertise; and informal influences in the organisation.

The changes in facilities to support the redesign were also developed during this phase. This required the development of a strategy and a plan for location and logistics; the construction, refurbishment, or decommission of the physical infrastructure; and the redesign of the interior workspace.

Expertise in a variety of areas was essential to develop sound, implementable systems, organisational structures, and facilities. DTT provided specialists for the information systems strategic plan, and Townscape, a local architectural company, advised on facilities.

Training was carried out for piloting of the new process designs. The project team conducted both "alpha" and "beta" tests (Deloitte Touche and Tohmatsu, 1995). The alpha test was done with old or fictional information flowing through the new process. It required a full-time project team member to monitor performance and to interject artificial 'issues', 'problems', or other 'constraints' into the process to ensure the design was practical and

implementable. For example, the team simulated patients requiring a total hip replacement on the new process before introducing the beta test.

The beta test, normally performed in a 'live' environment using real data, should only be run during the Build phase or early in the implementation phase. A beta test is typically much more representative of what will finally be implemented than an alpha test, and may even include the information technology enablers of the new process design.

The Build effort, as stated earlier, was divided among several project teams, and a pilot cutting across all was constructed by the Carepath team. This pilot focused on the process for a patient in need of a total hip replacement from the point when the need arose to the point of full recovery, described as a critical pathway (Pearson, 1995). This integration test ensured that all components of the new business process (people, processes, technology and infrastructure) fitted together cohesively in an implementable design.

An important aspect of the change programme involved spending time with those staff such as senior clinicians, who had actually to change their behaviours. This involved preparing the project team members, understanding what the clinicians did and did not know, working with them, watching their performance, giving them feedback, and creating an ongoing dialogue.

From a change management perspective, another critical function of this phase is to establish key elements for the organisation such as new organisation structure, position descriptions, detailed roles and responsibilities, performance measures, career paths, facilities and workplace designs, and compensation, reward and recognition systems. Due to the time frame and resource restrictions the project at Taranaki Healthcare did not establish these.

Some personnel, therefore, remained skeptical about the ability to achieve the expected benefits of the redesigns and the project teams, therefore, had to devote extra attention to tracking, documenting, and communicating project performance along key performance dimensions.

Senior management commitment during the stage of preparing for implementation, is expected to be evident and visible throughout the organisation. Senior managers must help the team resolve conflict with resistors, and offer strong encouragement. The leaders must inspire confidence in the changed processes, technology, and organisation, and must serve as a role model for change in their own functional areas. The senior managers must be willing to make tough work-force transition decisions during this phase and must begin work on the creation of a 'learning organisation'.

The final delivery of the project, at the end of this phase, was a comprehensive business plan for Taranaki Healthcare that justified the new environment, based on the three core values of the project: Quality of patient care; Quality of working life; Financial viability.

Conclusion

This chapter examined the mechanism, based on BPR methodology, Taranaki Healthcare used to shift the attention from "what Taranaki Healthcare was" to what they wanted to be" during the Visioning phase.

The holistic and all-embracing nature of reengineering presents the greatest challenges during the redesign phase. The challenge at Taranaki Healthcare was to ensure that the designs from the different teams were consistent, mutually supportive and focused on the project goals. This was achieved

through a validation process which also included an assessment of the practically of the process vision.

During the plan for implementation phase, the intensity of the work shifted toward the operational staff. Taranaki Healthcare shortened the timeframe and limited the resources available for this phase, which created significant business and implementation risks, as discussed in Chapters Eight and Nine.

This concludes the descriptive case study, which concentrated on the first four phases of the BPR project at Taranaki Healthcare. The Implementation phase, based on the Business Plan as final deliverable of the first four phases of the project, will take months and even years to complete, and does not form part of this case study. The next chapter evaluates the application of BPR at Taranaki Healthcare.

Chapter Eight

Evaluation of the Process of the BPR

project at Taranaki Healthcare

Introduction

The phases up until implementation of "Straightening the Path for Patients", Taranaki Healthcare's BPR project, have been described in the preceding chapters. The subject of this chapter is the evaluation of BPR process at Taranaki Healthcare based on, the two surveys (discussed in Chapter One), and debrief sessions held at the end of each phase.

Analysis of the Surveys

Two surveys were conducted, the first in July 1996, after the completion of the Visioning Phase (Phase Two), and the second during November 1996, after the Plan for Implementation Phase (Phase Four). Both surveys included a cluster sampling of the project team and a stratified random sampling of Taranaki Healthcare employees. The survey questionnaire is included as appendix A and the results of the survey, as appendix B.

The cluster sampling consisted of 42 project members in the first survey, and of 32 project members in the second survey. There were 26 responses to the first survey (62%) and 22 to the second (69%) (see Chapter One). Random stratified surveys were carried out on 100 Taranaki Healthcare employees. The same employees were surveyed in both surveys. There were 63 responses to the first survey (63%) and 60 responses to the second (60%).

The surveys of the project team members and Taranaki Healthcare employees were aimed at evaluating the following major aspects of the BPR process: team work, work group productivity, organisational climate, job satisfaction, and the changes to the health service nationally and at Taranaki Healthcare.

In addition, the surveys of the project team members specifically evaluated their role on the project, the achievement of critical success factors, and the extent to which project guiding principles were followed.

The surveys included a qualitative section where comments were invited on the model respondents believed best suited Taranaki Healthcare to achieve the changes - BPR, CQI or Restructuring or any aspect of BPR and the best outcome and the worst outcome so far.

The surveys were designed by the researcher, but conducted independently by the Quality Advisor at Taranaki Healthcare. The Quality Advisor summarised the qualitative feedback, and her clerical assistant entered the quantitative data. This process ensured anonymity and eliminated the potential for any bias.

Results of the surveys

Responses to specific statements or questions related to the major aspects surveyed for example, job satisfaction, were consolidated and presented in a histogram format. The responses were condensed into: disagree, which included strongly, moderately and slight disagreement; neither agree nor disagree; and agree, which included strongly, moderately and slight agreement, with the statement or question. This section discusses each of the major aspects surveyed.

Job characteristics/role on the project

Both the project team members and the employees surveyed demonstrated in both surveys that the majority had a clear understanding of what was expected of them (see Figure 8.1).

Figure 8.1 Role Expectation
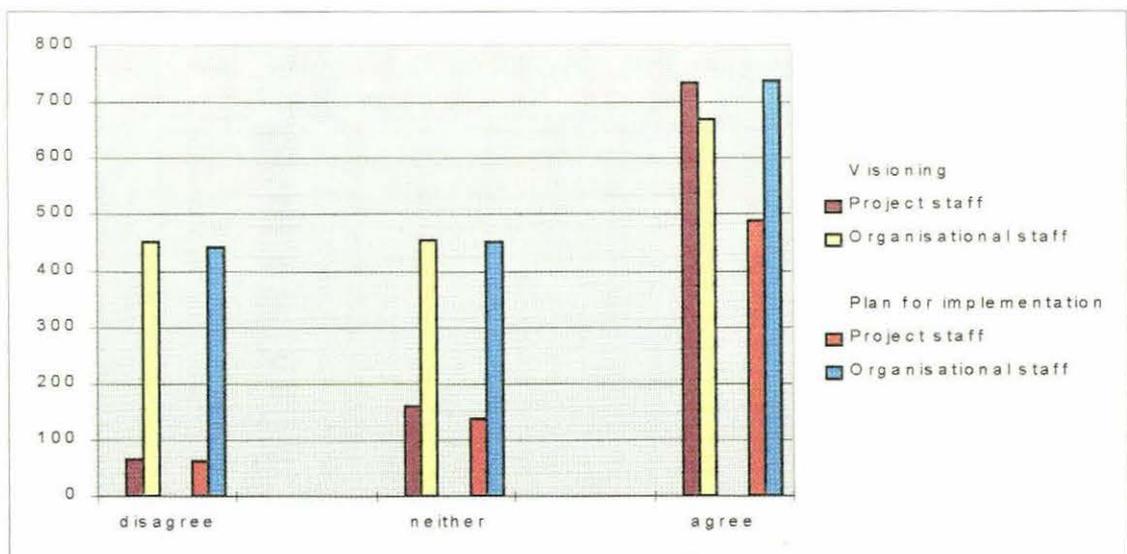
The survey indicated that the perception of the organisational staff, regarding job characteristics, remained at the same level during both surveys. The perception of the project staff, on the other hand, changed, and less people were clear about their expectation and role. This coincided with the changes in the project discussed in Chapter Seven.

The project staff survyed, indicated that the project was patient focused (Figure 8.2), and that the public in general would benefit from the outcome.

Figure 8.2. Patient focus
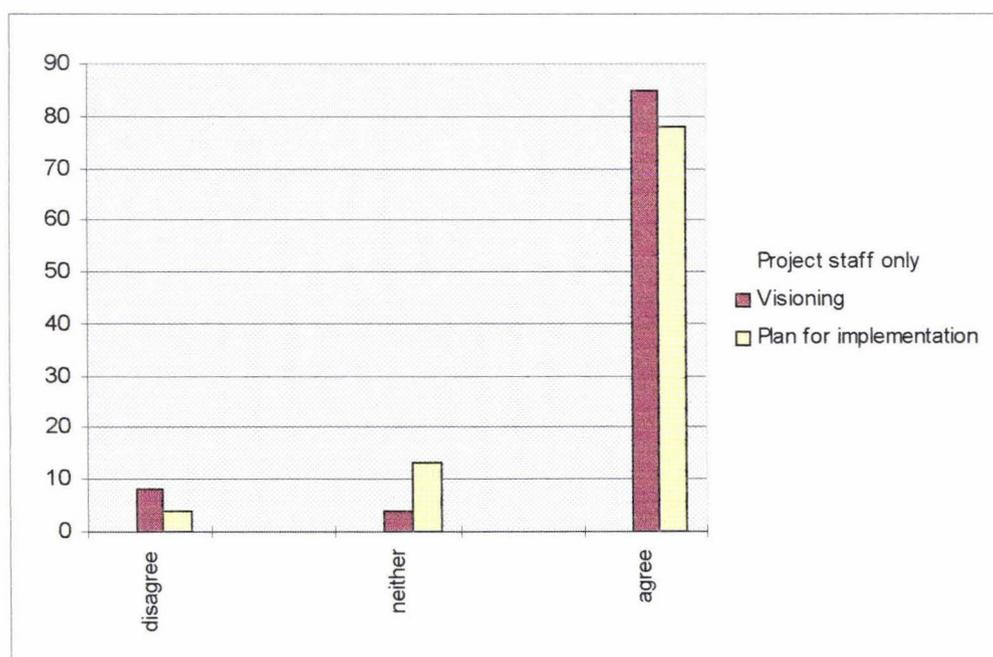
Team work

The surveys indicated a strong sense of team work amongst the employees and project team members (Figure 8.3).

Figure 8.3 Teamwork
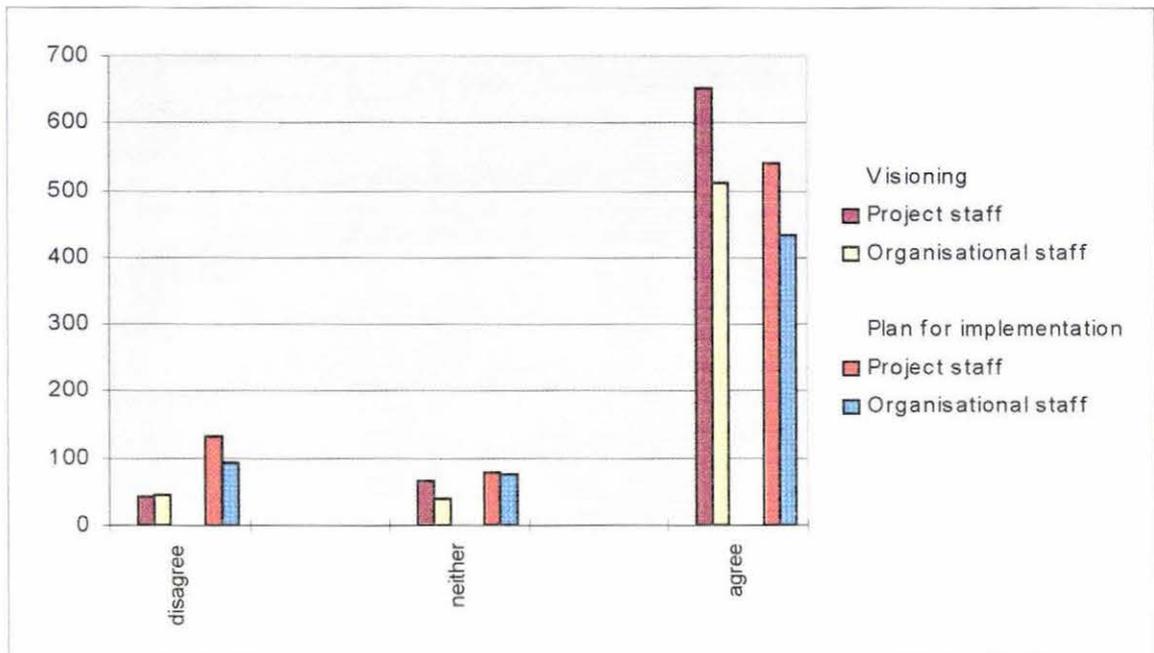
The project team indicated clearly that they worked well with the DTT consultants, as is evident from Figure 8.4.

Figure 8.4. Cooperation between THL staff and DTT consultants
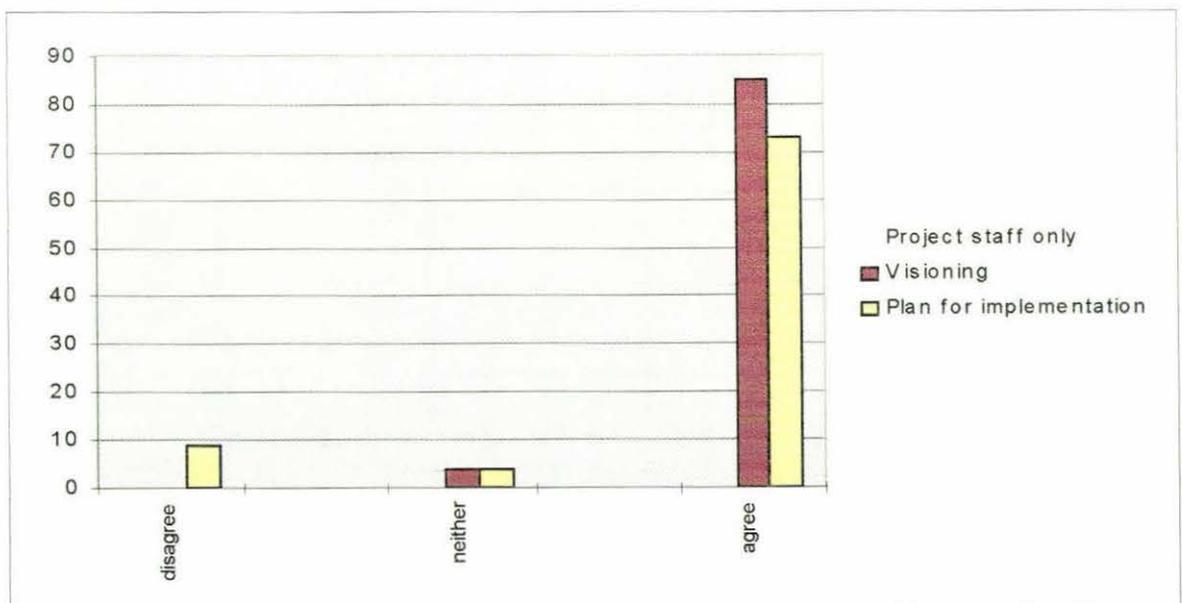
The project staff indicated in the first survey that poor cooperation existed between them and the organisational staff., whereas the organisational staff responded exactly in the opposite way. The project staff, as the project progressed towards the operational reality responded more favorably in the second survey, while the organisational staff responses remained similar to the first survey (Figure 8.5)

Figure 8.5. Co-operation between the project and others in the organisation
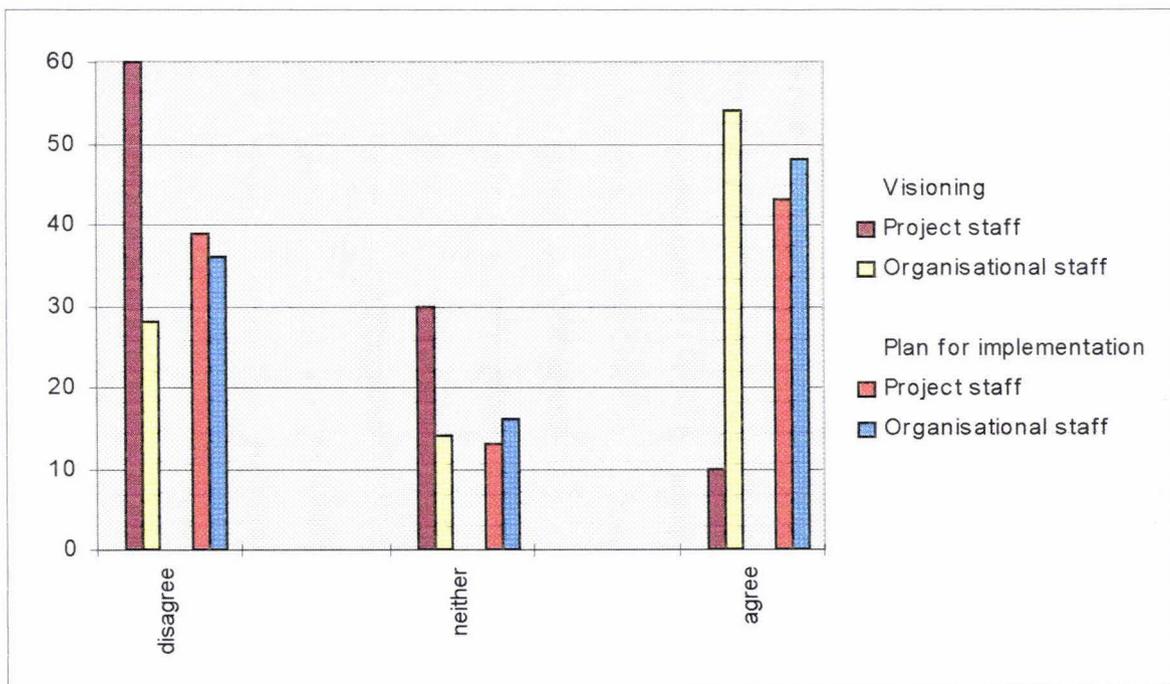
Organisational Climate

Both surveys indicated that the employees and project team surveyed were kept well informed of important events in the organisation and in their work group. This surprised the researcher, as the popular belief in the organisation was that people

were not well informed. The survey indicated that both groups were usually aware of important events and situations occurring within the organisation and that individual complaints were aired to the satisfaction of most. (Figure 8.6)

Figure 8.6. Organisational climate
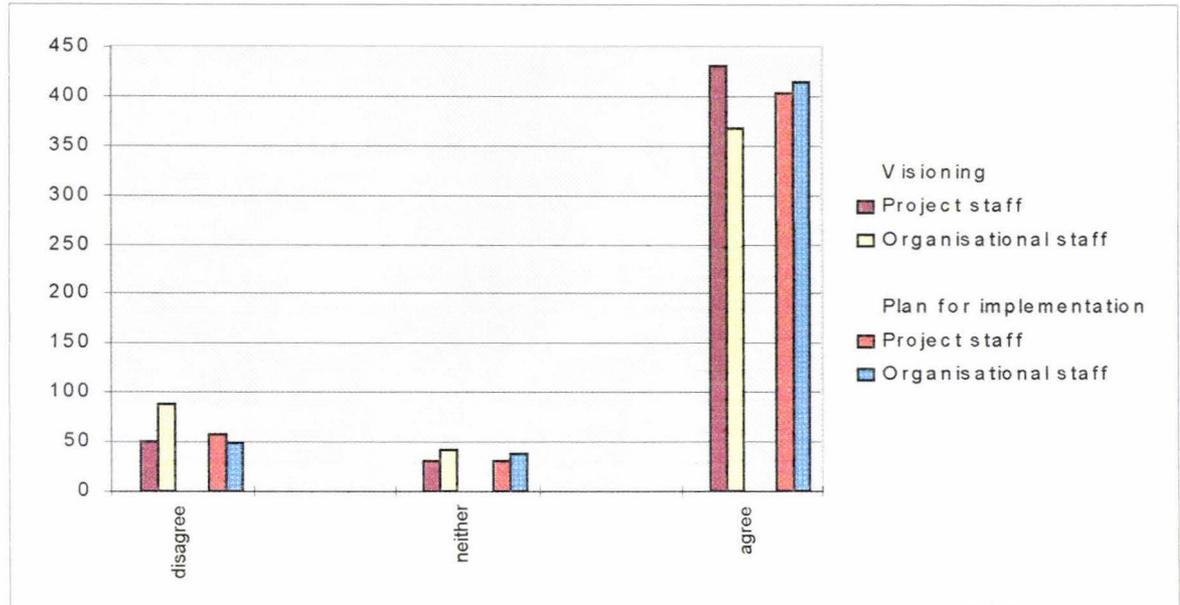
Changes to the Health Sector at National level

The project members on the one hand, in both surveys indicated that the changes to the New Zealand health would result in a better New Zealand health service. The organisation's employees, on the other hand, ranked disagreement and agreement very similar in the first survey. The continued communication of the change imperative findings throughout the redesign phase influenced the organisation, and created a sense of betterment, reflected in the reduction of "disagreement" by organisational staff in the second survey (Figure 8.7)

Figure 8.7. Changes to the Health Service
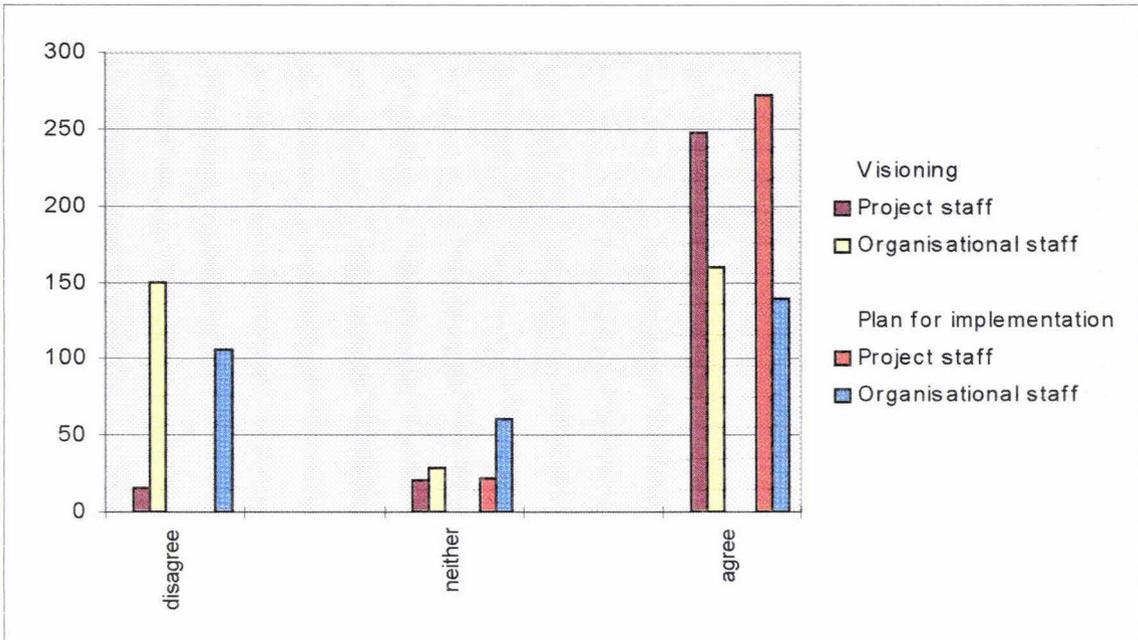
The surveys indicated a difference in opinion among project members and organisational staff in relation to the number of management and clerical positions in the health sector due to the changing environment (see Figure 8.8).

Figure 8.8 Creating too many management jobs
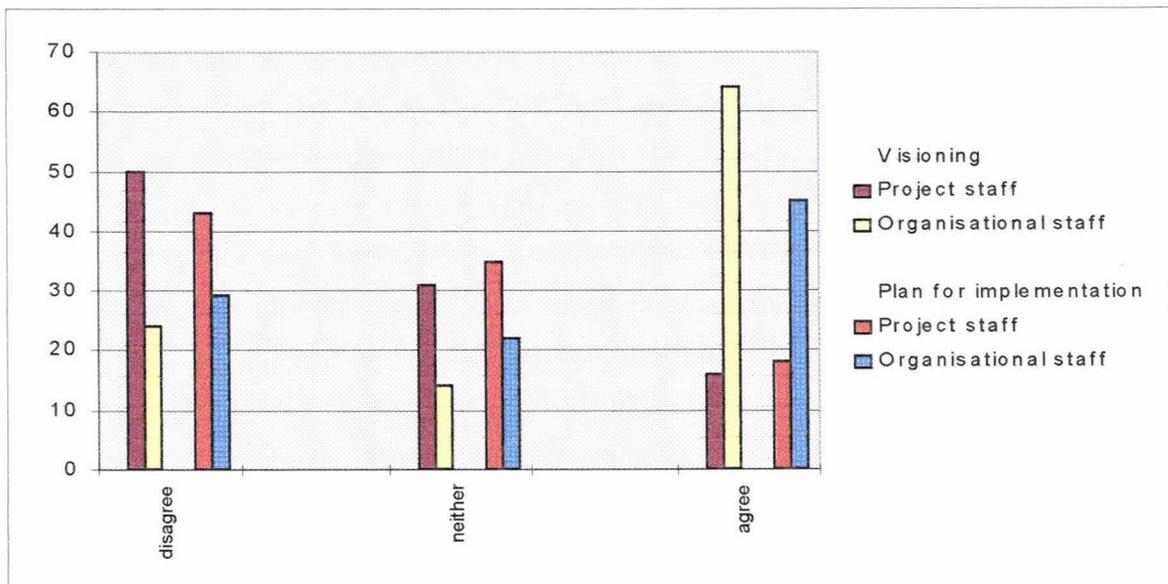
Employees in both surveys indicated that the changes, following the 1993 reforms, created too many management positions. The project staff, on the other hand, disagreed in both surveys. This indicated that the project staff expected a flat organisational structure in the future, whereas the organisational staff focused on the hierarchical structures in place at the moment. The existence of this expectation gap indicated a defect in the communication strategy.

There was a definite preference expressed through both surveys and by both groups, for senior managers in the Health Sector to have a health service background. (Figure 8.9)

Figure 8.9 Senior management should have a health service background
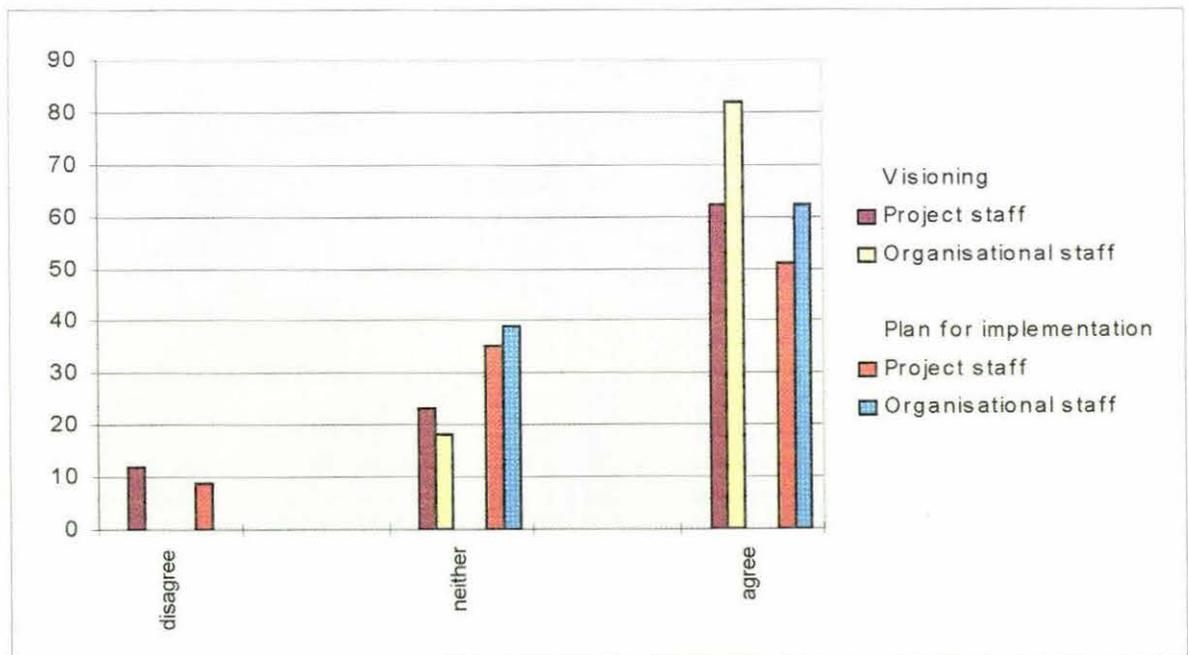
The training and information project team members received about reengineering gave them the background to better judge whether BPR was the acceptable

response or not. In both surveys , the project team clearly indicated that BPR was the correct response. The organisational staff, remained neutral on this question, which indicate a lack of communication on BPR methodology (Figure 8.10).

Figure 8.10 Was BPR the acceptable response
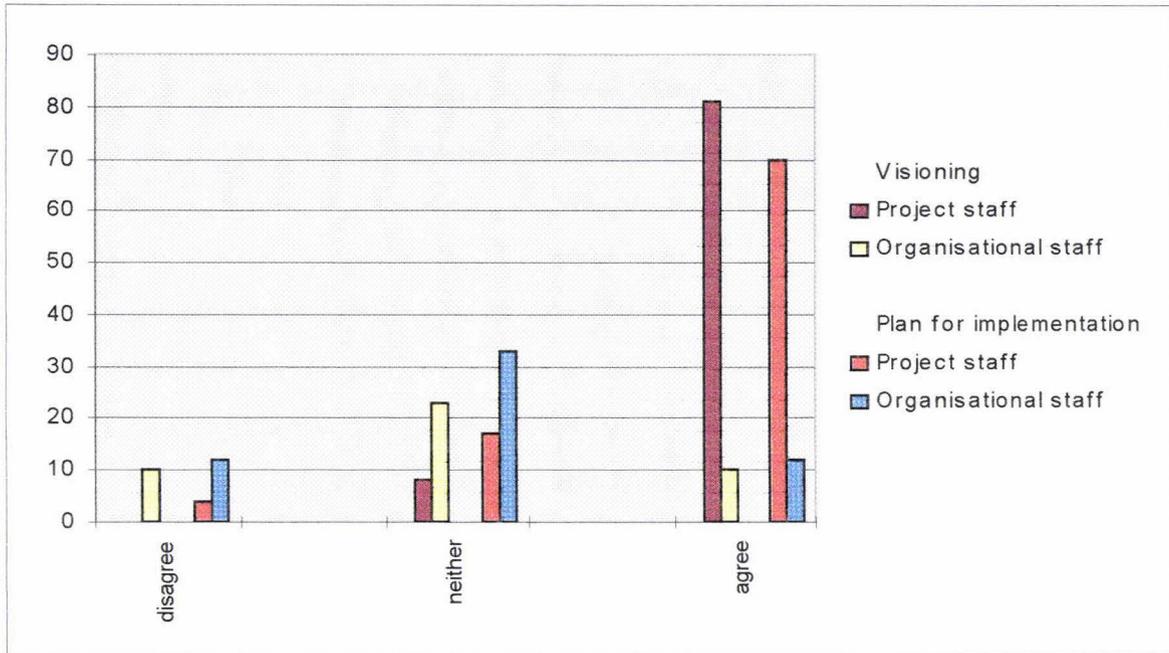
Project Critical Success Factors

The project team outlined a set of critical success factors at the start of the visioning phase, published in the project guide. The surveys indicated these were met during the project (Figure 8.11) The second survey, however indicated a reduction in the " agreement", and this again coincided with shortened time frame and resource limitation during the Plan for Implementation Phase discussed in Chapter Seven).

Figure 8.11 Project critical success factors met
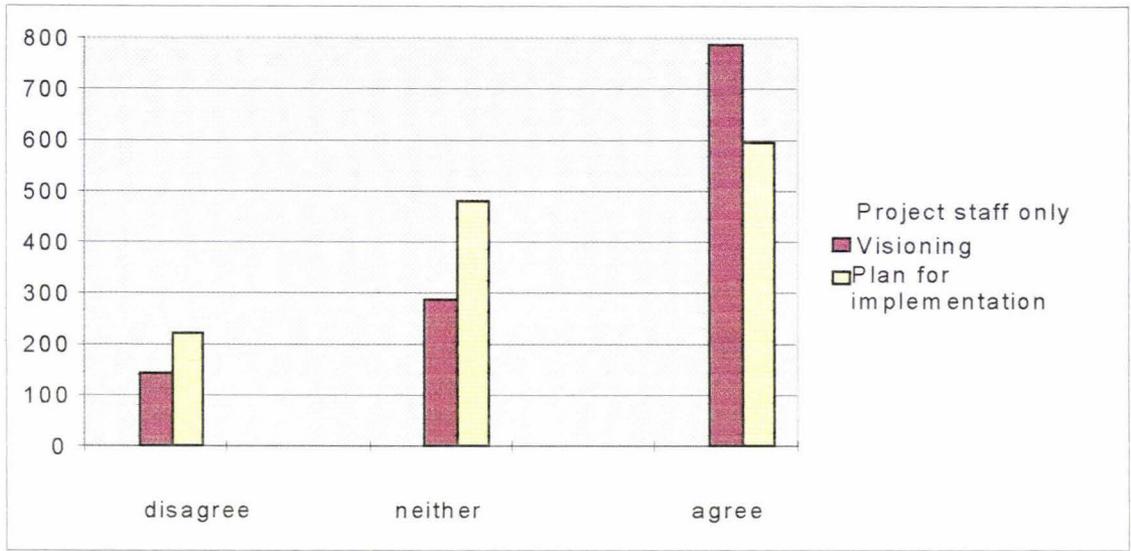
Project guiding principles

The project had 16 guiding principles, and the majority of the project team

surveyed , indicated in both surveys that these were adhered too (Figure 8.12)

Figure 8.12 Project Guiding Principles
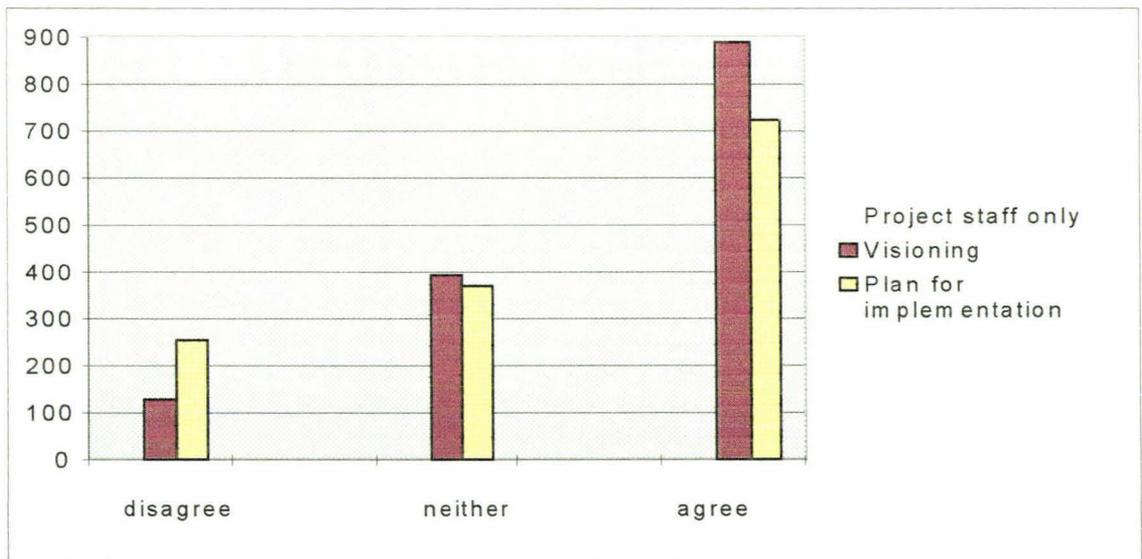
Analysis of the project team debriefing sessions

The debrief sessions took place at the end of each phase. Summaries of these debrief sessions are included as appendix E. The Taranaki Healthcare project team and the Deloitte consultants initially held separate sessions and then held a combined session during which issues on both sides were discussed. The format for the sessions was similar and focused on: what went well, what could have gone better and what would be done differently if the opportunity should arise.

What went well

The debrief sessions consistently referred to good team dynamics, team development and commitment to achieve. The team, during the second, third and fourth phases of the project, held a "rumor dump" session weekly, to which all people involved with the project at stage were invited. The change leadership team managed these sessions, and the overall consensus was that this was a very useful process in identifying communication gaps.

The debrief session at the end of the change imperative phase highlighted that the project team had difficulty in accessing project managers and directors. Change in the project structure addressed this issue, and debrief sessions at the end of the redesign phase acknowledged this by commenting on the ready access to the project leadership group. To meet deadlines and to maintain a coordinated effort in a dynamic reengineering environment, this access was crucial.

The ability to change and the flexibility of the team were perceived as positive. This encouraged honesty, resilience and more self direction in the teams. The

sessions highlighted the high standard of the international DTT resources, and the benefit they added to the project. Due to financial constraints, the project leadership group could not always contract the most appropriate Deloitte consultant, especially during phases three and four, and settled for New Zealand-based Deloitte support. The debrief sessions and the end of these phases confirmed that the value added to the project by some of these consultants, compared with the international resources, was below expectation. This created a negative impression that the project acted as a training ground for New Zealand-based Deloitte consultants, and highlighted the importance of careful selection and use of external support during BPR.

What could have gone better

Communication between teams and within teams was identified as an issue for major improvement. This was identified at the end of each phase and, to the end, the project team failed to get it right. That the project team did not meet this guiding principle, was also highlighted in the survey. The feedback from the project leadership group was, on occasion, not timely, not helpful and unclear. The teams identified these issues as major risk factors for a successful project. The debrief session at the end of the redesign phase, however noted that these issues were addressed by the leadership group.

The conceptual design team, under the instruction of the CEO, took on the development of the business plan, creating a barrier between operational staff at Taranaki Healthcare and the project team. The impression was conveyed that the operational staff were inadequate in running their business. It also created confusion for all the project teams, who were expected, on the one hand, to design the future, and were asked, on the other hand, to develop current business cases for operational issues. The confusion was highlighted when some team

members asked: "Do we work on the redesign of processes or the organisation's business cases during the redesign phase?". The additional expectation not only added to the confusion, but also created extreme pressure due to the short time frame allowed for this phase.

What would be done differently

All the team members for the Change Imperative and Visioning phases of the BPR project were nominated by management, which created a perception of elitism in the organisation. Team members were viewed as " management agents" causing tension between colleagues. At the end of the Visioning Phase this changed, and project team leaders positions were advertised internally in the organisation, and appointments made after formal interviews. The project team leaders, following their appointments, identified their team members, a mechanism which saved considerable conflict and tension. The consensus during debrief sessions with the project team suggested that the advertising option with formal job interviews for all the project positions from the first phase onwards would be preferred option.

During the debrief sessions, the project members and DTT consultants felt that the conceptual design team need to start at least two months ahead of the other project teams to create a vision for the project that could be shared by the other teams during their setup stages. The debrief sessions also highlighted the need to introduce issues across team meetings. To improve integration between teams, team leaders needed an issue-log to identify tasks, actions and time frames.

The debrief sessions identified the need for a prompt feedback mechanism to help

in proactive project management. It also confirmed that organisational commitments, such as the deadline for Taranaki Healthcare's Business Plan, compromised the process of BPR. The advice from the group was that timeframes for the project should be based on the best outcomes for the BPR effort. The project team members and DTT consultants identified the need to avoid confusion and added pressure, as explained earlier in this chapter.

Lessons learned

It was clearly identified during the debrief sessions that staff who were working part-time in regular Taranaki Healthcare operations and part-time on the project found it difficult to keep up with daily developments on their projects. It was suggested that the time and effort dedicated to keep them informed could have been better used to update larger audiences within the organisation.

There was a clear indication during these debrief sessions, that where right-sizing is required, it needs to be carried out prior to reengineering. Taranaki Healthcare, desperate to become financially viable, postponed the inevitable right-sizing by the introduction of the BPR project. The employees at Taranaki Healthcare, expecting a cut in staff numbers and services, did therefore not trust the intentions of the project team. The project team members highlighted this issue during the debrief sessions, and confirmed there was a huge barrier created by lack of trust, that complicated change management. "Restructure before reengineering" was a key message from all the debrief sessions.

The need to manage the organisation on a daily basis and to ensure senior management support is the CEO's responsibility of vital importance for a successful reengineering effort. The debrief sessions highlighted the lack of

commitment to the project by some key people in the organisation, which led to delays in policy setting, impacting on the process of BPR. Addressing these issues, with the CEO's time divided between the reengineering project and maintaining organisational management, proved difficult, and neither the project nor the organisation benefited.

These sessions identified the need for project teams to manage with action with responsibility and within timeframes; to report by exception; and to avoid detailed planning. The expectation of project leadership to be proactive, not responsive, to be performance driven, and to ensure that issues are resolved, were highlighted.

The promotion of good behavior; the identification and constant support of; champions and staff ownership of new ideas were identified during the debrief sessions as crucial factors for success in the process of BPR.

Conclusion

The process of BPR at Taranaki Healthcare created the infrastructure to empower champions, reward change, communicate openly, and remove barriers to learning.

The surveys and the debrief sessions highlighted a number of risk factors where Taranaki Healthcare deviated from the BPR methodology as promoted by DTT, and supported by Hammer. Some of these are similar to the common causes of failure which include: attempting to fix rather than change; neglecting corporate

culture; approaching the effort with the existing culture; management attitudes; allocating the wrong resources to the reengineering effort and trying to keep everybody happy (Hammer, 1993). The next chapter will make recommendations, based on the benefit of hindsight, on how to address these issues.

Despite the risks mentioned up to the implementation phase of the project "Straightening the Path for Patients", the process of BPR achieved the desired outcome for Taranaki Healthcare. It identified and redesigned the core processes. It recommended changes to the facilities and identified investment required for technology, to support the core processes and charted a path to viability for the organisation based on quality of patient care, quality of working life and financial viability.

Chapter Nine

Conclusion and Recommendations

The objectives of the research were:

1. to describe the process of a reengineering project in the health sector;

2. to evaluate business process reengineering as change strategy at Taranaki Healthcare;

3. to make recommendations on further research

The researcher, in pursue of this aim, conducted both a literature search and a descriptive case study.

The researcher achieved the objectives of this case study by documenting the process of BPR at Taranaki Healthcare, one of the 23 Crown Health Enterprises in New Zealand. The process of BPR was evaluated, and many pitfalls identified. The lessons during the first four phases of the project "Straightening the Path for Patients" will be valuable to healthcare organisations anticipating reengineering as a change strategy.

This thesis describes Taranaki Healthcare's BPR project "Straightening the Path for Patients" up to the implementation phase. It focused on the preparation for radical change, and described the process of applying BPR methodology.

The descriptive component was based on multiple sources of evidence including archival records and documents generated by the BPR project team. The evaluation was based on interviews, the debriefing sessions held at the

end of each phase and two surveys. The first survey took place after the completion of the second phase, and the second after the fourth phase of the project. Both surveys included a cluster sampling of the project team and a stratified random sampling of Taranaki Healthcare employees.

It is important to restate the researcher played an active role in the project and was therefore part of this process under study. This is consistent with the tradition of action research based on the phenomenological philosophy. The major limitation is that strong personal identification with and commitment to the project may lead to potential biases. The researcher was conscious of this and applied the validity mechanism to limit possible bias. The researcher's involvement also had positive consequences, given unlimited access to all information, documentation, and facets of the project, a major advantage in a case study where compromised access can limit and bias conclusions.

This study highlighted the fact that health care organisations in the mid 1990s continue to organise their functions around the technological and professional approach of the 1950s to 1970s. These organisations are classic examples of service companies which have become more functionalised, multi layered, hierarchical, and culturally more bureaucratic (Janson, 1993). Due to environmental pressures, focus is now shifting away from these approaches towards customer needs. Taranaki Healthcare, similar to other health service providers, had to find innovative solutions to these environmental pressures and realign its core processes with international healthcare and funding trends.

Taranaki Healthcare selected BPR, as methodology to achieve change. BPR promotes the changing of the traditional view of the roles of management and labour, with knowledge as the key organisational asset to be cultivated at all levels; it softens the boundaries between services by taking a process perspective, viewing work as a collection of activities to provide something of

value to patients and other customers. Reengineering is appropriate when the aim is to achieve results through the convergence of innovations with broader perspectives, and the elimination of non-value-added work (Gibson, 1993). It is applicable to healthcare organisations across the spectrum of patient care procedures to improve quality and responsiveness (Bergman, 1994).

The case study reflects the six phases of a project quoted by Tom Terez in *A Manager's Guidelines for Implementing Successful Operational Changes* (Terez, 1991). The six phases are: enthusiasm, disillusionment, panic, search for the guilty, punishment of the innocent, praise and honours for the non-participants. The case study highlighted the need to analyse the organisation to understand precisely with what and with whom you are dealing, to take the mystery out of change by telling and showing employees just what is entailed, to motivate employees to commit themselves to that change, to ensure that all managers are committed to the same change-management plan, to realise that change is a process of movement, and to avoid allowing the change to become bogged down in excessive employee involvement (Terez,1991).

The case study confirmed that while the decision to reengineer is strategic, the process is operational. It also confirmed that successfully reengineered organisations no longer look at decision-making as a management privilege, but rather organise, empower, and motivate their people to think, decide, and act (Leth,1994).

Taranaki Healthcare did not conform to the "ideal BPR" model as advocated by Hammer (1991994) in the following ways: a clear strategic vision did not exist before the start of the visioning sessions; the timeframe of the Plan for Implementation Phase was shortened to meet organisational commitments; the restructuring of the senior management team during this phase created a leadership vacuum in the organisation; the rationing of resources during the

Plan for Implementation Phase did not make sense; and the change management team was unable to establish key elements of the target environment.

An evaluation of the first four phases of the BPR process at Taranaki Healthcare revealed that managing change and winning the hearts and minds of people during a reengineering effort is the single most important ingredient in achieving success. Change management in these circumstances, is therefore vastly different from managing change during a down sizing or restructuring exercise, as the latter does not attempt to persuade employees of the benefits or need for change.

Change in a reengineering effort affects all the stakeholders and employees of the organisation. These people will have a continual daily input into the organisation and will "live the organisational culture". On the other hand, change management, during a restructing or down sizing exercise, usually entails employees leaving the organisation with no further input into the organisational culture. Taranaki implemented a number of down-sizing and restructing projects successfully before the start of the reengineering effort. Based on this, the project team were led to believe that the organisation posessed the skills to manage the change required during " Straightening the path for patients". The debrief sessions with the project members and the project leadership group confirmed that this assumption was a major error and the highest risk to the success of the project as a whole.

While it is important to evaluate external advice carefully before making a decision, equally it is advisable to neglect such advice before making a final decision. The debrief sessions indicated that the latter occurred and was linked to the direct involvement of the CEO in daily project management. This practice created tension and increased the potential for an even higher risk

than the existing high rate of failure for reengineering efforts.

The lack of decision-making at Taranaki Healthcare senior executive level, as identified by DTT (Diagnostic Report for THL,1995), was highlighted during the debrief sessions and continued throughout the four phases of the project discussed in this case study. The need for "organisational buy-in" , as expressed during the debrief sessions, was constantly referred to, in justifying delayed decisions. The result was an attempt to increase the already high employee involvement in decision-making, and led to a constant struggle with validity of information and concept adjustments, creating stagnation and entrenchment of organisational attitude. This so-called "one step forward and two backward" was identified by Terez (1991) as a major risk factor in change initiatives. He stated that one should avoid letting the change get bogged down in excessive employee involvement. Hammer(1990), also identified trying to keep everybody happy in a reengineering effort as a major factor that contributed to high failure rate.

The senior management team was restructured soon after the completion of the second phase of the project. The project team, although accused of master-minding the new organisational structure, in facthad limited input into the development of the new structure. Evenso, this led to a "Path project conspiracy theory" in the organisation. The damage done through such an incident is very difficult to claw back from and should be avoided at all cost to improve the chances of success.

All the team members for the Taranaki Healthcare reengineering project were nominated by management for the Change Imperative and Visioning phases of the project, creating a perception of elitism in the organisation. Team members were viewed as "management agents", which caused tension between professional colleagues.

With the benefit of hindsight, if Taranaki Healthcare was to embark now on BPR project: the organisation would restructure following the Change Imperative Phase; the CEO would not be part of the project management team; the project team leader positions would be advertised internally in the organisation, and appointments made after formal interviews from the onset of the project; change management would have a higher profile; the timeframe of the project would not be altered after embarking on the project, and the organisation would invest appropriately in experienced consultant support.

A key message for the Implementation Phase is not to repeat the mistakes of the first four phases of the project, and to stay focussed on the three principles of the project, in this case: Quality of patient care; Quality of working life; and Financial viability. It is also useful to consider that senior managers of reengineered healthcare organisations in the USA, visited by the project team in 1997, stated that a "benign dictatorship" is required for successful implementation.

Recommendations for further research:

1. Compare the Taranaki Healthcare BPR project with a similar size organisation which selected an alternative strategy to achieve change, for example CQI

2. A case study of the Implementation phase at Taranaki Healthcare to evaluate the outcome of the project against the key drivers for change.

3. Compare some key elements of this case study, such as the process transformation in support services, with BPR projects in other sectors.

References

Allender, H. D. (1994) Is reengineering compatible with total quality management?, *Industrial Engineering,* 26(9): 41-44

Baldwin, S. (1993) Solving the reengineering paradox, *Dallas Leading Edge*, Feb, p. 119-121

Bardsley, M., Coles, J. and Jenkins, L. (1989) *DRGs in Healthcare.* London: Kingsfund

Beckham, J. D. (1994) The Vision Thing, *Healthcare Form Journal,* Mar/Apr, p. 60-69

Bergman, R. (1994) Reengineering health care, *Hospitals & Health Networks,* 68(3): 28-36

Bernd, D. and Reed, M. (1994) Reengineering Womens Services, *Healthcare Forum Journal,* Jan/Feb 1994, pp. 63-67

Braithwaite, J., Vining, R. and Lazarus, L. (1994) The boundaryless hospital, *Australian and New Zealand Journal of Medicine,* 24: 565-571

Camp, R. (1989) *Benchmarking: The Search for Industry Best Practices,* Quality Press

Casas, M. and Wiley, M. (1992) *Diagnosis Related Groups in Europe.* Berlin: Springer-Verlag

Cerne, F. (1995) Transforming vision into achievement, *Hospital & Health Networks,* July, p. 25

Chase, R. B. and Hayes, R. H. (1991)Beefing up operations in service firms, *Sloan Management Review,* Fall, p.15-26

Consumers' Institute of New Zealand, Consumer, Consumers' Institute of New Zealand, Wellington,1993

Davenport, T. (1993) *Process Innovation.* Boston Mass: Harvard Business School Press

Davis, R. (1995) A real job for managers in the health service, *International Journal of Health Care Quality Assurance,* 8(5): 13-16

Deloitte Haskins & Sells. (not dated) Trends in the Health Care Industry and Strategies for Survival

Deloitte Touche & Tohmatsu. (1995) *Reengineering for Results*

Department of Statistics. (1992) Census of Population and Dwellings, Taranaki/Wanganui-Manawatu Regional Report

Department of Statistics. (1994) Population overview.

Enthoven, A. (1991) An internal market reform of the British National Health Service, *Health Affairs*. Fall, pp. 60-70

Farmer, J. (1993) Reengineering achieving productivity success, *The Performance Advantage*, March

Ferguson, L. and Picone, D. (1994) Casemix and nursing management, *Department of Human Service and Health; Commonwealth of Australia*, p. 1-34

Garvin, D. (1988) Managing Quality, The Strategic and Competitive Edge. New York: The Free Press

Gibson, A., Page, G., Culpepper, B., and Colonna, J. (1993) Why reengineer? Why now? Reprinted from *Information Week*

Glennerster, H. (1993) *A foothold for fundholding, a preliminary report on the introduction of GP fundholding*, King's Fund Institute

Goldsmith, J. (1989) A Radical prescription for Hospitals. *Harvard Business Review*, May/June, p. 104-111

Grint, K. (1994) Reengineering history: Social resonances, and Business Process Reengineering, *Organisation*, 1, p. 1

Gyllenhammar, P. (1977) People at Work. Reading, Mass: Addison-Wesley

Hailey, D. (1994) Health Care Technology in Australia, *Health Policy* (forthcoming)

Hamel, P. (1989) Strategic Intent, *Harvard Business Review,* May-June, p. 63-76

Hammer, M. and Champy, J. (1990) Reengineering Work: Don't Automate, Obliterate, *Harvard Business Review*, July-Aug

Hammer, M. and Champy, J. (1994) Reengineering the corporation: a manifesto for business revolution. Australia: Allen & Unwin

Hayes, R. and Wheelwright, S. (1984) *Restoring our Competitive Edge*. New York: John Wiley

Health Reforms Directorate. (1992) Population based funding of Regional Health Authorities for the purchase of core personal health services

Health Research Council of New Zealand. (1993) Quality in Health - balancing expectation with reality, consensus statement

Heidenheimer, A. and Helco, H. (1990) *Comparative Public Policy (3rd ed)*. New York: St Martin's Press

Hoffman, P. (1993) Critical Path method: An important tool for coordinating clinical care, *Journal Quality Improvement*. 19(7): 235-246

Hollingworth J. and Roger, A. (1991) *The political Economy of Medicine: Great Britain and the Affairs*, Fall, p. 60-70

Janson, R. (1992/93) How reengineering transforms organisations to satisfy customers, *National Productivity Review*. Winter 1992/93 p. 49-57

Jensen, D. M. (1988) Comparison of low power YAG laser and BICAP tumour probe for palliation of oesophageal cancer strictures, *Gastroenterology*, 94:1263-1270

Jones, S. (1987) Choosing action research: a rationale, *Organisation Analysis and Development*. Chichester: Wiley

Juran, J. (1964) *Managerial Breakthrough*. New York: McGraw-Hill

Kaluzny, A.D. and Shortell, S. M. (1994) *Health care management*. Albany New York: Delmar Publishers

Laing, P. and Pomare, E. (1994) Maori health and the health care reforms. *Health Policy*, 29, p. 143-156

Laugensen, M. and Salmond G. (1994) New Zealand health care: a background. *Health Policy*, 29, p. 11-23

Leonard-Barton, D. (1988) Implementation as Mutual Adaptation of Technology and Organisation, *Research Policy*, 17: 251-267

Leth, D. (1994) Critical success factors for reengineering business processes, *National Productivity Review*, 13(4): 557-568

Loizou, L.A. (1990) Endoscopic Nd:YAG laser treatment of rectosigmoid cancer, *Gut* ,31:812-816

McKendry, G. and Muthumala, D.(1992). *Health Expenditure Trends in New Zealand, 1980-1992*. Department of Health, Wellington.

McKendry, G. and Muthumala, D. (1994) *Health Expenditure Trends in New Zealand: Update to 1993*. Ministry of Health, Wellington.

McLaughlin, C.P. (1994) Strong medicine for healthcare, OR/OM, August, p.26-33

McLaughlin, C. P. and Kaluzny, A. D. (1994) Continous quality improvement in health care, theory, implementation and applications. The Outcome Model of quality, p 47-69

McManis, G. (1989) Reinventing the system, *Hospitals & Health Networks*, 67(19): 42-48

McPartlin, J. (1992) Reengineering - Just Chasing Rainbows?, *Information Week*, p. 37

Midland Health. (1994) *Tamariki Ora, first steps, the development of a Tamariki Ora Schedule for the Midland Health Region*

Midland Health. (1994) *The people of Midland Health Region, te iwi o te waka hauora ki te puku o te ika, Volume One, Population Profile*

Midland Health. (1994) *The people of Midland Health Region, te iwi o te waka hauora ki te puku o te ika, Volume Two, health status, part one: infants and children*

Midland Health. (1995) *Family Health Services in the Midland Region, Future Directions*

Midland Health. (1995) *Our role in your community*

Midland Health. (1995) *Purchasing Progress*, July/August

Midland Health. (1995) *The Year Ahead, a look at Midland Health's plans for 1995/96*

Ministry of Health. (1995) *Policy Guidelines for Regional Health Authorities*

Morgan, G. and Smircich, L. (1980) The case for qualitative research, *Academy of Management Review*, 5: 491-500

National Benchmarking Agency. (1995) Emergency Services

OEDC health Data File. (1992) H & CS

Pearson, S. (1995) Critical Pathways as a Strategy for Improving Care: Problems and Potential, *American College of Physicians*, p. 941

Pettigrew, A. M. (1985) Contestualist Research: A Natural Way to Link Theory and Practice, *Doing Research that is Useful in Theory and Practice.* Jossey Bass

Pierson, D. and Williams, J. (1994) Remaking the rules: Hospitals attempt work transformation, *Hospitals & Health Networks*, 68(17)

Platt, J. (1992) "Case study" in American methodological thought, *Current Sociology*, 40: 17-48

Pool, I. (1991). Te Iwi Maori: A New Zealand population: past, present and projected. Auckland: auckland University Press

Read, J. and Lee, K. (1994) Health Care Innovation: Progress Report and Focus Biotechnology, *Health Affairs*, 13(3), p. 219

Robinson, J. (1994) The Changing Boundaries of the American Hospital, *The Millbank Quarterly*, 72(2), p. 260

Salmond, G., Mooney, G. and Laugesen, M. (1994) Introduction to health care reform in New Zealand, *Health Policy*, 29, p. 1-3

Scott, C. D. (1994) Reform of the New Zealand health care system, *Health Policy*, 29, p. 25-40

Sibbit, D. (1992) Trends and projections for day only admissions in N.S.W. acute hospitals, *Australian Clinical Review*, p. 115-124

Sirkin, H., Stalk, G. Jr. (1993) Fix the Process, Not the Problem, Reprinted from *National Productivity Review*, p. 175-180

Stake, R. E. (1983) The case study method in social inquiry, *Evaluation models.* Boston: Kluwer-Nijhoff

Stake, R. E. (1994) Case studies, *Handbook of qualitative research*. Thousand Oaks CA: Sage

Susman, G. I. and Evered, R. D. (1978) An Assessment of the Scientific Merits of Action Research, *Administrative Science Quarterly*. 23, p. 582-603

Taylor, F. (1911) *Principles of Scientific Management*. New York: Harper & Row

Terez, T. (1991) A manager's guidelines for implementing successful operational changes, Reprinted from *Industrial Management,* May/June, p. 215-222

Thurow, L.C. (1991) New tools, new rules: playing to win in the new economic game. *PRISM,* second quarter, p. 87-100

Treadgold, T. (1996) Reengineering an institution, *Management*, Aug, p. 5

Vaughan, R., Aluise, J. and McLaughlin, C. (1991) Ambulatory surgery and the hospital, *Health Care Management Review,* 16(3): 15-26

Venkatraman, N. (1992) IT-enabled business transportation; From automation to business scope redefinition, *Sloan Management Review,* 35(2): 73-87

Victoria's Health to 2050 (1995)

Wholey, J. (1979) *Evaluation: Performance and promise*. Washington, DC: Urban Institute

Yin, R.K. (1994) Case Study research, Design and Methods.London; New Delhi: Sage Publications

LIST OF IN-HOUSE PUBLICATIONS

Deloitte. *Diagnostic Report for THL volumes 1-3*, June 1995

BPR project team. *Change Imperative Pregnancy and Childbirth*, Dec 1995

BPR project team. *Change Imperative Report THL Executive Summary*, Dec 1995

BPR project team. *Change Imperative THL Medical Surgical Project*, Dec 1995

BPR project team. *Change Imperative THL Change Management Project*, Dec 1995

BPR project team. *Change Imperative THL Change Management Project*, Dec 1995

BPR project team. *Change Imperative Disability Support and Rehabilitation*, Mar 1996

BPR project team. *Change Imperative Report THL Mental Health Services*, Apr 1996

BPR project team. *Change Imperative Report THL Support Services*, Dec 1995

BPR project team. *Visioning - Theatre - Phase 2*, June 1996

BPR project team. *Visioning - Pathology - Phase 2*, May 1996

BPR project team. *Conceptual Design Team - Visioning Phase Draft Report*

BPR project team. *Straightening the Path - Intro Document*, April 1996

BPR project team. *A Vision for THL Inpatient Care Team*, June 1996

BPR project team. *Visioning Phase Deliverable - Supply Management,* June 1996

BPR project team. *Visioning Phase - Change Leadership Team*

BPR project team. *Summary Redesign Report - Pathology*, Oct 1996

BPR project team. *Redesign Deliverable - Care Path*, Oct 1996

BPR project team. *Redesign Phase Summary - Supply Management Team*, Oct 1996

BPR project team. *Business Cases - Supply Management Team*, Oct 1996

BPR project team. *Summary Redesign - Radiology*, Oct 1996

BPR project team. *Day Intervention Redesign Report - Ambulatory Team*, Oct 1996

BPR project team. *Clinics Redesign Report - Ambulatory Team*, Oct 1996

BPR project team. *A&E Redesign Report - Ambulatory Team*, Oct 1996

BPR project team. *Implementation Plan - Radiology Team*, Oct 1996

BPR project team. *Vision Document - Community Team*, Nov 1996

BPR project team. *Redesign - Community Team*, Dec 1996

Taranaki Healthcare. *Business Plan 1995, 1996*

Taranaki Healthcare. *Business Plan Addendum, 1995/1996*

Taranaki Healthcare. *Business Plan 1996/1997*

Taranaki Healthcare. *Get Real News*

Taranaki Healthcare. *Pulse*

Appendix A

TARANAKI

HEALTHCARE
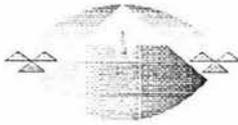
Better with us

TARANAKI HEALTHCARE LTD

SURVEY OF STAFF VIEWS

PATH PROJECT STAFF

GENERAL INFORMATION

The management of Taranaki Healthcare Ltd is committed to achieving the dramatic results necessary to ensure a quality health service for the people of Taranaki.

Straightening the Path for Patients we believe will result in a health service that values:

- Patients wishes
- Staffs skills and knowledge
- Clinical and service delivery excellence
- Effective and effective resource utilisation.

The current financial position of Taranaki Healthcare Ltd is not sustainable so we must change. We would like you to answer a few questions about your job, the process and progress of the path project and its impact so far. There are some general questions and you are encouraged to share your personal views.

KEY WORDS

The following should be considered as key words throughout the survey:

- Organisation   Taranaki Healthcare as a whole

- Department Your responsibility centre.
- Work Location   The facility, floor and room in which you work
- Leader   The person to whom you report directly
- Work Group All persons who work with you and report directly to the same leader that you do.
- Customer   refers to patients, internal and external stakeholders

Your participation in this survey is voluntary. However, the greater the number of responses, the more useful the findings. The findings of the survey will be used to evaluate the project as part of a MBS (Master of Business Studies) thesis. Please return this survey to Leila Bracegirdle, Path Project c/- Ward 1 by 31 July 1996.

Furthermore, the process guarantees your total anonymity and the absolute confidentiality of your responses. So, please take the time to complete the questionnaire.

Thank you for your time.

Dr Pieter Pike
PATH PROJECT MANAGER

INSTRUCTIONS

1   Most should be answered by choosing the appropriate number (between 1-7) on the response sheet provided. If you do not find a response that fits your answer exactly, use the one that is the closest to the way you feel.

2   Questions are responded to by ticking the appropriate box corresponding to the appropriate number on the response sheet (one tick per response only):

Choose the statement that best corresponds to your opinion, mark **NA** if you feel the statement has no relevance to you.There are questions asked that will require a yes or no answer.

SAMPLE STATEMENT:

The information your work group receives from other work groups is helpful.

If you moderately agree with the sample statement, you would choose the number (6) on the response sheet.

SAMPLE RESPONSE

1	2	3	4	5	6	7	NA

3   You are welcome to add extra responses. Just write the information and staple to the questionnaire.

BACKGROUND INFORMATION

This section of the survey asks for background information about you. The information requested is merely to ensure that all groups are accurately represented and not to identify you as an individual. Please circle the number which corresponds most closely to you.

This background information will be detached to the main questionnaire to maintain confidentiality and anonymity.

1   How long have you been with the organisation (including the previous Area Health Board)?:

Circle: 1 Less than 1 year

            2 More than 1 year, less than 3 years

            3 More than 3 years, less than 5 years

            4 More than 5 years, less than 10 years

            5 More than 10 years, less than 15 years

6 More than 15 years, less than 20 years

7 More than 20 years

2 Which Path Project team are you in:
- Conceptual Design Team
- Care Path
- Inpatient Care
- Ambulatory Committee Care
- Clinical Support
- Supply Management
- Human Resources/Communication

3 Are you a team leader. Yes/No

ROLE ON THE PROJECT

Below are particular aspects which describe your role on the project. Read each question carefully and then decide to what extent the question refers to your own job by circling the appropriate number:

1 = Not at all

2 = To a very little extent

3 = To a little extent

4 = To a moderate extent

5 = To a fairly large extent

6 = To a great extent

7 = To a very great extent.

QUESTIONS		YOUR RESPONSE							
		1	2	3	4	5	6	7	NA
1	To what extent does the project require you to do many different things?								
	a To what extent does the project require you to use a variety of talents?								
2	To what extent do you have adequate facilities and equipment to accomplish the job?								

3	To what extent do you know exactly what is expected of you in the project?								
4	If people in your team don't perform well, do they receive assistance and support?								
5	To what extent does being on the project give you a feeling of pride?								
6	Is there sufficient analyst support to get the job done?								
7	To what extent are you held responsible for the quality of your own work?								
8	How confident are you that customers needs are being considered?								
9	To what extent do you think we can improve quality service in terms of:								
	a outcome for customer/patient								
	b outcome for the public in general								

PROJECT CRITICAL SUCCESS FACTORS

The following critical success factors have been identified. At this stage of the project how well do you think Taranaki Healthcare Limited are achieving in each factor?

1 = Not at all
2 = To a very little extent
3 = To a little extent
4 = To a moderate extent
5 = To a fairly large extent
6 = To a great extent
7 = To a very great extent

	.QUESTIONS	YOUR RESPONSE							
		1	2	3	4	5	6	7	NA
1	Risk management processes in place								
2	Roles and responsibilities clearly								

	defined										
3	Effective communication strategy										
4	Time frames met										
5	Milestones met										
6	Objectives met										
7	Leadership - in control										
8	Leadership - capable of delivering outcome										
9	Project plan agreed by Taranaki Healthcare Board										
10	Well documented										
11	Development and learning of team members										
12	Project is perceived successful by all stakeholders										
13	Project process perceived as appropriate										
14	Level of understanding of methodology in each phase										

PROJECT GUIDING PRINCIPLES

The project guiding principles are listed below. Please rate how well you think we have stuck with them.

- 1 = Not at all
- 2 = To a very little extent
- 3 = To a little extent
- 4 = To a moderate extent
- 5 = To a fairly large extent
- 6 = To a great extent
- 7 = To a very great extent.

QUESTIONS	YOUR RESPONSE

		1	2	3	4	5	6	7	NA
1	Communication, communication, communication								
2	Assassinate the cattle								
3	Control and planning								
4	Everything is part of the overall whole								
5	There will be problems								
6	80% planned and we move on it								
7	100% is too much								
8	Don't sit on disquiet, talk about it								
9	If people are unhappy we need to know about it								
10	Identify key people - we need disciples								
11	Scenario planning - assume that it won't work first time								
12	Must meet deadlines								
13	Everyone is important								
14	Expand the vision of the core business								
15	Clear plans with milestones/deliverables every fortnight								
16	Minimal administrative meetings								

TEAM WORK

The statements below describe characteristics of teamwork. Indicate how your team performs by choosing the phrase which best represents your views about your team. If you work with more than one team, then answer these questions based on the team that you have spent the greatest time with recently.

    1 =   Strongly disagree
    2 =   Moderately disagree
    3 =   Slightly disagree

4 = Neither agree nor disagree

5 = Slightly agree

6 = Moderately agree

7 = Strongly agree

QUESTIONS		1	2	3	4	5	6	7	NA
		YOUR RESPONSE							
1	My team sets high performance expectations								
2	My leader/immediate supervisor encourages teamwork								
3	My team establishes good work procedures								
4	The responsibilities within my team are clear								
5	My leader takes time to help me when needed								
6	My team helps me to improve my performance								
7	We are under too much work pressure to allow us to devote time to investigate ways of improving our processes								
8	THL staff and consultants work well together on the team.								

WORK GROUP PRODUCTIVITY 1

(RELATES TO INTERNAL TEAM)

The statements below deal with the output of your team or immediate work group. Indicate your agreement with the statement, by selecting the phrase which best expresses your opinion and circling the appropriate number:

1 = Strongly disagree

2 = Moderately disagree

3 = Slightly disagree

4 = Neither agree nor disagree

5 = Slightly agree

6 = Moderately agree

7 = Strongly agree

Questions		Your Response							
		1	2	3	4	5	6	7	NA
1	The quantity of output of my work group is very high								
2	the quality of output of my work group is very high								
3	When high priority work arises, such as short deadlines and emergencies, the people in my work group do an outstanding job in handling these situations								
4	My work group always gets maximum output from available resources (eg people and materials)								

WORK GROUP PRODUCTIVITY 2

(RELATES TO CUSTOMERS)

The following four statements apply to customers (internal and/or external - ie those who seek a service from you) who receive your products or services. Indicate your agreement with each statement by selecting one of the possible responses, and circling the appropriate number:

1 = Not at all

2 = To a very little extent

3 = To a little extent

4 = To a moderate extent

5 = To a fairly large extent

6 = To a great extent

7 =   To a very great extent.

QUESTIONS		YOUR RESPONSE							
		1	2	3	4	5	6	7	NA
1	The principal requirements of our customers/ patients are clearly communicated to me								
2	My work group satisfies customer/patient needs to a high degree								
3	My work group has clear evidence of the level of customer/patient satisfaction								
4	The level of enquires is disruptive to my work routine								

JOB SATISFACTION

The items below are used to determine how satisfied you are with specific job-related issues. Indicate your degree of satisfaction with each issue by choosing the most appropriate phrase, and circling the appropriate number:

1 =   Extremely dissatisfied

2 =   Moderately dissatisfied

3 =   Slightly dissatisfied

4 =   Neither satisfied nor dissatisfied

5 =   Slightly satisfied

6 =   Moderately satisfied

7 =   Extremely satisfied

QUESTIONS		YOUR RESPONSE							
		1	2	3	4	5	6	7	NA
1	Value to Others How satisfied are you that you have the time and opportunity to help people and								

		improve their welfare through the performance of your job?								
2		CO-WORKER Relationship. How satisfied are you with the amount of effort of your put in compared to the effort of your co-workers?								
3		TECHNICAL TRAINING How satisfied are you with any technical or formal training you have received within the organisation) to perform your current job?								
4		WORK SCHEDULE. How satisfied are you with your work schedule?								
	a	How satisfied are you with your work flexibility?								
	b	How satisfied are you with the regularity of your work pattern?								
	c	How satisfied are you with your work time?								
	d	How satisfied are you with the quantity pressures on the job?								
	e	An overall satisfaction relating to all								
5		COMPUTER SUPPORT								
	a	How satisfied are you with the availability of computer hardware?								
	b	How satisfied are you with back-up support?								
	c	An overall satisfaction relating to all								
6		Remuneration How satisfied are you that you receive								

	a reasonable wage/salary for the work you perform?										
7	JOB SECURITY How satisfied are you with your level of job security?										
8	ACQUIRED VALUABLE SKILLS a How satisfied are you with the chance you are given to acquire valuable skills in your job?										
	b To prepare you for further opportunities?										
9	Freedom of Action How satisfied are you that you have enough freedom to do innovative work?										
10	Checking How satisfied are you that the amount of checking on the quality of your work is appropriate?										
11	Your Job on the Project as a Whole Taken overall, how satisfied are you with your job on the project?										

ORGANISATION CLIMATE

Below are items which may describe characteristics about the project. Indicate your agreement by choosing the phrase which best represents your opinion concerning your department or work group, and circle the appropriate number:

- 1 =   Strongly disagree
- 2 =   Moderately disagree
- 3 =   Slightly disagree
- 4 =   Neither agree nor disagree

5 = Slightly agree

6 = Moderately agree

7 = Strongly agree

QUESTIONS		YOUR RESPONSE							
		1	2	3	4	5	6	7	NA
1	My work group is usually aware of important events and situations occurring within the project								
2	My work group is usually aware of important events and situations occurring within the organisation								
3	My complaints are aired satisfactorily.								
4	The project has a very strong interest in the welfare of staff								
5	There is a high spirit of teamwork among my co-workers								
6	There is outstanding co-operation between the project and others in the organisation.								
7	THL people and Deloittes people are treated equally								

CHANGES TO THE HEALTH SERVICE

The following are some statements concerning the current reforms to the health sector. Please choose the response which most closely reflects your own views, and circle with the appropriate number:

1 = Strongly disagree

2 = Moderately disagree

3 = Slightly disagree

4 = Neither agree nor disagree

5 = Slightly agree

6 = Moderately agree

7 = Strongly agree

NATIONAL:

QUESTIONS		YOUR RESPONSE							
		1	2	3	4	5	6	7	NA
1	I understand why the reforms and changes to the health sector are being made								
2	I believe the result of the current changes will be a better health service for New Zealand								
3	I think the changes will create an environment where there will be greater scope for improvement in my department/work group								
4	I think the changes are creating too many administration and management jobs								
5	I think it is important that senior management should have a health service background								

TARANAKI HEALTHCARE LIMITED:

QUESTIONS		YOUR RESPONSE							
		1	2	3	4	5	6	7	NA
1	I have been kept informed of the changes being made to Taranaki Healthcare Ltd.								

2	Is BPR Response acceptable at the moment?								

ANY OTHER ISSUES

Please comment on which of the following model would best achieve organisational goals: BPR, Continuous Quality Improvement and Restructuring:

_____

_____

Is there any other aspect of Business Process Re-engineering that you would like to tell us about?

_____

_____

The best outcome so far is:

_____

_____

The worst outcome so far is:

_____

_____

Do you want to be interviewed about any of your responses or provide any further information?

    Yes   No

If yes, please provide name and contact number_____

Thank you for taking time to respond to this questionnaire.

Please return to Leila Bracegirdle, c/- Path Project, Ward 1, Taranaki Base Hospital.

Appendix B

JOB CHARACTERISTICS \ ROLE ON THE PROJECT

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question1: To what extent does your job require you to do many different things, using a variety of talents and skills?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	0
Moderately disagree	0	0	0	0
Slightly disagree	4	0	0	11
Neither agree nor disagree	12	18	13	17
Slightly agree	31	36	26	22
Moderately agree	31	18	39	28
Strongly agree	23	27	17	28
N/a			4	

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 2: To what extent do you have adequate facilities and equipment to accomplish your job?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	0
Moderately disagree	8	9	0	6
Slightly disagree	8	5	13	17
Neither agree nor disagree	31	45	22	44
Slightly agree	46	32	43	22
Moderately agree	8	5	17	11
Strongly agree	0	0	4	6

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 3: To what extent does your job provide you with the chance to finish completely each piece of work that you begin?	Organisation Staff	Organisation Staff
Strongly disagree	5	0
Moderately disagree	0	6
Slightly disagree	0	6
Neither agree nor disagree	41	39
Slightly agree	27	28
Moderately agree	14	22
Strongly agree	0	6

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 4: To what extent does your job give you freedom to do your work as you see fit?	Organisation Staff	Organisation Staff
Strongly disagree	5	11
Moderately disagree	0	0
Slightly disagree	14	6
Neither agree nor disagree	32	22
Slightly agree	18	28
Moderately agree	18	39
Strongly agree	9	0

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 5(3): To what extent do you know exactly what is expected of you to perform your job?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	0
Moderately disagree	0	0	9	0
Slightly disagree	8	9	13	11
Neither agree nor disagree	50	14	26	0
Slightly agree	23	23	35	33
Moderately agree	19	36	17	39
Strongly agree	0	14	0	17

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 6: To what extent is your job a routine one?	Organisation Staff	Organisation Staff
Strongly disagree	0	0
Moderately disagree	14	0
Slightly disagree	18	11
Neither agree nor disagree	41	50
Slightly agree	14	11
Moderately agree	5	22
Strongly agree	5	11

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 7: If people in your work group perform well, to what extent do they receive recognition?	Organisation Staff	Organisation Staff
Strongly disagree	18	6
Moderately disagree	27	17
Slightly disagree	14	11
Neither agree nor disagree	32	44
Slightly agree	9	0
Moderately agree	0	17
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 8(4): If pe14ople in your work group don't perform well, do they receive assistance and support?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	0
Moderately disagree	0	18	9	6
Slightly disagree	8	14	4	17
Neither agree nor disagree	12	36	17	39
Slightly agree	31	27	30	6
Moderately agree	15	0	22	17
Strongly agree	0	0	0	0

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 9(5):To what extent does your work give you a feeling of pride?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	4	0	0	0
Moderately disagree	4	5	0	0
Slightly disagree	0	9	4	6
Neither agree nor disagree	19	27	17	28
Slightly agree	31	32	35	22
Moderately agree	31	23	43	22
Strongly agree	15	5	0	22

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 10: To what extent do meetings interfere with the performance of your main job?	Organisation Staff	Organisation Staff
Strongly disagree	18	6
Moderately disagree	14	17
Slightly disagree	36	28
Neither agree nor disagree	5	22
Slightly agree	18	6
Moderately agree	5	17
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 11: To what extent do administrative tasks interfere with the performance of your main job?	Organisation Staff	Organisation Staff
Strongly disagree	9	6
Moderately disagree	5	22
Slightly disagree	41	17
Neither agree nor disagree	27	17
Slightly agree	5	11
Moderately agree	5	11
Strongly agree	5	6

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 12: To what extent do you feel the department' workload is excessive for the number of staff available?	Organisation Staff	Organisation Staff
Strongly disagree	9	6
Moderately disagree	5	11
Slightly disagree	18	17
Neither agree nor disagree	23	28
Slightly agree	14	11
Moderately agree	27	17
Strongly agree	5	11

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 13(7): To what extent are you held responsible for the quality of your own work?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	0
Moderately disagree	0	0	0	6
Slightly disagree	0	0	4	0
Neither agree nor disagree	15	0	22	0
Slightly agree	23	27	17	28
Moderately agree	42	45	35	28
Strongly agree	15	23	17	44
N\A			4	

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 14: To what extent do you receive information about customers requirements regarding the timely delivery of your services?	Organisation Staff	Organisation Staff
Strongly disagree	5	11
Moderately disagree	5	17
Slightly disagree	18	11
Neither agree nor disagree	27	17
Slightly agree	36	28
Moderately agree	0	11
Strongly agree	5	0

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 15a (9a) : To what extent do you receive information about expectations of quality service in terms of outcome for patients?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	9	0	17
Moderately disagree	4	5	0	11
Slightly disagree	0	14	0	11
Neither agree nor disagree	4	27	4	33
Slightly agree	19	9	17	0
Moderately agree	31	9	26	11
Strongly agree	38	0	48	0

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 15b(9b) : To what extent do you receive information about expectations of quality service in terms of outcome for the public in general?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	17
Moderately disagree	4	9	0	11
Slightly disagree	0	9	0	22
Neither agree nor disagree	4	32	4	22
Slightly agree	27	9	17	6
Moderately agree	42	0	39	6
Strongly agree	23	5	35	0

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 15c(9c) : To what extent do you receive information about expectations of quality service in terms of outcome for the organisations effectiveness?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	11
Moderately disagree	0	0	0	17
Slightly disagree	0	18	0	11
Neither agree nor disagree	8	27	0	28
Slightly agree	12	14	22	0
Moderately agree	31	0	26	6
Strongly agree	42	5	48	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question (8):How confident are you that customers needs are being considered?	Project Staff	Project Staff
Strongly disagree	0	0
Moderately disagree	4	4
Slightly disagree	4	0
Neither agree nor disagree	4	13
Slightly agree	35	22
Moderately agree	31	43
Strongly agree	19	13

TEAMWORK

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 1: My team sets high performance expectations	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	0
Moderately disagree	0	0	4	6
Slightly disagree	0	0	4	6
Neither agree nor disagree	8	14	4	6
Slightly agree	12	]9	9	11
Moderately agree	65	23	43	39
Strongly agree	15	36	30	33
N/A			4	

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 2: My leader/immediate supervisor encourages teamwork	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	0
Moderately disagree	0	5	4	6
Slightly disagree	8	5	9	6
Neither agree nor disagree	8	0	13	6
Slightly agree	8	14	17	28
Moderately agree	54	36	26	33
Strongly agree	23	23	22	11
N/A			9	0

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 3: My team establishes good work procedures	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	0
Moderately disagree	0	0	4	0
Slightly disagree	4	5	4	0
Neither agree nor disagree	4	0	9	17
Slightly agree	15	5	13	6
Moderately agree	69	32	57	39
Strongly agree	4	23	9	33
N/A	4		4	

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 4: The responsibilities within my team are clear	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	4	0
Moderately disagree	8	0	0	6
Slightly disagree	4	0	22	6
Neither agree nor disagree	4	9	9	11
Slightly agree	12	14	17	11
Moderately agree	62	23	26	28
Strongly agree	12	36	17	39
N/A			4	

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 5: My leader takes time to help me when needed	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	6
Moderately disagree	0	0	0	6
Slightly disagree	0	5	9	0
Neither agree nor disagree	12	5	13	17
Slightly agree	12	14	17	17
Moderately agree	38	32	17	22
Strongly agree	31	27	35	17
N/A	4		9	

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 6: My team helps me to improve my performance	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	0
Moderately disagree	0	0	0	6
Slightly disagree	0	9	13	0
Neither agree nor disagree	8	5	9	6
Slightly agree	23	14	9	22
Moderately agree	38	32	26	56
Strongly agree	27	9	39	11
N/A	4		4	

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 7:We are under too much work pressure to allow us to devote time to investigate ways of improving our processes.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	4	5	13	6
Moderately disagree	15	5	17	22
Slightly disagree	0	0	17	11
Neither agree nor disagree	19	5	17	11
Slightly agree	27	5	22	33
Moderately agree	27	41	4	6
Strongly agree	4	23	4	11

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 8:THL staff and consultants work well together on the team.	Project Staff	Project Staff
Strongly disagree	0	0
Moderately disagree	0	9
Slightly disagree	0	0
Neither agree nor disagree	4	4
Slightly agree	12	4
Moderately agree	23	30
Strongly agree	50	43

ORGANISATIONAL CLIMATE

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 1: My work group is usually aware of important events and situations occurring within the project / my department	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	4
Moderately disagree	0	0	0	4
Slightly disagree	30	5	9	6
Neither agree nor disagree	0	0	4	6
Slightly agree	0	27	39	28
Moderately agree	60	41	35	38
Strongly agree	0	23	13	14

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 2:My work group is usually aware of important events and situation occurring within the organisation.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	9	0	2
Moderately disagree	0	9	4	0
Slightly disagree	20	9	13	6
Neither agree nor disagree	10	5	4	0
Slightly agree	40	36	48	28
Moderately agree	30	27	22	42
Strongly agree	0	5	9	22

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 3: My complaints are aired satisfactorily.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	0
Moderately disagree	0	0	0	0
Slightly disagree	0	5	9	8
Neither agree nor disagree	10	23	9	16
Slightly agree	0	23	17	19
Moderately agree	80	23	35	36
Strongly agree	0	18	26	21

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 4:The project has a very strong interest in the welfare of staff.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	0
Moderately disagree	0	14	9	7
Slightly disagree	0	9	4	5
Neither agree nor disagree	10	5	9	9
Slightly agree	50	9	13	12
Moderately agree	40	32	48	38
Strongly agree	0	32	13	29

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 5:There is a high spirit of teamwork among my co-workers.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	9	0	0
Moderately disagree	0	5	0	0
Slightly disagree	0	5	9	6
Neither agree nor disagree	0	9	4	6
Slightly agree	0	27	17	18
Moderately agree	50	9	26	28
Strongly agree	50	36	43	42

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 6:There is an outstanding cooperation between departments and the Path Project.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	14	4	2
Moderately disagree	20	9	22	18
Slightly disagree	40	5	13	16
Neither agree nor disagree	30	14	13	16
Slightly agree	0	14	17	18
Moderately agree	10	32	22	20
Strongly agree	0	9	4	10

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 7:THL people and Deloittes people are treated equally.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	9	4	6
Moderately disagree	0	5	9	6
Slightly disagree	20	18	9	8
Neither agree nor disagree	0	32	13	14
Slightly agree	30	0	13	16
Moderately agree	40	18	30	32
Strongly agree	10	9	22	18

CHANGES TO THE HEALTH SERVICE

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 1:I understand why the reforms and changes to the health sector are being made	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	11
Moderately disagree	0	5	0	0
Slightly disagree	4	48	0	6
Neither agree nor disagree	0	5	0	11
Slightly agree	0	23	4	28
Moderately agree	50	45	35	22
Strongly agree	42	14	61	22

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 2:I believe the result of the current changes will be a better health service for New Zealand	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	23	0	28
Moderately disagree	0	14	0	17
Slightly disagree	4	14	0	0
Neither agree nor disagree	12	14	13	28
Slightly agree	23	18	17	11
Moderately agree	35	5	35	6
Strongly agree	23	14	30	11

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 3: I think the changes will create an environment where there will be greater scope for improvement in my department/work group.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	4	14	0	22
Moderately disagree	0	9	0	22
Slightly disagree	4	18	0	0
Neither agree nor disagree	8	9	9	22
Slightly agree	8	14	17	17
Moderately agree	35	18	30	11
Strongly agree	31	9	43	11

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 4: I think the changes are creating too many administration and management jobs.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	15	5	13	6
Moderately disagree	23	5	13	6
Slightly disagree	12	14	17	17
Neither agree nor disagree	31	14	35	22
Slightly agree	12	5	9	0
Moderately agree	0	36	9	39
Strongly agree	4	23	0	6

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 5: I think it is important that senior management should have a health service background.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	0	0	0
Moderately disagree	12	0	0	0
Slightly disagree	0	0	9	0
Neither agree nor disagree	23	18	35	39
Slightly agree	12	9	17	0
Moderately agree	27	23	17	28
Strongly agree	23	50	17	28
N/A				6

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 1THL – I have been kept informed of the changes being made to Taranaki Healthcare Limited.	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	14	0	0
Moderately disagree	0	5	0	28
Slightly disagree	4	9	9	17
Neither agree nor disagree	0	14	0	17
Slightly agree	12	27	22	11
Moderately agree	58	23	52	28
Strongly agree	27	9	13	0

Criteria	Survey done at end of Visioning Phase		Survey done at end of Plan for Implementation Phase	
Question 2THL – Is BPR Response acceptable at the moment?	Project Staff	Organisation Staff	Project Staff	Organisation Staff
Strongly disagree	0	5	0	6
Moderately disagree	0	5	0	6
Slightly disagree	0	0	4	0
Neither agree nor disagree	8	23	17	33
Slightly agree	12	5	9	6
Moderately agree	46	0	52	6
Strongly agree	23	5	9	0

PROJECT CRITICAL SUCCESS FACTORS

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 1 : Risk management processes in place.		
Strongly disagree	0	0
Moderately disagree	4	4
Slightly disagree	19	13
Neither agree nor disagree	27	52
Slightly agree	23	17
Moderately agree	12	9
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 2:Roles and responsibilities clearly defined.		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	8	26
Neither agree nor disagree	23	43
Slightly agree	42	17
Moderately agree	15	9
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 3:Effective communication strategy?		
Strongly disagree	0	0
Moderately disagree	8	0
Slightly disagree	27	22
Neither agree nor disagree	31	48
Slightly agree	19	17
Moderately agree	8	9
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 4:Time frames met?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	4	9
Neither agree nor disagree	38	17
Slightly agree	27	52
Moderately agree	12	13
Strongly agree	12	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 5:Milestones met?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	4	9
Neither agree nor disagree	27	26
Slightly agree	28	43
Moderately agree	15	13
Strongly agree	5	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 6:Objectives met?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	4	4
Neither agree nor disagree	8	35
Slightly agree	35	35
Moderately agree	42	22
Strongly agree	4	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 7: Leadership – in control?		
Strongly disagree	0	0
Moderately disagree	0	4
Slightly disagree	12	13
Neither agree nor disagree	15	39
Slightly agree	42	26
Moderately agree	15	9
Strongly agree	0	4

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 8: Leadership – capable of delivering outcome?		
Strongly disagree	0	4
Moderately disagree	0	4
Slightly disagree	4	4
Neither agree nor disagree	15	26
Slightly agree	31	26
Moderately agree	27	22
Strongly agree	12	4

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 9: Project plan agreed by Taranaki Healthcare Board?		
Strongly disagree	0	0
Moderately disagree	0	9
Slightly disagree	4	17
Neither agree nor disagree	0	22
Slightly agree	42	26
Moderately agree	15	13
Strongly agree	8	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 10:Well documented?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	0	4
Neither agree nor disagree	8	17
Slightly agree	35	43
Moderately agree	31	22
Strongly agree	15	4

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 11: Development and learning of team members.		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	15	13
Neither agree nor disagree	8	22
Slightly agree	50	39
Moderately agree	19	17
Strongly agree	0	4

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 12: Project is perceived successful by all stakeholders?		
Strongly disagree	0	0
Moderately disagree	0	4
Slightly disagree	15	22
Neither agree nor disagree	31	39
Slightly agree	19	22
Moderately agree	4	4
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 13: Project process perceived as appropriate?		
Strongly disagree	0	0
Moderately disagree	0	4
Slightly disagree	8	13
Neither agree nor disagree	31	52
Slightly agree	42	17
Moderately agree	15	4
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 14: Level of understanding of methodology in each phase.		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	4	17
Neither agree nor disagree	23	43
Slightly agree	54	26
Moderately agree	12	4
Strongly agree	0	0

PROJECT GUIDING PRINCIPLES

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 1: Communication, communication, communication?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	19	26
Neither agree nor disagree	54	39
Slightly agree	15	26
Moderately agree	4	4
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 2: Assassinate the cattle?		
Strongly disagree	0	4
Moderately disagree	4	17
Slightly disagree	19	17
Neither agree nor disagree	35	30
Slightly agree	15	13
Moderately agree	8	4
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 3: Control and planning?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	0	17
Neither agree nor disagree	31	26
Slightly agree	50	30
Moderately agree	12	17
Strongly agree	4	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 4: Everything is part of the overall whole?		
Strongly disagree	0	0
Moderately disagree	0	4
Slightly disagree	12	9
Neither agree nor disagree	23	35
Slightly agree	35	26
Moderately agree	23	17
Strongly agree	4	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 6: 80% planned and we move on it?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	4	9
Neither agree nor disagree	19	22
Slightly agree	42	17
Moderately agree	23	39
Strongly agree	8	4

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 7: 100% is too much?		
Strongly disagree	0	0
Moderately disagree	0	4
Slightly disagree	0	9
Neither agree nor disagree	8	13
Slightly agree	31	13
Moderately agree	38	30
Strongly agree	15	13

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 8: Don't sit on disquiet, talk about it.		
Strongly disagree	0	0
Moderately disagree	0	4
Slightly disagree	15	0
Neither agree nor disagree	27	17
Slightly agree	15	35
Moderately agree	19	17
Strongly agree	12	13

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 9: If people are unhappy we need to know about it?		
Strongly disagree	0	0
Moderately disagree	4	4
Slightly disagree	4	4
Neither agree nor disagree	23	17
Slightly agree	31	35
Moderately agree	23	22
Strongly agree	12	13

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 10: Identify key people – we need disciples?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	0	0
Neither agree nor disagree	19	9
Slightly agree	25	35
Moderately agree	27	43
Strongly agree	15	9

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 11: Scenario planning – assume that it won't work first time?		
Strongly disagree	0	0
Moderately disagree	0	0
Slightly disagree	12	9
Neither agree nor disagree	31	35
Slightly agree	23	22
Moderately agree	23	26
Strongly agree	0	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 12: Must meet deadlines?		
Strongly disagree	0	0
Moderately disagree	9	4
Slightly disagree	4	9
Neither agree nor disagree	4	13
Slightly agree	31	26
Moderately agree	38	30
Strongly agree	19	9

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 13: Everyone is important?		
Strongly disagree	0	0
Moderately disagree	0	4
Slightly disagree	0	13
Neither agree nor disagree	27	0
Slightly agree	27	43
Moderately agree	23	26
Strongly agree	19	9

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 14: Expand the vision of the core business?		
Strongly disagree	0	0
Moderately disagree	0	9
Slightly disagree	4	9
Neither agree nor disagree	23	22
Slightly agree	38	22
Moderately agree	19	22
Strongly agree	4	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 15: Clear planned milestones/deliverables every fortnight?		
Strongly disagree	0	0
Moderately disagree	0	13
Slightly disagree	4	22
Neither agree nor disagree	34	39
Slightly agree	35	4
Moderately agree	19	9
Strongly agree	4	0

Criteria	Survey done at end of Visioning Phase	Survey done at end of Plan for Implementation Phase
Question 16: Minimal administrative meetings?		
Strongly disagree	0	0
Moderately disagree	4	4
Slightly disagree	8	30
Neither agree nor disagree	35	52
Slightly agree	35	4
Moderately agree	12	0
Strongly agree	4	0

TARANAKI HEALTHCARE LTD

SURVEY OF STAFF VIEWS

Number of questionnaire sent out to random selection (computer generated by Payroll Manager)

Number of Questionnaires	= 100 (1); 100 (2)
Number of Returns	= 63 (1); 60 (2)

Comments were made by 10 staff members. Paraphrasing to maintain meaning has been undertaken in collating these comments.

COMMENTS:

1   PLEASE COMMENT ON WHICH OF THE FOLLOWING MODEL WOULD BEST ACHIEVE ORGANISATIONAL GOALS: BPR, CONTINUOUS QUALITY IMPROVEMENT AND RESTRUCTURING

- All   12
- Continuous Quality Improvement and Restructuring should work   16
- Restructuring needs funding and input from Health Professional - NOT accountants   4
  and consultants   4
- Restructuring is the only term I recognise   4

2   IS THERE ANY OTHER ASPECT OF BPR THAT YOU WOULD LIKE TO TELL US ABOUT?
- Who makes this BPR up and how much time does it take?
- Consumers offered better service.
- As a clinical worker I can type my own notes more accountability.
- Logical staff appointments.
- Its positive if it works.
- Clever words to destroy the health system.
- A long drawn out process.
- I'd like to know more.
- Make sure you involve everyone.

3   THE BEST OUTCOME SO FAR IS:
- Not seen.
- Discharge planning more effective.
- Staff input being valued

- Customer feedback excellent.
- Fewer managers.

4   THE WORST OUTCOME SO FAR IS:

- Management inability to make decisions.
- Delays.
- Colleagues not accepting change.
- Rumours - honest statement of bad news best.
- Fears for the future - staff and services.
- Destruction of our health system.
- Just about everything ... the low staff moral. The destruction of teams that previously worked well together. The appointment of unit managers who are sarcastic and detrimental to the team, the appointment of staff as nurse co-ordinator with minimal experience. The decrease in budgets for healthcare and staff education while increased money is spent on keeping those employed by Deloittes in accommodation to which they have become accustomed!

TARANAKI HEALTHCARE LTD

SURVEY OF PATH PROJECT STAFF

Number of Questionnaires   = 42 (1); 32 (2)
Number of Returns   = 26 (1); 22 (2)

Collation of qualitative response and comments.
Paraphrased to Retain Meaning.

1   PLEASE COMMENT ON WHICH OF THE FOLLOWING MODEL WOULD BEST ACHIEVE ORGANISATIONAL GOALS:

- BPR, Continuous Quality Improvement and Restructuring
- Combination of all three required for success   11
- BPR needed now for dramatic change   6
- BPR drives the change   5
- Restructuring to downsize rapidly to achieve viability   3
- BPR followed by Continuous Quality Improvement   2
- Continuous Quality Improvement and restructuring ongoing   1
- Ad hoc Continuous Quality Improvement and Restructuring not suitable   1

- No response   4
- Further Comments:
  - Don't understand   1
  - Brings insecurities   1

2   IS THERE ANY OTHER ASPECT OF BUSINESS PROCESS RE-ENGINEERING THAT YOU WOULD LIKE TO TELL US ABOUT?

- No   21
- Its great   1
- I believe this project will tackle the 'too hard' issues   1
- I'd like to see the task I'm doing completed   1
- Its taking too long   1
- Were doing it too quickly   1

3   THE BEST OUTCOME SO FAR IS:

- No response   10
- New skills   3
- Vision of Integrated Health Care Model   3
- Progress in involving Senior Medical staff   2
- Increasing numbers of staff support BPR   2
- Change Imperative now realised   2
- Enthusiasm and dedication of team   2
- Met on deadlines   1
- We are moving offices   1
- People believe difficulties of patients and staff   1
- Too soon to say   1

4   THE WORST OUTCOME SO FAR IS:

- No response   10
- Image of project vs organisation   7
- Communication   5
- Delays   5
- Change Management issues   2
- Philosophical differences   1
- Too soon to say   1
- Consultant credibility   1

- Resistant staff   1
- Delay of DSS and Mental Health projects

... that I have ideas one end which I call loading the gun and pulling the trigger and then running down the other end and receiving the bullet. I have fried (meaning I could be digging my own grave).

TARANAKI HEALTHCARE LIMITED

```
┌─────────────────────────────┐
│   CHIEF EXECUTIVE OFFICER    │
│        Max Robins            │
└─────────────────────────────┘
          │
          │      ┌─────────────────────────┐
          ├──────│   Personal Assistant     │
          │      │   Jenny McLennan         │
          │      └─────────────────────────┘
```

Service Managers   Corporate Managers

Womaen's, Child & Adolescent Hlth Kathy Glass	Commercial Manager - Clinical Support Peter Allan	Surgical & Dental Carol Fox	Medical & Primary Hlth Kingsley Fletcher	Disability Support Hayden Wano	Finance & Business Lucky Abeynaike	Human Resource Cathy Thurston	Commercial Services John Smith	Clinical Director Richard Doehring

Appendix D

GET **REAL** NEWS

(Where you find out what is for real or not)

(from the Change Leadership Team of the Path Project)
This newsletter will come out weekly to keep you regularly informed

News

Planning is under way to trial some of the redesigned processes emerging from the Path project. We are calling this an integrated pilot. The pilot will commence on 7 October. The pilot will trial the first Critical Pathway - hip replacement, as well as other developed processes. Watch out for more information.

"I'd like my people to talk to your people, but right now my people aren't speaking to me."

"The patient's financial condition is giving us cause for concern."

Rumours

Has there been any suggestion that the process of change be slowed until the end of the year?

It was established earlier on this year that it will take up until mid-October to complete the stages of the Path Project. These stages were
>   *Change Imperative - establishing the need for change*
>   *Visioning*
>   *Redesign and Implementation Planning*
The plans will then be incorporated into a business plan which, once approved, will be implemented.

There is a rumour that the project withholds sensitive information.

What is 'sensitive' information. As processes are redesigned these are being challenged by staff in the organisation. The processes are also being shared with staff as available.

the Pulse

TARANAKI HEALTHCARE'S FORTNIGHTLY MAGAZINE

A new structure - transition begins

12 August 1996

Last Monday's announcement of the new structure for senior and middle management, Human Resources, Corporate and Information Systems staff, began the first major change initiative for Taranaki Healthcare. Restructuring is never an easy process and can never seem totally fair. Decisions are made and a structure set in place, but applying changes within a group of dedicated and respected staff is difficult.

Change brings upheaval and uncertainty - not just for those whose job will no longer exist, but also for those whose role will change as it becomes part of a new structure with new objectives.

The transition process

Introducing a new structure has to be carried out in stages, as appointments are made and the new or existing senior managers take up their new responsibilities. The company is committed to establishing the new structure within a fairly strict time frame, with the last changes occurring until June 1997. However, a specific timetable for redundancies and appointments depends on the response to advertised positions at all levels. The stress for all concerned is in no doubt and support mechanisms have been set in place by way of consultation with managers, seminars, counselling and a hot line. Cathy Thurston has been appointed Transition Manager and will make sure that all assistance and information is made available to concerned staff.

But have I lost my job?

Some people may be unsure. Department structures have been set out in the handouts presented at Monday's forums. These show which roles will remain the same, where cuts are being made and those positions which will be advertised internally. In some cases, until applications are received for positions, there will be some uncertainty. Staff will be promptly informed of advertised positions, access to job descriptions and application forms and appointments as they are made.

Cathy and those involved in transition support need staff to express any worries to them. They can help.

Making change work for you

This is a time for making plans. Any staff affected by the changes may take advantage of the services being made available. Anticipated job loss puts enormous stress on individuals and families. Counselling is available and can help you through the process - and not just to deal with emotional reactions. When job changes affect your whole life it is hard to remain detached and it is easy to overlook possibilities and opportunities. Outlining your difficulties and fears to a counsellor is a good starting point from which to rebuild. Help is available with CV preparation and advice on interview skills. Financial planning seminars will be held for staff who will no longer have jobs. Sessions on managing change will be held over the next few weeks.

Meet the Recovery team

Staff in the recovery unit provide highly specialised care and treatment and careful observation of the patients who are under the influence of anaesthesia.

Their care does not begin after a patient's operation however. A Recovery team member greets the patient when they arrive for their operation. Through pre-op visiting they can inform the patient of the procedures taking place and consult on aspects of the patient's case in order to provide the best possible recovery care. Recovery is a very busy area where the work load can change from minute to minute. Some patients will stay in the unit only 20 minutes, some for 2 hours, depending on the level of attention they require.

Pre-op visiting began about two years ago. A patient who is due to have a significant operation will be visited on the ward. The visiting team will introduce themselves, explain the pre-operative area of theatre and the recovery phase, including pain management. This receives a good response from patients, who appreciate the explanation of small details.

Recovery is also the first area to give pain relief for post-operative patients. Heather Bognuda is on the committee for Pain Management, lead by Lorna Fox, which is working to develop protocols for better pain management and develop an education programme for everyone on the wards.

Recovery has a team of six, usually headed by Keri Kawana (currently on the Path Project). Staff are undertaking ongoing education - Keri, Dijana and Heather participating in a Post Anaesthesia Care Unit course through North Shore hospital, in

Recovery staff: Front - Dijana Kuruconji, Suzanne Mason. Back - Tracey Gregory, Rosemary Acton and Heather Bognuda (Keri Kawana is currently on the Path Project)

Auckland, last year. Tracey Gregory is doing a similar course through Waikato. Theatre has been a trial area for Clinical Career Pathways and staff are aware of the importance of ongoing education

The role of recovery nurse is very specialised all staff must have previous I.C.U., Coronary Care, Theatre, Anaesthesia or Surgical experience.

The Recovery team has the responsibility to see that the patient is safe, conscious and comfortable before being taken back to the ward or Day Ward. The criteria for discharge from Recovery is that the patient is able to be left alone.

Smart changes in Outpatients clerical procedures

The Outpatients office is one of the most hectic departments in the hospital. The first point of contact for patients arriving at the counter for appointments, staff juggle cashier duties, bookings, telephone enquiries, computer data entry, statistics and follow up appointments, to name a few tasks. A quick insight from the path project has been taken up very succesfully by the Outpatients clerical staff with immediate success.

With previously 3.5 staff, the Path Project was consulted when the additional half time position was removed - in an already overwhelmed department. A new perspective on the distribution of daily tasks introduced a rostered system - a simple change which has worked. Jill, Annette and Sanna work on a weekly system, rotating tasks which have been allocated to three job descriptions. All are very experienced and know all aspects of each job. Slightly different start and finish times, between 7.45 to 5.30, allow for *catch up* times early in the morning and in the last 45 minutes in the evening - time uninterrupted by the telephone.

The roster was trialled for three months and is now in its fourth month. Staff comment - "We work very much as a team and help each other when required. But it's good to come in and know your specific responsibilities for the week.". "We manage well now with just three staff now - some days we are really up to date. That just never happened under the old system". They also agreed that the changes have been "a good morale booster. You're not stuck in the same job week

Happy faces - Annette Vickers, Jill Souto and Sanna Roberts prefer working with the new rostered task system in Outpatients.

after week and we get on better this way You look forward to coming to work because you know you have a specific range of tasks to complete and can manage your own area." Each of the staff is able to help the others when necessary.

"What do you want from your employer"

In June a number of sessions were held with staff where they were requested to identify "What do you want from your employer". The results of these have been compiled and the top ten are listed below in priority order with the most important ranked first.

1. Continuing Education
2. Good resources
3. Job satisfaction
4. Good communication
5. Competitive remuneration
6. Feeling valued/part of organisation
7. Ability to meet patients needs
8. Honesty
9. Recognition of achievement
10. Non-monetary benefits

Other factors identified in order of priority were:

11. Secure employment
12. Clear expectations of job
13. Organisational relationships/leadership
14. Ability to deal with conflict
15. Real teamwork
16. Culture of Service
17. EEO programmes
18. Responsive to leave needs
19. Flexible hours
20. Pre-employment orientation packages
21. Performance incentives
22. Staff Performance/management issues
23. Job swaps
24. Staff counselling
25. Profit sharing
26. Co-ordinated care of patients

These findings will now be incorporated in the re-engineered organisation:

- Used as a basis for the staff charter
- Used in assisting with HR strategy and policy

As part of the exercise staff were also asked "Are there any things THL does well now that you would like to keep or building on?" The responses were as follows (these were not prioritised):

Training and education available
Parking
Library
Not too big an organisation
Some of the communication with Senior Managers
Graduate rotation programme
Clinical career pathway
Performance appraisal system
HR policies particularly recruitment process
Unit Management structure
Disaster plan
Friendly atmosphere
Food in Cafeteria
Counselling services for staff
Commitment to quality and accreditation
New pharmacy
Team briefing
The new look "Pulse"

Education Centre Notes ...

Self Defence Plus for women	Wednesday 18 September, 1300-1600 hrs (Base)
	Wednesday 16 October, 1300-1600 hrs (Haw)
Auditor Training	Thursday 22 August, 1330-1500 hrs
Quality Improvement Methods	Tuesday 10 September, 1300-1600 hrs
	Tuesday 17 September, 0900-1200 hrs
Stree Humour & Health	Wednesday 14 August, 9.00-1600 hrs
Medical Refresher One for Nursing Staff	11 & 12 September, 0800-1630 hrs
Steps Towards Cultural Awareness	17-19 September, 10.00-1600 hrs, (Urenui Marae)

Personal Alarms

Ward 17 currently has an amnesty in place for the return of personal alarms to the ward. They are missing a number of alarms and would like them back.

The alarms a small and can easily be taken home by mistake in pockets or around necks. Ward staff would be grateful if casual or pool staff in particular could check that they have not inadvertently taken one of the alarms with them.

If you find that you still have your alarm, please return it to Ward 17 as soon as you can.

From the Path project ...
"Now the nuts and bolts phase of the project begins..."

The third stage of the project, "Redesign" is now into its third week. This is the stage where staff involvement is essential. Many of you will already have attended early working party meetings. There is a lot to do in the next three months. Chief Executive, Max Robins outlines the present stage of the project:

"I have been asked what I would say if I had to summarise the findings of the visioning stage of the Path Project into a few sentences, without jargon. Now that's a challenge which I will try to rise to. I would propose three key points:

1. That healthcare should no longer be thought of as a hospital and inpatients. Increasingly, care will be provided in community and ambulatory settings.

2. That care should focus more around the needs of the patient rather than the hospital, clinic or even the professional. Patients and professionals should be able to move easily between the community and hospital where necessary, to establish an integrated service

3. The treatment a patient receives should be well managed and coordinated on a pathway to ensure high quality care and best use of resources.

This stage of the path Project is redesign. Project Teams are now redesigning healthcare processes to make the "vision" practical. Not all aspects of the vision may be practical or may be able to be applied as envisaged.

The process of redesign will involve a number of working parties representing a wide range of staff. The process will then be validated before implementation.

During this phase we get down to the nuts and bolts of the Path Project. We must turn vision into reality. I invite, in fact urge, you to involve yourself and your ideas. The final product of the Path Project will be the collective wisdom of our staff and our professional advisors."

How will Redesign work?

Each team is forming working groups as they commence the redesign phase. The teams and working groups will examine the practical ways in which change can be introduced and validate each process. Looking at two teams:

Community & Ambulatory Care

One of the areas covered by this team is A&E. The working group for A&E services met for the first time last Thursday.

As a practical beginning to this phase, a questionnaire has been devised for other CHEs, to find out how other A&E departments are dealing with change.

The focus of the redesigned A&E service will be to reduce patients' waiting time, allow investigations and treatment to be initiated sooner and allow for the best use of professional skills. Briefly, the *vision* includes an appropriately trained triage nurse to first assess the patient. Patients requiring further medical attention will be directed to one of three areas - a Fast Track (for minor/moderate ailments), Assessment and Resuscitation.

Working party team member, Bindi Thompson, is excited at the prospect. She sees this as "an excellent opportunity for nurses to both upskill professionally and improve patient flow through the department. "It can only be good for both patients and staff" she says. Bindi has been working in the department for over twelve years and says many of the changes have been sought by the staff for a long time. "Its really just formalising a lot of current practice. Its a positive move that all A&E are involved in the redesign plans."

Supply Management Team

Working groups for supply management are being set up now. These groups will include both "providers" (those working in support services) and "users" (the people providing patient care within the hospital).

The areas covered by supply management are diverse, including Maintenance and Cleaning, Linen and Sterile Services, Pharmacy and Logistics Support.

Outsourcing surveys will be carried out for most areas. These surveys do not necessarily mean that outsourcing of those services is planned, but we have to explore and evaluate all options.

Exciting innovations proposed in Supply Management

Working groups within the Supply Management and Pathology teams will have some of the most interesting and radical concepts to work on. Two of these are the setting up of a 'hire centre or equipment bank and the installation of a vacuum delivery system.
*(All innovations requiring capital expenditure are subject to final approval of the Board via the CEO.)*

The Hire Centre

At present, wards and departments 'own' their equipment. At times, necessary maintenance cannot always be carried out equipment is in use and at times they may be short of items if repairs are needed.

The Hire Centre or Equipment Bank will hold and maintain all equipment, which can be requested by wards and departments as required, then returned. All equipment will be checked on its return and repaired and problems with equipment can be reported and remedied.

The Vacuum Delivery System

All stations and departments of a hospital can be connected to a pneumatic tube system. In use by hospitals in New Zealand and overseas, the tube system is particularly suitable for laboratory samples, blood, small supplies, pharmaceuticals, X-rays and documentation. Sending items through the hospital in this way benefits the patient, through the prompt delivery of medicines, pathology and x-ray results, theatre supplies, blood and blood products, and records. Staff are assured that items can be retrieved or despatched quickly and accurately - leaving them more free to focus on their primary tasks.
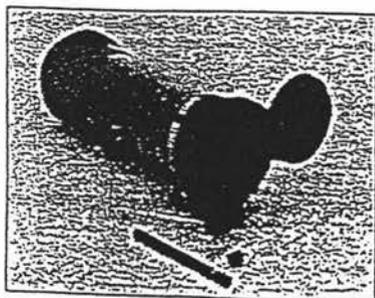
Air tube systems improve efficiency by decreasing staff movements, speeding up deliveries, smoothing work flows, improving patient services, providing security of transport with a 7-day per week, 24-hour service. Deliveries can be made direct to the nominated department, without risk of delay, misdirection or accident.

The system has a special provision for the
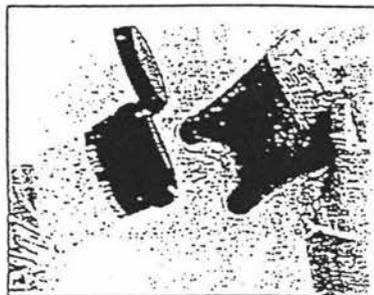
safe carrying of specimens. Special biohazard bags ensure a completely sterile and safe delivery of specimens. Specimens can be affected by high speed transport and a 'gentle' option is available to avoid alteration of specimens by acceleration or deceleration.

How does it work?
Sending and receiving stations are interconnected by pipework installed in ceilings and floors. To use the system, the article to be transferred is put into a purpose built container or 'carrier'. The destination is entered on the keyboard and the carrier is inserted into the station. The carrier travels through the pipework at speeds in the range of 5-7 metres per second and arrives softly at the nominated destination. A light or buzzer indicates to the recipient that the carrier has arrived.

A variety of systems are available with varying features, capable of serving from 2 to 1,000 destinations. Air tubes are easily expanded, so it is possible to initially link high activity areas and extend to other areas as finances allow.
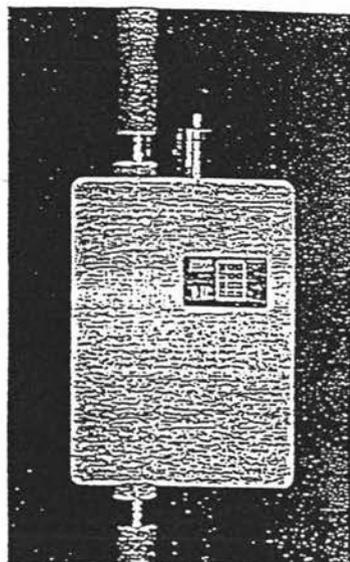

The sending and receiving stations rarely need attention and have few electronic parts all of which, should it ever become necessary, are easily accessible behind the moveable front panel.
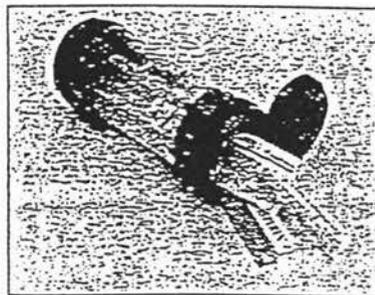
A 'carrier' can be used to despatch a range of supplies

'Priority transmission can give certain stations right-of-way because of the typical urgency of their transactions. Auto-diversion allows for diversion to another station if one is temporarily closed down.
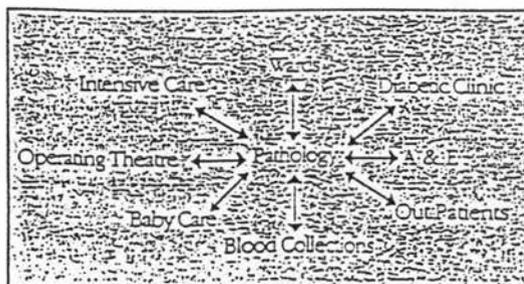
This model shows how the despatch system could be set up to interact from a Pathology department to benefit all users

The Redesign Teams ...

Many people have worked very hard over the past six months to reach this stage of the Path Project. Some have now returned to their 'normal' roles and a number of new faces have joined the project.

SUPPLY MANAGEMENT

Team Leader:	Roger Austin
Team Members:	Scott Hollingshead
	Ian Craig
	Gael Hulena
	DTT - Blair Ross
	DTT - JoAnn Richards
	DTT - Vince Paolella
	DTT - Paul Adolf

CHANGE LEADERSHIP

Team Leader:	Barbara Alp
Team Members:	Geoff Henley
	Colin Shorvon
	Cathy Thurston
	Andrea Needham
	DTT - Kate Williams
	DTT - Frank Pohl

BUSINESS PLANNING

Team Leader:	Julie Robinson
Team Members	Pat Medlicott
	Brett Paradine
	Sarah Birchler
	Dr Bill Adams-Smith
	DTT Johannes Heinlein

CARE PATH

Team Leader:	Keri Kawana
Team Members:	Di Smith
	Louise Forsyth
	Mary Baldwin
	Angela Knofflock
	Lorraine Taylor
	Richard Doehring
	DTT - Tania
	DTT - Mark Price
	(Mid Aug)

INPATIENT

Team Leader:	Maria Ramsay
Team Members:	Annette Cameron
	Jane Bocock
	Clare Swanson
	Sherii Buckley
	DTT Alan Radford
	DTT - Mike Beale

AMBULATORY CARE

Team Leader:	Mary-Anne Priest
Team Members:	Kathy Curd
	Angela Knofflock
	Leonie Bryant
	Rachael Goodhue
	DTT - Chris Bryan
	DTT - Kay Hewitt

COMMUNITY CARE

Team Leader:	Sue McTavish
Team Members:	Mary Sylvester
	Beth Murch
	Mary Field
	DTT - Kay Hewitt
	DTT - Jo Richards
	DTT - Penny O'Hara

PATHOLOGY

Team Leader:	Murray Carter
Team Members:	Kate Moffat
	Michael Butler
	Harley Pim

RADIOLOGY

Team Leader:	Lindsay Hunt
Team Members:	Adele Blyde
	Margaret Prebble
	Darryl Fraser
	DTT - Philip Howman
	DTT - Mike Conway

THEATRE

Team Leader:	Jenny Gamble
Team Members:	Grant Goodman
	Dave O'Connor
	Jez Morris
	Keri Potaka
	DTT - Mike Conway

Computer Viruses

Over the past number of months we have seen an increase in the number of computer viruses (Junkie, Word concept, ...) that have appeared on the Personal computers at Taranaki Healthcare Ltd.

So what is a computer virus and how does it effect PC users? A computer virus is a software program that attaches itself to another program on a disk or lurks in a computer's memory, and spreads from one program to another. Viruses may damage data, cause the computer to crash or display messages on the screen.

To address this problem Information Services have acquired one of the top virus scan software packages from "McAfee". Over the next couple of weeks we will install this software on all THL Personal Computers.

We will configure the software in such a way that any virus present or introduced onto PC will be automatically detected. The following message will than appear, "VIRUS DETECTED" CALL HELP DESK 7325. Please do not use your PC until the virus has been removed by IS staff. Do not try to remove the virus yourself as inexperienced removal can result in further loss of data.

If you have any enquiries please contact the Help Desk on 7325

Farewell ...

... to Gillian Keegan, who left recently after eight and a half years with the Sexual Health Clinic. A poem was written, which we unfortunately didn't have room for in the issue. Maybe we can publish it soon.

Best wishes Gillian

Congratulations

... to Clare Swanson, Pam Windleburn and Maureen Regan who have recently graduated from the Charles Sturt University in Australia, completing a "Bachelor of Health Science (Nursing) by correspondence.

Appendix E

Debrief following the Visioning

What has worked well

Good teamwork and co-operation between teams and within teams because of:
- common objective
- motivated keen people
- can do attitude

DTT advisors excellent

Privilege of thinking differently and getting paid to think

One to one meetings with doctors worked well

Social events

Working to deadlines

What didn't go well

Admin set up insufficient as X new to Taranaki Healthcare Limited.

No clear direction at the beginning.

Organisational communication - change in start dates made organisation hostile as felt Path Team couldn't organise themselves.

Union workshops - not enough notice and guidelines not coming out early enough.

Too many part timers on teams - spent time bringing them up to speed.

Lack of consistent direction from the PLO.

Overlap between Change Imperative for DSS and Mental Health.

Some things did not come back from the PLO.

Difficulty getting medical input in inpatient team.

Radiography staff resistance.

Information request forms did not achieve purpose of co-ordination.

Lack of challenge and discussion with PLO.

No formal team integration structure.

What can be done differently?

Introduction of new people so not isolated in terms of already established groups.

Continue the increased responsiveness of the PLO.

Continue to ensure PLO provide better access and communication.

Better notice of workshops, meetings etc, so planning can be undertaken.

Look at role of part timers - use them in the organisation on specific tasks/projects.

More discussion and exploration of ideas with PLO.

Debrief following the Redesign phase

Well done

Good organisational involvement

More self direction in teams can-do approach

Ability to change direction. Flexibility

Good team - finalisation of Team Leader positions

Resilient

Honesty

Team development - picked up workshops etc

Excellent DTT resource

Rumour Dumps/Get Real News

Change Leadership

Int. DTT resources (excellent international DTT resources)

Lots of information gathered. Sound basis for future decisions

Not well done

Time pressures for Part Time Unit Managers

Poor DTT - buying unneeded resource

Change Leadership

Demotivating

- Poorly managed dismissal of X
- No follow through resolution of X/Y
- Poor communication of X's dismissal

Penny as PLG person

Unhelpful feedback

Used as a guinea pig by DTT

Selection of DTT resources - poor communication

Poor skills transfer on business cases/financial analytical resources

Unclear roles of DTT staff

Issues

Communication

Team Leader involvement in planning

Targeted expert input

Lack of support for PLG

No reengineering specialist

How do we improve in next phases

Team Leader involvement in planning

Dancing wolves analogy

Operations Room
- Project Managers to co-ordinate
- Issue Boards
- Performance Tracking
- Events
- Successes

Communication → open, honest, good Team Leader communication

Timely information

Project Managers co-ordinate by THL people

Roles

Team Leader - decision making

Co-ordinating functions

Team Leader

Unit Managers/General Managers

- Accountability/Authority for Team Leaders

- Assist co-ordination
- Trust

Clarification from CEO

Debrief following the Plan for Implementation phase

What went well

1. Integrated Pilot
    - learnt a lot from it.
2. Worked well together.
3. Theater Teams worked well with Anaesthetists.
4. Rumour Dump/Get Real News.
5. Workshops worked well especially when facilitated by Taranaki staff.
6. THJR Pathway went very well and staff think its great.
    - concept itself is very well accepted
    - buy-in from operational staff, who took over control.
7. PLG reporting/decision making improved from visioning.
8. More people had the opportunity to contribute to the project.
    - staff have a realistic approach and are starting to believe that change will happen.
9. Good relationship with GM (Z in particular).
10. Good relationship with unions.
11. Good liaison with GP's.
    - how are we going to ensure this will continue now X has new role.
12. Staff development has been very good.
    - project staff have come a long way.
13. Started to tackle the 'high risk' issues.
14. Path Team integration has improved considerably.
    - the pilot helped in this respect.
15. Acceptance of rationing/guidelines or criteria for access/discharge has improved considerably but there is still a long way to go.
16. More information/detail is being produced by the project and provided for the organisational staff.
17. A far more comprehensive business plan has been produced based on the work of the

path teams which achieves the goals set out by the project.

18. Support of external stakeholders to the path project. (Eg. CCMAU).

19. Project support was very good

20. Project support was very good between people/staff on different teams.

21. Learnt a great deal through this redesign phase.

What could be improved

1. Business Plan should have started when redesign was completed, not in the middle of the phase.
   - do teams focus on Business Cases or redesign.
   - guidelines changed and time frames were very short.
   - finance is the bottom line now but when the project started this was not made explicit.

2. Communication.

3. Focus/Direction
   - conflicting objectives.

4. Information Systems
   - timing
   - access to information (eg. Ambulatory demographic profiling)

5. Availability of information from the organisation.

6. Didn't implement the quick wins.

7. Path Change Management
   - avoiding difficult issues.

8. Team Resources
   - shortage of team members
   - time available

9. Restructuring
   - delayed decision making
   - distracted energies
   - people not there

10. Commitment by Senior and Middle Management (GM/UM)
    - support of the organisation for implementation

11. Organisation
    - 'blame culture' still exists not 'learning'.

12. Decision making
    - project and operational/organisational decision making are both weak

- this is likely to have a major impact on the implementation phase
- Team Leaders want to be more involved in project decision making

13. Risk

- Future decision making is a major risk to the project in implementation.

14. Project structure

- Still have a very hierarchical structure.

15. Communication/integration

- still a problem
- what has been decided?
- don't leave anyone in isolation

16. Project staff behaviour

- should be modeling the behaviour we are asking for from others. Not doing it as well as we should be.
- do we know what the desired behaviour should be?

17. Facilitation training

- would have been helpful to have the training before starting the phase.

18. Training commitment

- heavy drain on resources.

19. Community Team

- very inconsistent level of consultant input
- both quality and quantity

20. Resources

- need to be more responsive to resourcing problems

21. Change Management/Change Leadership

- many issues around this subject but it has been covered in other forums.

22. 8.00am meeting didn't work well

- unstructured/not business like

23. Business Case submissions

- PLG approval did not really happen before submission to Business Planning Team

24. Team's Leadership from PLG

- Didn't get much direction/guidance from PLG

25. Formatting redesign documents, standardised formatting would have been useful and would have saved a lot of time.

26. Project Management and communication are the key factors impacting the redesign phase.

27. Technical quality could have benefited from more regular QA visits to challenge the

work of the project.

28. Teams should manage the PLG better themselves.

Lessons learnt for implementation

1. Communication is the key factor
   - this will be much more difficult during the next phase.
2. QA visits are essential for next phase - ensure technical quality.
3. Teams should be more proactive in managing the managers (PLG)
   - when a decision is required present options with preferred option
   - upward delegation/upward managing.
4. Ask for help and provide support for each other.
5. Specialist HR advice is critical
   - other expert advice may be needed
   - documentation.
6. Issue ownership
   - teams need to be proactive.
7. Better communication
   - from path project to operational staff
   - from operational staff to path project.
8. Manager/PLG relationships.
9. All three criteria used for Business Cases but for Business Plan → financial viability is key.
10. Promote staff ownership of new ideas.
11. Communicate values identify one set of guiding principles.
12. Promote Behaviours:
    - "We are the Organisation"
    - Be progressively proactive, not passive
    - Detailed redesign planning milestones for monitoring
    - Restructure before BRP (especially Senior Management)
    - Finance Department to do Business Plan (Project to assist)
    -- Find and promote champions
    - Path Project Management as members of Senior Management Team
    - IS and Facilities Design to be earlier.